

**FACTORS INFLUENCING PERFORMANCE OF KENYA
CERTIFICATE OF SECONDARY EDUCATION EXAMINATION
RESULTS IN PUBLIC SECONDARY SCHOOLS IN NAIROBI
WEST SUB COUNTY, NAIROBI COUNTY.**

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AND MANAGEMENT**

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DECLARATION

This is my original work and has never been submitted for academic award in any other University.

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DEDICATION

Behind a project is a researcher and behind this researcher stand a husband and three beautiful children namely; Maureen, Ian and Melanie who bear the strains of a research. I dedicate this work to them. It is my privilege to have them recognized as far as this project will travel and by all who will read it.

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ABBREVIATIONS AND ACRONYMS

APHRC	-	African Population and Health Research Centre
BB	-	Boys Boarding
BD	-	Boys Day
FAWE	-	Forum for Africa Women
GB	-	Girls Boarding
GD	-	Girls Day
K.C.P.E.	-	Kenya Certificate of Primary Education
K.C.S.E	-	Kenya Certificate of Secondary Education
K.N.E.C	-	Kenya National Examination Council
M.D.G	-	Millenium Development Goals
M.O.E.S.T	-	Ministry Of Education Science and Technology
MB	-	Mixed Boarding
MD	-	Mixed Day
MOE	-	Ministry Of Education
PTA	-	Parents Teachers Association
SES	-	Social-Economic Status
U.S.A	-	United States of America
UNESCO	-	United Nation Educational Scientific Cultural Organization
UNICEF	-	United Nation International Children Education Fund

ABSTRACT

The purpose of the study was to establish factors that influence performance of K.C.S.E Examination results in public secondary schools in Nairobi West Sub County. The study made use of both qualitative and quantitative data. Secondary data was used by reviewing the existing literature on the factors that influence performance of K.C.S.E Examination. The study used descriptive survey design, this is because the researcher would not be able to manipulate the variables for the simple reason that they had already occurred. The study population was 10 public secondary schools in Nairobi West Sub County which had a total of 6656 students and two hundred and eighty four teachers including the principals (Head teachers) according to statistics given by education officer in Nairobi West Sub County (August, 2012). The study utilized a sample size of 1050 respondents. The selection of 100 form three students and 4 teachers from each school was done through simple random sampling for single sex category of schools while stratified random sampling was done to mixed secondary schools with mixed sex in order to ensure that enough cases of each stratum fall into the sample to make analysis possible. The researcher got the list of all form three students and assigned those numbers, after which numbers were placed in a container and picked at random. The subject corresponding to the number picked was included in the sample. On the other hand, head teachers were chosen purposefully in order to provide in depth information concerning the variables under study. A questionnaire with structured and semi structured questions was used to collect the data. The test retest method was employed to ascertain reliability while data analysis utilized both qualitative and quantitative methods of analysis. The study found out that the principals are academically and professionally qualified and more than two thirds had served for over five years. More than two thirds of the teachers had the required professional and experience in the teaching profession. Sub County schools had inadequate learning resources, teachers cited textbook to student ratio was 60% for inadequate. A good number of schools lacked institutional facilities, student indicated 60% for inadequate. On utilization of physical facilities two third of the students noted they rarely used the facilities. A good number of students were not able to pay school fees on time; this led to absenteeism in schools. Over 70% of the parents did not support their children in academic performance. The study recommended the ministry should consistently in service principals in strategic management. Teachers should engage in refresher courses to update their skills. The government should ensure provision of teaching/ learning resources and institutional facilities. Parents should be involved in academic performance and discipline of their children

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Education is today widely recognized as the most effective development investment a country can make. It is one of the critical path ways to promote social and economic development (World Bank, 1998). It is central to the development of a better life and better world. In addition, UNESCO (2007) made a world declaration that everyone has a right to education; this implied that every government had to finance education for its citizens.

It raises economic development, reduces fertility rate, lowers infant and maternal mortality, improves the well-being of families and ensures better prospects of education for children (Gachukia, 1999; MOE, 2007). Education promotes sound management of environmental resources such as water and fuel, and is closely associated with the reduction of absolute poverty (Barngetuny, 1999).

Education also increases participation in community and national affairs and in democratization of societies. Thus, education has an important influence on the quality of life. The development of human resource fundamentally depends on the level and intensity of formal and informal education and training. It is critical not only for economic and social development of society but also for building human capabilities and opening up employment opportunities. Without education, development can neither be broad based nor sustained (Muturi, 2007).

Since 1985, the education system in Kenya has been 8-4-4 system. School leavers undergo 8 years of primary school education, 4 years of secondary education and 4

years minimum basic university education. At the end of form four, students take K.C.S.E. Examination. This examination is administered by Kenya National Examination Council (KNEC).

Good performance at this level is necessary for selection and placement of students in higher learning institutions. The demand for quality education in Kenya is therefore crucial and has led to stiff competition among secondary schools both public and private. There is a general belief among the Kenya population that success comes when one is able to competitively pass well in the national examinations (Nairobi West Sub County Education Office, 2012). Most courses at the university level require more than C+ grade for admission besides a good combination in the relevant subjects. Poor performance in Kenya certificate of secondary education (K.C.S.E) therefore undermines student's chance of joining institutions of higher learning and minimizing opportunities for job placements, consequently limiting their participation in national development.

In Nairobi West Sub County, the performance in K.C.S.E. Examination result in public secondary schools shows disparity between national, provincial and district schools as per the K.C.S.E result analysis Table 1.

Table1: Nairobi West Sub County Public Secondary Schools K.C.S.E Result Analysis

Schools Levels		K.C.S.E Results Ranking of the Schools	Category	Mean Score		
Year				2009	2010	2011
A	National schools					
1	The Kenya High School	3	GB	10.229	10.493	10.389
2	Nairobi School	6	BB	9.512	9.863	9.993
B	County schools					
1.	St. George's Girls Secondary School	11	GB	8.386	8.697	8.725
2.	State House Girls High School	13	GB	7.947	7.829	7.818
C	District Schools					
1.	Hospital Hill High School	18	MB	6.603	6.279	6.842
2.	Parklands Arya Girls High School	28	GD	5.170	5.740	5.589
3.	Kangemi High School	40	BB	4.433	4.291	4.349
4.	Lavington Mixed Secondary School	48	MD	-	-	4.102
5.	Nairobi Millimani Secondary School	52	BD	3.809	4.239	3.887
6.	Highridge Mixed Secondary School	61	MD	-	-	3.346

Source : Nairobi West Sub County office, K.C.S.E Analyses 2012.

From the table 1 above, Kenya High School and Nairobi School which are both ranked at national level continue to perform better year after year. The county schools on the other hand have shown a constant good performance. Nevertheless there is an alarming poor performance among Sub County secondary schools.

1.2 Statement of the Problem

According to K.C.S.E result analysis Table 1, the disparity in performance of K.C.S.E Examination result in public secondary schools Nairobi West Sub County is worrying, as the mean score for the Sub County secondary school category has indicated a downward trend for the last three years. Yet the national and county schools in the same Sub County continue to perform better. This is despite the fact that, the government has channeled funds and employed more trained teachers. The performance shows

that most of the students from district secondary schools category, making a transition to higher institutions of learning are very few. This trend needs to be reversed. The factors responsible for the difference in academic standards in National, County and Sub county schools are not well understood. It is against this back drop the researcher felt the need to investigate on factors that influence performance of K.C.S.E examination results in Nairobi West Sub County, Nairobi County.

1.3 Purpose of the Study

The purpose of the study was to investigate the factors that influence performance of Of K.C.S.E Examination, in public secondary schools in Nairobi West sub County, Nairobi County.

1.4 Objectives of the Study

The project report sought to fulfill the following objectives:-

1. To establish the influence of school administration on performance in K.C.S.E. Examination in public secondary schools in Nairobi West Sub County
2. To examine the extent to which teachers characteristics (age, experience and qualification) influence performance in K.C.S.E. Examination in public secondary schools in Nairobi West Sub County.
3. To find out the influence of learning and teaching resources on performance in K.C.S.E. Examination in public secondary schools in Nairobi West Sub County.
4. To determine the influence of institutional facilities on performance in K.C.S.E. Examination in public Secondary Schools in Nairobi West County.

5. To investigate the influence of the students Socio-economic background on performance in K.C.S.E. Examination in public secondary schools in Nairobi West Sub County.

1.5 Research Questions

1. To what extent is the influence of school administration on performance in K.C.S.E Examination in public secondary schools in Nairobi Sub County?
2. What is the influence of teacher's characteristics (age, experience and qualification) on performance in K.C.S.E. Examination in Public secondary schools in Nairobi west Sub County?
3. How do the existing learning and teaching resources influence performance in K.C.S.E. Examination in public Secondary Schools in Nairobi West Sub County?
4. To what extent is the influence of institutional facilities on performance in K.C.S.E. Examination in public secondary schools in Nairobi West Sub County?
5. What is the influence of student's socio-economic background on performance in K.C.S.E. Examination in public secondary schools in Nairobi West Sub County?

1.6 Significance of the Study

The findings of this study may help principals/head teachers, teachers and students in Nairobi West district to know the main factors that influence KCSE Examination performance, and how to improve on them. The findings are also vital and timely because the government, parents and other stakeholders in education are spending a big part of their resources in education, thus poor performance leads to undesirable

wastage and denies students entry into competitive courses when furthering their education or jobs. Lastly, the findings of the study will help to strategize for performance improvement.

1.7 Limitations

First, some of the respondents especially principals were not available on the day scheduled for the interview due to inevitable circumstances. Secondly, the study was limited to Nairobi West Sub County and hence it is generalized only to Nairobi West Sub County.

1.8 Delimitation of the Study

This study was restricted to the factors that influence performance of K.C.S.E. Examination in Public Secondary Schools in Nairobi West District. The extent to which these study findings may be applied to other districts in the country will be an area which has to be confirmed by further research.

1.9 Assumptions of the Study

The study was based on the following premise:-

1. All the respondents would give true and accurate information to items in the instrument.
2. The school ranking list provided using mean scores were accurate and therefore accepted as a way of determining the actual positions of each school in terms of performance.
3. The students in the schools under study had attained the minimum entry requirements for public secondary schools.

4. The teachers who are deployed in the schools under study had the required academic and professional qualifications for teaching in public secondary schools.
5. Nairobi West Sub County had the most number of factors associated with K.C.S.E Examination performance in Nairobi County.

1.10 Definition of Significant Terms

This section gives definitions of the significant terms as used in the context of this study.

Principal

Refers to the teacher with overall administrative responsibility over the

School

Factors

Refers to the observation and non-observable characteristics influencing the students' performance.

Performance

Refers to grade attained by students in K.C.S.E. examination.

Public secondary school

Refers to a four-year post-primary school which admits students of about 14 years of age and which is developed, equipped and provided with staff from public funds by the government, parents and community.

Socio-economic status

Refer to a combination of parent's occupational prestige, parent's education and family income.

Socio-economic background of the student

Refers to the parent's level of education, family income, family size and expectations of the parents.

Achievement

The extent to which a student has attained the goals of a course as indicated by his /her grade.

Academic Qualification

The educational standards that a teacher has achieved.

Sub County public secondary school

Secondary schools managed by the government and which admit the best students in K.C.P.E. at Sub County level.

County public secondary school

Refers to public secondary schools managed by the government and admit the best students in K.C.P.E. at county level.

National schools

Refers to schools managed by the government and admit the top best students in K.C.P.E. at national level.

Professional qualification

This refers to any form of training that teachers have undergone related to their profession and meant to improve on their professional course.

Teachers' characteristics

Refers to teacher training, teacher pupil ratio, professional training, and experience and transfer index.

Learning and teaching resources

Refers to equipments used by the teachers and students for smooth teaching and learning process.

Institutional facilities

Refers to facilities like laboratories, libraries and nature of the learning environment.

8-4-4 system of education

This is the current education system in Kenya and comprises eight years in primary education, four years in secondary school and a minimum of Four years in university education.

K.C.P.E

Refers to final national examination, which is undertaken by students in their eight year of primary school level.

K.C.S.E

Refers to final national examination, which is undertaken by students in their fourth year of secondary school level.

K.N.E.C

The National body entrusted by the government of Kenya to administer National examinations from primary, post primary level that is secondary education level to tertiary colleges/institutions.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section reviewed literature related to factors that may contribute to good or poor performance in national examination and has been divided under the following sub-headings: school administration, teacher characteristics, learning and teaching resources, institutional facilities and lastly but not least student socio-economic background.

2.1.1 School Administration and Performance in K.C.S.E. in Public Secondary

Schools

Wiseman (1968) in his study on education and environment in Manchester city, Britain observed that, large schools attract better head teachers who in turn appoint better assistant teachers. The assistant teachers delegate proper and conducive administration, which leads to high academic achievement. Raju (1973) in his study on problems and perspective in educational planning and administration in Kenya, noted that the administrative role of the principal involves directing, controlling and management of all matters pertaining to education enhancement in the school. This implies that all the activities done in the school are performed on behalf of the principal. In school, the headteacher should involve teachers, students and subordinates in the management of the school. This is probably the best way the school can accomplish its objectives. The headteacher has to listen to advice and the opinions of different members of staff, but like the captain of a ship, he/she sets the course, which the school will follow.

Eshiwani (1983) in his study on factors influencing performance among primary and secondary school pupils in Western province of Kenya, asserts that good performance in school is relatively equated to good administrators. He points out that schools which consistently perform well tend to have sound and efficient administrators. Duignan (1986) in his study done in Britain asserts that school administration is a crucial factor in the success of a school. The qualities that are expected of a school principal includes setting an atmosphere of order, creating a climate of high expectations for staff and collaborative leadership and building commitment among students and staff to the school goals.

According to Campell et al., (1986) in his study on secondary school at work, noted that the principal should be held responsible for seeing that a suitable learning and working environment are established and maintained. A head teacher also needs to put in place deliberate interventions in place to meet the specific and special needs of the student's performance in K.C.S.E.

A manual from the ministry of education for heads in secondary schools in Kenya (1987) asserts that the organizational and management of a school places great responsibilities on the heads shoulders. It demands from him knowledge of office administration, personnel management, educational practice, accounting, building and maintenance. The head teacher's behavior will set the standard for the school. His appearance, punctuality and morality must be beyond reproach, and should be aware that the way he behaves will be known to all in the school and the community surrounding the school. It follows from this assertion that the head teacher could influence the students' performance in the K.C.S.E. In effective schools, head teachers are involved in curriculum discussion and influence the content of guidelines

drawn up in the school without taking complete control (South Worth and Lofthouse, 1990).

Olembo et al (1992) stressing on the importance of school leadership in his study on management in education states that, school administration has a direct bearing on the achievement of learners. This is because it plays a key role in co-coordinating and facilitating the learning process. He further argues that many schools in Kenya have been brought down by poor administration. Kombo (1998) in his study on factors influencing student poor performance in K.C.S.E in Kathiani Division of Machakos District, observed that differing organizational and administrative structure of many public secondary schools have influenced performance. Where the students of a given school are of high aptitude and have highly qualified teachers and the required school facilities, good organizational and administrative structures are still invaluable inputs.

According to Barasa (2007) in his book entitled “Organization and Management,” asserts that dressing which is a non verbal communication used by the headteachers in schools can portray a negative or positive picture. The headteacher presence is felt whenever he is seen hence he/she can be emulated by the teachers, parents and the students. Many students and teachers who meet the headteacher notice the dress code and the way he/she carries her/himself. The manner of speaking and conduct also enables school community to work extra hard to be smart and well organized as the head. In case he /she is a type of a person who dresses carelessly, looks miserably throughout his/her life time in the school, he/she will obviously contribute towards poor performance of the students because he/she lacks required respect.

In a study carried out in Kenya effective communication strategies in any school, requires the principal to possess technical skills which refers to the ability to communicate about technical matters with teachers, students and other stakeholders from diverse functional background in the form that is most appropriate and understandable. He should also possess interpersonal skills which refer to the ability to understand the needs and values of the teachers and the students in the school community to influence them resolve conflicts build cohesiveness and improve on the academic performance of the students (Bulinda, 2009). A study done by Otieno (2009) on Gusii schools in Kisii, found that poor administration of the schools led to lack of motivation upon teachers which resulted to students doing poorly in national examinations.

Passos (2009) in her study on teacher competence and its effect on pupil performance in Mozambique schools, found that the age and the years of experience of the school head had an influence on motivating the teaching staff which in turn led to pupil performing well in mathematics. Further, the study revealed that unless school heads are exposed to further training and development in school administration, hence undergo professional development, there tends to be no significant difference in performance between a school head with four (4) to eleven (11) years of experience and one with twenty (20) years of experience. Mwita (2010) in his study on Social Capital and Academic Achievement in Kenya, noted that the level of engagement of the principal evidenced by supervision of teachers, good interpersonal interactions with parents had positive effects on mathematics achievement.

2.1.2 Teacher Characteristics and Performance in K.C.S.E. in Public Schools

Douglas (1964) study on home and school in London asserted that, a teacher is considered not to have taught until a pupil has learned. It has been noticed that the trained personnel achieve higher in academic than the untrained lot. A teacher of high academic and professional qualification has been noticed to produce high achievements of students in examinations.

Teacher characteristics include teacher training, teacher pupil ratio, professional training, experience and transfer index that contribute to performance. Learners' traits that are pre-primary education, primary education and social characteristics do contribute to the learner's performance (Eshiwani – 1982). According to Maranga (1982) in his survey of experienced teachers perception of school and classrooms problems in Nairobi, Kenya found that the quantity of teachers has also an effect on the levels of performance. The quantity of teachers in Kenya is determined by their supply and demand. It can be deduced from the foregoing discussion that the school with a high percentage of academically qualified and professionally trained teachers have a better chance of appearing at the top on the merit list after the release of K.C.S.E results.

Bett (1986) in his study of the factors affecting performance in Kericho District indicated that teachers' qualifications are a crucial factor influencing the levels of performance. The study revealed that the quality of teaching staff is the main determinant in the achievement of students in the examinations. A World Bank Report (1987) on school and classroom effects on student learning in Thailand noted that, the number of years of schooling of a teacher was the most consistently positive and significant contributor to pupils achievement. Nguru (1987) in his study on

performance in K.C.S.E, Nairobi highlights on the qualification of teacher by stating that credentials of teachers both in pre – service educational attainment and the type of professional training given to them may be a major determinant of the quality of Kenya schools. Nguru (1987) in his study on factors that influence the achievement of primary school objectives concurred with these findings, for his study found out that not only the teachers professional qualification matter but also their academic qualification.

Wamai (1991) in his study on results of the first secondary examination under the new curriculum in Nairobi, Kenya found out that academic qualification of teachers and availability of learning and teaching resources were the most important factors that determined achievement by the learners. The study also established that Harambee schools which relied mainly on untrained teachers had a failure rate of 37.7 percent in the national examinations as compared to 2 percent for the government schools which were generally manned by trained teachers. The greater the number of untrained teachers, the poor the performance and the subsequent order of merit in ranking. Kibui (1995) in his research on a comparative study of factors that influence examination performance of public and private schools in Nairobi went further to recognize and include other factors that contribute to the teacher's motivation. He observed that poor promotion and frequent transfers may demoralize the teacher's commitment to effective teaching.

According to MOEST (2003) report on sector review and development, the teacher characteristics are shaped by formal education training, experience gathered, subject mastered and availability of the teacher. Delivery of good quality education is automatically a contingent on what happens in a classroom. To improve student's

outcome through having enough teacher-pupils ratio is not sufficient, the teacher needs to be trained and motivated. Birgen (2005) education insights entitled “a teacher can break or make a child,” Nairobi agrees with world bank report (2007) by asserting that teaching is one of the duties that require both qualification and experience for better delivery, hence recruitment of competent teachers to improve teachers-student ratio is a necessary measure in improving performance of students in mathematics.

Jungic and Kent (2006) in their study on teacher large classes reiterated that teaching and learning in a large class becomes impersonal. It becomes hard to point out and assist those students who get lost in the process of learning. They further discovered that when teaching large classes, it is easy to ignore the importance of human interaction when instructing. World Bank report (2007), on secondary education in Sub Saharan Africa noted that, in most developing countries, not enough mathematics teachers were being produced by universities and colleges, this led to shortage of teachers in this subject resulting to unpleasant performance of learners in the schools. The report also revealed that most teachers had no expertise in their subjects leading to students failing in examinations and fewer of them pursuing mathematics courses at tertiary level resulting to an even greater shortage of mathematic teachers.

UNESCO (2008) report on challenges of implementing free day secondary education in Nairobi, Kenya emphasizes that national government had to recruit and train teachers in vast scale to achieve the millennium development goals (MDG) by 2015. Hassel and Hassel ((2009) in a study on teacher effectiveness in marylhurst, Britain indicated that whatever the teacher does influences the students performance since learning is the main concern for both the student and the teacher, the effect the teacher

has on student must be that of learning. Palmer (2009) study on factors that contribute to low achievement on science portion of the Ohio school graduation test, USA found that, inexperienced teachers had no confidence in teaching science subjects which resulted to low achievement on science portion of the Ohio High school graduation test. Otieno (2009) study on factors influencing Gusii schools in Kenya noted that, high standards of discipline among teachers helped students perform better in their academic.

Millet, Payne, Dwyer. Stickler and Alexiou (2008) have been quoted in Chapman and Ludlow (2010) saying “it is discouraging to think that external factors, such as class size could have a significant on student learning beyond the effort put forth by the classroom instructors or the students themselves”. Hence the teacher in his effort to offer good teaching to his students may be hindered by the number of student he has to deal with in a class. Wong (2009) cited in Barry (2010) study on teaching effectiveness in Marylhurst, Britain asserted that, the better the teacher teaches, the better the students learn. This places a lot of emphasis on the teacher as the main person in ensuring that learning is taking place, hence teacher performance becomes an important issue especially because student learning highly depends on the teacher. If the teacher doesn't perform his teaching task well, learning is not likely to take place.

Mwita (2010) in his study on social capital and academic achievement in Kenya found that, net of teacher knowledge and background characteristics, teachers who display commitment to teaching by always correcting homework and keeping their lessons engaging had their students performing better in mathematics. On the other hand, he noted that, teacher absenteeism and lack of interest were negatively

associated with performance in mathematics. Yara & Otieno (2010) on their study on academic performance in mathematics in secondary schools in Bondo county, Kenya found that shortage of competent teacher in science subjects which include mathematics led to poor performance of student in mathematics, they further observed that teacher – student ratio affected performance negatively in schools which had only one mathematics teacher to teach from form one all the way to fourth form.

2.1.3 Learning and Teaching Resources and Performance of K.C.S.E in Public Secondary Schools

Learning and teaching materials (resources) include textbooks, exercise books, stationeries and teaching aids such as dusters, chalks, wall map and protractor. The availability of these resources makes a difference in the learning achievement of the student.

Douglas (1964) in his study on home and the school in London observed that, good teachers kept in mind what they taught and what they taught with. Learning would be passive and boring if learning resources are not incorporated effectively, organized and exploited in the learning process. It's the proper organization of the learning resources and the use of appropriate teaching and learning strategies which will enhance the acquisition of the subject content. Jeffreys (1971) in his book entitled "Education, it's nature and purposes", pointed out that for learning to be effective, it must be geared to the child's present needs and interests. The teacher should guide the learner and select the appropriate learning experience and resources that motivates the interests and aspirations of the learner. A good teacher is the one who is creative in selecting the appropriate teaching and learning resources and strategies which

motivates the interest of the learners. Correct choice of the strategies enhances good performance in examination.

Mwangi (1983) investigated factors which influence achievement in mathematics in secondary schools in Kenya and found out that availability of materials like cards and dice for teaching probability and log papers for teaching concepts such as co-ordinates significantly correlated with achievement in K.C.S.E mathematics results. Ghai (1986) and Court (1974) on their study on education, society and development, in Nairobi, found that the distribution of resources such as books and equipments account for scholastic difference among schools. Makau (1986) and Somerset (1972) in their study on improving teacher effectiveness in the schools of Kenya, University of Nairobi indicated a strong co-ordination between teaching methods and pupils' performance. In their studies, they found out differing levels of performance between the rural and urban schools.

Eshiwani (1988) study on determinants for school achievement in Kajiado district indicated that, most schools which perform poorly spend less money on the purchase of the teaching recourses. Availability of adequate relevant texts books makes the teaching task easy. The study carried out by Mworira indicated that a good teacher is the one who understands various teaching methods and is able to convert those methods into productive teacher – student process. A combination of carefully chosen learning resources and teaching methods makes the teacher to be confident and consistent in his / her teaching. This makes learners to relate and interpret the learned concepts. The teacher has a great task of selecting the right learning experiences which conform to the general objectives outlined in the syllabus (Mworira, 1993).

Carol Mandi in the Daily Nation January 7th 2003 pg 6 in an article entitled “Examination do not tell the whole story” stated that, the old ranking system was unfair in that it ranked the more affluent schools with those with inadequate facilities. There are areas in Kenya where pupils learn under trees and have one teacher for all subjects. There are also areas where pupils miss school due to drought and starvation. Ranking these schools at par with those where pupils are driven to school by bus or private means and the only after school work they have to accomplish is their home work, is inappropriate. Mutai (2006) support the arguments by Yadar (2007); Yara and Otieno (2010) by asserting that learning is strengthened when there is enough reference materials such as text books, exercise books and teaching aids. He further asserted that academic achievement illustrates per excellence the correct use of these materials. Yadar (2007); Yara & Otieno (2010) studies on teaching/learning resources and academic performance in mathematics in secondary schools, in Bondo county, Kenya revealed that teaching and learning materials such as textbooks, teaching aids (chalk, board, ruler and protractor), stationeries among others affected performance of the learners.

UNESCO (2008) report on global monitoring, United Kingdom revealed that increased availability and use of text books improved the students learning particularly to low income setting. Passos (2009) study on a comparative analysis of teacher competence and its effects on pupil performance in upper primary schools in Mozambique, revealed that shortage of basic materials such as exercise books, pens and pencils made pupils passive learners because it is not possible to take notes about the lesson or complete exercise to apply what they learn and as a result, teaching and learning becomes ineffective leading to low performance of the pupils. Otieno (2009) study on factors influencing the performance of Gusii schools in Kenya, found that

schools with inadequate teaching resources resulted to poor school performance in national examination.

2.1.4 Institutional Facilities and Performance of K.C.S.E in Public Secondary

Schools

According to Meir (1965) in his study on education man power and Economic growth in Harvard University, U.S.A noted that, Kenya invests in education heavily because of the belief that an educated skilled labour force is a necessary condition for sustained economic growth in terms of productivity. He also adds that, institutional facilities in a school have also been found to have effect on performance. Adequate provision of classrooms, laboratories, libraries, dormitories and play grounds among others lead to smooth learning process hence good performance, while lack of them put a lot of hurdles on the learning process thereby impacting negatively on performance. Heinemann (1980) evaluated a text book program in the Philippines. The program was introduced to raise the national level of academic achievement among students. The program reduced the ratio of pupils per book per subject from an average of 10:1 to 2:1 and there was a marked relationship between textbook availability and the achievement of pupils.

A directory of the types of materials that could be found in a typical school prepared by the population council and M.O.E.S.T. in 1997 includes physical facilities such as land, school buildings, playgrounds equipments and means of transport among others. (Gakuru, 1982). Gakuru (1982) study on factors that influence the achievement of primary education objectives in Nairobi also indicated that the condition of school building was an important aspect in learning. Teachers in classrooms with lockable doors and windows were able to leave their teaching aids in the class for long without

fear of either damage or theft. Those without lockable doors and windows experienced storage problems. A study conducted by Hynemann and Loxely (1983) on the effective of primary school quality on academic achievement across 29 high school and low income countries showed that a school library has a significant effect on the learner's academic performance. The study carried out by Eshiwani (1983) in his study on factors influencing performance among primary and secondary school pupils in Western province of Kenya concurred with this when he pointed out that schools that had the best facilities were among the high achievers ones and those that had inadequate facilities performed poorly in national examinations. He therefore concluded that the presence or absence of school facilities distinguishes high achieving and low achieving schools.

Wiseman (1968) as cited by Kariri (1984) in his study on factors affecting performance in secondary schools, Nairobi found that, large schools performed better than small ones. This was because large schools received textbooks and equipments effectively and promptly. While looking at facilities in a study of qualitative implication of school expansion in Kisii district, Ersen said that school compounds frequently lack space for recreational use and for teaching practical and technical subjects such as agriculture. The interference of the community to the school has made it to suffer in the hands of politicians and community leaders (Ersen, et al., 1985). Maengwe (1985) in his study on factors influencing poor performance in rural areas, Kisii, Kenya also noted that overcrowding in classrooms affected learning. Children crowded in class found it hard to write, while teachers also found it hard to move round to reach all students where they sit working on their assignments. This inability meant that teachers could not mark the student's work as they continued working on them.

A World Bank Report (1987) on school classroom effects on students learning in Thailand reported that students in large schools learn more than students in small schools. Students in schools with higher student ratio learn less than students in schools with lower student ratio. It concluded that larger schools may be more effective due to the economies of scale, lower student-teacher ratios less overcrowding and greater teacher – pupil contact. Mwamwenda and Mwamwenda (1987) carried out a study on the effects of school physical facilities on examination performance of pupils in Botswana. Their findings revealed that the availability of physical facility had a direct link with pupil's performance in examinations. According to Southworth and Ioffhouse (1990) a sound physical environment reflected in the schools amenities, decorative order and immediate surrounding has a positive advantage to pupils' progress and achievement. Poor learning environment in the developing countries has often been identified as one of the factors that lead to poor performance in public secondary schools (UNICEF, 1990)

According to Wamai (1991) study on results of the first secondary examination under the new curriculum in Kenya, noted that over-enrolment in government and government aided schools is usually done with full knowledge of the M.O.E.S.T. Increased expanding the physical facilities results in the over stretching of resources and consequently affect the levels of performance depending on how much in each school enrolment strains the existing facilities. In Kenya, the Population Council of Kenya and the Ministry of education (1997) carried out a study to find out the effects of material inputs on the performance of students in single sex and mixed secondary schools. The material inputs looked at were libraries, laboratories, playing fields and science room. An examination of these in selected schools revealed that single sex secondary schools were better equipped than mixed schools. Shortage of the

necessary material input was therefore identified as one of the factors effecting performance.

Mukundi (1999) in an investigation into the factors leading to poor performance found out that lack of facilities is a major contributing factor towards poor performance and so ought to be a priority for all schools. Coleman's study (1966) as cited in Ndiritu (1999) study on factors which influence performance in K.C.S.E in selected public schools in Nairobi found that the number of textbooks on loan from the library was significantly related to learning achievement in the United States of America (U.S.A.). Republic of Kenya (2007) indicated that "recent expansion in enrolment has not been matched by increase in physical capacity and human resources". This has affected both the students and the teacher performance. Otieno (2009) study in Gusii Schools in Kisii District found that in schools where physical facilities such as laboratory, library among others were not available, the students performed poorly in national examination especially in science subjects.

A Kinsolu (2010) in his study on teacher and student academic performance in Nigerian secondary schools pointed out that, there is a significant relationship between enrolment, utilization of classrooms provided for teachers, learning activities and student academic performance

2.1.5 Student Socio – Economic Background and Performance of K.C.S.E in Public Secondary Schools

The term Socio – economic status" (SES) is used by sociologists to denote an individual or family's overall rank in the socio and economic hierarchy (Mayer and Jencks, 1989). In most research, including national studies, SES has been measured as

a combination of parents' educational, parents' occupational prestige, and family income (Mayer and Jencks, 1989; White, 1982).

Elder (1968) in his study on adolescent socialization and personality development in Chicago, U.S.A has suggested that what parents say about their expectations to their children may not be compatible with what they represent with their own educational and occupational status and this discrepancy may undermine the influence of parent's educational expectations on their children's aspirations. Albashir (1974) in his study on relationships cited influence of home environment as one of the factors which influences the students' performance in the national examination. Kinyanjui (1980) in his study on educational and development in Africa, University of Nairobi, saw that limited incomes among low class families have been found to restrict provision of school books, development funds and other necessary materials to ensure good performance and attendance at school. According to Waweru (1982) study on performance in Kenya certificate of primary education in Imenti division Meru noted that, there are environmental factors that have been seen as handicaps to good schools progress. Due to poverty low wages, unemployment, large families, retrenchment or loss of the family's bread winner.

According to Eshwani (1983) study on factors influencing performance among primary and secondary school pupils in western province of Kenya found that good socio – economic conditions facilitates studies while poor ones hinder them. A big number of children fail because of the poor financial state of their parents. Sewell and Hauser (1976) in Avalos (1986) study of education, occupation and earnings in New York, U.S.A found a set of socio-psychological factors to account for additional variance in attainment. On average, parents of high achieving children seem to take

more interest in the child's schooling than parents of low achieving children. With the rising level of household poverty and increasing costs of education, many parents are not able to pay fees and meet other costs of education in time (Makau, 1986). According to a study done in Britain families with quite high SES may be limited in their efforts to improve their children's education because of limited opportunities in the neighborhood. Studies conducted in developed countries have shown that the performance of boys and girls was significantly related to the socio-economic background of their parents (Duncan, 1987). According to his findings, one way in which family socio-economic background affected school achievement was through the type of school attended. Children from deprived homes, despite their mental potential, tended to go to cheaper, low performing schools whereas their counterparts whose ability are average but come from relatively well off families go to well performing schools because their parents can afford. Choice of school therefore, was found to be one of the determinations of educational attainment and later occupational placement. According to Indongole (1987) study on factors affecting students' performance in K.C.S.E in Kisii district observes that the socio-economic background of the candidates tends to influence performance. Well educated parents tend to provide their children candidates with educational stimulating environment by encouraging them to study and have access to relevant books and related literature.

Kombo (1988) study on factors influencing students poor performance in K.C.S.E among Harambee schools in Kathiani division of Machakos district observed that, those parents who received formal education, their children tend to perform better than those with parents who didn't go to school at all. A reason for the better performance is that children want to imitate their parents. The literate parents have interest and supervise their children's outdoor academic assignments. The

resourcefulness brought about by the educational attainment of parents has been called the human capital (Coleman, 1988). Coleman (1988) study on social capital in the creation of human capital says that financial capital, defined as the fiscal resources of the family used to meet the basic necessities of the student significantly affects student achievement. Families with greater financial capital can provide their children with educational resources that would enrich their educational experiences, such as books and computers.

The effect of socio-economic status on educational aspirations reveals itself primarily through parents' serving as role models for their children. Such role modeling starts early in a child's life. The child imitates, identifies, and finally internalizes the values and attitudes of his / her parents. This influence is extremely powerful because it takes place in the absence of previous experience and knowledge. And in turn, it also shapes the child's educational or occupational ambitions for his /her later life (Come, 1990). Oakes (1990) study on opportunities, achievement and choice of women and minority students in science and mathematics in Britain concurs with Come (1990) that student motivation towards success from middle and high SES families are more likely to have higher level of motivation for school success. For example, students from middle class families usually expect that academic achievement will bring real – life awards in the form of good jobs and high salaries. These students have parents and neighbors who have succeeded in school and already enjoying the benefits of their success. That is, they have their “daily reminders” both in their families and environments that school success will have socio and economic pay offs. While students from families with high level of income have their “daily reminders” that school success will bring real-life awards in the form of good jobs and high salaries, many minority children in big cities have little or no experience to support such

beliefs and expectations (Oakes, 1990). These students may know few adults who have succeed in school or who have translated school success into economic gain. Lack of school institutions in poor communities which provide students with contact with positive role models can be added as another problem (Oakes, 1990; Lippman, et al., 1996). At community / neighborhood level, people tend to have similar socio-economic status. And again, people tend to interact with those of similar SES. Consequently, students from middle or high SES families have positive role models also in their neighbourhood or communities (Oakes, 1990).

Parents' education exerts its effect on student's academic achievements in innumerable ways. There is a large body of research on the relationship between parents' education and student achievement. Parents with higher levels of education provide their children with a more resourceful environment which would promote learning. The definition of such an environment includes not only material that offers a wealth of educational stimuli such as books and encyclopedias, but also parents themselves with their accumulation of knowledge. Consequently, parents' education has a cumulative effect on student achievements starting from early ages (Comer, 1990). Muola (1990) studying Harambee schools in Nyandarua District asserted that there is a positive relationship between students' performance and home environment. Poor neighbourhoods in metropolitan areas isolated from affluent families, lack positive role models for students who would represent the benefits of education (Sahili. O'Connor, Jensen and Coulton, 1992). Muller and Kerbow (1993) on their study on parent involvement in the home, school and community in Boulder, U.S.A found a positive relationship between family income and parents' post – secondary educational expectations from their children.

On the average, parents with higher levels of education are also more cognizant of the importance of the quality of schooling their children receive. Therefore, they supervise their children's lives and restrict or regulate any activity that would negatively affect student's achievements, such as watching the television or working part-time (Muller, 1993). Students of high academic potentials have been wasted due to lack of commitment of parents to their education. This is not the case with parents who are literate and know the worth of going to school. Muller and Kerbow (1993) in their study on parent involvement in the home, school and community in Boulder, U.S.A found out that, white parents had the highest level of involvement when social activities or cultural enrichment were involved, such as talking with their children about current school experiences, knowing parents of their children's friends, volunteering in school. Asian Americans, on the other hand, had quite different ways of involvement. While they had the lowest level of talking with their children about high school programs and tended not to know the parents of their children's friends or volunteer in school, they were the highest in restricting their children's TV watching and enrolling their children in extra classes. Mworira (1993) study on performance in Kenya certificate of primary education examination in central Imenti division in Meru district comments that for a child to make the most of his educational needs, the child should have an easy access at home of instruments like books, newspapers, space, light and silence for convenient study.

Given the prevailing economic crisis in Africa, poverty is wide spread and affects schools and families alike. Existing literature indicates the extent to which parents have to cover the short falls due to the fiscal crisis that have had a devastating impact on household income and educational system (Asomaning, 1994). Okumu (1995) in his study with standard seven pupils in the slums of Nairobi reported a positive

association between parents' participation in the child's school work and performance. Children from better socio – economic background tend to have an advantage tending to performance better in school than those from deprived off families. Griffins (1996) in his study on relation of parental involvement and social traits to students academic performance asserted that, parental participation is of great importance as a factor determining the pupil's performance. This relationship was observed even when the school level variables like class size, school students' population, teachers' qualifications and experience were controlled. Parents with children in schools with relatively high levels of poverty concentration were far less likely to expect their children to graduate from college than parents with children in other schools (Lippman, et al., 1996).

The effect of SES on academic achievement is also mediated by urbanicity, at least to some degree for example some researchers asserted that rural communities usually have fewer economic resources to spend for education and they may not have access to resources that would be readily available in cities, such as Libraries and Museums, which would enrich the environment to enhance educational outcome. They perceived those resources as another form of capital associated with geographical location and characterized it more by the proximity to urbanized areas than by population density (Ghelfi and Parker, 1997). Ndiritu (1998) in a study of 426 primary schools in Gulu District of Uganda found parental encouragement to be significantly positively related to the child's academic performance. Socio economic background of the student which has to do with parent level of education, family income, family size and expectations of the parents have been found to influence students performance for instance the level of house hold income and size determines the parents' ability to meet direct and indirect costs of education. Such costs include tuition fees, cost of

textbooks and other learning materials, activity fees, transport and building fees (FAWE, 1999).

Avalos (1986) in Ndiritu, (1999) study on teaching children of the poor also noted that incomes among low class families restricted provision of tuition fees, text books and other resources necessary for good performance or continuation in school. Ndiritu (1999) study on factors which influence performance in K.C.S.E in selected public schools in Nairobi found no correlation between socio – economic back ground and performance but found out that poor children are regularly sent home from school because of nonpayment of levies. Ozturk (2001) in a study done in U.S.A on personal and social factors that influence and advanced mathematics course taking in high school in Virginia, found that parent involvement highly influenced academic performance of their children as well as course taking.

Clay Muganda (2002) article entitled: “Poor Background does not always lead to poor performance” concurs with this and adds that poor background doesn’t always lead to poor levels of performance. His view is that: “children from poor background are good learners because they know they have nothing to fall back to. They are also disciplined because they fear being sent away from schools and back to the deplorable conditions in which they lived earlier. Many children from well to do families on the other hand become complacent because they think that they will take after their parents whether or not they work hard. The knowledge that they have something to fall back on makes them lazy even if they are capable of doing well (East African Standards January 16th 2002 pg 1-2). Cecilia Kamuyu article in the East African Standard Newspaper February 16th 2002 pg 20 entitled “parent as the first teacher,” She argued that, parental involvement makes a difference in a child’s learning.

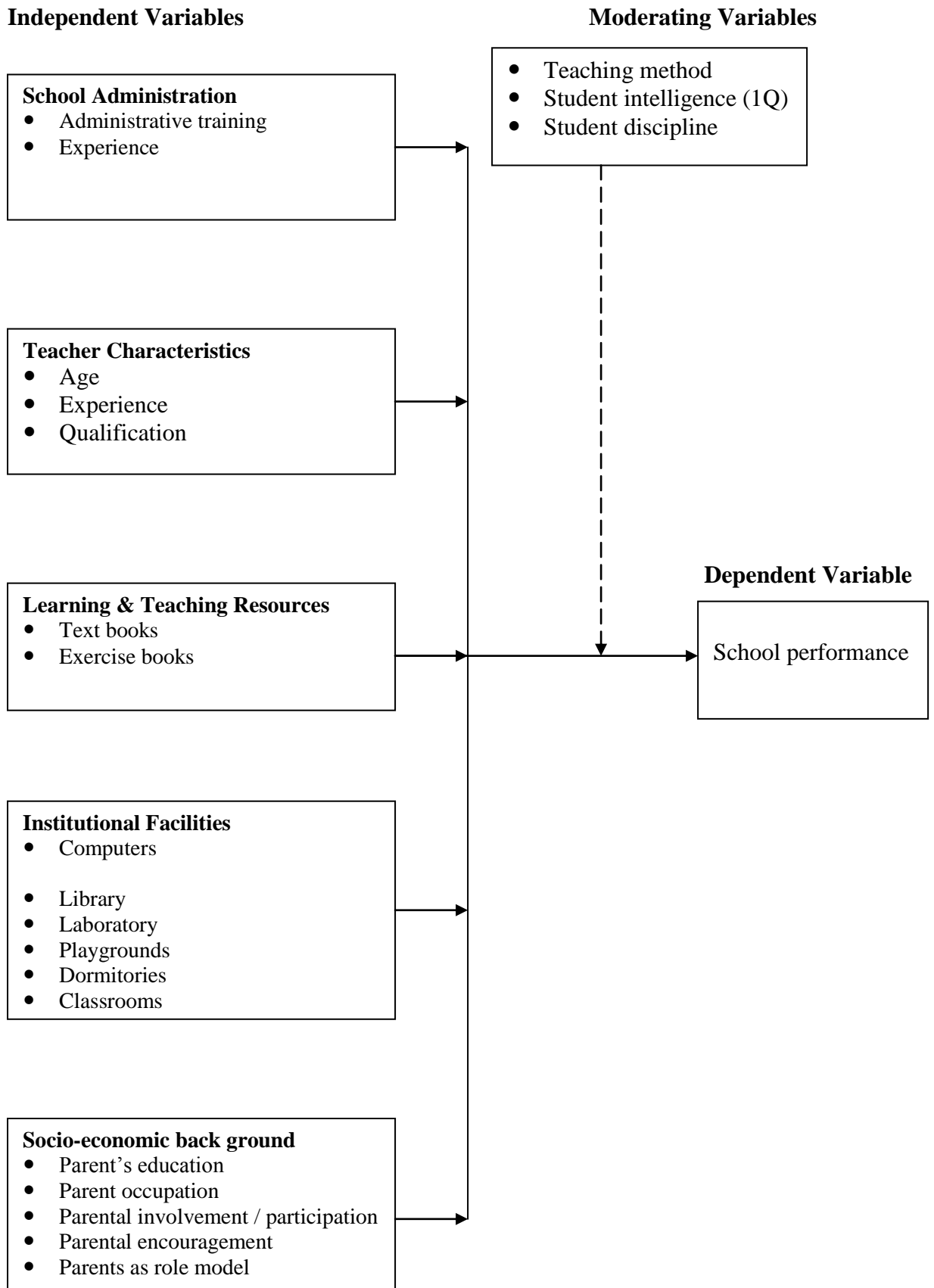
Studies have shown that when parents get involved in school activities, performance in examination greatly improves so do facilities. The pupils also become more motivated and develop confidence.

Otieno (2009) study on Gusii schools in Kericho district found that maximized support from parents enabled students perform better in their national examination. On the other hand, lack of parent financial support for example not paying school fees or not paying it in good time, result to their children been sent away from school and as a result, these students perform poorly in their national examinations due to absenteeism and lack of proper syllabus coverage. Mwita (2010) study on social capital and academic achievement in Kenya concurs with Ozturk study by noting that students whose parents were involved in their academic lives and created a good home environment tended to perform better than those whose parents were detached. He further observed that constant parent and teacher interactions improved academic achievement of the students.

2.2 Conceptual Framework

The conceptual frame work in figure 1 shows the relationship between the dependent variables and the independent variables. The independent variables are the factors that influence the dependent variable in this proposed study. From the literature reviewed, the study categorized the factors that influence K.C.S.E Examination in public secondary schools into five categories namely; school administration, teacher characteristics, learning and teaching resources, availability of physical facilities and last but not least student socio-economic back ground. These become the independent variables for the study. These factors are conceptualized to determine whether they influence school performance in K.C.S.E Examination as shown in figure 1.

Figure 1: Conceptual Frame Work



The above conceptual frame work shows the relationship between the independent variables and the expected outcome which is school performance as measured by K.C.S.E results. In the above frame work, effective school administration create a better learning atmosphere which boost students morale hence positively influencing their performance while teacher characteristics which include experience, education and professional training among others leads to better delivery of the subjects leading to higher performance of the students. It is also true that the more the learning and teaching resources are available the more it positively influences performance, while provision of necessary institutional facilities do positively facilitate learning hence better performance and lastly but not least the higher the socio economic status the more it positively influences the students performance. On the other hand the reverse of the above is also true that is the lack of the above factors lead to a negative performance.

CHAPTER THREE

RESEARCH METHODOLOGY

This section discussed the methodology that was used in collecting the study data. The elements include research design, target population, sample size and sampling procedure, data instruments, validity of the research instruments, reliability, data collection procedures and data analysis procedure

3.1 Research Design

The research design has been defined as a frame work of planning and conducting a study (Ogutu, 1985). The purpose of this study was to investigate the factors influencing performance of K.C.S.E Examination in public secondary schools in Nairobi West Sub County, Nairobi County. To achieve this, descriptive survey design was chosen, this was because the researcher would not be able to manipulate the variables for the simple reason that they had already occurred. The design allowed the researcher to gather information, summarize, present and interpret for the purpose of clarification.

3.2 Target Population

According to Alan, Bryman and Emma (2007), target population refers to the “universe” from which the sample is selected. The target population for the study is the public secondary schools in Nairobi West Sub County. The study population about the factors influencing K.C.S.E Examination performance in Nairobi West Sub County was the 10 public secondary schools with a total population of 284 teachers and 6656 students according to statistics given by the Nairobi West Sub County education officer (August, 2012). The study targeted the, teachers and form three students in these schools, as shown in the table 2.

Table 2: Total number of Teachers and students in Nairobi West Sub County.

S/no.	School	No of Classes	Enrolment	Male	Female	Curriculum establishment	Teachers on duty	Male	Female	Total over staffing	Total understaffing	Subject shortage /Sup plus by combinations
1.	HIGHRIDGE	6	190	132	58		9	3	6	NIL	3	3
2.	PARKLANDS ARYA	12	520		520	31	22	3	18	NIL	6	6
3.	NAIROBI MILLIMANI	8	182	182		18	16	7	9	NIL	3	3
4.	KENYA HIGH	24	1006		1006	56	54	1	53	NIL	3	3
5.	KANGEMI	12	563	563			24	8	16	NIL	3	3
6.	LAVINGTON MIXED	8	365	218	147	18	12	4	8	NIL	2	2
7.	ST. GEORGES GIRLS	20	978		978		41	8	33	NIL	NIL	0
8.	STATE HOUSE GIRLS	21	1100		1100		26	15	11	NIL	NIL	0
9.	HOSPITAL HILL	12	462	262	200	28	19	4	15	NIL	11	11
10.	NAIROBI SCHOOL	13	1290	1290			62	26	36	NIL	NIL	0
	Total	136	6656	2647	4009	151	284	79	205	NIL	31	31

Source: Nairobi West Sub County Education Office, 2012

3.3 Sample Size and Sampling Procedure

Sample is a carefully selected portion or part of the target population while sampling is a procedure where a fraction of the data is taken from a large set of data, and the inference drawn from the sample is extended to the whole group (Mark et al, 2007). According to Mugenda and Mugenda (2003) and (Mark et al, 2007) suggest that a sample size of 10-15% is sufficient, for a survey. This study will used 15% of both teachers and form three students to make the sample size of the study. The calculation of the sample size is shown here below.

The ten public secondary schools have a total population of 6656 students and two hundred and eighty four teachers including the principals (head teachers). 15% of 6656 students leads to $(0.15 \times 6656) = 998$ approximately, thus each school will produce $998/10 = 99.8$ which is approximately 100 hence the total number of form three students is $(100 \times 10) = 1000$ students from the ten public secondary schools, while 15% of 274 teachers (excluding headteacher) leads to $(0.15 \times 274) = 41$ teachers approximately. Therefore each school produced $(41/10) = 4.1$ and which when rounded off equal 4 teachers, hence total number of teachers is $(4 \times 10) = 40$ teachers which when added to 10 headteachers leads to a total of 50 teachers. This leads to a sample size of $(1000 + 50) = 1050$ respondents.

The selection of 4 teachers in each school was done through simple random sampling which according to Wallen (1974) ensures that each element within the accessible population has equal and independent chance of being selected. On the other hand, 100 form three students male and female from mixed schools will be selected through stratified random sampling. This procedure is chosen so as to select members from each and every stratum.

Borg and Gall (1989) state that stratified simple random sampling is one in which the researcher first clusters the population according to some predetermined criteria, and then samples separately from each stratum. The purpose of this was to ensure that enough cases of each stratum fall into the sample to make analysis possible. Again simple random sampling was applied to single sex secondary schools because they are of one sex, and in all the categories mentioned above the researcher got the list of all teachers and form three students from each school then assigned them numbers, after which the numbers was placed in a container and then picking any number at random. The subjects corresponding to the numbers picked was included in the sample, 4 teachers and 100 form three students from each school for the 10 public secondary schools.

Purposive sampling was used for the 10 head teachers in order to get in depth information concerning variables under study hence arriving at the study samples size of 1050 respondents. The form three students were chosen instead of form four students who were concentrating on completing their syllabus before commencing their national examination. In addition, the form three students had been in the school for an extended period hence provided rich information on their experiences concerning factors that influence KCSE performance in these public secondary schools.

3.4 Data Instruments

Questionnaires with both structured and semi structured questions was used for data collection. This enabled the researcher to capture all the necessary information pertaining to the topic understudy. Questionnaires are useful in reaching a large group of respondents within a short time and with little costs according to Gay (1996).They

were useful in collecting research data from teachers and form three students who formed the largest number of respondents for this study, hence ease time taken to collect the data.

3.5 Validity of the Research Instruments

Validity determines whether the research truly measures that which it was intended to measure or how truthful the research results are (Orodho, 2005). According to Saunders, Lewis and Thonhill (1996) before using your questionnaire to collect data it should be tested. Prior to carrying out the data collection, the questionnaire was tested by conducting a pilot survey on three public secondary schools in Dagoretti Sub County to ascertain its content validity. The purpose of the pilot survey was to check the appropriateness of the language used in the questionnaire as well as determine the difficulty of the items in the instruments. The researcher then made necessary adjustments on the tools thus improving the level of instruments' validity.

3.6 Reliability of the Research Findings

The data was collected using well tested and accepted procedures which yield consistent data if used on similar studies. The test retest method will was used to ascertain the reliability. Test retest measures consistency from one time to the next. During the pilot survey, the research instruments will be given twice to the same group of people to check the consistent of the scores hence making the instruments suitable for use.

3.7 Data Collection Procedures

After defending the research project proposal and given a go head to collect data pertaining to the study research on the field, the researcher sought permission to conduct the study from National Council for Science and Technology (N.C.S.T)

which allows researchers to conduct the study in Kenya schools. After receiving the permit, the researcher carried out pilot survey on three public secondary schools in the neighboring Dagoretti Sub County. This was followed by a visit to the 10 schools and the purpose was to brief the head teachers about the researcher and the topic under study, and then booking an appointment for the administration of the questionnaire.

The questionnaire was used for both students and teachers, where the researcher distributed the questionnaires personally to the respective schools. Group survey method was employed this is according to Sanders and Pinley (1983) where the subjects fill the questionnaires and give them back to the researcher immediately after filling. This ensured all the questionnaires were filled up hence 99 rate of response unlike where the questionnaires are left to the respondents to fill later and return them.

3.8 Data Analysis Procedures

The data collected through the questionnaire was coded and edited according to the variables under study. The data was analyzed using descriptive statistics which enable the researcher to reduce a large mass of data to simpler, more understandable terms hence making it easier for an observer to understand the data, was used (Gay, 1996). The descriptive statistics utilized in this study included frequency distributions and percentages that are used to describe information with more scores. This was followed by presenting the findings using, frequency tables, percentage and mean to give a clear picture of the research findings at a glance. This is enhanced by offering a narrative explanation as outlined in Table 3.1

Table 3.1 Operationalization of variables

Objectives	Variables	Indicator	Measure	Scale	Research Design	Data Collection methods	Data Analysis
To determine the influence of school administration on KCSE performance	School Administration	<ul style="list-style-type: none"> - Administrative training - Experience in Administrative role 	-Present/not present - No. of months/years	- Nominal - Ordinal	Descriptive survey method	Questionnaire (Structured and semi- structured)	Descriptive statistics
To examine the extent to which teacher characteristic influence KCSE performance	Teacher Characteristics	<ul style="list-style-type: none"> - Age - Experience - Qualification 	- Level - Present /absent - No. of months/years -High/Low	- Ordinal - Nominal - Ordinal - Ordinal	Descriptive survey method	Questionnaire (Structured and semi- structured)	Descriptive statistics
To examine the influence of learning and teaching resources on KCSE performance	Learning and teaching resources	<ul style="list-style-type: none"> - Text Books - Exercise Books 	Adequate(ratio 1:2) not adequate (ratio 1:27) Adequate not adequate	- Nominal - Nominal	Descriptive survey method	Questionnaire (Structured and semi- structured)	Descriptive statistics

To determine the influence of institutional facilities on KCSE performance	Institutional Facilities	<ul style="list-style-type: none"> - Computers - Computer room - Library -Laboratory -Play grounds -Dormitories - Classrooms 	<ul style="list-style-type: none"> - Available /not available -Available/ not available - Available /not available -Available/ not available - Available/ Not available - Available /not available -Available/not adequate 	<ul style="list-style-type: none"> - Nominal - Nominal - Nominal - Nominal - Nominal -Nominal - Nominal 	Descriptive survey method	Questionnaire (Structured and semi- structured)	Descriptive statistics
To investigate the influences of the student socio - economic background on KCSE performance	Social economic Background	<ul style="list-style-type: none"> - Parent Education - Parent involvement - Parents encouragement - Parents as role model 	<ul style="list-style-type: none"> - High/low levels - Levels - Present /absent - Good/Bad 	<ul style="list-style-type: none"> - Ordinal - Ordinal -Nominal -Nominal 	Descriptive survey method	Questionnaire (Structured and semi- structured)	Descriptive statistics

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter deals with data analysis, presentation and interpretation driven from the objectives of the study.

This study investigated the factors influencing performance of K.C.S.E examination results in public secondary schools in Nairobi West Sub County, Nairobi County. The chapter begins with the study on response rate and then personal information of the respondents'. Three questionnaires were structured for students, teachers and principals. They sought to gather information on resources and facilities availability and utilization, school performance, school administration and factors influencing performance. The collected results was presented in frequency tables and charts and their interpretation in the background information.

4.2 Response Rate

The researcher administered 1050 questionnaires, 1000 to students, 10 to principals and 40 to teachers. There were 900 responses from the students, 9 responses from the head teachers and 38 responses from the teachers giving a total of 947 Responses. This constituted to 90% response rate.

4.3 Characteristics of the Respondents

This section sought to seek the personal information of the respondents. The respondents comprised of principles, teachers and students.

4.3.1 Respondents Gender

This section sought to get information concerning the gender of the respondents.

Table 4.1 Respondents Gender

Variable	Category of variable	Frequency	Percentage
Gender	Male	527	55.67%
	Female	420	44.35%
	Total	947	100%

The study showed that 55.67 % (n=527) of all the respondents were males while 44.35 % (n=420) were females.

4.3.2 Students Age

This section sought to get information concerning the age of the students.

Table 4.2 Students Age

Variable	Category of Variable	Frequency	Percentage
Age for the students	15-17 Years	785	87.22%
	18-20 Years	115	12.88%
	Total	900	100%

The study showed that 87.22 % (n=785) of all the students were aged between 15 and 17 years this is the recommended age for students in secondary, while only 12.88 % (n=115) were aged between 18 and 20 years.

4.3.3 Age for the Teachers and Principals

The research sought to establish the age for teachers and principals

Table 4.3 Age for the teachers (teachers and principals)

Distribution		
Gender	Frequency	Percentage (%)
25-30 Years	9	19%
31 – 35 Years	9	19%
36 – 45 Years	16	34%
46 Years and Above	13	28%
Total	47	100%

From the Table 4.3 which represents age brackets for all the teachers (principals and teachers) 19% (n=9) of the respondents were aged between 25-30 years, 19% (n=9) in age bracket between 31 – 35 years, 34% (n=16) in age bracket between 36 – 45 years and 28% (n=13) in age bracket of 46 years and above. These shows teachers and principals are fairly young in their teaching career and hence energetic.

4.4. School Administration

Schools which consistently perform well tend to have sound and efficient administrators. (Eshiwani, 1983).Examining various characteristics of school administrators and their influence on student K.C.S.E performance were necessary.

4.4.1 Academic Qualification of the Principals

The study sought to find out the academic qualification of principals. The results are shown in Table 4.4.

Table 4.4 Principals academic qualifications

Variable	Category of variable	Frequency	Percentage
Academic Qualification for the principals	Diploma	0	0 %
	Bachelor's Degree	6	66.66 %
	Master's Degree	3	33.33%
	Total	9	100%

As shown from Table 4.7 above, data obtained from principals academic qualifications indicate that 66.66% had obtained a bachelor of education while 33.3% had a Masters degree.

4.4.2 Duration Served as Principal

It was also worth establishing the duration served by the principals. The results are shown in Table 4.5.

Table 4.5 describes the experience for the head teachers as principals.

Table 4.5 Duration served as principal

Duration of served as a principal	1-5 years	3	33.33%
	6-10 years	3	33.33%
	11-20 years	2	22.22%
	Over 20 years	1	11.11%
	Total	9	100%

From Table 4.5 the study found that 33.33 % (n=3) had served for 1 to 5 years as principals, 33.33 % (n=3) indicated 6 to10 years, 22.22% (n=2) had served for 11 to 20 years, while 11.11 % (n=1) had served for over 20 years as principals.

4.4.3 Principals' Attendance of Refresher Course on School Administration

The researcher also sought out to find out from the principals if they had attended a refresher course; their responses are captured in Table 4.6.

The Table below shows the number and proportion of principals who have attended refresher courses.

Table 4.6 Principals' Refresher Course Attendance

Variable	Category of variable	Frequency	Percentage
Attendance of refresher course on school Administration	Yes	9	100%
	No	0	0%
	Total	9	100%

From the findings in Table 4.4.3 results indicated that all principals% (n=100%) had attended a refresher course on school administration and all the respondents 100 % (n=9) acknowledged that the training helped them to perform their roles better in school administration.

4.5 Teacher Characteristics

Teachers' qualification is a crucial factor influencing the levels of performance in K.C.S.E (Bett, 1986)

4.5.1 Academic Qualification for the Teachers

To determine the qualification of the teachers, the researcher collected information on the academic qualifications of the teachers as indicated in Table 4.7.

The results are shown in the Table 4.7 below

Table 4.7 Academic qualification for the teachers

Variable	Category of Variable	Frequency	Percentage
Academic Qualification for the Teachers	Diploma	6	15.79%
	Bachelor's Degree	28	73.68%
	Master's Degree	4	10.53%
	Total	38	100%

As shown from Table 4.7 above, out of the 38 teachers 73.68 % (n=28) of the teachers had bachelor's degree, 15.79 % (n=6) had diploma and 10.53% (n=4) had masters degree. From the finding two thirds of the teachers had a bachelor in education and above and only 10.53% had a diploma.

4.5.2 Teaching Experience of the Teachers

The study sought to determine the teaching experience of the teachers, Table 4.8 shows the distribution of teachers experience regarding the number of years they have served.

Table 4.8 Teachers experience

Variable	Category of variable	Frequency	Percentage
Teachers' teaching experience	0 – 5 years	5	13.16%
	6-10 years	5	13.16%
	11-15 year	7	18.42%
	16-20 years	10	26.32%
	21 years and above	11	28.95%
	Total	38	100%

As indicated in Table 4.8, 13.16 % (n=5) of the teachers have experience of 0 to 5 years, 13.16% (n=5) 6 to 10 years, 18.42% (n=7) 11 to 15 years, 26.32% (n=10) 16 to 20 years and 28.95 % (n=11) had taught for over 21 years and above.

These findings indicated most teachers have the required qualifications and experience required for secondary school teaching.

4.5.3 Teachers' Area of Specialization

It was worth establishing the area of specialization of teachers the information gathered is indicated in Table 4.9

Table 4.9 Teachers' area of specialization

Variable	Category of variable	Frequency	Percentage
Teachers' area of specialization	Science Subjects	7	18.42 %
	Humanities	10	26.32 %
	Mathematics	4	10.53 %
	Languages	10	26.32 %
	Technical subjects	7	18.42 %
	Total	38	100%

From the results in Table 4.9 was noted, 26.32% (n=10) of the teachers had specialized in languages, while 26.32% (n=10) in humanities, It was evidenced that 18.42 % (n=7) had specialized in science subjects, 18.42% (n=7) in technical subjects and 10.53 % (n=4) in mathematics. From the findings the Teachers have the knowledge in their area of expertise with attributes like mastery of content and knowledge.

4.6 Learning and Teaching Resources

Learning would be passive and boring if learning resources are not in cooperated effectively, organized and exploited in the learning process (Douglas, 1964)

4.6.1 Utilizations of Textbooks

The study sought to establish from the students and principals if the students utilized textbooks. The results are shown in Table 4.10

Table 4.10 Textbook Utilization

Category	Response	Frequency	Percentage
Students utilization of textbooks in school	Yes	863	94.94%
	No	46	5.06%
	Total	909	100 %

From Table 4.10 the study established that 94.94 % (N=863) indicated they do utilize the textbook, while only 5.06 % (N=46) indicated No. The finding indicates that students make use of the textbook. Ghai (1986) and Court (1974) asserted that distribution of resources such as books and equipments account for scholastic difference among schools.

4.6.2 Textbooks Provider

The study sought to establish from the principals who provides the textbooks in schools.

The results are captured in Table 4.11.

Table 4.11 Textbooks provider

Provision of the Textbooks	School	38	80.85%
	Parents	9	19.15%
	Donation	-	0%
	Total	47	100 %

From Table 4.11 results indicated over two thirds, 80.85% of the books were provided by the school while only 19.15% were provided by parents. The study found out that the books provided by the school were not enough and most parents were not able to purchase the required books especially in Sub County schools.

4.6.3 Textbooks to Student Ratio

Schools with inadequate teaching resources result to poor school performance in national examination. Otieno (2009)

The study sought to find out on the student to textbook ratio from the teachers.

The findings are indicated in Table 4.12.

Table 4.12 Textbooks provider

Form 1	Inadequate	22	59.46%
	Adequate	16	40.54%
	Total	38	100 %
Form 2	Inadequate	24	61.16%
	Adequate	14	38.84%
	Total	38	100 %
Form 3	Inadequate	23	60.53%
	Adequate	15	39.47%
	Total	38	100 %
form 4	Inadequate	28	73.68%
	Adequate	10	26.32%
	Total	38	100 %

Table 4.12 shows in regard to the textbook to form one students' ratio, 59.46% (n=22) of the teachers indicated that it was inadequate, while 40.54 % (n=16) indicated that the ration was adequate. In regard to the textbook to form two students' ratio, it was noted 61.16 % (n=24) for inadequate and 38.84 % (n=14) said the ratio was adequate. It was also evident in form three students' the ratio was, 60.53 % (n=23) for

inadequate while 39.47 % (n=15) indicated that the ratio was adequate. Finally with regard to form four students, 73.68% (n=28) indicated that it was inadequate while 26.32 % (n=10) indicated it was adequate. The findings clearly showed the ratio of textbook to student is low, such observations lowers students performance in Sub County schools.

4.7 Institutional Facilities

The presence or absence of schools facilities distinguishes high achieving and low achieving schools. (Eshiwani, 1983) Based on this view the researcher sought to establish the availability of instructional facilities in schools. The information was gathered from principals, teachers and students in Table 4.13.

4.7.1 Physical Facilities

The study sought to determine the influence of physical facilities in the performance of K.C.S.E in Nairobi West Sub County, results are shown in Table 4.13.

Table 4.13 Pphysical facilities availability

Category	Facilities	Response	Frequency	Percentage
Computers		Adequate	347	36.64%
		Inadequate	600	63.36%
		Total	947	100 %
Library		Adequate	410	43.29%
		Inadequate	537	56.71%
		Total	947	100 %
Laboratory		Adequate	475	51.16%
		Inadequate	472	48.84%
		Total	947	100 %
Dormitories		Adequate	490	51.74
		Inadequate	457	48.26
		Total	947	
Classrooms		Adequate	547	57.76 %
		Inadequate	400	42.24 %
		Total	947	100 %

From Table 4.13 the study found out that computer availability was 36.6% (n=347) for adequate while 63.36% (n=600) indicated inadequate. On library availability, 43.29% (n=410) of the respondents indicated adequate while 56.71 % (n=537) indicated inadequate. In addition, laboratory availability was, 51.16% (n=475) adequate while 48.84 % (n=472) showed inadequate. On dormitories availability, 51.74 % (n= 490) noted adequate while 48.26% (n=457) responded it was inadequate. On classrooms availability, 57.76 % (n=547) pointed out adequate while 42.24 % (n=400) said inadequate. The findings indicate a larger percentage of district schools had a shortage of these resources which hindered students and teachers from accessing the knowledge required for performance K.C.S.E examination.

4.7.2 Physical Facilities Utilization

Based on the findings above, the researcher wanted to establish the utilization of facilities in schools. The responses were in terms of whether the resources were utilized often or rarely. The findings are analyzed in Table 4.14.

Table 4.14 Physical facilities frequency of use

Frequency of use of facilities	Computers	Often	380	40.13%
		Rarely	567	59.87%
		Total	947	100 %
	Library	Often	334	35.26%
		Rarely	613	64.74%
		Total	947	100 %
	Lab	Often	500	52.80%
		Rarely	447	47.20%
		Total	947	100 %

According to results in Table 4.14, on utilization of physical facilities, 40.13 % (n=380) indicated often while 59.87 % (n=3567) indicated rarely. On library utilization, 35.26 % (n=334) said often, while 64.73 % (n=613) indicated rarely. On laboratory utilization 52.80 % (n=500) responded often, while 47.20 % (n=447) indicated rarely. This study established that utilization of institutional facilities was minimal in district schools.

4.8 Student Social-Economic Background

The researcher in this study interrogated the level of education of the parent/guardian to establish the influence in the performance of K.C.S.E; the results are in Table 4.15.

Table 4.15 Student Social-Economic Background

Category	Response	Frequency	Percentage
Parents' level of education	Primary school	180	20.0%
	Secondary school	390	43.33%
	Diploma	230	25.56%
	Degree and above	100	12.6%
	Total	900	100 %
Responsible person in paying school fees	Parent	700	77.78%
	Sponsor	200	22.22%
	Total	900	100 %
school fees payment in time	No	560	62.22%
	Yes	340	37.78%
	Total	900	100 %

From Table 4.15 on Parents' level of education, the study established that 20.0% (n=180) had primary school education only, 43.33 % (n=390) had attained up to secondary school level of education, while 25.56 % (n=230) had attained up to diploma level, only 12.6 % (n=100) had a degree education and above. The study

indicated most parents/guardian do not have education beyond university level thus they may not be good role models for their children in academic matters.

4.8.1 Parent/Guardians Level of Participation in the School Activities

Table 4.16 Parents/guardian level of participation

Category	Activity	Response	Frequency	Percentage
Parents/guardians level of participation in :	open day activities	Always	317	35.22%
		Rarely	583	64.78%
		Total	900	100 %
	PTA meetings	Always	364	40.44%
		Rarely	536	59.56%
		Total	900	100 %

According to Table 4.16 the respondents were asked about the parents/guardian level of participation in open day activities, 35.22 % (n=317) indicated always, while 64.78 % (n=583) indicated rarely. On PTA meetings attendance, 40.44 % (n=364) indicated always while 59.56% (n=536) indicated rarely. Based on this finding parents rarely participate in school activities

4.9 School Performance

To establish the measure to take in order to improve students' K.C.S.E performance in Nairobi West Sub County, the researcher gathered information on possible reasons for good performance from all respondents. Suggested reasons are in table 4.17

4.9.1 Mean Standard Score in KCSE for the Last 3 Years

Table 4.17 Schools performance for the year 2009 – 2011

Schools Levels		Mean Score			
Year		2009	2010	2011	Total Mean
A	National Schools				
1	The Kenya High School	10.229	10.493	10.389	10.37
2	Nairobi School	9.512	9.863	9.993	9.789
B	County Schools				
3.	St. George's Girls Secondary School	8.386	8.697	8.725	8.603
4.	State House Girls High School	7.947	7.829	7.818	7.865
C	District Schools				
5.	Hospital Hill High School	6.603	6.279	6.842	6.575
6.	Parklands Arya Girls High School	5.170	5.740	5.589	5.5
7.	Kangemi High School	4.433	4.291	4.349	4.358
8.	Lavington Mixed Secondary School	-	-	4.102	4.102
9.	Nairobi Millimani Secondary School	3.809	4.239	3.887	3.978
10.	Highridge Mixed Secondary School	-	-	3.346	3.346

4.9.2 Factors Contributing to Good Grades

Table 4.18 Factors contributing to good grades

Factor that contribute to high grade	Frequency	Percentage
Syllabus coverage	313	34.78%
Adequate Resources and equipment	359	39.89%
Entry behavior	8	45.44%
Effective school administration	12	27.78%
Adequate teachers	14	33.33%
Timely fee payment	5	27.78%
Discipline	4	33.89%
Support from teachers and parents	10	38.89%

From table 4.18, 34.78% attributed good performance to syllabus coverage. Adequate resources and infrastructure was cited 39.89%.Entry behavior was mentioned by 45.44%.Effective school administration was noted by 27.78%. Adequate teachers was stated by 33.3% .Timely fee payment was mentioned 27.78%, discipline was by 33.89% while support from teachers and parents was highlighted by 38.89%.The study established all this factors may lead to good performance.

4.10 Correlation between Duration Served As School Principal and Average School Mean for Years 2009-2011

Table 4.19 Correlation between duration served as school principal and average school mean for years 2009-2011

	School mean for 2009-2011	
Duration served as a school principal	Pearson Correlation	.727*
	Sig. (2-tailed)	.027
	N	9

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

The duration served as school principal was grouped in the order where the least years had the lowest number assigned and the most years of experience had the highest number. This was then correlated with average mean for the 3 years.

A Pearson Correlation value of 0.725 is obtained and a 2 tailed significant value of 0.027. The correlation value indicated that there was a strong positive relationship (correlation) between the principals who had served many years and the grade the school was attaining. A correlation value close to 1 is always strong and a positive one shows a positive relationship meaning increase in one variable result to increase in the relating variable.

4.11 Correlation between Age, Highest Academic Qualification, Teaching Experience) For Teachers and Principals and Average School Mean For Years 2009-2011

Table 4.20 Correlation Level between Age, Highest Academic Qualification and Teaching Experience) For Teachers and Principals and Average School Mean For Years 2009-2011

		mean for 2009-2011
Qualification, age & experience	Pearson Correlation	.496**
	Sig. (2-tailed)	.000
	N	47

Prior to correlation each factor was ranked from the highest to smallest, with the numbers being allocated in that order. The groups mean for each principal and teacher was then correlated with the average school mean for the three years for every school.

A Pearson Correlation value of 0.496 was obtained and a 2 tailed significant value of 0.000 was obtained. The correlation value indicated that there was a moderate positive relationship (correlation) between the academic qualification, age and teaching experience all combined as a factor for teachers (both teachers and principal) and the grade the school was obtaining.

4.12 Correlation Level between Textbook to Students Ratio and Average School Mean for Years 2009-2011

Table 4.21 Correlation level between Textbook to students ratio and average school mean for years 2009-2011

		mean for 2009-2011
Textbook to students ratio	Pearson Correlation	.354**
	Sig. (2-tailed)	.016
	N	900

Prior correlation each factor was ranked from the largest to smallest, with the numbers being allocated in that order. The group means for all classes (form1 to form 4) were correlated with the average school mean for the three years (2009-2011) for every school.

A Pearson Correlation value of 0.354 is obtained and a 2 tailed significant value of 0.016 was obtained. The correlation value indicates that there is a fairly weak positive relationship (correlation) between Textbook to student's ratio and the grade the school is getting.

4.13 Correlation between Teacher Student Ratio per Class and Average School Mean for Years 2009-2011

Table 4.22 Correlation level between teacher student ratio per class and average school mean for years 2009-2011

	Mean for 2009-2011
teacher student ratio per class	Pearson Correlation .209**
	Sig. (2-tailed) .020
	N 938

Prior correlation each factor was ranked from the largest to smallest, with the numbers being allocated in that order. The mean for teacher student ratio per class was correlated with the average school mean for the three years (2009-2011) for every school.

A Pearson correlation value of 0.209 is obtained and a 2 tailed significant value of 0.020 was obtained. The correlation value indicates that there exist a positive weak correlation between textbook to student's ratio and the grade the school is getting. Those school with small ratio portrayed high grades.

4.14 Correlation between Textbook to Student's Ratio and Average School Mean for Years 2009-2011

Table 4.23 Correlation level between Textbook to students ratio and average school mean for years 2009-2011

		mean for 2009-2011
Textbook to students ratio	Pearson Correlation	.354**
	Sig. (2-tailed)	.016
	N	38

Prior to correlation each factor was ranked from the largest to smallest, with the numbers being allocated in that order. The group means for all classes (form1 to form 4) were correlated with the average school mean for the three years (2009-2011) for every school.

A Pearson correlation value of 0.354 is obtained and a 2 tailed significance value of 0.016 was obtained. The correlation value indicates that there is a weak positive relationship (correlation) between Textbook to student's ratio and the grade the school is getting. Those school with small ratio portrayed high grades.

4. 15 Correlation Level between Facilities Availability and Average School Mean for Years 2009-2011

Table 4.24 Correlation Level between Facilities Availability and average school mean for years 2009-2011

		mean for 2009-2011
Facilities Availability	Pearson Correlation	.613**
	Sig. (2-tailed)	.000
	N	947

Prior to correlation each factor was ranked from the largest to smallest, with the numbers being allocated in that order. The group means for all the facilities (computers, computer labs, library, laboratory, dormitories, and classrooms) were correlated with the average school mean for the three years (2009-2011) for every school.

A Pearson correlation value of 0.613 was obtained and a 2 tailed significant value of 0.000 was obtained. The correlation value indicates that there is a quite a strong positive relationship (correlation) between Facilities Availability and the grade the school is getting. Those school with adequate facilities portrayed high grades.

4.16 Correlation Level between how Often the Students Utilize the Facilities and Average School Mean for Years 2009-2011

Table 4.25 Correlation level between how often the students utilize the facilities and average school mean for years 2009-2011

		Mean for 2009-2011
How often the students utilize the facilities	Pearson Correlation	.113**
	Sig. (2-tailed)	.008
	N	947

Prior to correlation each factor was ranked from the largest to smallest, with the numbers being allocated in that order. The group means for how often the students utilize all the facilities (computers, library, and laboratory) were correlated with the average school mean for the three years (2009-2011) for every school.

A Pearson Correlation value of 0.113 was obtained and a 2 tailed significant value of 0.008 was obtained. The correlation value indicates that there is weak positive relationship (correlation) between how often the students utilize the facilities and the

grade the school is getting even though it's a weak one. Those schools where students utilize the facilities more frequently portrayed high grades.

4.17 Correlation Level between Whether School Fees Paid in Time and Average School Mean For Years 2009-2011

Table 4.26 Correlation level between whether school fees paid in time and average school mean for years 2009-2011

		Mean for 2009-2011
school fees is paid in time	Pearson Correlation	.143 [*]
	Sig. (2-tailed)	.028
	N	900

Prior to correlation each factor was ranked from the largest to smallest, with the numbers being allocated in that order. The mean of whether school fees are paid in time were correlated with the average school mean for the three years (2009-2011) for every school.

A Pearson correlation value of 0.143 was obtained and a 2 tailed significant value of 0.008 was obtained. The correlation value indicates that there is a positive weak relationship (correlation) between school feel payment in time and the grade the school is getting even though it's a weak one. Those schools where students utilize the facilities more frequently portrayed high grades.

4.18 Correlation Level between Whether Parents/Guardians Good Role Models Academically and Average School Mean for Years 2009-2011

Table 4.27 Correlation level between whether parents/guardians good role models academically and average school mean for years 2009-2011

		Mean for 2009-2011
school fees is paid in time	Pearson Correlation	.201 [*]
	Sig. (2-tailed)	.018
	N	900

Prior to correlation each factor was ranked from the largest to smallest, with the numbers being allocated in that order. The mean of whether parents/guardians good role models academically were correlated with the average school mean for the three years (2009-2011) for every school.

A Pearson correlation value of 0.201 was obtained and a 2 tailed significant value of 0.018 was obtained. The correlation value indicates that there is a weak positive relationship (correlation) between parents/guardians being good role models academically and the grade the school is getting even though it's a weak one. Those schools where students utilize the facilities more frequently portrayed high grades.

CHAPTER FIVE
SUMMARY OF FINDINGS, DISCUSSION, CONCLUSIONS AND
RECOMMENDATIONS

5.1 Introduction

This chapter deals with summary of the findings, conclusions and recommendations

In this study the views of principals, teachers and students on factors influencing students in K.C.S.E performance in Nairobi West Sub County were sought using questionnaires. The 9 principals, 38 teachers and 900 students responded to the questionnaires. The findings were presented in frequency distribution tables, percentile and mean. The following were perceived to influence student performance in K.C.S.E in Nairobi West Sub County.

5.2 Summary of Findings and Discussions

School administration

The principals are professionally qualified, 66.66% had obtained a bachelor of education and 33.3% had a master's degree. The findings indicate all the principals had the required academic qualification. Despite the district having qualified principals, district schools performed poorly but the national and county schools performed relatively well. This is in agreement with Olembo et al (1982) who argues that school administration has direct bearing on the achievement of learners.

From the findings, two thirds of the principals had served for more than five years. Experience contributes to good organizational and administrative skills which is crucial in the academic success of a school. Principal's academic and professional qualification attained a positive weak correlation value of 0.496. This showed there is

a significant relationship between academic qualification of a principal and the grade the school attains. This study has a link with Passos (2009) in her study on teacher competence and its effect on pupil performance in Mozambique schools, found that the age and the years of experience of the school head had an influence on motivating the teaching staff which in turn led to pupil performing well in mathematics.

The study indicated all the principals had attended refresher courses on school management. School management courses enable principals employ strategic management in schools, this enhance good performance in K.C.S.E examination. This concurs with Raju (1973) he noted that the administrative role of the principals involves directing, controlling and management of all matters pertaining to education enhancement.

Teacher characteristic

The teachers had undergone academic and professional qualifications; more than two thirds had attained a bachelors degree. On teaching experience 80% of the teachers had an experience of 5 years and above. The analysis implies majority of the teachers had gathered sufficient experience to boost delivery of content.

In spite of the teachers having academic qualifications it was noted performance in district schools was low. Nguru (1987) in his study on factors that influence the achievement of primary school examinations asserts that not only the teachers' professional qualification matters but also their academic qualification. Although this study was done in primary schools it has a link with this one in secondary schools.

Teacher quality is one of the most important resources that can produce gains in student academic achievement. A World Bank Report (1987) on school and classroom effects on student learning in Thailand noted that, the number of years of schooling of a teacher was the most consistently positive and significant contributor to pupils achievement.

Learning and teaching resources

The analysis indicated teaching and learning resources were inadequate in most district schools. They lacked the necessary course and revision books. The few that were available, textbook student ratio was at 59.46% inadequate in form one. Form two 61.16% inadequate, form three it was noted 60.53% and form four 73.68% inadequate. With this shortage of textbooks it is hard for teachers to rise to the occasion and deliver positive results in terms of good grades. This variable obtained a correlation value of 0.354 an indication there is a weak strong positive relationship between textbooks to student ratio and the grade the school attains. Eshiwani (1988) in his study in Kajiado district asserts availability of adequate relevant textbooks makes the teaching task easy. This study has a link with this one done in Nairobi West Sub County.

Institutional facilities

On institutional facilities the study found out Sub County schools had inadequate facilities, computers was indicated 63.36% inadequate, library 56.71% while laboratory was 48.84% inadequate. Lack of such important facilities denied both students and teachers the opportunity to access information that would facilitate attainment of good grades. The findings indicate a larger percentage of district

schools had a shortage of these resources which hindered students and teachers from accessing the knowledge required for performance of K.C.S.E examination. Mamwenda and Mamwenda (1987) in his study on effects of physical facilities on examination in Botswana revealed availability of physical facility had a direct link with pupils' performance in examinations. Although this study was done in Botswana it is in agreement with this one done in Nairobi West Sub County.

Lack of utilization of existing institutional facilities came out of the findings from the results, computer utilization was cited 59.87% rarely, libraries respondents indicated 64.74% while laboratory was indicated 47.20% rarely. This explains why performance in Sub County schools is dismal. Student who have adequate utilization of physical facilities have significantly higher achievements and gains than those who lack. Recent expansion in enrollment has not been matched by increase in physical capacity. Schools with adequate physical facilities expose and equip students more often with necessary skills and have an advantage in performance of K.C.S.E examination. This variable obtained a correlation of 0.613 an indication there is a strong relationship between availability of facilities and the grade the school attained. The findings resonate with those of Mukundi (1999) in an investigation into the factors leading to poor performance found out that lack of facilities is a major contributing factor towards poor performance and so ought to be a priority for all schools. This finding is also in agreement with Otieno (2009) study in Gusii Schools in Kisii County found that in schools where physical facilities such as laboratory, library among others were not available, the students performed poorly in national

examination especially in science subjects. Although the study was carried out in Kisii district and focused on science subjects, this study confirms the earlier findings.

Student socio-economic background

The study indicated only 12.6% of the parent /guardian had university education I thus they may not be good role models for their children in academic matters.

This factor obtained a correlation value of 0.105 though a positive weak one but an indication those parents who receive high education their children tend to perform better, reason being children want to imitate their parents hence influencing performance of K.C.S.E examination. Kombo (1988) in his study in Machakos County noted those parents who received formal education their children; tend to perform better than those who did not go to school at all.

The study also found out, 62.22 % of the students were not able to pay fees on time. Parents with fewer economic resources to spend for education may not pay school fees in time leading to student absenteeism. This limited income restricts attendance of school, provision of revision books, development funds and other necessary materials that ensure performance of K.C.S.E examination. This finding concurs with Otieno (2009) study on Gusii schools in Kericho district found that maximized support from parents enabled students perform better in their national examination. On the other hand, lack of parent financial support for example not paying school fees or not paying it in good time, result to their children been sent away from school and as a result, these students perform poorly in their national examinations due to absenteeism and lack of proper syllabus coverage.

The research revealed participation in school activity had varied responses. On parent/guardian attendance of P.T.A meetings only 40.44% attended always while a bulk 59.56% indicated rarely. 35.22% attended open day activity always, while a majority 64.78% indicated rarely

Based on these findings parents rarely participated in discussing the performance and discipline of their children. There is need for parents to attend school programs and get involved in academic performance and discipline of their children. This view is shared by Mwita (2010) in his study noted that students whose parents were involved in their academic lives and created a good home environment tended to perform better than those whose parents were detached. Ozturk (2001) also observes that parents' involvement highly influenced academic performance of their children as well as course taking.

5.3 Conclusion

The study concluded that the schools administration influenced students' performance in the K.C.S.E examination and principals had the required experience and qualifications, this should make a bearing in the performance of K.C.S.E examination in Sub County schools.

The study also concluded that teachers' characteristics influenced performance of K.C.S.E examination. The teachers were qualified and had long experience in teaching, thus had the teaching pedagogy.

On learning and teaching resource the study revealed that Sub County schools had inadequate teaching and learning resources, the ratio of text books to student was

found to be lower. Schools with adequate resources exposed and equipped students with necessary skills which gave them an advantage in performance of K.C.S.E examination.

The study also revealed that majority of the students in Sub County schools depend on the text books provided by the schools.

The study also concluded that district schools lacked enough physical facilities ability of having infrastructure in schools does not only lead to but also lack of them hindered efforts of teachers and students to produce good grades in K.C.S.E Examination.

It was also found out that District schools had inadequate institutional facilities such as libraries, computers and laboratory, and still there was under utilization of institutional facilities in schools that had the infrastructure.

On students' socio economic background, lack of resources to pay school levies on time led to student absenteeism and loss of time hence leading to poor performance in K.C.S.E examination. Most parents rarely participated in academic progress and discipline of their children. This led to poor performance in K.C.S.E examination.

5.4 Recommendations

From the research findings and conclusion, the study made the following recommendations

1. The ministry of education should consistently improve strategic management practices for principals to improve academic performance of students in K.C.S.E in the district.
2. Teachers should constantly engage courses, seminars and symposium to update their skills on teaching and learning pedagogy.
3. The government and county authorities should ensure provision of adequate teaching and learning and infrastructure in schools to enrich educational experience among students.
4. Teachers should make an effort to facilitate utilization of physical capacity. Lack of it affects both the student and the teacher performance in national examinations.
5. There is need for parents to get involved in performance and discipline of their children.

5.5 Recommendations for Further Research

The researcher would wish to recommend further research to be done on the following

1. The study was done in Nairobi West Sub County, Nairobi County. There is need to conduct the study in other counties where students perform poorly.
2. The influence of entry behavior in secondary school on students' KCSE performance in Nairobi West Sub County, Nairobi County.
3. There is need to investigate the influence of parent/guardian on performance of K.C.S.E examination.

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APPENDICES

Appendix 1: Introduction Letter

Dear Respondents,

REF: THE FACTORS INFLUENCING PERFORMANCE OF KENYA CERTIFICATE OF SECONDARY EDUCATION (K.C.S.E.) EXAMINATION IN PUBLIC SECONDARY SCHOOLS IN NAIROBI WEST DISTRICT, NAIROBI COUNTY.

My name is Chege Elizabeth Wacheke and I am pursuing a Masters in Arts at University of Nairobi. The attached questionnaire is aimed at investigating the factors influencing performance of KCSE Examination in public secondary schools in Nairobi West District. You have been selected for the purpose of the study. Please take time to complete the questionnaire. Your genuine response will be appreciated. High level of confidentiality will be assured. The information obtained will be used purely for academic purposes.

Thank you all in advance

Yours sincerely,

Chege Elizabeth Wacheke

L50/61264/2011

Cheke95@mail.com

University of Nairobi – MA student

Appendix II: Research Questionnaire for principals

This questionnaire seeks to gather information concerning factors influencing performance of KCSE Examination in Public Secondary schools in Nairobi West District, Nairobi County. You have been selected for the purpose of the study. Please take time to complete the questionnaire. Your genuine responses will be appreciated. High level of confidentiality will be assured. The information obtained will be used purely for academic purposes.

PART A: Demographic data

1. What is your gender?

Male

Female

2. What is your age bracket?

(i) 25 – 30 yrs

(ii) 31 – 35 yrs

(iii) 36 – 45 yrs

(iv) 46 yrs and above

3. What is your highest academic qualification?

(i) Diploma

(ii) Bachelors Degree

(iii) Masters Degree

(iv) Any other (please specify) _____

4. Teaching experience in years

(i) 0 – 5 yrs

(ii) 6 – 10 yrs

(iii) 11 – 15 yrs

(iv) 16 – 20 yrs

(v) 21 yrs and above

5. What is your area of specialization?

(i) Science subjects

(ii) Art subjects

(iii) Mathematics

(iv) Languages

(v) Technical subjects

PART B: School Administration

6 (a) Have you attended a refresher course on school administration?

Yes

No

(b) Has the training helped you to perform better in your role as a principal?

Yes

No.

7 How long have you served as a school principal?

a. One year

b. Two years

c. Three years

d. Others (Please specify) _____

PART C: Learning and Teaching Resources

The following are questions about the availability of learning & teaching resource in your school. Please respond to each question by ticking (✓) against the appropriate information regarding the resources or writing a short statement.

8 (a) Do the students in your school use any text books?

Yes

No.

(b) When a student fills up an exercise book, how long does it take for him/her to be issued with a new one? _____

(c) Who provides textbooks for the students?

- a. The school
 - b. Parents purchase books for their children
 - c. Parents pay text books fees to the school
 - d. Donation from well wishers
 - e. Others (please specify) _____
-

PART D: Physical Facilities

9 (a) Below is a list of physical facilities necessary for effective learning. What extent are they available in your school?

Facilities	Adequate	Inadequate
Computers		
Library		
Laboratory		
Dormitories		
Classrooms		
Others (please specify) _____		

9 (b) How often do the student utilize the following facilities?

Facilities	Often	Rarely
Computers		
Library		
Laboratory		
Others (please specify) _____		

PART E: School performance

10 (a) Please indicate on the table below, the mean standard score and the position of your school in KCSE Examination in the last three years.

Year	Mean standard score	Position in District
2009		
2010		
2011		

(b) In your opinion, what factors have contributed to this kind of performance in the school?

Thank you for your time and co-operation

Appendix III: Research Questionnaire for Teachers

This questionnaire seeks to gather information concerning factors influencing performance of KCSE Examination in Public Secondary schools in Nairobi West District, Nairobi County. You have been selected for the purpose of the study. Your genuine responses will be appreciated. High level of confidentiality will be assured. The information obtained will be used purely for academic purposes.

PART A: Demographic data

1. What is your gender?

Male

Female

2. What is your age bracket?

(i) 25 – 30 yrs

(ii) 31 – 35 yrs

(iii) 36 – 45 yrs

(iv) 46 yrs and above

3. What is your highest academic qualification?

(i) Diploma

(ii) Bachelors Degree

(iii) Masters Degree

(iv) Any other (please specify) _____

4. Teaching experience in years

(i) 0 – 5 yrs

(ii) 6 – 10 yrs

(iii) 11 – 15 yrs

(iv) 16 – 20 yrs

(v) 21 yrs and above

5. What is your area of specialization (professional training)?

- (i) Science subjects
- (ii) Art subjects
- (iii) Mathematics
- (iv) Languages
- (v) Technical subjects

PART B: Learning and Teaching Resources

The following are questions about the availability of learning & teaching resources in your school. Please respond to each question by ticking (√) against the appropriate information regarding the resources or writing a short statement.

6. (a) Where do you acquire the text books necessary for you to teach?

- (i) From the school
- (ii) You buy your own
- (iii) Any other source _____

(b) Indicate the classes you teach, the extent to which the issue of text books to students is adequate.

Classes	Adequate	Inadequate
1.		
2.		
3.		
4.		

PART C: Physical Facilities

7. Below is a list of physical facilities necessary for effective learning. To what extent are they available in your school?

Facilities	Adequate	Inadequate
Computers		
Library		
Laboratory		
Dormitories		
Classrooms		
Others (please specify) _____ _____		

(b) How often do the students utilize the facilities?

Facilities	Often	Rarely
Computers		
Library		
Laboratory		
Others (please specify) _____ _____		

(c) What is the teacher-student ratio per class?

- (i) 1:25
- (ii) 1:45
- (iii) 1:65
- (iv) Others (please specify) _____

PART D: School performance

8. What measures does the school administration take to ensure good performance in KCSE Examination in the school?

9. In your opinion, what factor have led to varied levels of performance from year to year and student to student in KCSE Examination in the school

Thank you for your time and co-operation

Appendix IV: Research Questionnaire for Students

This questionnaire seeks to gather information concerning factors influencing performance of KCSE Examination in Public Secondary schools in Nairobi West District, Nairobi County. You have been selected for the purpose of the study. Your genuine responses will be appreciated. High level of confidentiality will be assured. The information obtained will be used purely for academic purposes.

PART A: Demographic data

1. What is your gender?

Male

Female

2. What is your age bracket?

(i) 15 – 17 yrs

(ii) 18 – 20 yrs

(iii) 21 – 22 yrs

(iv) 23 yrs and above

PART B: Learning and Teaching Resources

The following are questions about the availability of learning & teaching resource in your school. Please respond to each question by ticking (✓) against the appropriate information regarding the resources or writing a short statement.

3. (a) Do you use text books in your school?

Yes

No

(b) When a student fills up an exercise book, how long does it take for him/her to be issued with a new one? _____

PART C: Physical Facilities

4. Below is a list of facilities necessary for effective learning. To what extent are they available in your school?

Facilities	Adequate	Inadequate
Computers		
Library		
Laboratory		
Dormitories		
Classrooms		
Others (please specify) _____ _____		

(b) How often do you utilize the facilities?

Facilities	Often	Rarely
Computers		
Computer lab		
Library		
Laboratory		
Others (please specify) _____ _____		

(c) What is the teacher-student ratio per class?

(i) 1:25

(ii) 1:45

(iii) 1:65

(iv) Others (please specify) _____

PART D: Student Socio-economic background

5. What is your parents' level of education?

- (i) No education at all
- (ii) Standard eight
- (iii) Form four ('O' level)
- (iv) Diploma
- (v) Higher National diploma
- (vi) Degree
- (vii) Masters degree
- (viii) Others (please specify) _____

b) What are the occupations of your parents / guardians?

Father _____

Mother _____

Guardian _____

(ii) Who pays your school fees? _____

(iii) Is your school fees paid on time?

Yes

No.

6. What is your parents / guardians level of participation in the following school activities?

Activity	Often	Rarely
Discussion of academic performance of the school / student		
Meetings regarding students		
Open day activities		
PTA meetings		

7. Do your parents / guardians commends you when you improve academically

Yes

No.

8. Are your parents / guardians a good role model academically?

Yes

No.

PART E: School performance

9. In your opinion, what factors may lead to your good or poor performance in KCSE Examination?

Thank you for your time and co-operation