

**DETERMINANTS OF ACADEMIC PERFORMANCE IN
KENYA CERTIFICATE OF SECONDARY EDUCATION IN
PUBLIC SECONDARY SCHOOLS IN KIAMBU WEST
DISTRICT, KENYA**

By

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**A Research Project Submitted in Partial Fulfillment of the
Requirements for the Degree of Master of Education in
Curriculum Studies**

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DECLARATION

This research project is my original work and has not been presented for a degree
in any other university.



Mwangi Newton Irungu

This research project has been submitted for examination with our approval as
University Supervisors.

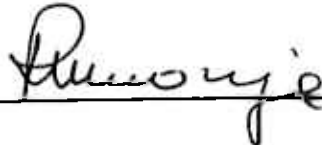


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DEDICATION

This project is dedicated to my wife Elizabeth Watiri, children, Benson Ngura, Solomon Maingi and Daisy Wanjiku for their love, support, patience, encouragement and understanding that gave me the will and determination to complete my postgraduate studies. Last and not the least, to my parents, Solomon Mwangi and Miriam Wanjiku for continued moral support and encouragement.

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LIST OF ABBREVIATIONS AND ACRONYMS

DEO	District Education Officer
HODs	Heads of Departments
KCE	Kenya Certificate of Education
KCPE	Kenya Certificate of Primary Education
KCSE	Kenya Certificate of Secondary Education
KIE	Kenya Institute of Education
KNEC	Kenya National Examinations Council
MOE	Ministry of Education
MOEST	Ministry of Education Science and Technology
NCST	National Council of Science and Technology
PDE	Provincial Director of Education
QASO	Quality Assurance and Standards Officer
UoN	University of Nairobi

ABSTRACT

The purpose of the study was to investigate the determinants of academic performance in Kenya Certificate of Secondary Education Examination in public secondary schools in Kiambu West District, Kenya. Four research questions were formulated to guide the study. The review of the related literature focused on factors that affect academic performance in national examinations.

This study adopted the ex-post-facto research design. Simple and stratified random sampling techniques were used to select the participants for the study. The sample consisted of 260 teachers, 246 students 36 principals and the DEO Kiambu West District. Data was collected through the use of questionnaires in the case of students and teachers while interview schedule was used to collect data from the Principals and the District Education Officer. The data collected was coded using the SPSS computer program. The data was further analyzed and interpreted to provide meaningful and final results. The researcher presented the findings of the research in percentages and frequency tables. Open-ended questions were analyzed using excerpts of the respondents.

The findings revealed that, majority of the teachers (72.8%) did not use apparatus in the teaching of science subjects while 55.6% of the students felt that their science laboratories were not well equipped. From the study, 55.7% of the schools had no libraries and where they exist, they were poorly equipped. Lecture method was widely used than any other method of teaching while 63.8% of the sampled students had scored 201-300 marks out of 500 marks hence poor academic

background. Most teachers live outside the schools as indicated by 57.3% of the students' respondents, hence remedial teaching during morning and evening was not possible. From the study internal supervision of the implementation of the curriculum by the principals need to be intensified. The research revealed that, there was inadequate assessment done by department of quality assurance and standard officers from the ministry of education. For example 50% of the students stated that, these officers do not visit their schools. Majority of the students (56.9%) revealed that, the syllabus was never covered before the end of every year.

Based on the findings it was recommended that the board of governors should equip the science laboratories, libraries and put up teachers houses. A variety of teaching methods should be used to create interest and focus on value addition of the learners due to their low KCPE marks. There is need to intensify the assessments by the Quality Assurance and Standards Officers as well as the internal assessment by the principals. There is need to conduct a similar study in other parts of the country that would be useful for comparative purposes. This study investigated a limited number of factors that impacts on performance in KCSE namely teaching and learning resources, teaching methodologies, students' entry behaviour and the supervision of implementation of curriculum. There was however other factors that may influence academic performance in KCSE examination that needs to be researched on.

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

In most countries, the success of candidates after completion of school is viewed from the performance in national examinations point of view. This is because performance of national examinations is a major determinant of the future social and economic status of a candidate (Bradley & Taylor, 2005.). It means that, performance in national examinations globally is a sensitive issue because it determines the direction and future of the country.

Each country's national examinations are based on national curricula and content standards. In Japan and Korea, students take nationally administered examinations that determine their postsecondary placement, while top scoring students attend the most prestigious public universities. In France the baccalaureate examinations are given to students at academic secondary schools (the lycee) as exit examinations and also to determine university placement (McCaskey, 2009). In Germany a similar distinction is made between academic and vocational secondary school, and passing the Abitur (exit examination from Gymnasium or academic secondary school) allows students to join university.

In Great Britain, students study for their A-level examinations for university placement. Good performance indicated by high academic achievement is

necessary for students to access good university degrees (Jenkins, & Micklewright. & Sylke 2006). In Italy, students must pass exit examinations at both the lower and upper secondary levels. At the secondary level, the *Esami di maturita* impacts university attendance or employment (Eckstein & Noah, 1992). In the United States the Scholastic Assessment Test or the Scholastic Aptitude Test and the American College Test are required for entrance into the more prestigious and rigorous colleges and universities.(Testing: International National Achievement Tests (<http://www.answers.com/topic/testing-international-national-achievement-tests>) accessed on 3rd June 2010).

In the North West Province of South Africa, the pass rates of grade 12 learners in 1998, 1999 and 2000 were 54.0%, 52.1% and 58.2%, respectively (Riekert,2000). All stakeholders were concerned about the problem of poor student performance. This poor performance represented a challenge to all South Africans during that period. Therefore, the need to gain a better picture of the causes and solutions to the problem cannot be over-emphasized. In 1995, when 20,000 out of 28,000 Malawi School Certificate Examination candidates failed the examinations, representing a pass rate of 19%, all stakeholders from the candidates themselves and their parents, to teachers and education officials, screamed with disgust at the results. The results were the worst ever in the history of the Malawi School Certificate Examinations equivalent to the British ordinary levels.(Malawi School Certificate of education report, 1996).

If any proof was needed about the bleak future facing the nation's educational system, the latest West African Examination Council School Certificate Examinations is one. The result of the May/June 2008 examination, usually organized by the West African Examination Council shows that out of the 1,369,142 that sat for the examination, only 188,442 candidates (representing 13.76 per cent) passed with five credits in English Language, Mathematics and three other subjects. That means that about 83 per cent of the candidates failed to achieve the required five credits pass for entry into any of the Nigerian universities (West Africa examination council report, (2008). Results of 2006 senior six examinations which were released by the ministry of education in Rwanda indicate that Kigali schools were miserably declining in performance and trailing upcountry schools. (Rwanda National Examination Council, 2007).

The ministry of education science and technology (2000) in the republic of Kenya observes that performance in examinations is one indicator of educational effectiveness. It allows educational stakeholders to assess whether a school is declining or improving in the performance of national examinations. According KNEC annual report (2010), titled *Education: The KCSE 2010* had 213,438 candidates scoring C- and below. The large number accounts for an astonishing 60% of those who sat for the examinations. Whereas the examination was sat by 357,488 candidates, only 27% obtained mean grade of C+ and above, which is considered the minimum university entry benchmark.

The report noted that, St Mark's High School being the last with a mean grade of only 1.58 sat on the edge of D-. Out of 76 candidates from that school, 39 scored E, 29 D- and 7 D. Only one candidate managed a D+. Second from bottom was Eastern Province's Kyulu Secondary School which had a performance index of 1.64. The best student in a class of 25 had D, 14 D- and 10 E. Bute Girls Secondary School in North Eastern Province was the third worst performer. Some 22 of its candidates obtained a mean grade of E, while 13 had D-. Nairobi's Guru Nanak Secondary School had a mean of 1.8. Eighteen of its candidates scored E. Nyanza Province had the highest number of schools in the bottom 50 institutions. It contributed 17 candidates to the list of failures. It was followed by Central with 10 schools, Eastern seven, Coast six and Nairobi five. Rift Valley had only two schools on the list, while North Eastern had one. There was no school from Western on the list.

A massive 154,830 students representing 43 per cent of the total candidature obtained D+, D, D- and E, the lowest grades in the KCSE ranking. To make the matter worse the number of candidates who obtained grades of D- and E in year 2010 stood at 47,405, compared to only 8,131 students who obtained the first two top grades of A and A-. Over 5,500 secondary schools across the country have limited capacity to prepare their students for higher education and further training. Whereas those schools would like to link their poor performance to limited resources, emerging evidence indicate poor supervision of curriculum, chronic

teacher and student absenteeism as key to poor performance recorded by that category of schools.

The KNEC also blame teachers for poor performance. “Students are failing in science subjects because their teachers are drilling them to pass examinations by memory, through repetitive rather than practical learning”. The report continues to point out that, the students’ lack of proficiency in English is also a serious handicap in national examinations, with misspelling of scientific names, terms and simple everyday words a common feature. The report recommends that teachers cover the syllabus early enough to create sufficient time for comprehensive revision with the students.

This study will quantify the relationship between the different determinants that are responsible for affecting the students’ academic performance along with providing base for further research regarding students’ academic performance. The KCSE results play an important role in this development for it marks the termination of a four-year secondary school course in Kenya. It is also used for selection into university courses, training in middle level colleges and training for vocational and technical jobs (Master Plan on Education 1997-2010). The selection of students to these institutions rely heavily on examination scores which depends on school’ set up, organization structure, environment and management or governance by the Principals.

Kiambu West District has not been performing well in the Kenya Certificate of Secondary Education compared to other districts in the province. It was a concern

to the researcher especially noting that the district is a high potential area in terms of resources. Table 1.1 shows the consistent performance of Kiambu West District in the last three years compared to the other Districts in Central Province, Kenya.

Table 1:1 Academic Performance in Kenya Certificate of Secondary Examination in Central Province Between 2007-2009, in terms of mean score.

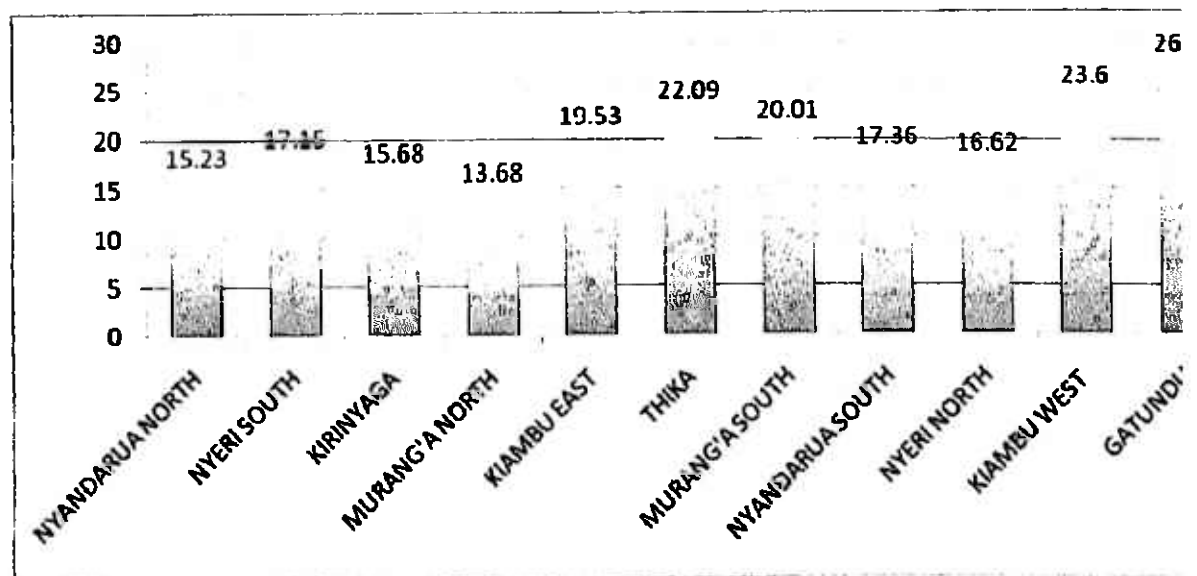
District	Year 2007	Year 2008	Year 2009
Nyeri South	4.480	5.114	5.061
Nyandarua North	4.457	5.041	5.017
Murang'a North	4.447	4.870	4.916
Nyeri North	4.480	4.651	4.890
Kirinyaga	4.104	4.792	4.834
Nyandarua South	4.333	4.683	4.741
Kiambu East	4.320	4.674	4.706
Murang'a South	4.598	4.564	4.591
Thika	4.453	4.340	4.514
Gatundu	4.026	4.326	4.338
Kiambu West	3.988	4.168	4.275
Provincial mean	4.285	4.784	5.165

Source: Provincial Director of Education-Central: KCSE 2009, result analysis. (May 2010)

Table 1.1 shows the trend in performance for the various districts in Central Province. Kiambu West District has consistently attained the lowest performance

in Kenya Certificate of Secondary Education Examination over the last three years. This was a cause for alarm for all the stakeholders since there has been little investigation done to establish the determinants of academic performance in the district. The fact that Kiambu East District neighbours Kiambu West District, and the latter does not seem to perform well, means there is a need to investigate the various determinants that lead to this academic performance of students in Kenya Certificate of Secondary Education Examination in Kiambu West District. Figure 1:1, shows the percentage of candidates who scored grades D- to E in Kenya Certificate of Secondary Examination in year 2009 in Central Province per district.

Figure 1:1 Percentage of Grade D- To E in KCSE (2009) in Central Province, Kenya.



These students cannot directly join reputable institutions due to their low grades.

The district is the second worst in central province in terms of grade D- to E.

1.2 Statement of the problem

Despite the fact that Kiambu East District neighbours Kiambu West District, public secondary schools in Kiambu West District have maintained the last position in the province in academic performance of Kenya Certificate of Secondary Examination in the last three consecutive years (PDE-central, 2009 KCSE result analysis). The academic performance includes the mean score and the quality grades that lead to admission to universities for degree courses. Most candidates scored low grades, hence raising the concern. Taking the importance of good academic performance of national examinations globally, this study sought to investigate the determinants of academic performance of KCSE in Kiambu West District.

1.3 Purpose of the study

The purpose of the study was to investigate the determinants of academic performance in Kenya Certificate of Secondary Education in public secondary schools in Kiambu West District. Kenya

1.4 Objectives of the study

The following were the objectives of the study:

- a) To determine how the teaching and learning resources affect academic performance in Kenya Certificate of Secondary Examination in Kiambu West District.

- b) To identify the methodologies used in the teaching process that affected academic performance of students in Kenya Certificate of Secondary Examination in Kiambu West District.
- c) To establish the effect of entry behaviour on students' Kenya Certificate of Secondary Examination performance in Kiambu West District.
- d) To determine how the supervision of implementation of curriculum affect students' academic performance in Kenya Certificate of Secondary Examination in Kiambu West District.

1.5 Research questions

The research was guided by the following questions:-

- a) To what extent did the which teaching/ learning resources affect academic performance in Kenya Certificate of Secondary Education Examination in Kiambu West District?
- b) To what extent did the teaching methods affect academic performance of students in Kenya Certificate of Secondary Education Examination in Kiambu West District?
- c) To what extent did the learners' entry behaviour affect academic performance of students in Kenya Certificate of Secondary Education Examination in Kiambu West District?
- d) How did the supervision of implementation of curriculum affect academic performance of students in Kenya Certificate of Secondary Education Examination in Kiambu West District?

1.6 Significance of the study

The results of this study are significant to the principals in their routine supervision of implementation of curriculum. Teachers and Principals are expected to review the methodologies of curriculum delivery and teaching/learning materials with an aim of ensuring that the materials available to the teachers are adequate enough to help the teacher to be effective in curriculum implementation. The Ministry of Education at the district, provincial and national level may find the results of this study useful in their routine assessment as they may use the findings to guide the various stakeholders in education in other districts to help in improvement of academic performance in Kenya Certificate of Secondary Examination in the country.

1.7 Limitations of the study

According to Best and Kahn (1998), limitations are conditions beyond the control of the researcher that may place restrictions on the conclusions of the study and their application to other situations. The questionnaire as a tool was a limitation since it was based on self reporting and the researcher assumed that the responses were made with sincerity. The respondents' attitudes towards this topic significantly influenced the responses especially when the respondent was partly responsible for poor performance. To increase the degree of sincerity, the respondents were requested not to disclose their names or those of their schools and assured that their responses were to be made confidential and were only being

used for research purposes. The researcher was not able to reach the candidates of year 2007-2009, whose responses would have been very useful to this study.

1.8 Delimitations of the study

Delimitations define the parameters of an investigation, describe what a particular study does not cover or the characteristics that limit the scope or define the boundaries of the study (Best and Kahn, 1998). This study was based on the public secondary schools within Kiambu West District. Public schools have a lot in common, for example they are guided by the same ministerial policies. In the sampled schools, teachers, students, principals and the DEO were involved in the study. The researcher focused on teaching/ learning resources, teaching methods, the learners' entry behaviour and the supervision of implementation of curriculum.

1.9 Assumptions of the study

The study was based on the following assumptions:

That the respondents would give honest, bias-free and accurate information. It was also hoped that the researcher would not be taken as a fault finder rather than a solution finder.

1.10 Definition of significant terms

Academic performance refers to the ability to study and remember facts and being able to communicate one's knowledge verbally or in writing down on paper.

A-level examination refers to an examination taken in Britain for university placement.

Curriculum refers to the sum total of all the learning experiences or opportunities presented to a child by the environment especially constructed and organized for that purpose.

District Education Officer refers to a person in charge of education matters in a district.

Entry behaviour refers to background experiences, knowledge, skills, values, attitudes and behaviours which it is expected will be improved through the teaching/learning process facilitated by the teacher.

Implementation of curriculum refers to making real that which has been planned.

Learning refers to a process by which an individual acquires and retains knowledge, skills, values and attitudes which cannot be attributed to natural growth and development.

Teaching and learning resources refers to support materials used in a classroom situation to enhance learning.

Teaching methods refers to ways and means that can be used to achieve a stated objective.

1.11 Organization of the study

This research was organized into five chapters. Chapter one consists of the background to the problem, statement of the problem, purpose of the problem, objectives of the study, research questions, significance of the study, assumptions of the study, limitations of the study, delimitations of the study, and definition of significant terms. Chapter two consists of the literature review which includes the impact of the teaching and learning resources, teaching methodologies in the teaching process, learners' entry behaviour and supervision of curriculum implementation that could affect performance in KCSE examination. This chapter ends with a conceptual framework.

Chapter three covers description of research methodology used, research design, target population, sample size and sampling procedure, research instruments, validity and instrument reliability, data collection procedure and data analysis techniques. Chapter four consist of the data analysis and discussion of the findings while chapter five consist of summary of the research findings, conclusions, recommendations and suggestions for further study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section is organized into four subtopics which include teaching and learning resources, teaching methodologies, the impact on learners' entry behaviour and supervision of implementation and management of curriculum and the summary of the section. The last section presents a conceptual framework.

2.2 Teaching and learning resources

Several scholars Ayoo, (2002), Eshiwani, (1993), Mutua, (2002), cited in Kamau (2005) agree that school physical facilities such as classrooms, laboratories, desks and books have a direct bearing on good performance among students in developing countries. Eshiwani,(1983),studies on factors influencing performance among primary and secondary schools in western province of Kenya established that schools with the best facilities performed well in KCE.

Mwamwenda and Mwamwenda (1987) carried out a study on the effects of a school physical facilities on performance of standard seven pupils in examination in Botswana. The study established that the availability of facilities had direct link to performance of pupils in examinations. The findings of Wamahiu, Opondo and Nyagah (1992), as cited by Salome (2004), supported the view. These scholars carried out a study on educational situations for the Kenyan-girl child and

established that poor learning environment in the unaided (harambee) schools, lack of laboratories and unqualified staff lead to poor performance by the majority of students.

The Ministry of Education Science and Technology (2003) technical working group recognized the fact that, the availability of educational materials had a major bearing on educational outcomes. These materials include textbooks, equipments, library facilities, furniture and students writing materials. The group pointed out that text books offer explicit instruction design formats. Therefore the availability of these materials has implications for immediate quality improvement in the educational system. The wellbeing of learners is of concern and for learning to take place effectively, school need to have adequate and appropriate physical facilities. The report on education manpower training for the next decade and beyond (Republic of Kenya, 1988) recommended that schools be provided with physical and learning facilities. The master plan on education and training (Republic of Kenya, 1999) also recommended that, central government and local authorities should provide schools with physical facilities. Studies carried out elsewhere have explored the relationship between teaching materials and other related materials inputs and students learning and achievement in developing countries.

Heyneman, in 1984 conducted evaluation of a textbook programme in Philippines, which was introduced to raise national level of academic

achievement among students in three subjects, Philippino, mathematics and science in two grades (Katana, 2007). The programme reduced the ratio of pupils per book per subject from 10:1 to 2:1 and this marked improvement in performance. The evidence from small scale studies in other countries- for example study of mathematics teaching in Nicaragua, (Jaminson et al, 1996) as cited in Salome (2004), suggests that investment in books may significantly improve the efficiency of education particularly at primary level. David and Kerlinger F.N (1998) also noted that there is a relationship between school resources and student outcomes.

The session paper No.10 of 1996:40 noted that: “the immediate objectives of education are to expand secondary school level facilities rapidly as it was important to the training of manpower and accelerating Africanisation and increasing the proportion of candidate that continue with education. The KNEC in its annual report (2010), on the factors affecting performance of 2009 KCSE examination noted that,” many students have never seen the inside of a laboratory, and the first time they encounter practical apparatus is in the examination hall. They are also not allowed to experiment, discover and develop creative critical thinking skills required in the education system”

2.3 Teaching methodologies

According to the ministry of education (2006), teaching methodologies refers to ways and means that can be used to achieve a stated objective. These include

approaches to the teaching of the subject, instructional methods and teaching/learning activities and how the required skills are developed. According to Muindi, Kiio, Kithinji, Twoli, Maundu, (2004), there is no single best method of teaching. A good teacher uses several methods of teaching in a single lesson depending on the teaching/learning situation of a given lesson.

According to KNEC (2010) report on the poor performance of 2009 KCSE results, teachers are also expected to update themselves with comments from the previous examinations by the KNEC. “It seems that teachers do not read the comments from the previous years. No amount of talking can save the situation. The root cause must be unearthed at the classroom level,” said the report. The report provides suggestions on better teaching and learning strategies to enhance performance.

2.3.1 Lecture method

According to Bradley and Taylor (2005), lecture method is a process of delivering verbally a body of knowledge to the learners. In its strict sense it is characterized by one way communication, from the teacher to the learners. The teacher presents ideas and concepts while the learners listen and take notes. Lecture method can be useful, for instance when introducing a new topic, presenting essential materials that is not easily accessible to the learner, due to shortage of time, inculcating interest in the learners, conveying information such as instructions to an experiment, supplementing textbook materials, summarizing important points at the end of the topic and explaining concepts such as carbon fixation in

photosynthesis. This method can be improved through various methods like: at the lesson preparation stage consider the objectives you want to achieve and the style of presentation that will enable you to achieve them. Use many appropriate examples to illustrate the main ideas and concepts. Talk to the learners and not to the chalkboard. Make use of illustrative devices/teaching aids. Development of the lecture should be logical so that concept development is easily followed by the learners (Muindi et al,2004).

2.3.2 Demonstration method

According to Ministry of Education (2006), demonstration method involves the teacher carrying out an activity on behalf of the learners to teach them a certain skill. One should let the learners know why one is carrying out the demonstration and what the learners should look for during the demonstration. Ensure the materials and equipments are working before the demonstration, every learner should be in a position to see the demonstration, and be involved in the demonstration like the assembling of equipment or making the observations and readings.

2.3.3 Discussion method

The discussion method can either be small group discussion or whole class discussion. In science subjects it is a method usually employed whenever the concept cannot be illustrated by way of experiment (Ministry of Education, 2006). This method promotes exchange of ideas and opinions; promotes critical thinking

where ideas are criticized and evaluated by the learners with supportive evidence for their arguments and promotes democratic principles in class. Discussion method can be made more effective by using smaller groups to allow each member to participate while learners in each group should sit in a way that they face each other for effective group discussion.

The topics for discussion should be interesting and challenging to the learners and each group should have a leader to control the discussion and a recorder to take the points. Learners should respect each other's views and not personalize the differences in opinion and the groups should be of mixed ability.

2.3.4 Field trips/excursion method

In this method the learners visit a place of educational value such as a museum, a harbour, an airport or a dam for learning. For the learners to benefit more from the field trip or excursion the teacher should carefully plan for it. (Muindi,et al ,2004).

2.3.5 Project method

Project work is an extension or expansion of class experiment, demonstration and class discussion (Ministry of Education, 2006).In the project method the learner is expected to carry out a project to solve a defined problem or achieve a set goal. They can carry out the project as individuals or groups. A project can be short term taking a few weeks or long term taking from several weeks to the whole

school term or year. Let the learners choose their own projects rather than you as a teacher assigning the projects. The project should be to the level of the learner.

2.3.6 Experiment/discovery or problem solving

Many educationists advocate discovery approach in their teaching/learning process (Ayot and Patel, 1987). This school of thought advocates not the teaching of knowledge itself, but to teach the learner the skills by which he/she can generate knowledge that can ever be known, an impossible task. Discovery approach is used in the teaching of principles and concepts. The student is presented with a problem and has to go through the problem solving process. According to KNEC annual report (2010), teachers were advised to teach microscopy practically and not theoretically in Biology. The same applies to Physics where it is recommended that more hands on activities and classroom discussion should be utilized.

2.4 Learners entry behaviour

According to Muindi,et al (2004) entry behaviour refers to the background experiences, knowledge, skills, values, attitudes and behaviours which it is expected, will be improved through the teaching/learning process facilitated by the teacher. According to Gerlach's model of systematic approach to teaching (1980), the entry behaviour is one of contributing factors that determine the outcome of examination results.

Scores attained at KCPE form the admission criterion for placement in secondary schools in Kenya ranging from National schools, provincial to District schools. However, it has also been observed that students' performance at KCSE varies despite similar KCPE results on admission to some secondary schools. The variability is also seen in different schools, thus raising the possibility that students in secondary schools are exposed to different academic environments which in turn depend on the organizational structure and management of curriculum and instruction by principals of various schools. It is in secondary schools that youths learn to be responsible citizens of the country. Schools can therefore, either help students to make good citizens of the country or fail them due to inappropriate guidance (Okumbe,1998). This means therefore, that management of curriculum and instruction in secondary schools is an issue of utmost importance if a school has to register good KCSE results.

2.5 Supervision of the implementation of curriculum

According to Malusu (2005), curriculum is the sum total of all the experiences a pupil undergoes. A counter definition, generally considered to be broad, is that "a child's curriculum in a given day of his life is that entire exposure he or she experiences from the moment of waking to the moment of falling asleep" (Ornstein, 2002). Curriculum implementation is the way content is designed and delivered. It includes the structure, organization, balance and presentation of the content in the classroom (National Research Council,1996). According to Shiundu & Omulando (1992), implementation is the making real of that which

has been planned. It is the systematic process of ensuring that the curriculum reaches the immediate beneficiaries, the learners and must therefore be adopted in the classroom. A curriculum, however well designed, must be implemented if it is to make any impact or if students are to attain its goals and objectives. Fullan & Pomfret in Ornstein (2002) point out that teachers must be clear about the purpose, the nature, and the benefits of the innovations.

According to John Dewey (1920), as cited in Doll (1992), the child and the teacher are the two key persons in curriculum implementation. Teachers should therefore receive relevant training because they are the key to curriculum implementation. For these reasons, teachers should be conversant with educational objectives. Supervision of implementation of curriculum by principals at secondary school level is very important because secondary education is regarded as the most important point in education system for it helps to solve human resource constraints of a nation.

According to KNEC annual report (2010), some teachers need to undergo in-service training on how to properly handle the 8-4-4 syllabus. The report highlights items in which candidates performed poorly, and also advances possible reasons for the same. In some instances, teachers fail to effectively cover the syllabus, and resort to drilling of students using unapproved materials and set standard tests for revision. According to the Directorate of Quality Assurance and Standards in the Ministry of Education in the Republic of Kenya (2009), the head teacher is in-charge of the supervision and implementation of the curriculum at

school level. He/she must have in mind the following elements of curriculum design: Objectives of the curriculum, subject matter to be taught, methods of learning activity, evaluation procedures, learning and teaching resources.

The performance of national examinations of any school depends on how efficient a head teacher is, as far as the implementation of curriculum is concerned. During the supervision of the curriculum the head teacher need to combine the first two Klein and Goodlad curriculum models; the ideal model which was described as a curriculum that schools might implement if conditions were just right and the formal model, which was described as a curriculum expressing the intended learning (Doll,1992). Anne Aidla & Maaja Vadi (2006), notes that mechanisms for formative evaluation must be developed. The school must therefore develop a testing policy (KNEC, 2010). In conclusion, the effectiveness and efficiency of the implementation of the curriculum determines the outcomes or the results of the summative evaluation like the KCSE examination.

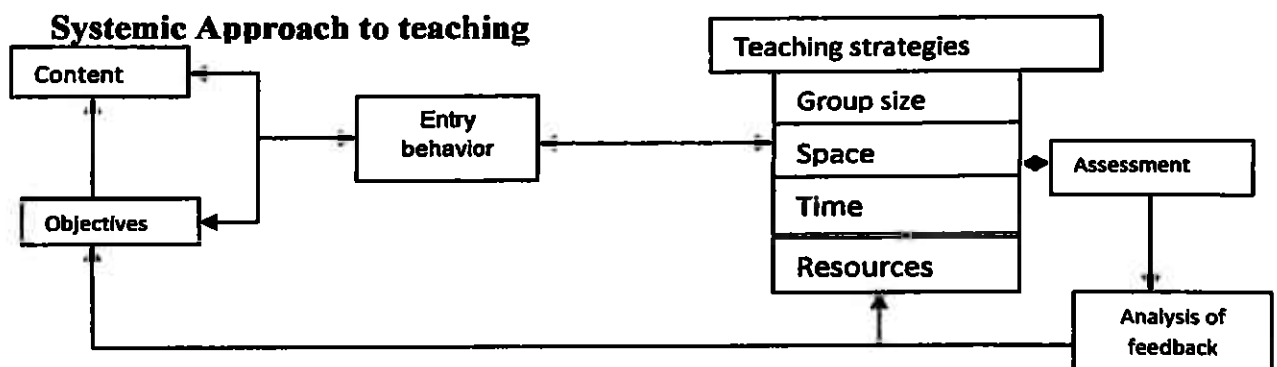
2.6 Summary

The performance of examinations is therefore determined by a combination of several factors. This literature review attempted to assess and examine the strength and weaknesses of previous studies, the extent to which the study so far undertaken can assist in the identification of determinants of academic performance in Kenya Certificate of Secondary Education Examination in Kiambu West District during the year 2007-2009 as well as providing solutions for this project.

2.7 Theoretical framework

This study was based on a theoretical model of teaching and learning by Vernon Gerlach and Donald Ely (1980) who created the Gerlach and Ely model with the idea that the average teacher was an instructional designer. The model takes on a systematic approach to teaching and learning with most of the necessary elements contributing to instruction included. According to Ely, (2003) the model “has stood the test of time” and “serves the classroom teachers well”.

Figure 2.1: Theoretical framework adopted from Gerlach’s Model of



Source; Gerlach and Ely (1980), *Teaching & Media: A Systematic Approach*.

Second edition. (Englewood Cliffs, New Jersey: Prentice Hall)

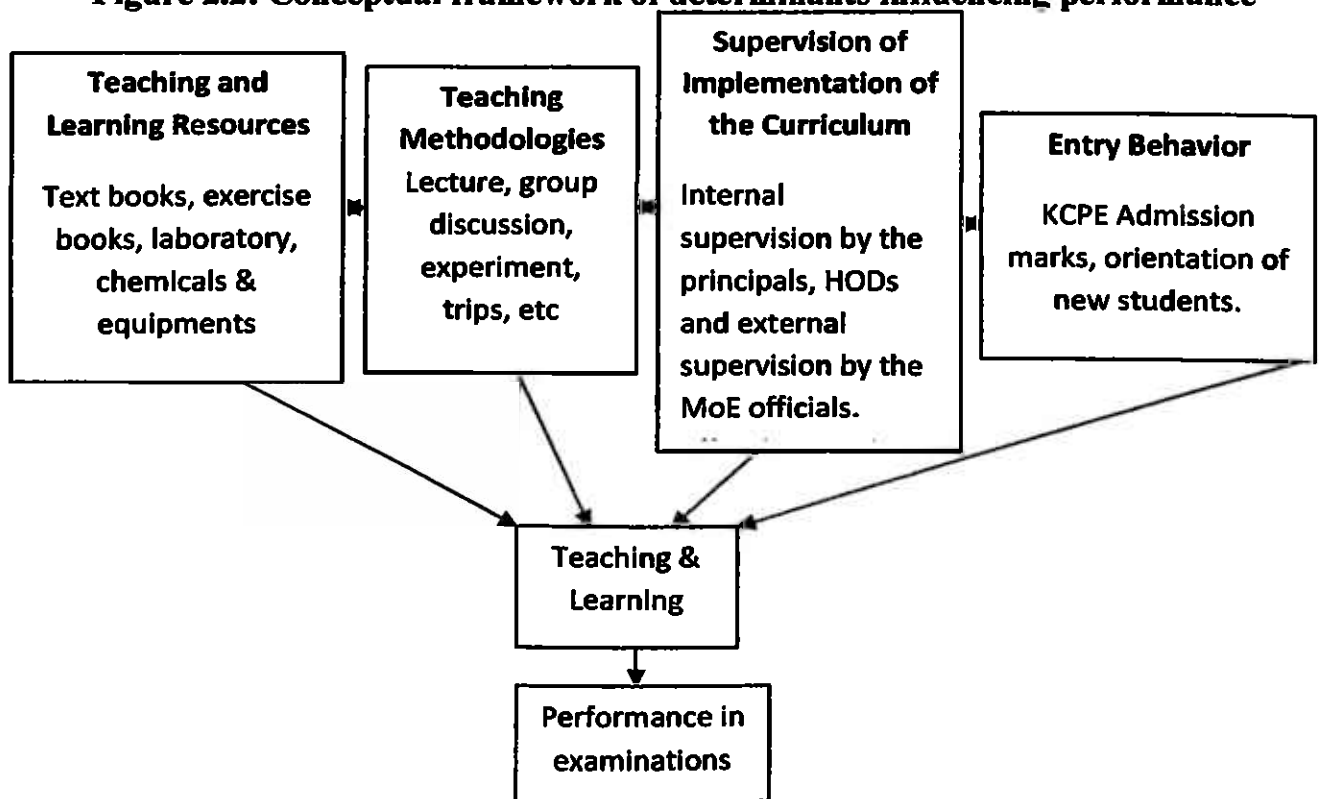
In order to know where the learning has to start, the knowledge level of the learner in relation to the content has to be determined. For instance, you have to find out what the learner knows about the content to be taught or the experiences he has about that content. This will be the starting point of learning as you progress from known to unknown. The entry behaviour will influence the teaching strategies, one has to choose the type of group organization and the time allocated for the content to be taught. The learning space available is important in

determining the effectiveness of the teaching method adopted. The content and the objectives will further influence your selection of resources to be used in teaching for the achievement of the stated objectives. The double arrows between content and objectives show that content can influence objectives and vice versa. The same applies to entry behaviour and assessment of performance and related elements.

2.8 Conceptual framework

This model was conceptualized and modified by the researcher so as to help identify the answers to the research questions in the study. The modified conceptual model shows the independent variables and how they were helpful to the study.

Figure 2.2: Conceptual framework of determinants influencing performance



The conceptual framework is a modification of Gerlach's model of systematic approach to teaching. It shows that the levels of outcome or performance is determined by a combination of learning/teaching resources, methods used in teaching/learning process, entry behavior and how the curriculum is implemented. These four factors contribute to the degree of teaching and learning and ultimately to levels of performance. During admission, the first impression the student gets about the school have an impact on his/her future performance and this depend on the kind of orientation given. Continuous assessment and feedback also determine the academic performance in the national examinations.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section dealt with the methodology that was used in conducting this research study. It highlights the research design, target population, sample size and sampling procedures, research instruments, pilot of research instruments, validity and reliability of instruments, data collection procedures, and data analysis techniques.

3.2 Research design

Katana (2007), citing Omer (1996), defined research design as a framework of planning and conducting research. Borg and Gall (1997), classified research design mainly by the method of data collection. The study was conducted using an ex-post-facto design. According to Best and Kahn (1998), an ex-post-facto research deals with research variables that have already occurred and hence, they cannot be deliberately arranged and manipulated by the researcher.

This research therefore, is ex-post-facto in design because such independent variables such as, teaching and learning resources, supervision of implementation of curriculum, learners entry behaviour and teaching methodologies cannot be manipulated. The study sought to establish to what extent the performance (dependent variable) is affected by school environmental factors (independent variables). The study was mainly qualitative and descriptive in nature. The

research design was used in the study whose purpose was to find out the extent to which variation in one factor correspond with variation in another.

3.3 Target population

Best and Kahn (1998), defined population as any group of individuals who have one or more characteristics in common that are of interest. Mugenda and Mugenda (1999) define population as an entire group of individuals, events or objects having a common observable characteristic. In brief, therefore, target population refers to a group to which a researcher wants to generalize the results of the study. For the purpose of this study, the target group population consisted of 40 public secondary schools, 3,500 form four students, 800 teachers, 40 principals and the DEO in Kiambu West District.

3.4 Sample size and sampling procedures

A sample is a subset of the target population to which the researcher intends to generalize the results (Wiersma,1996). Sampling is defined as a deliberate rather than haphazard method of selecting subjects for observation, to enable scientists to infer conclusion about a population of interest from the characteristics of a relatively small number of cases (Best and Kahn, 1998). Random sampling is the process of selecting a sample in such a way that all individuals in the defined population have an equal and independent chance of being selected for the sample while Stratified sampling is the process of selecting a sample in such a way that identified subgroups in the population are represented in the sample in the same

population in which they exist (Gay, 1992). The researcher used simple and stratified random sampling procedures as well as table 3:1 in appendix six. To determine the sample size from the 40 public schools, 800 teachers and 3,500 form 4 students, the researcher used the table in appendix six.

This table helped the researcher to determine (with 95 percent certainty) what the results would have been if the entire population had been surveyed. Therefore, a sample size of 36 schools was used where 9 day schools, 9 boys boarding, 9 girls boarding and 9 mixed boarding schools were used giving a total of 36 schools. Lists of paper with the names of all the secondary schools in each category were put in their respective baskets and someone with no interest in this research asked to pick one paper from each basket at a time without replacement until the desired sample was achieved (lottery method). Since the target population of form 4 students and teachers is 3,500 and 800 respectively, 246 students and 260 teachers were used. This is according to the table in appendix six.

The seven Form 4 students in the boys and girls boarding category were selected using simple random sampling using lottery method. In the other categories, they were categorized to boys and girls and simple and stratified sampling method used. Each school had 4 boys and 3 girls or 3 boys and 4 girls depending on who are more in a school. To ensure all schools have equal teacher's representation, at least 7 teachers per school were utilized. The teachers must have stayed in the school for at least 3 years. To ensure gender balance 3 Female and 4 Male or 4

Females and 3 Males were utilized depending on who were more. Each gender was grouped together and selected through lottery method. All the 36 principals and the DEO were interviewed.

3.5 Research instruments

The study mainly relied on the use of questionnaire as the major tool for data collection. The tool was considered appropriate because the respondents were literate enough to answer the questions on their own. The items on the questionnaire were made simple in order to be effective as instruments for data collection. The questionnaire was considered appropriate in terms of saving time for both the researchers and respondents. The tool helped the respondents to give answers to sensitive questions, as they were not required to give their names. The researcher used questionnaires for the teachers and students, and an interview guide for the DEO and the principals. The questionnaires seek demographic information, background information and information on determinants that contribute to student performance in KCSE in Kiambu West District.

3.6 Validity of instruments

Best and Kahn (1998) stated that validity can be thought of as utility that is the test useful for testers particular purpose. In addition, Mugenda and Mugenda (1999), defined validity as the accuracy and meaningfulness of inferences, which are based on the research results. In other words, validity is the degree to which results obtained from the analysis of the data actually represent the phenomenon

under study. For the purpose of this study, content validity of the instruments was obtained through piloting of research instruments which was done in two secondary schools not to be included in the main study.

After analyzing the responses, it was necessary to revise and modify some items to succinctly describe the required response. The researcher pre-tested the research instruments for clarification and to ascertain their ability to capture all the data required to get feedback, which led to improvement of the study. The expert judgment of the supervisors who are experts in this area was sought.

3.7 Reliability of instrument

Best and Kahn (1990), defines reliability as the degree of consistency that the instruments or procedure demonstrates whatever it has measured, it does so consistently. In order to establish the reliability of the instruments which were used in this study, a test re-test method was used to estimate the degree to which the same results could be obtained with a repeated measure of accuracy of the same concept in order to determine the reliability of the instruments. The researcher administered the instruments to the same respondents in two pilot schools that were not used in the actual study within an interval of two weeks.

The two results were then analyzed using the SPSS computer program to test their reliability. Any item that had a reliability coefficient of 0.5 and above was accepted while any item that had a reliability coefficient of less than 0.5 was

reviewed with an aim of improving it (Katana, 2007).Expert opinion was also sought in restructuring the instruments to attain the desired reliability.

3.8 Data collection procedures

The researcher applied for and acquired a research permit to carry out research in Kiambu West District from the National Council of Science and Technology (NCST). After obtaining a permit, the researcher got a letter of introduction from the DEO to the schools where the research was conducted and the purpose of study was discussed. The researcher made a visit to all the sampled schools in order to introduce, familiarize and inform the respondents about the study and solicit their cooperation. During the initial visit to the district education officer in Kiambu West District, appointment for conducting the interview was made. The respondents were requested not to disclose their names or those of their schools and assured that their responses were to be made confidential and were only to be used for research purposes.

3.9 Data analysis techniques

The simplest way to present data according to Borg and Gall (1997), is in frequencies or percentages so that they will be easier to interpret. After the research, the data collected through the use of questionnaires was coded to make it easier to analyze using the SPSS computer program. The data was further analyzed and interpreted to provide meaningful and final results. Hence, in view of the above, the researcher analyzed the data and presented the findings of the

research in percentages and frequency tables. Open-ended questions were analyzed using qualitative analysis and excerpts of the respondents.

CHAPTER FOUR

DATA ANALYSIS

4.1 Introduction

In this chapter, the researcher presents the data collected from the field. The responses on the close-ended and open-ended items were summarized in Figures and tables by frequencies and percentages. The rest of the data was presented in narration form where the most striking responses were mentioned. The purpose of the study was to investigate the determinants of academic performance in Kenya Certificate of Secondary Education in public secondary schools in Kiambu West District, Kenya. The following research questions guided the study.

- 1) To what extent did the teaching/ learning resources affect academic performance in Kenya Certificate of Secondary Education Examination in Kiambu West District?
- 2) To what extent do the teaching methods affect academic performance of students in Kenya Certificate of Secondary Education Examination in Kiambu West District?
- 3) To what extent did the learners' entry behaviour affect academic performance of students in Kenya Certificate of Secondary Education Examination in Kiambu West District?
- 4) How did the supervision of implementation of curriculum affect academic performance of students in Kenya Certificate of Secondary Education Examination in Kiambu West District?

4.2 Questionnaires return rate

The sample for the study consisted of 260 teachers, 246 students, 36 principals and the District Education Officer, Kiambu West District. The questionnaires were administered to 260 teacher respondents, out of which 246 (94.6%) returned the questionnaires. All the 246 (100%) students' respondents returned the questionnaires. The researcher targeted 36 principals, but was able to interview 34 principals representing 94.4% of the sample size. The two principals who were not interviewed were on maternity leave. The District Education Officer, Kiambu West District was also available for the interview. For the purpose of this study the questionnaires return rate was acceptable.

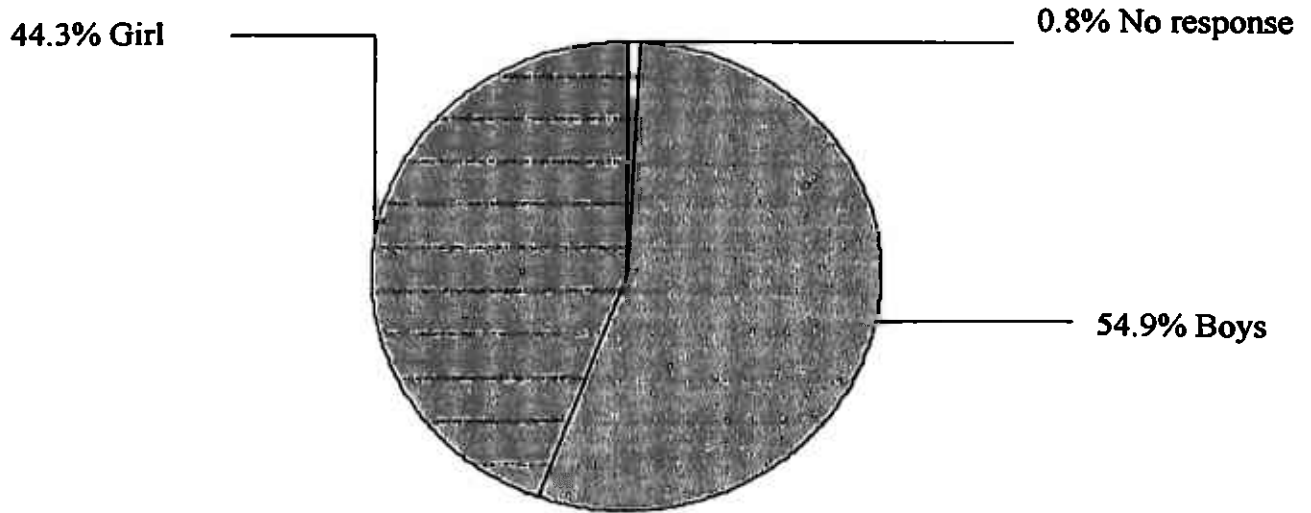
4.3 Demographic Information of respondents

4.3.1 Students demographic information

The study targeted a sample of 246 form 4 students. All the 246 students filled the questionnaires. To establish the students distribution by gender the students were asked to indicate whether they were boys or girls. Figure 4.1 shows the students distribution by gender.

Figure 4.1 Students distribution by gender

N=246



Out of the 246 students targeted 54.9% were boys and 44.3% were girls. The high number of boys was attributed to the high number of boys in mixed schools which happened to be the majority in the 36 sampled schools. The disparity is too small to have any negative impact on performance. The researcher wanted to know the age of the respondents with a view of establishing whether the respondents were within the average age of form 4 students which is 17-20 years. Table 4.1 shows the respondents' ages.

Table 4.1 Ages of Students

N=246

Responses	Frequency	Percent
14-16	27	11.0
17-18	156	63.4
19-21	50	20.3
22 and above	6	2.4
No Response	7	2.8
Grand total	246	100.0

Majority of the respondents were between 17 and 18 years of age, representing 63.3%. This is the average age of a form four student. Those within the age bracket 14-16 were most likely the higher achievers who started schooling at an early age while those above 18 suggest a situation where there could be other home based factors which either delayed them from joining school or some factors which may have caused them to repeat, hence the disparity in their age. Therefore, majority of the target group were within the average age of a form four student, hence this may not have had an impact on performance. When the 246 students were asked, what they would want to become when they finish school, table 4.2 shows the frequency of the responses from the 246 respondents.

Table 4.2 what the students would want to become when they finish school

N=246

Responses	Frequency	Percentage
Accountant	136	55.3
Lawyers	123	50.0
Journalist	88	35.8
Engineer	59	23.9
Surgeon	47	19.1
Secondary School		
Teacher	31	12.6
Pilot	28	11.4
Nurse	21	8.5
Broadcasters	10	4.1
Businessperson	6	2.4

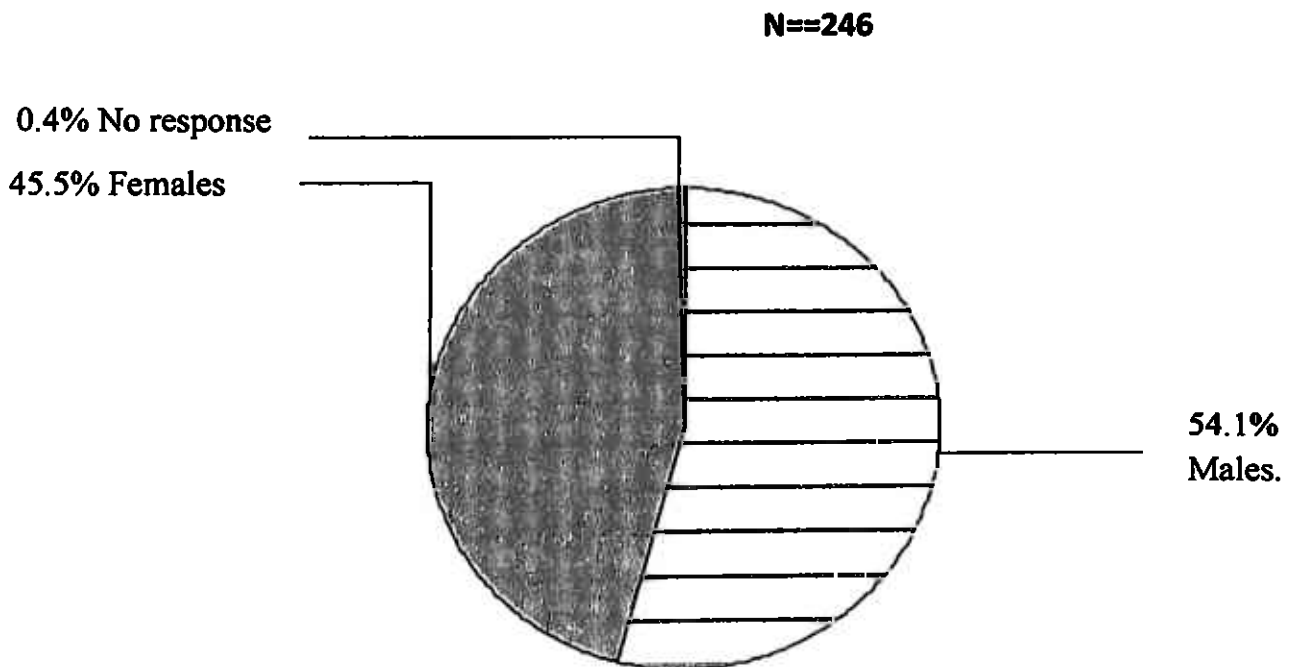
The responses showed students who were ambitious and focused, because these are professions that require high academic performance as shown by 55.3% and

50.0%, who would want to become Accountant and Lawyers respectively. Therefore with proper guidance the students had the potential to perform well.

4.3.2 Teachers demographic information

The study targeted a sample size of 260 teachers but only 246 respondents returned the questionnaires representing 94.62% of the sample size. The 246 respondents were asked to state if they were males or females.

Figure 4.2 Teachers' distribution by gender



Out of the 246 teachers who responded, 54.1% were males while 45.5% were females. Only 0.4% did not respond. The small disparity may not have had any impact on performance. The researcher wanted to know the teaching experience of the teachers who had taught for at least three years. Table 4.3 shows responses from the question, “How long have you been in the teaching profession?”

Table 4.3 Teachers' teaching experience

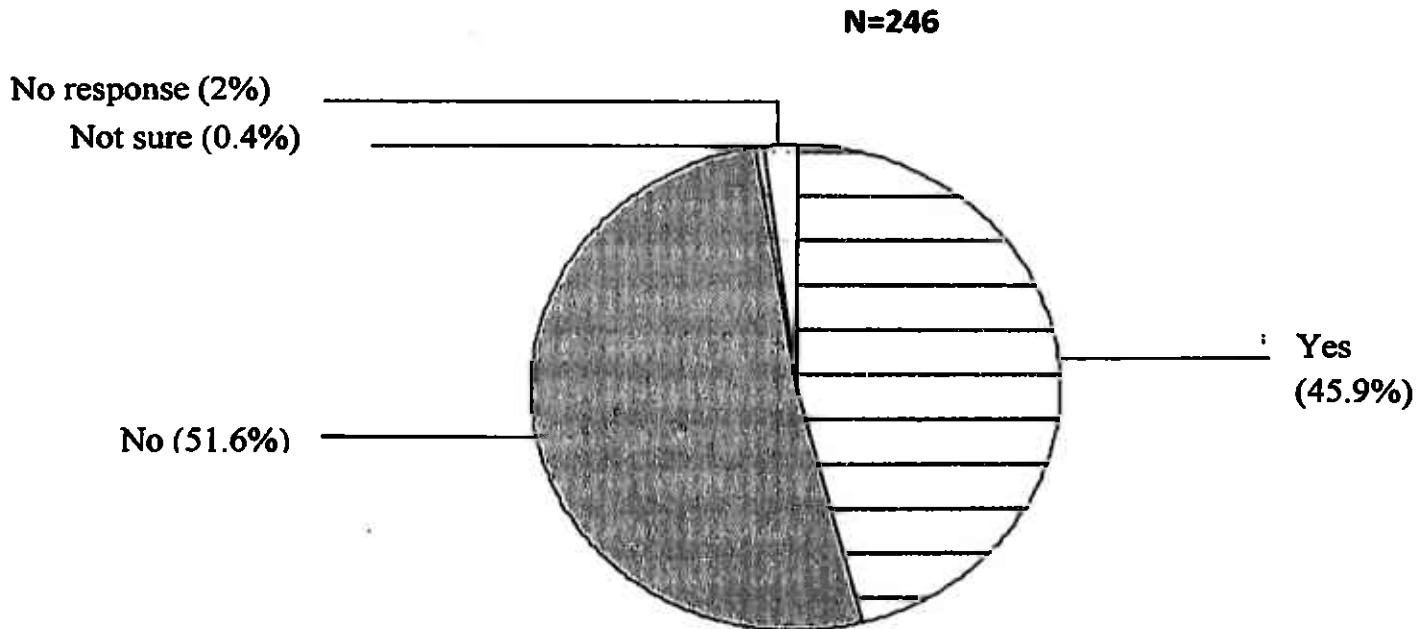
N=246

Responses	Frequency	Percent
3-5yrs	38	15.4
6-10yrs	59	24.0
11-15yrs	53	21.5
16-20yrs	55	22.4
20yrs and above	36	14.6
No Response	5	2.0
Grand Total	246	100.0

Teachers with 3- 5 years of experience were 38 representing 15.4%, while those with 6-10 years of experience were 59 representing 24.0% of the respondents. These are young energetic teachers who should be able to deliver the curriculum. Teachers who have taught between 11 and 20 years were 108 representing 43.9%, of highly experienced teachers. Therefore the district had experienced and young teachers who when other factors remain constant should have delivered the curriculum to achieve the desired results. Therefore teachers' length of stay in the profession may not have contributed to academic performance in the three years under study.

The 246 teachers were asked, "Given a chance, would you like to transfer to another school? If the answer is yes, why would you like to transfer? Give at least 3 reasons".

Figure 4.3 Teachers' wish to transfer



Out of 241 teachers who responded, 113 teachers representing 45.9% would want to transfer. The wish to transfer may have lowered the productivity of the teachers because their minds may have been away from their current station hence affecting the academic performance. Table 4.4 shows the striking reasons in descending order on why they wished to prefer.

Table 4.4 Teachers responses on why they wished to transfer

N=113

Response	Frequency	Percentage
To be near home	76	67.3
Poor performance	68	60.2
Academically weak students	63	55.8
Change of environment	44	38.9
To seek other Opportunities	36	31.9
Overstaying	15	13.3
Prefer one gender	8	7.1
On promotion	4	3.5

Out of 113 respondents 67.3%, 60.2% and 55.8% cited their reasons as: to be near home, poor performance and academically weak students respectively. Such reasons may have contributed to the academic performance in the three years under study because lack of satisfaction in the station may affect the teachers' delivery.

4.4 Teaching and learning resources

This section was guided by the research question which stated that “To what extent did the teaching/ learning resources affect academic performance in Kenya Certificate of Secondary Education Examination in Kiambu West District?”

The effective implementation of school curriculum is determined by the quality of teaching and learning resources available to the learner and their utilization. The availability of these resources highly contributes to performance of learners. The researcher gathered the following information about the teaching and learning resources.

4.4.1 Students responses on teaching and learning resources

The item in the questionnaire, that students were asked read: “what is the text book: student ratio in the following subjects i.e. 1 book for ...students?” The respondents were required to indicate the ratios against each subject that they are offered. Table 4.5 shows the average percentage of text book: student ratio per subject from the 246 respondents.

Table 4.5 Students' responses on Text book: Student ratio in percentage
N=246

Subject/Ratio	1:5 & Above	1:4	1:3	1:2	1:1	Non respondents	Total percentage
Maths	9.1	6.6	8.7	54.1	21.1	0.4	100
English	4.5	3.7	9.3	61.4	21.1		100
Kiswahili	6.1	8.9	12.6	48.8	23.6		100
Chemistry	13.0	4.6	14.3	45.0	23.1		100
Agriculture	10.1	5.1	10.1	41.9	32.8		100
Biology	10.2	7.1	7.1	47.8	27.8		100
C.R.E	5.0	5.5	12.2	58.0	19.3		100
History	6.0	8.3	13.3	51.8	20.6		100
Physics	8.3	2.1	9.9	44.8	34.9		100
Geography	3.6	2.5	6.6	47.7	39.1	0.5	100
B/Studies	11.5	2.9	11.5	44.3	29.8		100
Computer	5.8	1.9	7.7	28.8	55.8		100
Average	7.77	4.93	10.28	47.87	29.08	0.45	100

From the study, 47.87% of the sampled schools had a text book: student ratio of 1:2, while 29.08% had a text book: student ratio of 1:1. Therefore 76.95% had achieved the ministry's recommended text book: student ratio of 1:2. Therefore the district had adequate text books to enhance effective teaching and learning

process. Therefore, the text books may not have contributed to the academic performance in the three years under study.

The 246 students were asked questions on other learning and teaching resources, and the following tables shows responses, where SA stands for strongly agree, A stands for agree, U stands for undecided, D stands for decided, SD stands for strongly disagree.

Students were asked to indicate whether teachers do or do not use apparatus in the teaching of science subjects. Against the item stated as: “our teachers do not use apparatus in teaching science subjects”, the respondents’ feelings are shown in table 4.6 below.

**Table 4.6 Use of apparatus in the teaching of science subjects
N=246**

Responses	Frequency	Percent
SA	100	40.7
A	79	32.1
U	5	2.0
D	35	14.2
SD	26	10.6
No Response	1	.4
Grand total	246	100.0

A total of 245 out 246 students responded, where 40.7% strongly agreed while 32.1% agreed to the item. This shows that most of the teachers do not use

apparatus in the teaching of science subjects, a factor that can contribute to poor performance in the science subjects, hence contributing to the overall performance.

The 246 students were asked to respond to the statement, “We get past papers from our teachers for revision purposes”

Table 4.7 Students’ responses on past papers for revision purposes
N=246

Respondents	Frequency	Percent
SD	28	11.4
D	38	15.4
U	14	5.7
A	76	30.9
SA	89	36.2
No Response	1	.4
Grand total	246	100.0

A total of 245 respondents out of the targeted 246 responded, representing 99.6% of the Sample size. The responses were as follows, 11.4% strongly disagreed, 15.4% disagreed, 36.2% strongly agreed while 30.9% agreed. Revision helps the learners to identify their weaknesses as well as improving their skills in answering questions. From the responses, the revision papers were fairly provided, hence revision papers was not a contributing factor towards performance in the three years under study.

Asked to respond to the statement; **“Our laboratory is not well equipped “the**
 246 students had the following responses.

Table 4.8 Students’ responses on laboratory facilities

N=246

Response	Frequency	Percent
SA	84	34.1
A	53	21.5
U	15	6.1
D	49	19.9
SD	41	16.7
No Response	4	1.6
Grand total	246	100.0

From the study, 34.1% strongly agreed while 21.5% agreed with the item representing a total of 55.6% respondents who felt that, their laboratories were not well equipped. Poorly equipped laboratories results to low quality teaching in the science subjects because students are not exposed to practical skills resulting to poor academic performance in the science subjects which finally affect the mean scores. The inadequacy of the laboratory facilities may have contributed to the performance under investigation.

Asked to respond to the following statement, **“Our school library is well equipped”** the students had the following responses.

Table 4.9 Students' responses on the school library**N=246**

Response	Frequency	Percent
SD	101	41.1
D	36	14.6
U	20	8.1
A	38	15.4
SA	45	18.3
No Response	6	2.4
Grand total	246	100.0

Out of the 246 students 41.1% strongly disagreed while 14.6% disagreed. From the study it is clear that most schools have no libraries and where they exist, they are poorly equipped. Lack of libraries or ill equipped ones must have contributed to the performance under investigation. A library enriches the students with what was taught in class. A well equipped library therefore can raise the performance.

4.4.2 Teachers responses on teaching and learning materials

Table 4.10 to 4.14 shows the responses of the 246 teachers who returned the questionnaires. When asked the question "Are teaching and learning resources adequate in the school?"

Table 4.10 Teachers responses on Teaching and learning resources**N=246**

Response	Frequency	Percent
Very adequate	14	5.7
Adequate	119	48.4
Average	98	39.8
Inadequate	12	4.9
very inadequate	1	.4
No Response	2	.8
Grand total	246	100.0

From the findings of the study 5.7% responded by stating very adequate while 48.4% stated adequate. Therefore the teachers' response shows that teaching and learning resources are adequate. Although a sum total of 54.1%, state that these resources are available, it means there are about 49.1% who are disadvantaged who may contribute significantly to the performance under investigation.

Against the item "What is the Student: textbook ratio?" the 246 teachers responded as shown in table 4.11.

**Table 4.11 Teachers responses on student: textbook ratio
N=246**

Textbook ratios	Frequency	Percent
1:1	10	4.1
2:1	137	55.7
3:1	65	26.4
4:1	15	6.1
5 and above	15	6.1
No Response	4	1.6
Grand total	246	100.0

Out of the 246 teachers who returned the questionnaires, 55.7% gave the ratio of 2:1, while 4.1% gave the ratio 1:1. This is in agreement with the students' responses. This ratio does not hamper learning and teaching process. Learners can easily and conveniently do the homework even when the school is a day school. Hence the text books may not have contributed towards the academic performance in the three years under investigation.

When the 246 teachers were asked; "in terms of provision of resources, which areas do you think needs improvement? Among the areas that featured prominently in order of preference in descending order were as shown in table 4.12.

Table 4.12 Facilities that need improvement

N=246		
Response	Frequency	Percentage
Wall Maps	68	27.6
Computers	44	17.9
Videotapes	42	17.1
Microscopes	28	11.4
Overhead Projectors	11	4.5
Movable Boards	6	2.4
Audiovisuals	4	1.6

These resources should be availed to supplement the text books. Although the district is fairly equipped with teaching and learning resources, the facilities mentioned by the teachers should not be taken for granted, as they may have significantly contributed to the performance under study. Hence there is need for improvement as the teachers have suggested.

The researcher wanted to know the extent to which KIE and KNEC syllabi are used in the 36 sampled schools. KIE syllabus is the recommended syllabus since KIE is the institution mandated to develop the curriculum, hence examinations are set using KIE syllabus objectives. However it can be supplemented with the KNEC syllabus which set examinations. Asked about the item, "Which syllabus

do you use?" the 246 teachers who returned the questionnaires responded as shown in table 4.13.

Table 4.13 Syllabus used by the teachers
N=246

Response	Frequency	Percent
KIE	105	42.7
KNEC	23	9.3
Both	112	45.5
None	1	.4
No Response	5	2.0
Grand total		100.0

From the findings majority (88.2%) of the schools were using either the KIE syllabus or both while only 9.7% of the teachers used the KNEC syllabus alone. Therefore the syllabi used may not have contributed to academic performance in the three years under study. The researcher asked the teachers to support their responses. Table 4.14 shows the frequency of the most striking responses from the 241 respondents where some teachers gave more than one response.

Table 4.14 Reasons why teachers use different syllabus**N=241**

KIE		
Response	Frequency	Percentage
Recommended syllabus	87	36.1
It is appropriate	58	24.1
Only one provided in the		
School	24	10.0
KNEC		
More reliable	18	7.5
Student centred	13	5.4
Aim is to pass the		
Examination	9	3.7
KIE & KNEC		
Gives what is to be tested	108	44.8
To supplement each other	72	29.9
The school recommends		
Both	69	69

The highest percentages (44.8%) were in favour of both syllabus, while 36.1 were in favour of the KIE syllabus. From the findings the teachers were well informed about the contents of the two syllabi and hence the syllabus used may not have contributed to the academic performance in the three years under study.

4.4.3 Principals responses on learning and teaching materials

The researcher targeted all the 36 principals in the 36 sampled schools. However only 34 principals were interviewed representing 94.44% of the sample population. Twenty four principals representing 70.59% gave the ratio of text books: student ratio in their schools as 1:2, while 5 principals representing 14.71% gave the ratio of 1:1. Therefore the District had acquired the Ministry of Education recommended text books: student ratio.

Asked to comment on the adequacy of the laboratory facilities in their schools and other than textbooks to name other teaching/learning resources used to enhance teaching and learning, most respondents said facilities were adequate which contradicts the students' and the District Education Officers responses. The researcher was of the opinion that, the principals were on the defensive and the researcher took the District Education Officer and the students' responses more seriously on the issue of adequacy of the laboratory facilities, whose findings were that, they were inadequate. However, with the question on other resources apart from the text books and laboratory facilities, the 34 principals' responses were as shown in table 4.15.

Table 4.15 Principals' responses on adequacy of other resources

N=34

Response	Frequency	Percentage
Charts	28	82.4
Maps	21	61.8
Models	17	50.0
Periodicals	12	35.3
Skeletons	8	23.5

These responses are the same as the teachers' and hence could have contributed to the academic performance in the three years under study.

4.4.4 District Education Officers' responses on teaching and learning

When asked to comment on use of apparatus during the learning process the District Education Officer was quoted as having said that, "most schools have inadequate facilities to enhance teaching and learning process. The District Education Officer concurs with the students' responses on the inadequacy of laboratory facilities. The District Education Officer had gathered the information from the assessment reports. The inadequacy of learning resources like laboratory facilities may have contributed to the academic performance in the three years under study.

4.5 Teaching methodologies

The researcher answered the second research question which stated “To what extent do the teaching methods affect academic performance of students in Kenya Certificate of Secondary Education Examination in Kiambu West District?”

4.5.1 Students responses on methods of teaching

The 246 students were asked questions or given a statement to respond on the methods of teaching that are commonly used by the teachers during the learning and teaching process. Against the item, “Our teachers teach theoretically instead of practically” the responses were:

Table 4.16 Students responses on methods of Teaching

N=246		
Response	Frequency	Percent
SA	69	28.0
A	73	29.7
U	22	8.9
D	42	17.1
SD	32	13.0
No Response	8	3.3
Grand total	246	100.0

Out of the 246 sampled students, 28.0% responded strongly agree while 29.7% responded agree. From the respondents it is clear that most teachers prefer teaching theoretically than practically. This leads to passive learning and denies

the learner the opportunity to be creative, hence low quality of learning especially in science subjects.

Asked about the item, **“Our teachers encourage us to study hard in school”**

Table 4.17 Encouragement by teachers to work hard

N=246		
Response	Frequency	Percent
SD	4	1.6
D	3	1.2
U	3	1.2
A	48	19.5
SA	186	75.6
No Response	2	.8
Grand total	246	100.0

From the researchers findings 75.6% strongly agree with the statement followed by 19.55 who agrees. Learners need guidance and assurance from the teachers if they are to perform well. The responses show that teachers are playing their part in the role of guidance.

Table 4.18 shows the responses on the item, **“Our teachers do not encourage us to discuss in groups”**

Table 4.18 Students responses on discussion groups

N=246

Response	Frequency	Percent
SA	144	58.5
A	45	18.3
U	7	2.8
D	25	10.2
SD	18	7.3
No Response	7	2.8
Grand total	246	100.0

Out of the 246 sampled students, 58.5% strongly agreed with this statement while 18.3% agreed. Discussions help the learners to share information and what has been discussed is not easily forgotten, hence it is a good method of improving performance. However the discussion must be guided and supervised. The fact that the learners were not encouraged to discuss in groups could have contributed to the academic performance during the period under study.

Asked to respond on the item; "We frequently do experiments in small groups" the responses are as shown in the table below.

Table 4.19 Students' responses on class experiments

N=246

Response	Frequency	Percent
SD	35	14.2
D	29	11.8
U	10	4.1
A	91	37.0
SA	77	31.3
Non response	4	1.6
Grand total	246	100.0

Out of 246 respondents, 77 students representing 31.3% strongly agreed, 37.0 % agreed. Experiments done in small groups enhance learning and help the learner to acquire practical skills. From the respondents, the class experiments were done which should have contributed to good academic performance.

The researcher wanted to find out if the learners go for field trips and excursions. The 246 sampled students were asked to respond to the item; "We do not go for field trips and excursions" Table 4.20 shows the responses.

**Table 4.20 Students responses on field trips and excursions
N=246**

Response	Frequency	Percent
SA	72	29.3
A	42	17.1
U	9	3.7
D	38	15.4
SD	81	32.9
No Response	4	1.6
Grand total	246	100.0

Out of the 246 sampled population 32.9% strongly disagreed, 15.4% agreed representing 48.3% of the sampled population who agreed or strongly agreed. While 29.3% strongly agreed, and 17.1% agreed cumulating to 46.4% of those who actually agree. Field trips and excursions is a method of enriching what has been taught in class, hence improve the performance e.g. in Geography, students can visit the rift valley and observe the features they learn in class. In physics students can visit a hydroelectric station to learn how electricity is generated. Visual learning is more helpful to a learner than passive learning. From the study 46.4% of the learners were not exposed to field trips and excursions, and this could have contributed to academic performance in the three years under study.

From the item, **“Our teachers encourage us to ask questions”**

Table 4.21 Students responses on asking of questions

N=246

Response	Frequency	Percent
SD	2	.8
D	4	1.6
U	5	2.0
A	59	24.0
SA	174	70.7
No Response	2	.8
Grand total	246	100.0

Out of the sampled population 70.7% of the respondents strongly agreed. Asking of questions helps the learners understand and contributes to high performance. Therefore, this was not a contributing factor to academic performance in the three years under study.

4.5.2 Teachers Responses on Teaching Methodologies

Table 4.22 to 4.28 shows the responses of teachers on the methods of teaching. The responses to the item; “How often do you use lecture method during teaching and learning?” is shown in table 4.22.

Table 4.22 Teachers' responses on use of lecture method

N=246		
Response	Frequency	Percent
V. Often	41	16.7
Often	93	37.8
Rarely	69	28.0
V. Rarely	29	11.8
Not at all	8	3.3
No Response	6	2.4
Grand total	246	100.0

Out of the 246 sampled teachers 16.7% use lecture method very often, 37.8% often. Lecture method is an old type of teaching method that encourages passive learning rather than child-centred approach. This implies that, if it is the dominant method used, it will contribute significantly to poor performance. From the findings 134 respondents representing 54.5% use the method and hence could be a factor contributing to academic performance in the district in the three years under study.

Asked "How often do you use demonstration method during teaching and learning process?" the 246 teachers who returned the questionnaires had their responses as shown in table 4.23.

Table 4.23 Teachers' responses on demonstration method

N=246

Response	Frequency	Percent
V. Often	40	16.3
Often	140	56.9
Rarely	41	16.7
V. Rarely	11	4.5
Not at all	4	1.6
No Response	10	4.1
Grand total	246	100.0

The frequency table shows that 16.3% and 56.9% use demonstration method very often and often respectively. The method was popular with many teachers. We cannot attribute the academic performance under study to lack of demonstration as a way of teaching.

Group discussions help the learners to interact with others, contribute ideas and be part of the learning and teaching process. The researcher wanted to know how often the method is used. The respondents were required to respond to the question; "How often do you use discussion method during teaching and learning?"

Table 4.24 Teachers' responses on using discussion method

N=246

Response	Frequency	Percent
V. Often	68	27.6
Often	135	54.9
Rarely	24	9.8
V. Rarely	8	3.3
Not at all	5	2.0
No Response	6	2.4
Grand total	246	100.0

From the findings 27.6% of the 246 teachers responded very often, while 54.9% often. The method is effective because it stimulates the learners' minds and helps them to share knowledge. The findings show that the method is widely used in the district and hence may not have contributed to the academic performance in year 2007-2009. The researcher wanted to know from the teachers how often the field trips/excursion method is used. Table 4.25 the responses.

Table 4.25 Teachers responses on use of field trips and excursions

N=246

Response	Frequency	Percent
V. Often	2	.8
Often	15	6.1
Rarely	83	33.7
V. Rarely	75	30.5
Not at all	59	24.0
No Response	12	4.9
Grand total	246	100.0

From the findings field trips and excursions were rarely used. Only 6.9% respondents use it very often and often. Despite the method being expensive the schools in the district should find ways and means to use it more significantly, otherwise it may have had an impact on academic performance.

To establish how often the teachers use projects as a method of teaching the teachers were asked the question; **“How often do you use projects method during teaching and learning?”**

**Table 4.26 Teachers responses on use of Project method
N=246**

Response	Frequency	Percent
V. Often	1	.4
Often	25	10.2
Rarely	64	26.0
V. Rarely	79	32.1
Not at all	59	24.0
No Response	18	7.3
Grand total	246	100.0

From the findings 0.4% use it very often, 10.2% often, 26.0 rarely, 32.25 very rarely while 24.0% not at all. It was therefore not a popular method. Although the method requires time, it gives the learner a chance to exploit his or her full potential and therefore a very effective method during the learning and teaching process. The results of the years under study may have been significantly better if the method was widely used.

Experimental, discovery and problem solving method of teaching make the learner creative, inquisitive, builds confidence in the learner and makes the teaching and learning process more meaningful. To find out the extent to which the method was used the researcher asked the 246 teachers the question, “ **How often do you use experiment/discovery/problem solving method during teaching and learning?**”

Table 4.27 Teachers responses on use of Experiment/discovery/problem solving method

N=246

Response	Frequency	Percent
V. often	47	19.1
Often	100	40.7
Rarely	37	15.0
V. Rarely	39	15.9
Not at all	15	6.1
No response	8	3.3
Grand total	246	100.0

From the findings the method was often used by 19.1% of the sampled teachers, while 40.7% used it often. Therefore 59.8% of the teachers used the method very often and often. This is in agreement with the students respondents. Therefore the researcher does not attribute the performance of years under study to lack of use of this method. The method is highly recommended especially in the teaching of science subjects.

4.5.3 Principals responses on teaching methodologies

The 34 principals were asked about the common methods of teaching used by teachers in their respective schools. The following methods were mentioned; lecture mentioned by 57% of the respondents, group discussion mentioned by 30% and demonstration by 10% of the respondents. Other methods had a

frequency of 3%. The lecture method was more widely used than any other method hence there was no effective teaching and learning and this could have contributed to the academic performance during the three years under study.

4.5.4 District Education Officer responses on teaching methodologies.

Asked to comment on the common methods of teaching used in the district, the District Education Officer said, “Most science teachers use demonstration methods even where class experiments are possible. Lecture method dominates in the teaching of humanities and languages”. The District Education Officer responses are similar to findings from teachers, principals and learners’ responses. Teaching methodologies contribute significantly to performance of examinations. Therefore unbalanced teaching methods must have contributed to academic performance during the years under study.

4.6.0 Effect of Entry Behaviour

On the effect of Entry Behaviour on academic performance, the researcher answered the third research question which stated that “To what extent did the learners’ entry behaviour affect academic performance of students in Kenya Certificate of Secondary Education Examination in Kiambu West District?” using the following responses;

4.6.1 Students Responses on entry behaviour

The KCPE results determine where a candidate is admitted in Form One. Students with high marks stand a chance of being admitted to top secondary schools where

competition is high among the students and chances of high performance is high. The researcher wanted to find out KCPE results during the admission to form one. The 246 sampled students were asked the question;” What was your KCPE mark?” Table 4.28 shows the responses

**Table 4.28 Students’ KCPE entry marks out of 500
N=246**

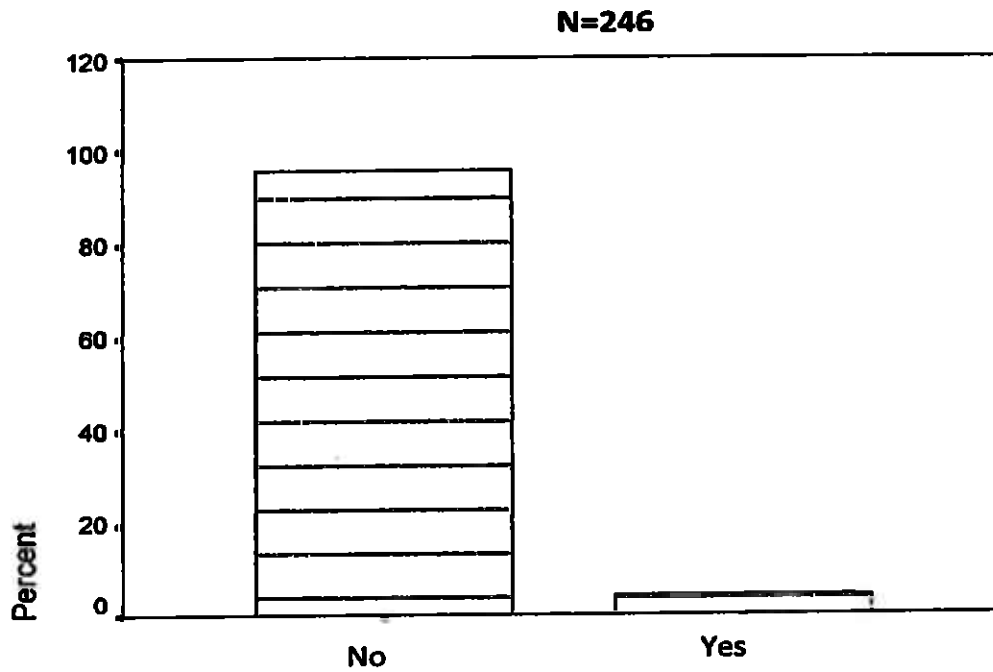
Response	Frequency	Percent
101-200	12	4.9
201-300	157	63.8
301-400	52	21.1
401-500	7	2.8
No Response	18	7.3
Grand total	246	100.0

From the findings 157 students out of the sampled 246 students representing 63.8% scored 201-300 marks in KCPE. This being the majority, the district may not perform impressively and action should be done to improve the KCPE results at primary school so that the students can have a strong foundation when they join Form one. Therefore the background of the students contributed to academic performance in the three years under study.

The researcher wanted to know if there was a diagnostic examination in form one. The 246 students’ responses on the question “Did you do an examination

immediately after admission in Form One before teaching and learning started” were as shown in the Figure below.

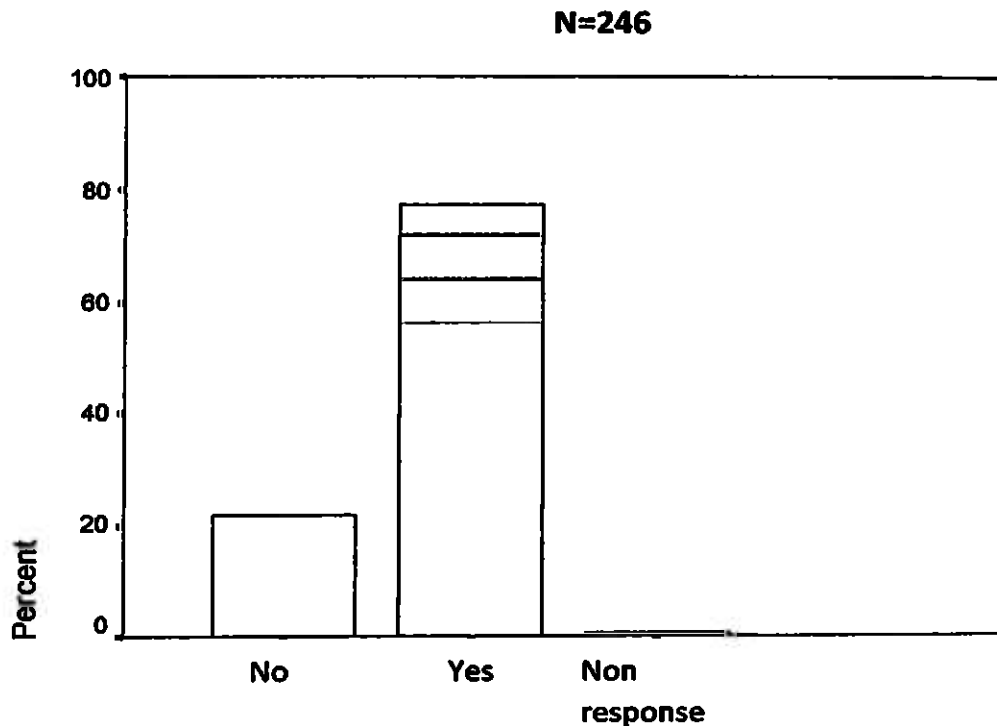
Figure 4.4 Students’ responses on Form One Diagnostic Examination



Out of the 246 sampled students 228 respondents representing 92.7% said “No”. This means that, the teachers did not know the strength and weaknesses of the learners during the transition from primary school to secondary school. The learners’ academic background helps the teacher to determine the methods to use during teaching and learning process. This could also have contributed to academic performance of KCSE during the period under study.

On the item: “Did you like the way you were received in the school in the first two weeks?” The responses were as shown in Figure 4.5.

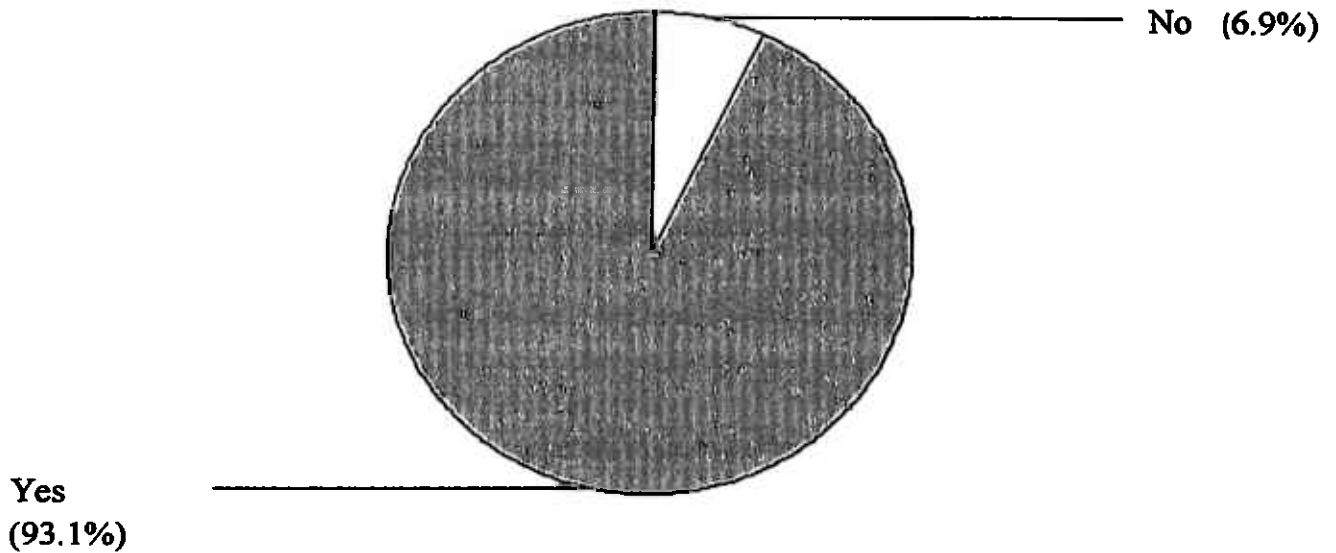
Figure 4.5 Students' responses on reception during admission



Out of the 246 sampled students, 178 representing 72.4% got good reception during Form one admission. The first impression of a student towards the school contributes towards the final examination results. This is because if the learner is received well he or she will enjoy learning because there will be a liking of the school. From the findings, the schools in the district have good reception culture. The researcher cannot associate the performance of year 2007-2009 with Form One reception.

The researcher wanted to know the attitude of students towards their respective schools. Therefore the students were asked to respond to the statement “I like my school.” Figure 4.6 below shows the responses of the 246 respondents.

**Figure 4.6 Student's attitude towards their schools
N=246**



Out of the 246 respondents 93.1% liked their schools. Only 6.9% did not like their schools. When learners like their school, they tend to perform better. Therefore attitude towards their schools may not have contributed to academic performance in the years under study. Those who responded “yes” were asked to give reasons why they liked their schools. Table 4.29 shows the striking responses and the frequency at which they were mentioned.

Table 4.29 Students' responses on why they liked their schools**N=229**

Response	Frequency	Percent
The discipline of the students is good	166	72.5
Attractive infrastructure	121	52.8
Good advice given by teachers	102	44.5
Our school is good in sports	87	38.0
Our teachers teach us well	76	33.2
Our school performs well academically	64	27.9
We have adequate text books	54	23.6
Our principal is mindful of us	32	14.0

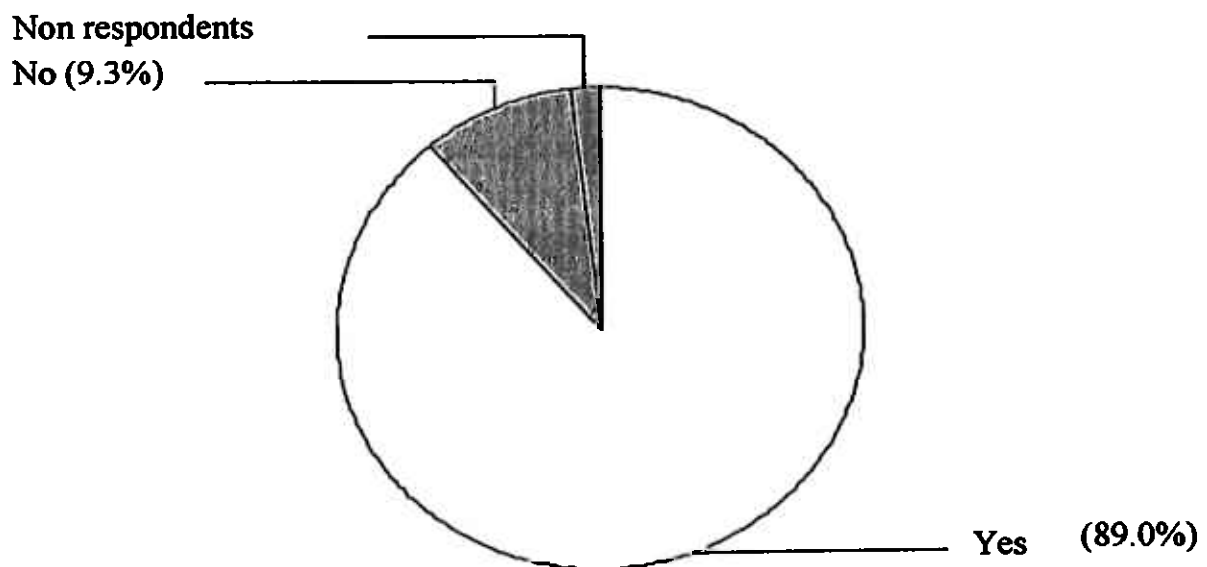
The responses given in table 4.30 above cannot have contributed to the academic performance in the years under study because the responses show conducive learning and teaching conditions. The 6.9% who responded "no" gave the following striking reasons, "Lazy teachers (48%), poor diet (33%), heavy punishments (12%) and others (7%)". Therefore majority (93.1%) of the respondents had good reasons of liking their schools. Hence when other conditions remain constant, they should have done well. Therefore the performance for the last three years cannot be attributed to students' perception towards their schools.

4.6.2 Teachers responses on Form One entry behaviour

The researcher wanted to know the background of the Form One students.

Against the item; “Do you have Form One induction in your school?”, The responses were as shown in the Figure below.

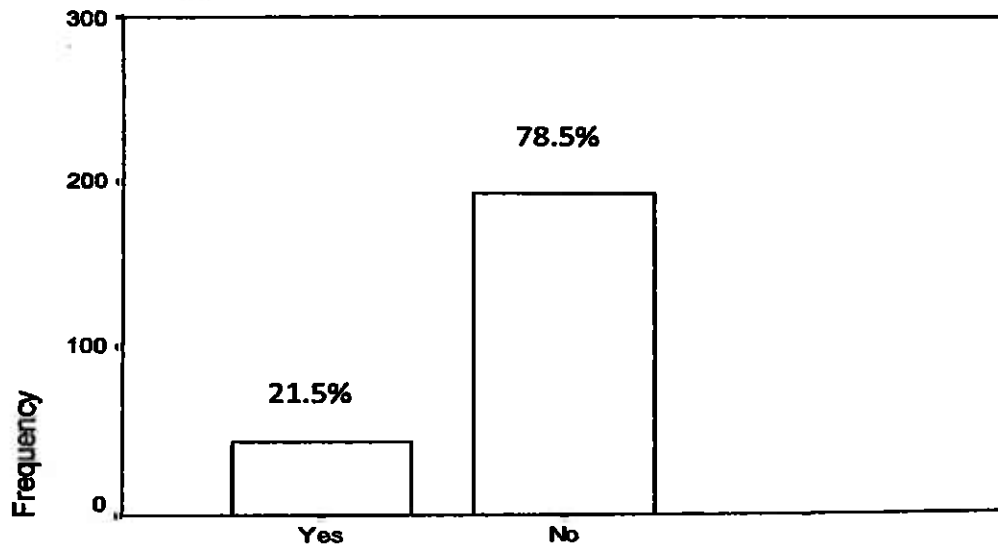
Figure 4.7 Teachers’ responses on Form One induction
N=246



The findings of the study shows that, majority (89.0%) of the teachers had Form One induction which plays an important role in helping the student adjust to the new environment. If a student takes long to adjust, this may have far reaching effects as far as learning is concerned. Therefore the Form One orientation may not have contributed to the poor performance in the three years under study.

Asked about the question: “Before you start teaching Form Ones, do you give them a Diagnostic examination based on learners experience?” The 246 teachers’ responses are shown in Figure 4.8.

**Figure 4.8 Teachers' responses on Form One diagnostic examination
N=246**



Out of the 246 sampled teachers, 193 responded by saying “No” representing 78.5% of the sample population. Diagnostic examination helps the teachers to establish the academic strength and weaknesses of a student during the transition period from primary to secondary school. This would help the teacher to formulate meaningful objectives during the teaching and learning process. The findings show that schools in the district started teaching before identifying the academic strength and weaknesses of the learners. This must have contributed to the performance in the three years under study.

The researcher wanted to know the attitude of teachers towards the learners ability in the district. Asked the question; “The students I teach are strong academically” the teachers responses were as shown in table 4.30.

Table 4.30 Teachers perception on learners’ academic ability

N=246

Response	Frequency	Percent
Strongly agree	6	2.4
Agree	80	32.5
Disagree	129	52.4
Strongly disagree	22	8.9
No Response	9	3.7
Grand total	246	100.0

From the responses, 52.4% disagreed with the statement. Teachers should aim at adding value to the entry marks and should not have the perception that learners are weak academically. Hence the teachers’ perception towards learners’ ability could have contributed to the academic performance in the three years under study.

4.6.3 Principals Responses on Entry Behaviour

According to the 34 principals, only six, whose schools had an average KCPE entry marks above 300 out of 500 marks. The rest had the KCPE entry marks between 160-265, out of 500. By any standards these are low marks which must

have contributed significantly towards the academic performance in the three years under study.

4.6.4 KCPE Mean Score in 2007, 2008 and 2009 in the District

The District Education Officer gave the KCPE mean score in 2007, 2008 and 2009 as 249.52, 242.76 and 244.56 respectively. Considering that 500 marks is the highest possible mark a candidate can get, then, the mean mark for the three years under study were less than 250/500 marks which one would consider to be the average. Therefore the academic background of the students joining form one must have contributed to the performance under study.

4.7.0 Supervision of implementation of curriculum

The Principal, Deputy Principal, HODs and the Ministry of Education officials are responsible for organization and management of the approved school curriculum to ensure effective teaching and learning in the schools. The researcher gathered the following information on supervision of implementation of curriculum so as to answer research question number four which stated that “How did the supervision of implementation of curriculum affect academic performance of students in Kenya Certificate of Secondary Education Examination in Kiambu West District? “

4.7.1 Students responses on issues of curriculum implementation

The 246 students were asked questions on curriculum implementation. Asked to state whether the teachers are keen on time management, the responses were;

Table 4.31 Students' responses on time management by the teachers

N=246

Response	Frequency	Percent
SD	25	10.2
D	30	12.2
U	13	5.3
A	77	31.3
SA	93	37.8
No Response	8	3.3
Grand total	246	100.0

Out of the 246 sampled students, 37.8% strongly agreed while 31.3% agreed. From the findings time management by teachers did not contribute to poor performance in the district.

The researcher wanted to know whether most teachers live inside or outside the school. Teachers living in the school compound have more time with students and therefore manage the curriculum better than one living outside. The responses against the statement "Most teachers live inside the school" were as shown below;

Table 4.32 Students' responses on where teachers live**N=246**

Response	Frequency	Percent
SD	141	57.3
D	54	22.0
U	11	4.5
A	22	8.9
SA	12	4.9
No Response	6	2.4
Grand total	246	100.0

Majority of the teachers do not live inside the school as shown by the 57.3% of the respondents who strongly disagreed with the statement. This implies that evening and morning remedial lessons could not be conducted in most schools. This factor may have affected the academic performance.

Asked about the teachers punctuality, the responses against the statement; 'Those teachers who live far do not come to school late', were as shown in table 4.33.

**Table 4.33 Students' responses on teachers' punctuality
N=246**

Response	Frequency	Percent
SD	17	6.9
D	33	13.4
U	15	6.1
A	91	37.0
SA	82	33.3
No Response	8	3.3
Grand total	246	100.0

From the study, 33.3% strongly agreed with the statement while 37.0% agreed. Therefore, according to the students, teachers are punctual as far as reporting to school is concerned. Although lateness may not be common, the researcher argued that, teachers coming to school from far may be tired depending on the distance and may also be in a hurry to leave in the evening so as to reach home in time. Such teachers may not be able effective in the delivery of the curriculum, hence this may have contributed towards the academic performance in the three years under study.

The principal is responsible for organization and management of the approved school curriculum and must ensure effective teaching and learning in the schools. The students were therefore asked to respond to the statement; **“Our principal comes round when lessons are going on”** Table 4.34 shows the responses.

Table 4.34 Internal Supervision by the Principal**N=246**

Response	Frequency	Percent
SD	62	25.2
D	38	15.4
U	22	8.9
A	59	24.0
SA	61	24.8
No Response	4	1.6
Grand total	246	100.0

SD and D represent 40.6% while A and SA represent 48.8%. The findings show that, the supervision by the principals during the implementation of the formal curriculum is not impressive and therefore must have contributed to the performance in the three years under study. This is because the 40.6% who either agree or disagree is a big number that would contribute to poor performance if there was no proper internal supervision.

The Principal is responsible for organization and management of the approved school curriculum to ensure effective teaching and learning in the schools. Hence ineffective supervision will lead to poor performance.

Asked how often they visited classes for supervision during teaching and learning process, the 34 principals responded by saying often or regularly. Very few said frequently confirming the student's responses.

The department of quality assurance and standards in the Ministry of Education is responsible for organization and management of the approved school curriculum to ensure effective teaching and learning in the schools. The students were therefore asked to respond to the statement;

“There are officers from the education office who come to our school to observe how we are taught”. The responses were;

Table 4.35 students' responses on visits by education officers to schools
N=246

Response	Frequency	Percent
SD	82	33.3
D	41	16.7
U	29	11.8
A	43	17.5
SA	46	18.7
No Response	5	2.0
Grand total	246	100.0

From the study 50.0% of the respondents either strongly disagreed or disagreed against 36.2% who either strongly agreed or agreed implying that such assessments are not a common practice, while 11.8% of the respondents were not

sure, implying that they have never seen education officials in the school or if they come for assessment, the assessors do not go to the classrooms to monitor the teaching and learning process. Assessors are responsible for helping teachers to achieve the educational objectives. Lack of adequate assessment must have contributed to the performance in the three years under study.

Asked in the questionnaire to respond to the statement; **“Our teachers guide us on how to study and always encourage us to work hard”** the 246 students responded as shown in table 4.36.

Table 4.36 Teachers guidance to students on how to study

N=246

Response	Frequency	Percent
SD	3	1.2
D	3	1.2
U	4	1.6
A	62	25.2
SA	169	68.7
No Response	5	2.0
Grand total	246	100.0

Out of the 246 students who received the questionnaires 98.0% strongly agreed. The results of the study indicates that teachers in the District guide the learners on how to study hence the teachers have played their role.

For effective learning learners need guidance from the teachers.

When asked to respond to the item; “We cover the syllabus before the end of each year” The 246 students responded as follows,

Table 4.37 Students responses on syllabus coverage

N=239

Response	Frequency	Percent
SD	79	32.1
D	61	24.8
U	20	8.1
A	53	21.5
SA	26	10.6
No Response	7	2.8
Grand total	246	100.0

From the study 79 students out of the 246 sampled population representing 32.1% strongly disagreed while 24.8% disagreed indicating that more than 56.9% of the sampled schools do not finish the syllabus and therefore the candidates are not adequately prepared for the KCSE. This must have contributed to poor performance in the three years under study.

Asked about how many tests they did per subject per term, the students’ responses were as in table 4.38 below.

Table 4.38 Number of tests done per term

N=246

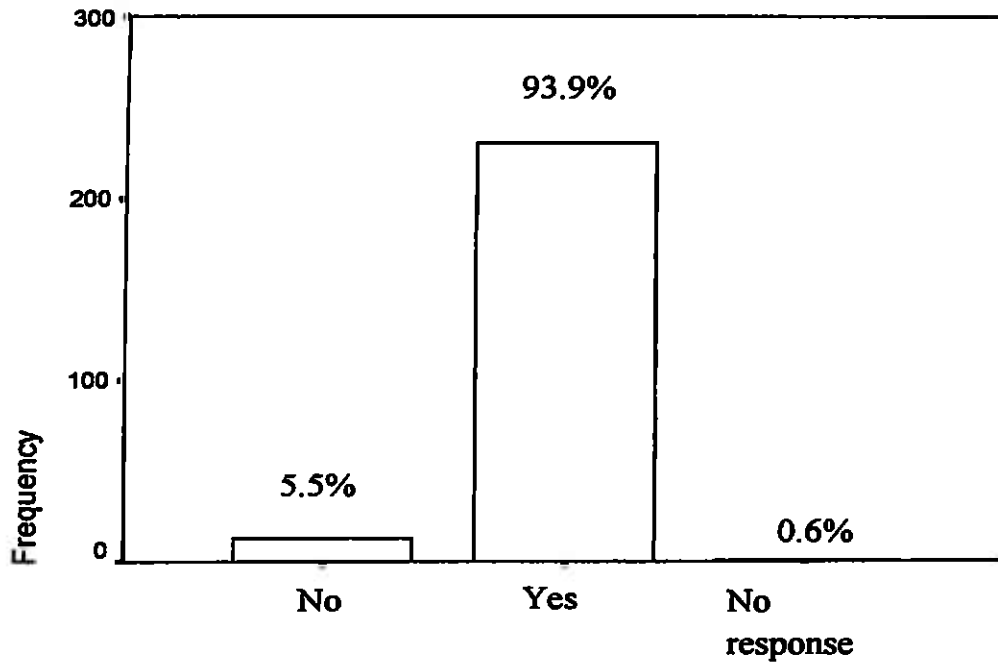
Response	Frequency	Percent
1 test	12	4.9
2 tests	84	34.1
3 tests	116	47.2
4 and above	26	10.6
No Response	8	3.3
Grand total	246	100.0

Out of the 246 students 47.2% stated 3 tests, 34.15 stated 2 tests while 10.6% stated 4 tests. At least 3 tests per term are recommended to evaluate the learners' progress. Only 57.8% are in the category of 3 tests and above. At least 39% of the schools need to increase the frequency of testing which may improve the academic performance in the district.

When the learners are revising they need to be organized so that all the subjects are given the same attention. The 246 students were therefore asked to respond to the item, **“Do you have a personal time table for the purpose of revision?”** The responses are shown in Figure 4.9.

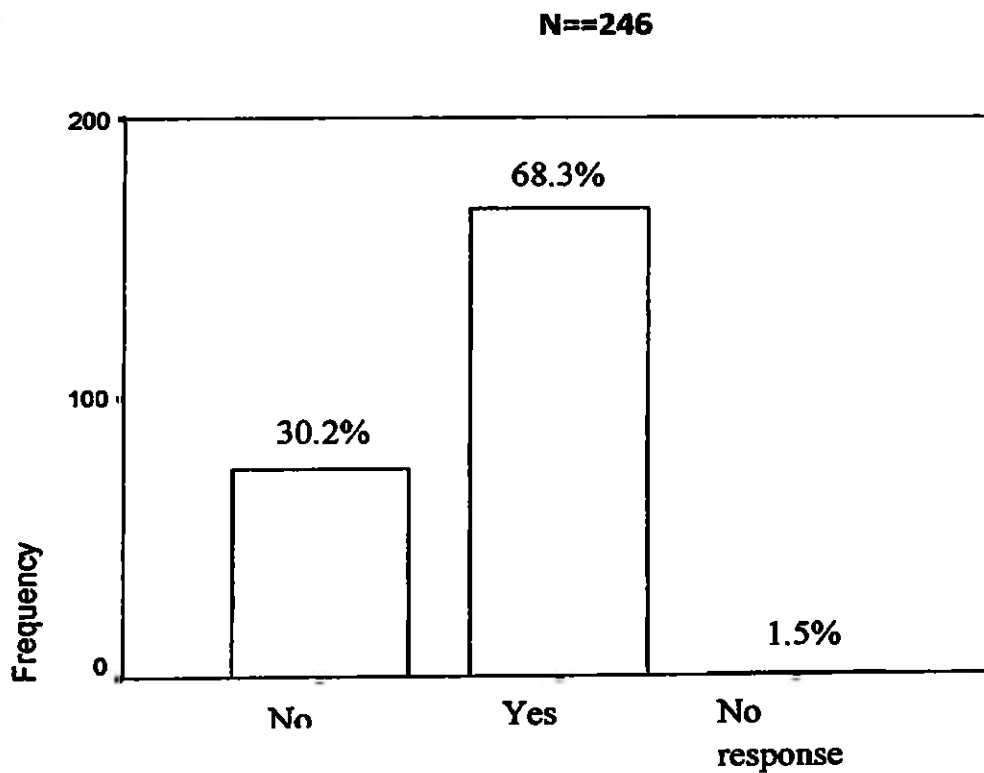
Figure 4.9. Students' personal timetable

N=246



Out of the 246 students, 231 representing 93.9% of the sample population had personal timetable. A personal time table helps the learner to plan how to revise. The researcher wanted to find out from the students if forums for academic days are held. This is where the students discuss performance with the guardian and the teacher. The 246 students were asked; “Do you have open academic days in your school” Figure 4.10 below shows the responses.

Figure 4.10 Students' responses on academic days



Out of the 246 students, 168 representing 68.3% of the sample population had their schools holding open academic days. This is good because it is in such fora where matters of academics performance are discussed by the student, teachers and parents and helps the learner to set targets. From the findings, this was well done in the district.

The researcher wanted to know whether examinations are thoroughly revised after they are administered and marked. The sampled population was asked to respond to the item; “We revise examinations thoroughly” The 246 students’ responses were as shown in table 4.39 below;

Table 4.39 Students responses on revision of examinations

N=246

Response	Frequency	Percent
SD	30	12.2
D	34	13.8
U	21	8.5
A	88	35.8
SA	65	26.4
No Response	8	3.3
Grand total	246	100.0

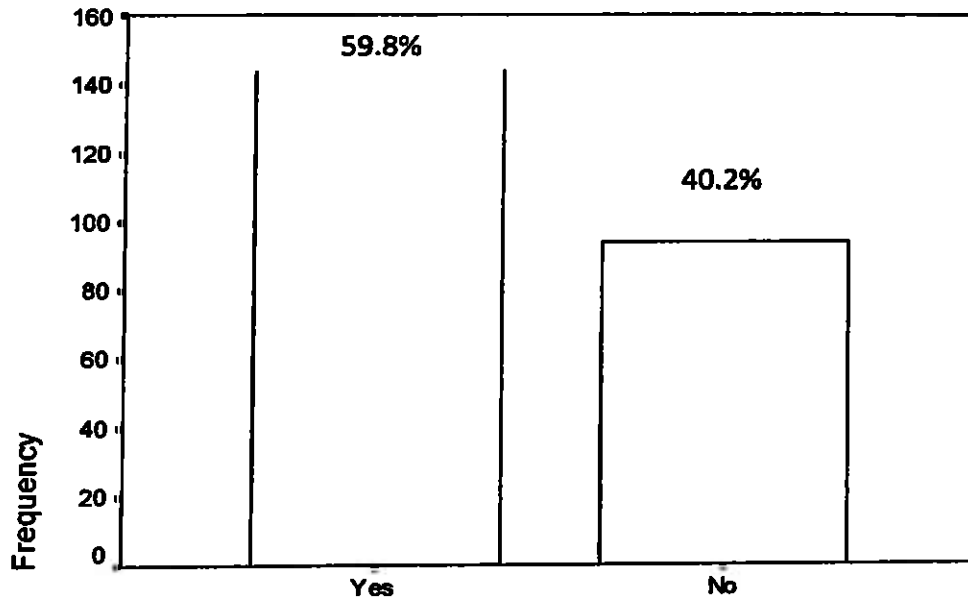
From the study 26.4% strongly agreed while 35.8% agreed. It is clear from the study that examination are well revised in the District hence cannot be a cause for poor performance.

4.7.2 Teachers Responses on Supervision of Implementation of the Curriculum

The 246 teachers out of the 260 sampled were asked questions on supervision of implementation of the curriculum. The researcher wanted to know if the schools in the District were assessed within the three years under study. The responses on the question; “In the last three years, have you been assessed by the Ministry of Education Officials? “ Were:

Figure 4.11 Teachers' responses on whether assessment by MoE was done

N=246



The study shows that, 147 respondents representing 59.8% said “yes” while 40.2% responded by saying “no”

This contradicts the students, District Education Officer and Principals’ responses whose responses showed that assessments were rare. However, informal information indicate that assessment exercises were rarely done. The researcher therefore concluded that assessments were rarely done. Assessors are responsible for helping teachers to achieve the educational objectives. Therefore the rare assessments could have contributed to the performance in KCSE in the three years under study.

Where the assessments were done, the researcher wanted to find out the type of assessment done. This was done through the question; "If yes what type of assessment". Table 4.40 shows the responses.

Table 4.40 Teachers' responses on type of assessments done

N=246

Response	Frequency	Percent
Routine	130	52.8
After a crisis	14	5.7
Others	1	.4
No response	101	41.1
Grand total	246	100.0

A total of 130 respondents out 145 gave routine, meaning there were few incidences that interrupted teaching and learning process. Therefore students' unrest did not contribute to the academic performance in the three years under study.

Those whose reported a crisis were required to name the type of crisis through the question; "If after a crisis, what type ?" Table 4.41 shows the responses.

**Table 4.41 Teachers' responses on type of crisis that prompted assessment
N=246**

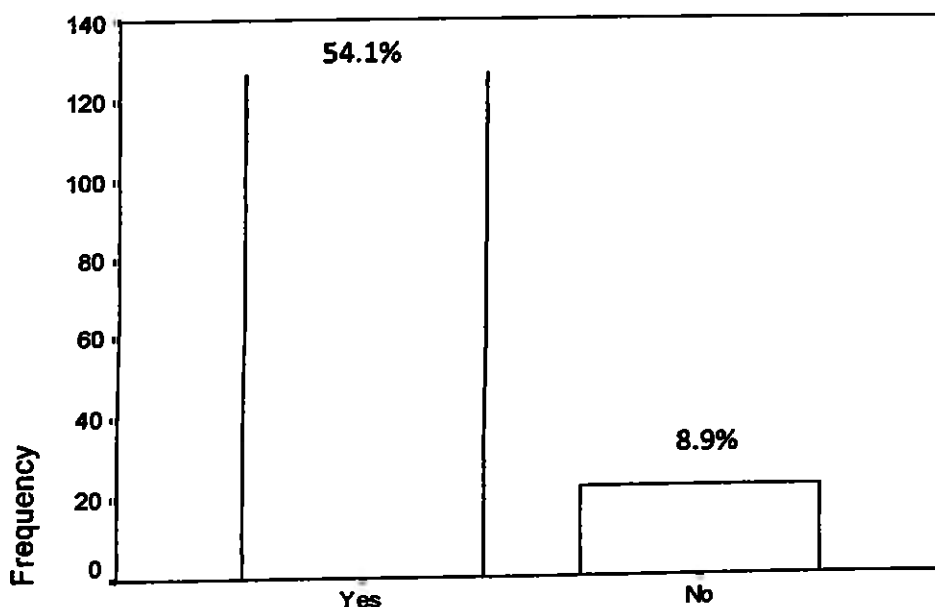
Response	Frequency	Percent
Poor performance	4	21.1
Students unrest	9	47.4
Others	5	26.3
Non response	1	5.3
Grand total	19	100

Out of a sample size of the 19 students who mentioned crisis 47.4% reported Students unrest, 26.3% others while 21.1% Poor performance. Students unrest can result to time wastage, hence affecting the syllabus coverage and finally resulting to poor performance. However, very few schools were involved hence little impact on academic performance.

Those teachers who were assessed, were asked whether the assessment added value. The responses are shown in the Figure below.

Figure 4.12 Teachers' responses on value addition after assessment

N=246



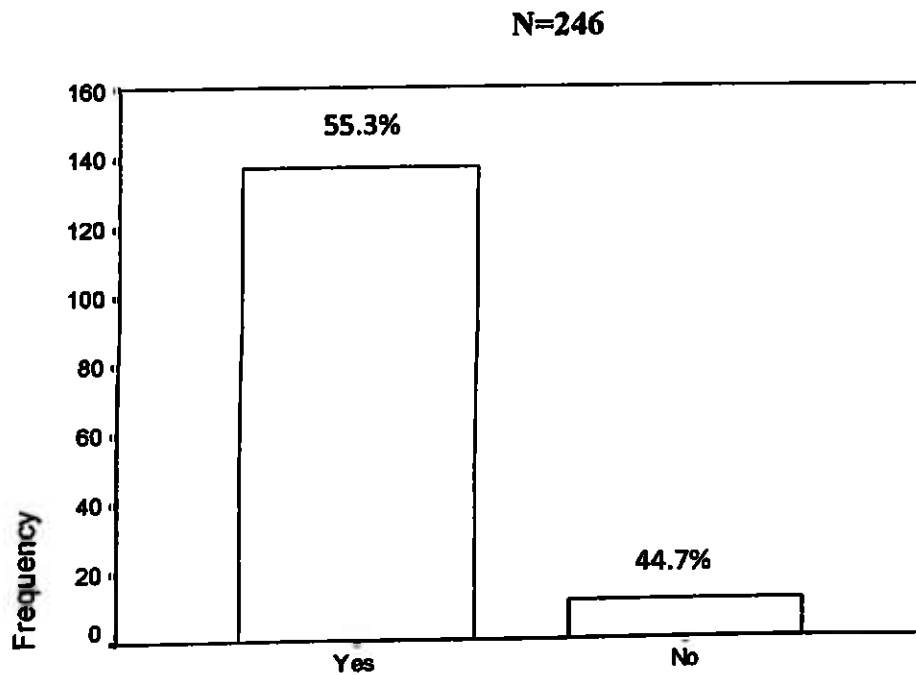
From the findings 133 respondents representing 54.1% benefited from the assessment while 22 respondents representing 8.9% said no. It is clear that, if the assessment exercises were increased the academic performance would improve. Those who benefited were asked the question; "which areas did the assessment team recommend you to improve? Table 4.42 shows the main striking responses from the 133 respondents;

Table 4.42 Weak areas identified during assessment**N=133**

Responses	Frequency	Percentage
Poor syllabus coverage	123	92.5%
Sketch schemes of work	98	73.7%
Adding value to learners		
entry behaviour	81	60.9%
Student friendly time		
Table	73	54.9%
Marking of students work	57	42.9%
A variety of teaching		
methods to be used	35	26.3%

From the findings of this study poor syllabus coverage was a major contributing factor to poor performance in the year 2007-2009, followed by sketch schemes of work, lack value addition concept and teacher friendly timetable. Asked whether there were improvement after assessment, the responses are shown in Figure 4.13.

Figure 4.13 Teachers' responses on improvement after assessment

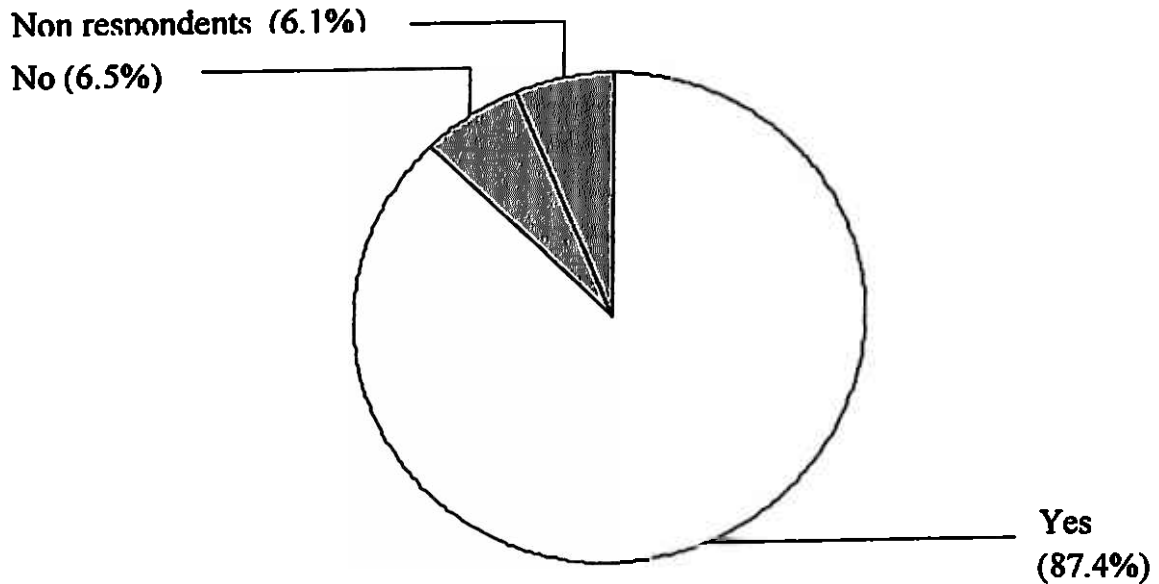


From the findings 136 respondents representing 55.3% stated that, there was improvement. Therefore lack of frequent assessment was a contributing factor to poor performance in the District in the three years under study.

Against the item; “At school level, do you have supervision by the principal, deputy principal or the heads of department?” The teachers’ responses were as per the Figure 4.14 below.

Figure 4.14 Internal supervision

N=246



87.4% of the respondents said yes, meaning nearly all the principals in the district are keen on supervision of implementation of the curriculum. Internal supervision must be effectively done to enhance implementation of the curriculum. Therefore the performance of year 2007-2009 may not be attributed to lack of internal supervision. However the researcher recommends that further research be done to establish the relationship between performance and the quality of internal supervision.

The researcher wanted to find out the authority that checks the professional records. The 246 sampled teachers were asked; **“Who checks the records of**

work, schemes of work, lesson plans and students mark book?" the responses were as shown in table 4.43.

Table 4.43 Authority that check professional documents

N=246

Response	Frequency	Percent
Principal	9	3.7
Deputy Principal	68	27.6
HOD	65	26.4
All of them	94	38.2
No Response	10	4.1
Grand total	246	100.0

According to the study 94 respondents out of the sampled population of 246, representing 38.2% indicated that the professional records were checked by the principal, deputy principal and the heads of department, while 27.6% mentioned the deputy principal, 26.4% indicated the heads of department. The checking of professional records was not a contributing factor to the academic performance under study. The researcher wanted to know how frequently these documents were checked. The sampled population was required to respond to the question; "How often are they checked?" the responses were as per the table below;

Table 4.44 Frequency of checking the professional records

N=246

Response	Frequency	Percent
Weekly	62	25.2
Fournightly	85	34.6
Monthly	26	10.6
Termly	59	24.0
No Response	14	5.7
Grand total	246	100.0

From the findings 85 respondents out of 246 teachers representing 34.6% indicated Fortnightly, while 25.2% indicated weekly. For effective implementation of the curriculum, checking of the professional records should be done weekly. Therefore checking of the professional records could have played a significant part in performance of the KCSE examination in the three years under study.

The researcher wanted to know the performance of each teacher by asking the question: "What were the mean scores in your subjects in the last three years". Table 4.45 shows the average mean scores for the period under investigation (2007-2009).

Table 4.45 KCSE mean score for the year 2007-2009

N=246

Response	Frequency	Percent
0-2.0	3	1.2
2.1-3.0	31	12.6
3.1-4.0	28	11.4
4.1-5.0	43	17.5
5.1 and above	35	14.2
No Response	106	43.1
Grand total	246	100.0

Out of 246 respondents, 106 teachers representing 43.1% did not respond. Probably they felt threatened if they disclosed their performance. However from the study, 17.5% representing 43 respondents indicated 4.1-5.0, while the average for the district is 4.14 (Source-DEO office, Kiambu West District). The responses are in agreement with the official figures from the District Education Office, Kiambu West. Therefore both teachers and the students must set higher targets if they want to perform better.

The 246 respondents were required to respond to the question: "What is the school testing policy?"

Table 4.46 School testing policy

N=246

Response	Frequency	Percent
1 exam	18	7.3
2 exams	61	24.8
3 exams	55	22.4
4 exams and above	20	8.1
No Response	92	37.4
Grand total	246	100.0

From the findings, 61 respondents out of 246 representing 24.8% did two examinations, 22.4 % did three examinations while 8.1% did 4 examinations and above. Learners need to be exposed to many examinations for them to gain adequate experience and exposure to effectively tackle KCSE. Exposing the student to less than three examinations per term deny them the opportunity of acquiring the examination answering skills. From the findings of this study the learners were not adequately exposed to examinations and hence this must have contributed to the academic performance in the three years under investigation.

4.7.3 Principals Responses on Supervision of Curriculum Implementation

Asked about how often officials from the ministry of education visit the school for assessment, most of the 34 principals responded by saying "rare". The students and the district education officer had similar responses. This can

contribute to poor performance of KCSE because assessment of schools by the education officials is aimed at guiding and advising teachers on how to improve their teaching-learning resources and be able to adopt new trends of teaching-learning strategies which enhance a conducive learning environment. Asked to name the weak areas that were identified during the last assessment the 34 principals gave the following responses shown in table 4.47.

Table 4.47 Principals responses on assessment reports

N=246

Response	Frequency	Percentage
Lack of syllabus		
coverage	28	82.4
Teacher friendly		
timetable	21	61.8
Excessive use of lecture		
method in teaching	18	52.9
Lack of commitment by		
the teachers	12	35.3
Sketchy schemes of work	8	23.5

Lack of syllabus coverage was mentioned by 82.4% of the respondents followed by 61.8% who mentioned teacher friendly timetable as another major contributing factor to academic performance in the three years under study. It is therefore important for the principals to improve the internal control mechanisms which must be effective for efficient implementation of the curriculum.

4.7.5 District Education Officer Responses on supervision of curriculum

The researcher asked the District Education Officer to name four weaknesses in the supervision of implementation of curriculum by the principals as per the records of the assessment reports for the year 2007 to 2009. The District Education Officer mentioned the following;

- (a) No internal quality assurance mechanisms.
- (b) Failure to meet deadlines.
- (c) Heads of Departments, Deputy Principals and Principals are complacent.
- (d) Failure of teachers to set continuous assessment tests using blooms taxonomy.
- (e) Principals, Deputy Principals and the HODs rarely go for capacity building workshops.

Asked what mechanisms they use to ensure principals supervise the curriculum, he responded by saying “frequent assessment of the schools”, Asked to name six areas of weaknesses that have been identified in the schools during the assessment exercises. He named the following four areas:

- (a) Poor teacher preparedness.
- (b) Textbook teaching.
- (c) Lack of supervision by Heads of Departments, Deputy Principals and Principals.
- (d) Poor preparing of schemes of work.

All these factors must have contributed to performance in the three years under study.

4.7.6 Complaints received by the DEO concerning teaching/learning

The district education officer was asked to name four complaints the office gets from the parents and other stakeholders in relation to teaching and learning. He mentioned the following:

- (a) Failure to mark pupils' work.
- (b) Failure to give assignments.
- (c) Lateness of the teachers.
- (d) Lack of supervision by head teachers

4.8 Views on Factors that Contribute to Poor Performance in the District

4.8.1 District Education Officers' Views

Based on the assessment reports in the district, the District Education Officer gave the following determinants as the main contributing factors to poor academic performance in KCSE in the 2007, 2008, and 2009?

- (a) Negative attitude of teachers towards the students
- (b) Poor teacher preparedness.
- (b) Textbook teaching.
- (c) lack of supervision by HODs/deputy principals and the principals.
- (d) Poor preparation of schemes of work.

4.8.2 Principals' Views on factors contributing to performance in the District

The 34 principals were asked to suggest the probable determinants of poor performance in the district in the last 3 years. Table 4.48 shows the frequency of the most striking responses from the 34 respondents;

Table 4.48 Principals views on determinants of poor performance**N=34**

Response	Frequency	Percentage
Low KCPE marks	27	79.4
Lack of commitment by teachers	23	67.6
Poor attitude by the parents towards education.	17	50.0
Lack of support from the stakeholders	12	35.3
Blame shifting game	10	29.4
Absenteeism of students due to school fees	7	20.6
Lack of role models	5	14.7
Proximity to Nairobi	3	8.8

From the findings, low KCPE marks, lack of commitment by teachers, poor attitude by the parents towards education were the main causes to the academic performance in year 2007-2009.

4.9 Strategies to improve the performance of KCSE

4.9.1 Principals responses on how to improve performance

Finally the researcher asked the 34 principals to mention measures being taken in their respective schools to improve the performance. Table 4.51 shows the frequency of the most striking responses from the 34 respondents;

Table 4.49 Principals' suggestions on how to improve the performance**N=34**

Response	Frequency	Percentage
Campaign to change the attitude of all the Stakeholders	26	76.5
Increasing learner/teacher contact hours	21	61.8
Benchmarking	16	47.1
Rewarding good Performers	12	35.3
Involvement of BOG and PTA	9	26.5
More revision materials,	5	14.7

From the findings of the study, all stakeholders must be brought on board to support education as shown by 76.5% of the respondents, while 61.8% suggest that increasing the learner/teacher contact hours would improve the performance.

4.9.2 Teachers responses on how to improve performance

The 260 teachers were asked the following question, “given an opportunity, what would you like done to improve on academic performance at KCSE in your school? Give four ways. Table 4.50 shows the frequency of the most striking responses from the 246 respondents;

Table 4.50 Teachers' suggestion on how to improve the performance

N=246

Response	Frequency	Percentage
Raise the Form One entry marks.	211	85.8
Clear the syllabus to create time for adequate revision.	185	75.2
Principal to consult to enhance a better working relation.	120	48.8
Awareness among parents on the need of paying fees in good time.	106	46.7
Help orphans and poor with bursary.	115	43.1

From the findings 85.8% of the respondents suggested that the Form 1 entry marks be raised, while 75.2% suggested that, the syllabus be cleared early enough to create adequate time for revision. Another 48.8% suggested that the principal should consult to enhance better working relation.

Teachers are the people on the ground and their views should be considered especially on matters related to teaching and learning. From the findings of the study, the 13 suggestions would have improved the academic performance in the three years under study, if they were implemented.

4.9.3 Students responses on how to improve performance

The 246 sampled students were asked; "Given an opportunity, what would you like done to improve on your academic performance at KCSE in your school? Give three ways." Table 4.51 shows the frequency of the most striking responses from the 246 respondents;

Table 4.51 Students responses on how to improve performance**N=246**

Responses	Frequency	Percentage
Syllabus coverage	186	75.6
Effective time management by teachers	153	62.2
Remedial teaching	127	51.6
Equip the laboratory and library.	98	39.8
Teachers sacrifice	55	22.4
Guidance from teachers	52	21.1
Parents meetings to discuss our performance	32	13.0
Peer teaching	24	9.8

Syllabus coverage, effective time management by teachers and remedial teaching were the most striking responses as shown by 75.6%, 62.2% and 51.6% responses respectively. Equipping the laboratory and library, teachers sacrifice also need to be addressed to improve the academic performance.

4.10 Summary

The following factors must have been the causes of academic performance in the three years under study; lack of adequate or effective use of teaching and learning resources, failure by teachers to use a variety of teaching methods, students' low entry marks in Form one class and ineffective supervision of curriculum.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the main findings conclusions and recommendations. The purpose of the study was to investigate the determinants of academic performance in Kenya Certificate of Secondary Education in public secondary schools in Kiambu West District, Kenya. The study was guided by the following research questions:-

- 1) What was the extent to which teaching/ learning resources affect academic performance in Kenya Certificate of Secondary Education Examination in Kiambu West District?
- 2) To what extent did the teaching methods affect academic performance of students in Kenya Certificate of Secondary Education Examination in Kiambu West District?
- 3) To what extent did the learners' entry behaviour affect academic performance of students in Kenya Certificate of Secondary Education Examination in Kiambu West District?
- 4) How did the supervision of implementation of curriculum affect academic performance of students in Kenya Certificate of Secondary Education Examination in Kiambu West District?

The study adopted the Ex-post-facto research design. It used questionnaires and interview schedules to solicit data from students, teachers, principals and the District Education Officer. The sample consisted of 260 teachers, 246 students, 36 principals and the District Education Officer, Kiambu West District. The teachers questionnaires return rate was 94.6%, while the students return rate was 100%. The researcher interviewed 34 principals out of the targeted sample size of 36 principals representing a return rate of 94.4%. Documentary evidence was analyzed and striking responses from participants quoted to enhance the study. The findings that emerged from the study are summarized below:-

5.2 Summary of the research findings

The analysis of the data solicited from the students, teachers, principals and the District Education Officer, Kiambu West District showed that there are several determinants which affected academic performance in Kenya Certificate of Secondary Examination in Kiambu West District.

5.2.1 Teaching and learning resources

The provision of teaching and learning resources needs improvement. From the study majority of the students (72.8%) showed that most of the science teachers did not use apparatus in the teaching of science subjects. This was supported by the District Education Officer who said that, “most schools have inadequate facilities to enhance teaching and learning, while most science teachers use demonstration methods even where class experiments are possible”. About fifty

five percent (55.6%) and 55.7% of the students further indicated that, their laboratories and libraries respectively were not well equipped. About fifty four percent (54.1%) of the teachers indicated that teaching and learning resources are adequate while 52.1% of the principals concurred with teachers. However the DEO concurred with the students.

5.2.2 Teaching methodologies

From the study, lecture method was widely used as a method of teaching than any other method of teaching as agreed by majority of teachers (59.05%) and students (55.8%) respectively. Project as a method of teaching was rarely used (26.0%) very rarely used (32.5%) or not used at all (24.0%) as shown by the teachers' responses. District Education Officer showed that, the Lecture method dominates in the teaching of humanities and languages".

5.2.3 Effect of Entry Behaviour

Out of the 234 students who responded, 68.4% had scored 201-300 marks in KCPE. While, the District Education Officer gave the KCPE mean score in 2007, 2008 and 2009 as 249.52, 242.76 and 244.56 respectively. Majority of the teachers (52.4%), said that the students were academically weak.

5.2.4 Supervision of implementation of curriculum

According to the principals, visits by Quality Assurance and Standard Officers to schools for assessments were rare. This was supported by 50% of the students' responses. The District Education Officer also concurred that assessments

exercises were not done adequately due to lack of enough personnel at District Education Office. The syllabus was not covered by the end of each year as shown by 56.9% of the students and the District Education Officers' response.

During the assessment exercises by the ministry's officials, the following were identified as the major weak areas that need redress;- poor syllabus coverage, schemes of work and lesson notes were in most cases not up to date, importance of adding value to learners entry behaviour, poor record keeping, teacher friendly time tables, a variety of teaching methods to be used, implementation and supervision of curriculum by the administration to be intensified, provision of more internal examinations. This study found out that where assessment was done due to a crisis, it was after students' unrest or poor performance. Effective internal quality assurance mechanisms were also lacking.

5.3 Views on Factors that Contribute to Poor Performance in the District

From the District Education Officer, the study gathered the following factors;-

- (a) Lack of internal supervision by head teachers.
- (b) Textbook teaching by the teachers.
- (c) Negative attitude of teachers towards the students.

5.4 Conclusions

The conclusions arising from this study are summarized as follows: Majority of the schools (55.6%) did not have equipped laboratories and where such facilities were found they were not adequately used. About fifty five percentage (55.7%) of the schools had no libraries and where one existed, it had inadequate books. Lecture method was dominantly used as a method of teaching.

Majority of the students (63.8%) had an average of 200-300 marks when they joined form one. Hence poor academic background. Majority (57.3%) of teachers stayed outside the school as shown by the students' respondents hence denying the students opportunity to interact with teachers in the evening, before lessons in the morning and during weekends. Assessments by the Quality Assurance and Standards Officers were rare, while there was a general lack of internal supervision of implementation of the curriculum.

About ninety two percent (92.7%) and 78.5% of students and teachers responses respectively showed that schools never took seriously the concept of entry behaviour value addition hence targets are not set. Majority of the schools never completed the syllabus as indicated by 56.9% of the students' responses, hence denying the candidates the opportunity to answer a variety of questions and therefore reducing their chances to perform well. Teachers had a negative attitude towards the students' academic ability.

5.5 Recommendations

The findings of this study have revealed several implications. Therefore, the following recommendations may help to improve the academic performance of Kenya Certificate of Secondary Examination in Kiambu West District.

- i. The School managements need to urgently equip the Science laboratories to enhance teaching of science subjects and establish libraries where students can supplement what they learn with teachers.**
- ii. Teachers should use a variety of teaching methods like lecture, demonstration, class experiment, group discussion and excursions. This is necessary to make the learning interesting.**
- iii. Teachers should focus their attention on value addition of learners rather than having the attitude that the learners are weak academically. This will motivate the learners.**
- iv. School managements should consider putting up teacher's houses to create more contact hours between learners and teachers during the evenings and mornings.**
- v. There is need to increase the frequency of assessments by the district quality assurance and standards officers to update the teachers on issue of curriculum implementation.**

- vi. There is need for Principals to intensify thorough and quality internal assessment as a measure of curriculum implementation.
- vii. Despite the low entry marks in Form One, learners and teachers should set high targets with a view of improving the performance.

5.6 Recommendations for further research

From the findings of this study the researcher made the following recommendations;

- i. Given that this study focused only on Kiambu West District, a similar study in other parts of the country would be useful for comparative purposes. Indeed, a nationwide study would be useful, comparing the results in the various regions in the country.
- ii. This study investigated a limited number of factors that impacts on performance in KCSE namely teaching and learning resources, teaching methodologies, students' entry behaviour and the supervision of implementation of curriculum. There are however other factors that may influence academic performance in KCSE examination like the quality of teachers, administrative set-up, parental occupations, quality of internal supervision and lack of commitment by the teachers. It would therefore, be useful to explore the extent to which these other factors impact on academic performance in KCSE examination.

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APPENDIX ONE

INTRODUCTORY LETTER

School of Education and External Studies,

University of Nairobi,

Department of Educational

Administration and Planning

P.O. Box 30197-00100

Nairobi

TO.....

RE: RESEARCH PROJECT.

I am Master of Education student in this university and want to carry out a research in public secondary schools and also at the DEOs office in Kiambu West District. The purpose of the study is to fulfill the requirements for the degree of master of education and to understand key issues in education. Kindly accord me the necessary assistance and rest assured that the data collected will be kept confidential and will be entirely for the purpose of this study and will not be used for any other reason.

Yours,

Newton Mwangi

APPENDIX TWO

TEACHERS' QUESTIONNAIRE

This questionnaire is meant to help in conducting a research on academic performance. Kindly answer the questions to the best of your ability. Please do not write your name or the name of your school anywhere on this questionnaire.

Put a tick (✓) where applicable.

Part One

1. What is your gender? Male [] Female []
2. How long have you been in the teaching profession? _____
3. How long have you been teaching in this school? _____
4. What are your teaching subjects? _____
5. (a). Given a chance, would you like to transfer to another school?
Yes No

(b). If the answer is yes, why would you like to transfer? Give at least 3 reasons.

(i) _____

(ii) _____

(iii) _____

Part Two

1a) Are teaching and learning resources adequate in the school?

Very adequate[] Adequate[] Average [] Inadequate[] very inadequate[]

b) What is the student: text book ratio for your subject?

1:1 [] 2:1 [] 3:1 [] 4:1 [] Above 5:1 []

2) How do you get examination and revision materials for your students e.g. past papers?

3) In terms of provision of resources, which areas do you think needs improvement? (mention 3)

- a). _____
- b). _____
- c). _____

4). (a). Which syllabus do you use? KIE [] KNEC [] Both [] None []

(b). Briefly give reasons for your response above _____

Part Three

1) How often do you use the following methods of teaching?

Teaching method	Very often	Often	Rarely	Very rarely	Not at all
Lecture					
Demonstration					
Discussion					
Field trips/excursion					
Project					
Experimental/discovery/problem solving					

Part Four

1).Do you have Form One orientation in your school? Yes [] No []

2).Before you start teaching form ones, do you give them a Diagnostic exam based on learners experience? Yes [] No []

3).The students I teach are strong academically. Tick the most appropriate answer.

Strongly agree [] Agree [] Disagree [] strongly disagree []

Part Five

1(a). In the last 3 years, have you been assessed by the Ministry of Education officials?

Yes [] No []

b). If yes what type of assessment? Routine [] After a crisis []

c). (i). If after a crisis, what type?

Poor performance [] Students unrest [] Others []

(ii). If the answer is others, briefly describe it _____

d). Did the assessment add value to you as a teacher in your subject?

Yes [] No []

e). Which areas did the assessment team recommend you to improve?

i). _____

ii) _____

f) (i) Have you been able to improve on those areas?

Yes [] No []

(ii) If the answer is no, give reasons

2) At school level, do you have supervision by the principal, deputy principal or the Heads of

Departments? Yes [] No []

3) (a). Who checks records of work, schemes of work, lesson plans students mark book?

Principal [] Deputy Principal [] HOD [] All of them [] None at all []

4).How often are they checked? Weekly [] Fortnightly [] Monthly []
Termly [] Annually [] Not at all []

Part Six

1).What was the mean score in your subject in the last three years?

2007 [] 2008 [] 2009 []

2).What is the school testing policy? Tick the appropriate box/s

Weekly tests [] Fort-night tests [] Monthly tests [] Mid-term tests []

Termly tests [] Mid-year test [] End of year test[]

Given an opportunity, what would you like done to improve on academic performance at KCSE in your school? Give four ways.

- a). _____
- b). _____
- c). _____
- d). _____

Thank you for your co-operation.

APPENDIX THREE

STUDENT'S QUESTIONNAIRE

Kindly answer the following questions to the best of your ability. There is no correct or wrong answer. This questionnaire is entirely for the purpose of carrying out a study on educational matters. Do not write your name on this questionnaire. Put a tick where applicable.

Part One

1). What is your gender? Male [] Female []

2). How old are you? _____ Years.

3). I like my school Yes [] No []

Explain your answer _____

4). When I finish school, I would like to be a _____

Part Two

1(a). What is the text book student ratio in the following subjects i.e. 1 book for Students.

	Maths	English	Kiswahili	Chemistry	Agriculture	Biology	CRE
Ratio							
	Hist	Physics	Geog	B/ studies	H/ Science	Comp/studies	
Ratio							

Kindly indicate the ratio for other subjects not mentioned above if any.

(b).Kindly tick in the box that best describes your response.

SA-means **STRONGLY AGREE** **A**-means **AGREE** **U**- means **UNDECIDED**

D- means **DISAGREE** **SD**- means **STRONGLY DISAGREE**

Statement	SA	A	U	D	SD
a) Our teachers do not use apparatus in teaching science subjects					
b) We get past papers from our teachers for revision purposes					
c) Our laboratory is not well equipped					
d) Our school library is well equipped					

Part Three

Statement	SA	A	U	D	SD
(a)Our teachers teach theoretically instead of practically					
(b)Our teachers encourage us to study hard in school					
(c)Our teachers do not encourage us to discuss in groups					
(d)We frequently do experiments in small groups					
(e).We do not go for field trips and excursions					
(f)Our teachers encourage us to ask them questions					

(2) How many tests do you do per subject per term? One [] Two [] Three []
Four and above[]

(3) Do you have a personal time table for your studies? Yes [] No []

(4) a) Do you have open academic days in your school? Yes [] No []

b) If yes, how do they affect your academic performance? _____

Part Four

(1)What was your KCPE mark?_____

(2)Did you do an examination immediately after admission in Form One before teaching and learning started? Yes [] No []

(3) (a) Did you like the way you were received in the school in the first two weeks? Yes No

(b). Support your answer in (a) above _____

Part Five

Statement	SA	A	U	D	SD
1).Teachers in our school are keen on time management.					
2).Most teachers live inside school.					
3).Those teachers who live far do not come to school late					
4).Our principal comes round when lessons are going on.					
5).There are officers from the Education Office who come to our school to observe how we are taught.					
6).Our teachers guide us on how to study and always encourage us to work hard.					
7).We cover the syllabus before the end of each year.					
8).We revise examinations thoroughly					

Part Six

Given an opportunity, what would you like done to improve on your academic performance at KCSE in your school? Give three ways.

- a). _____
- b). _____
- c). _____

Thank you very much for your cooperation

APPENDIX FOUR

PRINCIPALS' INTERVIEW SCHEDULE

(Researcher introduces himself and mention the purpose of the interview to the interviewee)

- 1) How long have you worked in this station?
- 2) What is the average student: text books ratio in your school?
- 3) Briefly comment on the adequacy of the laboratory facilities in the school.
- 4) Other than the textbooks and laboratory facilities, which other teaching/learning resources are used to enhance teaching/learning process?
- 5) Which teaching method is commonly used by teachers in the school ?
- 6) What is the average KCPE entry mark during form 1 selection in 2007-2009?
- 7) How often do you visit classes for supervision during the teaching and learning process ?
- 8) How often do officials from the Ministry of Education visit your school for assessment?
- 9) During the last assessment, which areas of weaknesses were identified?
- 10).What is the school testing policy?
- 11).For last three years, this district has ranked last among the districts in central province. What could be the determinants?
- 12). What measures are you taking to improve on academic performance in the school?

Thank you for your cooperation

APPENDIX FIVE

DISTRICT EDUCATION OFFICER'S INTERVIEW GUIDE

(Researcher introduces himself mentioning the purpose of the interview to the interviewee)

1. How long have you been in this district ?
2. What is the general situation concerning the teaching/learning resources in the district?
3. From the assessment reports, which are the common teaching methodologies used in the public secondary schools in the district?
4. What is the average mean score in KCPE in the district from 2007-2009?
5. In your opinion how does the entry behavior of the learners affect academic performance in KCSE in the district?
6. Based on assessment reports, what are the weaknesses in the supervision of implementation of curriculum by the principals?
7. How do you ensure principals adequately supervise the implementation of curriculum in their schools?
8. How often are principals/deputy principals/HODs capacity building workshops held?
9. What complaints do you get from the parents and other stakeholders in relation to teaching and learning?
10. Based on the assessment reports in the district, what are the determinants contributing to the academic performance in KCSE in the last three years?

Thank you for your cooperation

APPENDIX SIX

Table for determining Sample Size from a given Population

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

Note: "N" is population size, while "S" is sample size.

Source: Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30, 607-610.

REPUBLIC OF KENYA



NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

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Website: www.ncst.go.ke

Date:
1st February 2011

Our Ref: **NCST/RRI/12/1/SS-011/27/4**

Newton Irungu Mwangi
University of Nairobi
P. O. Box 30197
NAIROBI

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on "*Determinants of academic performance in Kenya Certificate of Secondary Education in public secondary schools in Kiambu West District, Kenya*" I am pleased to inform you that you have been authorized to undertake research in **Kiambu West District** for a period ending **31st July 2011**.

You and your co-researcher are advised to report to the **District Commissioner and the District Education Officer, Kiambu West District** before embarking on the research project.

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

P. N. NYAKUNDI
FOR: SECRETARY/CEO

Copy to:

The District Commissioner
Kiambu West District

The District Education Officer
Kiambu West District