INFLUENCE OF SCHOOL INFRASTRUCTURE ON ACADEMIC PERFORMANCE IN PUBLIC PRIMARY SCHOOLS IN RUIRI LOCATION-MERU COUNTY,KENYA

BY

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DECLARATION

I declare that this is my original work and has not been presented to any other institution for any award of degree.

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L50/66239/2010

This research report is presented for examination purpose with my knowledge and approval as the university supervisor.

Signature……..…**Date**……..

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DEDICATION

This research project report is dedicated to my family members especially my wife Joyce, and my children Maureen, Alfred, Sadra and Sharon for their infinite belief, support and hope, and also to my father M'Arimi M'Nkanata for his unwavering support throughout my study.

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ABBREVIATIONS AND ACCRONYMS

CDF	Constituency Development Funds
EFA	Education for All
F.P.E	Free Primary Education.
KCPE	Kenya Certificate of Primary Examination
KESSP	Kenya Education Sector Support Program.
KNEC	Kenya National Examination Council
LATF	Local Authority Trust Fund.
MDG	Millennium Development Goals
MOEST	Ministry of Education Science and Technology
NA.E.P	National Assessment for Educational Progress
T.S.C	Teacher Service Commission
UPE	Universal Primary Education
U.S	United States.

ABSTRACT

The purpose of this study is to investigate the influence of school infrastructure on academic performance in public primary schools in Ruiri Location. The study objectives areas follows examine the influence of library on academic performance in public primary schools, to investigate the influence of classrooms on academic performance in public primary schools, to establish the influence of school textbooks on academic performance in public primary schools, to determine the influence of school desks on academic performance in public primary schools. The study employs the use of descriptive survey research design. The researcher targets all the 7 primary schools in Ruiri Location. The target population is 7 head teachers, 14 teachers and 181 standard eight pupils. The study adopts purposive sampling techniques to sample its respondents. Observation schedule and questionnaires for head teachers, class teachers and pupils are used for data collection. Reliability is ensured by using testing and re-testing methods and validity is tested through pilot study in other two schools outside the area of study. The data is analyzed using SPSS software (Statistical Package for Social Sciences). The researcher used descriptive analysis and data is presented in form of frequency tables. The study finding indicates that only one public primary school has a library, and schools have inadequate study materials. The study indicates that classrooms are overcrowded. Most classrooms are not painted, not plastered and floors not cemented. This affects academic performance of pupils. The schools should source for funds to construct libraries and make them accessible to pupils and equip them with adequate study materials, Decongest classrooms through construction of more classrooms, they should be fitted with doors and windows, painted, plastered, floors cemented and well lighted. The schools should have adequate desks; broken ones should be repaired on time. The study recommends for further research on the influence of schools infrastructure on academic performance in public primary schools in other parts of Kenya. The study also recommends a study on the impact of Government subsidy in the provision of school infrastructure in public primary schools in Kenya.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Access to primary schools has improved rapidly throughout the developing world since 1990, but learning outcomes have lagged behind (World Bank, 2006). Despite the fact that it is desirable to avoid a trade-off between quantity and quality, poorly managed rapid expansion approaches can undermine improvement in learning outcomes. In Kenya, primary education is provided in partnership by the government, communities, parents, private entrepreneurs and Non-Governmental Organizations (NGOs). Primary school education is designed for eight years and the official age blanket is 6 to 13 years although in some cases average children are enrolled. At primary level, the government meets costs associated with teacher remunerations, supervision, inspection and management in public schools (Onsomu et al., 2004). The Government of Kenya has heavily invested in education, given its role in spurring national development in championing vision 2030. The money spent on education has continued to go up over the years to match the increasing school enrolment at all levels. In an effort to realize the Millennium Development Goals (MDGs) and Education for All (EFA) objectives by the year 2015, the government adopted the Kenya Education Sector Support Program (KESSP) in 2005.

Recently, the Kenyan government reaffirmed its commitment to enable majority of its citizen's access to education through establishment of free primary education program and subsidizing secondary education. In Kenya, nearly 73% of the government's social sector spending — and 40% of the national recurrent expenditure — goes to education. Additionally, households spend between 5 and 7% of the Gross Domestic Product (GDP) on education. Despite the heavy spending on education and training, the measurement, monitoring and evaluation of how goals are achieved and sustained is ineffective. Kenya's education system is fraught with persistent challenges that affect access, equity, relevance and quality (IPAR, 2008). Primary and secondary education management aspects fall under the Education Act that provides guidelines on the establishment and development of schools, their management and administration, curriculum development and teacher education. The Teachers' Service Commission Act covers the legal framework on teacher registration, recruitment, deployment, remuneration and discipline. The Kenya National Examinations Council Act provides for the conduct of public examinations and certification in all schools and institutions outside university education Onsomu et al. (2004). However, despite all these

efforts, the education sector continues to experience a number of challenges, major one being skewed performance in Kenya Certificate of Primary Education (KCPE) and Kenya certificate of Secondary Education (KCSE) across the many regions of the country. Meru County is one of the many counties experiencing poor performance in KCPE over the last decade. In ranking its sub county performance by KCPE results, Buuri Sub County tails other sub counties where Ruiri public primary schools are ranked bottom schools as shown in table 1.1.This study seeks to investigate the influence of school infrastructure on academic performance by public primary schools in Ruiri Location of Meru county with the aim of providing with solution to quality performance .The study will adopt a descriptive research design. The target population will be from public primary schools in Ruiri Location. A census approach will be used to select all the 7 public primary schools. All head teachers in the Location, two teachers teaching in standard eight and standard eight pupils. Questionnaire and observation schedule will be the main instrument for data collection; the data will be qualitatively and quantitatively analyzed.

1.2 Statement of the Problem

The government of Kenya has been trying to achieve the goal of universal education since independence in 1963; it has injected a lot of money to fund the free primary education. Various approaches which were seen as likely to augment resources and define strategies for education financing more closely adapted to social and economic realities have been suggested and attempted. The most notable was the cost sharing framework, by which the government was to meet salaries of teachers and education administration costs while parents provided tuition fee especially in public boarding schools, and textbooks; while communities on the other hand were to be responsible for putting up physical facilities and ensuring their maintenance (ElimuYetu Coalition, 2003). However, given the differential economic endowment of regions and even social groups, disparities in access to education emerged. The disparities were cost related since not all groups could marshal resources on equal footing. Under the cost sharing arrangement, parents felt exploited by school committees which were considered unsympathetic to parents due to the burdens they imposed on them. Abagi&Olweya (1999) seemed to support this view when he observed that school fees typically contributed 91% to 100% of all financial resources that are available in schools; government subsidies on the other hand hardly ever exceeded 8% of the schools' total budget. The introduction of FPE was aimed at providing the economically disadvantaged with an opportunity to benefit from government sponsored education provision as well as

good academic results in KCPE. However, there are indications that providing this education is now beyond the scope of Kenya's ordinary education budget, owing to the rapid population growth rate spews out an ever increasing number of students keen to join the education system at all levels (Karemesi, 2010). Challenges arising from the pressure placed upon available finances have been steadily growing. This study will examine the influence of school infrastructure on academic performance in public primary schools in Ruiri Location of Buuri sub- County in Meru County.

1.3 Purpose of the Study

The study aimed at investigating the influence of school infrastructure on academic performance in public primary schools in Ruiri Location of Buuri Sub- County in Meru County.

1.4 Objectives

The following were the objectives of the study

i. To investigate the influence of school library on academic performance in public primary Schools in Ruiri Location
ii. To determine the influence of class rooms on academic performance in public primary Schools in Ruiri Location
iii. To examine the influence of school desks on academic performance in public primary Schools in Ruiri Location.

1.5 Research Questions

The research questions were as below;

i. How do school library influence academic performance in public primary schools in Ruiri Location?
ii. How do class rooms influence academic performance in public primary schools in Ruiri Location?
iii. How do school desks influence academic performance in public primary schools in Ruiri Location?

1.6 Significance of the Study

The study findings generated will be used by the Ministry of Education to improve the status of school physical infrastructure in public schools. The findings of this study will also help to sensitize parents and community on the importance of providing infrastructural equipments and materials for use by pupils. The findings will enable the government to enrich the current policies and device ways of improving children's academic outcomes through use of infrastructural resources. The generated information will add to the body of knowledge for future scholars to benefit from.

1.7 Scope of the Study

The study covers public primary schools in Ruiri Location in Meru County and Highlighted on school library, class rooms, text books and desks. The study target population was headmasters, teachers and pupils.

1.8 Limitations of the Study

The study was conducted in public primary schools in Ruiri Location. A major limitation is scarcity of data on success stories on effective school infrastructure funding in Kenya. The nearest attempt as regards this has been KESSP program pioneered in 2005 and running to 2010 which has not been exhaustively evaluated. The issue of funds was sensitive touching on the integrity and careers of people. There might be a tendency of suspicion and misrepresentation of facts In order to deliberately give favorable information.

1.9 Assumptions of the Study

The study assumes that respondents would be available and they would give the requested information willingly and truthfully.

1.10 Definitions of Significant Terms

Academic Performance: The outcome of education, the extent to which a student, institution has achieved their educational goal where KCPE maximum marks is 500.

Classroom: physical structure within a school setting where learners can sit to receive their lessons.

Desk: Seat designed for a learner to sit on.

Library: is a building or room in which collection of books, Tapes, newspapers etc. are kept for people to read study or borrow.

1.11 Organization of the Study

The study is organized into five chapters. Chapter One covers the introduction to the study, statement of the problem, purpose of the study, objectives of the study, research questions, significance of the study, delimitation of the study, limitation of the study, assumptions of the study, definition of significant terms and organization of the study.

Chapter Two covers literature review which examines an introduction, academic performance as a measure of Internal Efficiency; influence of school library on academic Performance, influence of classrooms on academic performance, influence of school desks on academic performance ,influence of school text books on academic performance, Theoretical Framework and Conceptual Framework.

Chapter Three deals with Research Methodology under; introduction, Research design, Target population, sampling Technique and sample size, Research Instruments, Validity of Research Instruments, Reliability of Research Instruments, Data collection procedure and Data Analysis.

Chapter four presents' data captured from the field. Analysis of this data will be organized in themes based on research questions.

Chapter Five covers summary of findings, discussion, conclusions and recommendations of the study. It is concluded with suggested areas for further research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section examines literature related to the study. The review is examined under the influence of infrastructure on academic performance in public primary schools from global, regional and local perspectives. Relevant theoretical and conceptual frameworks have also been provided.

2.2 Academic Performance in Public Primary Schools

The role of primary education is to lay the foundation for further education and if a good foundation is laid at this level, there are likely to be no problem at subsequent levels. Different people at different times have passed the blame of poor performance in primary school to pupils because of their low retention, parental factors, association with wrong peers, low achievement, low retention, and the likes Aremu & Sokan, (2003), Aremu & Oluwole (2001), Poor academic performance according to Aremu (2000) is a performance that is adjudged by the examiner and some other significant as falling below an expected standard. Poor academic performance has been observed in schools especially public primary schools Adesemowo, (2005). Aremu (2000) stresses that academic failure is not only frustrating to the pupils and the parents, its effects are equally grave on the society in terms of dearth of manpower in all spheres of the economy and politics.

2.3 Influence of Libraries on Academic Achievement

Oxford advanced learners dictionary described a library as a building or room in which collection of books, tapes, newspapers etc. are kept for people to read, study or borrow.

Library is an essential factor in teaching-learning process. It forms one of the most important educational services. The educational process functions in a world of books. The chief purpose of a school library is to make available to the pupil, at his easy convenience, all books, periodicals and other reproduced materials which are of interest and value to him but which are not provided or assigned to him as basic or supplementary textbooks. The importance of library has been demonstrated by the government when she expressed in the National Policy on Education (NPE) that every state Ministry needs to provide funds for the establishment of libraries in all her educational institutions and to train librarians and library assistants. As a resource, it occupies a central and primary place in any school system. It supports all functions of school-teaching and provides service and guidance to its readers.

According to Fowowe (1988) a library must be up-to-date and at the same time allow access to older materials. It must be properly supported financially to fund materials and services among others. While itemizing the types of libraries, Ola (1990) opined that secondary school library in whatever form, has replaced the traditional method of 'chalk and talk' in imparting knowledge to students that its effect on academic performance need not to be over-emphasized. He concluded that a well-equipped library is a major facility which enhances good learning and achievement of high educational standard. In his words, Farombi (1998) reiterated that school libraries may not be effective if the books therein are not adequate and up-to-date as its impact may only be meaningful if the library could be opened to the students always for a considerable length of time in a school day. With all the above mentioned facts, it is sad to know that many schools operate without libraries Shodimu, (1998) whereas Ogunseye (1986) had earlier noted that total absence of an organized school library would continue to spell dooms for thousands of secondary school students. This statement clearly implied that many schools operate without libraries and had affected the academic performance of their students. Moreover, Fuller (1986) identified a school library as an instructional resource which may significantly influence pupils' achievement after controlling for pupils' family background. He found that effect of library size and its activity have been positive. Also, in his study on the relationship between instructional facilities and academic performance, Popoola (1989) discovered that library correlates with academic achievement and those schools with well-equipped library normally maintain high academic performance. In his study on raising school quality in developing countries, Fuller (1985) noted that collection of books kept for reading in the library is related to academic performance.

2.4 Influence of Classrooms on Academic Performance

Gakuru (1982) indicates that the condition of school buildings is an important aspect in the learning process. For example, teachers are able to leave their teaching aids in classrooms with lockable doors and windows for as long as they wish. Those who are forced to pull them down at the end of every day feel unmotivated to use them. The Government of Kenya in the Koech Report (1999) noted that congestion within classrooms affect the teaching /learning environment.

The quality and adequacy of physical facilities and equipment have a direct bearing on quality of education. A school with inadequate classrooms will be forced to accommodate more students than recommended. This will exert a lot of pressure on resources such as teachers who may compromise their methodology as part of adaptive mechanism Nafukho,

(1991); Pscharapolous &Woodhall, (1985).Lack of basic facilities like laboratories has compromised the teaching of science subjects. Topics that are meant to be taught practically are taught theoretically as part of adaptive mechanism by teachers due to inadequate resources to enable effective teaching of the same. This ends up affecting negatively students' performance reducing their competitiveness for opportunities whose placement is pegged on performance in such subjects Mayama (2012); Lumuli, (2009). This study proposes to establish the state of physical facilities in public primary school in Ruiri location in order to evaluate how it is impacting on academic performance of learners. The government has directed huge sum of money to finance education and in particular to raise performance and quality education for all.

2.4.1 Class Composition

Studies examine classroom grouping methods, including ability grouping of students, single-sex classrooms and cooperative learning groups. Past studies has found that classrooms with highly cooperative groups appear to have students with more positive perceptions of fairness in grading, stronger class cohesion, and higher degree of social support, as well as higher achievement scores. Female students have been found to prefer collaborating with other students when studying and resolving problems and they have a stronger preference for teacher support than male students. The primary school environments tend to use collaborative strategies more frequently and have higher levels of teacher involvement and support than is found in secondary schools. Research on single-sex classrooms has been more divided in terms of academic outcome research. Some studies found that girls do better in math and science particularly when separated from male students; other studies found no achievement differences between genders when either in single-sex or mixed-sex classrooms

2.4.2 Class Size

Class size has been identified as determinant of academic performance. According to the manual of the Ministry of Education the length and width of a classroom should be 7.5 meters by 5.85Meters or 7.5 meters by 6 meters. The classes should accommodate a maximum of 30 learners for one seater desks or 40 learners in two seater desks in line with the Ministry of Education circular on health and safety standards (2001). Classrooms should be properly lit and ventilated; the floors should be level and clean always. For cemented floors any cracks should be repaired in good time. Mud walls and floors regularly smeared with dung. According to the same circular, efforts should be made to cement all floors. Studies have indicated that schools with smaller class sizes perform better academically than

schools with larger class sizes. Kraft, (1994) in his study of the ideal class size and its effects on effective teaching and learning in Ghana concluded that class sizes above 40 pupils have negative effects on students' achievement. Asiedu-Akrofi, (1978) asserts that since children have differences in motivation, interests and abilities and that they also differ in health, personal and social adjustment and creativity generally good teaching is best done in classes with smaller numbers that allow for individual attention .Studies about class size by researchers have shown that class size influences student and teacher behaviors. In general, smaller classes are associated with students who are less stressed and are more frequently on-task with fewer reported behavior problems than students in larger classes. Although teachers tend to use similar instructional strategies whether teaching large or small classes, there is some evidence to suggest that more class time is spent on administrative tasks for larger classes, leaving less time available for instruction. Some research has suggested that differences in academic outcomes based on class size are due to differences in student behaviors. Teacher-to-child ratios are also of interest to many researchers because the number of reported behavioral problems seems to increase as class size increases. Many researchers have observed that large classes, with 30 or more students, tend to have a larger number of students off task more often than with fewer students engaged with the teacher than children in small classes of 20 students or less. According to Adaralegbe (1983) classes should be held under hygienic conditions such as ceiling, fixed with doors and windows, concreted floors Yet there may be a social cost for students in small classes; other researchers found that smaller classes also had high incidences of children engaging in a social and exclusionary behavior. Whether students are engaging in on-task or disruptive behavior can also be influenced by effective classroom management instructions and consistency of teacher enforcement. Most schools do not have adequate classrooms to accommodate the large numbers of pupils enrolled under FPE. The classrooms are generally congested and there is hardly space for movement. The classrooms are in poor condition. Lighting is poor as many classrooms depend only on sunlight. Akinwumiju and Orimoloye (1987) opined that education institutions from Nursery to University require buildings for their effective operations. Classrooms, offices, assembly halls, laboratories and staff quarters are needed .Important items like furniture for staff and students, books, science equipment, games and sport equipment should be adequate in number and they should all be in good conditions for schools to function properly.

2.5 Influence of Desks on Academic Performance

Norms are specifications for school physical infrastructure. They are classified as school basic physical infrastructure and sanitation infrastructure. According to UNESCO (2005), appropriate and sufficient building, child friendly, safe environment enhance child rights. The Ministry of Education in Kenya has come up with safety standards manual for schools in Kenya (MoEST, 2005). This emphasizes the importance of complying with Education Act (Cap 211) and Public Health Act (Cap 242). The manual discusses size and number of physical infrastructure and recommends the need for sufficiency. According to this acts physical infrastructure includes structures such as classrooms, kitchen, laboratories, water tanks, playground, and equipment among others. The facilities can be either permanent or temporary. Such structures are supposed to be appropriate, adequate and properly located devoid of any risks to users in order to enhance suitable learning environment for learning without which academic performance would be difficult to achieve.

The furniture in classrooms, especially the desks, should be appropriate for use by both male and female learners. Poorly constructed or inappropriate desks can lead to physical deformities such as curvature of spine, contraction of chest, confirmed stoop among others. This can cause tension among learners and become a hindrance to academic performance. The class teachers should ensure that desks are arranged in a manner that facilitates or allows easy and orderly movement of learners in the class. Each desk should have no more than 3 learners and the space between any two desks should be at least two feet. Buildings should be accessible by all learners including special needs learners.

2.6 Theoretical Framework

Every investment has expected future results. To achieve these results, one requires certain sustained efforts. Effectiveness of infrastructural funding would rely heavily on the theory of action. This theory posits that more resources are the most effective means to improve achievement. It was proposed by Coleman James (1986), as an organizing principle to bring together the beliefs and actions of individuals towards a collective goal.

In primary school infrastructure funding, there is need to find means for more resources in order to achieve educational goals before this is done the funding agents need to understand the influence of infrastructure on academic performance in order to provide for enough funds to each institution . Kenya has been severely constrained in her efforts to achieve UPE. Public investment in schooling has increased more than ten folds since 2002 in an effort to achieve MDG, Ochola et al, (2007). When KESSP program was launched, there was a major backlog of infrastructure provision and a shortage of which has in many cases suffered from

lack of investment over a number of years. While recognizing that communities must remain responsible for the construction and maintenance of facilities, under FPE, the government of Kenya endeavored to provide additional support to schools in the needy areas (MOE, 2005). The KESSP program aims at mobilizing communities, local organizations and other stakeholders to provide support in improving and maintaining existing infrastructure. This cooperation will bring more resources which will result in effectiveness. The KESSP program is properly organized and from 2005-2010, all primary schools in Kenya except those in North Eastern Province who benefit from other program will receive funding. School improved grants of between Ksh 100,000 – Ksh 200,000 per year are to be given to 1,000 schools to financially and technically improve their infrastructure, build capacity to implement, mobilize community support and monitor and evaluate both the program and impact. (MOE, 2005). Apart from KESSP other effort aimed at improving infrastructure are going on need to be enhanced

2.7 Conceptual Framework.

The study is guided by Education Production Function theory. Education function represents mathematically the process of which a school transforms inputs Stephen &Eileen, (1990). An education production function is an application of the economic concept of a production function to the field of education. It relates various inputs affecting a student's learning like pupil-teacher ratio, instructional materials, physical facilities that affect the quality of education. It measure outputs including subsequent labor market success, school enrollment, graduation rates, and most frequently, standardized test scores. A large number of successive studies, increasingly involving economists, produced inconsistent results about the impact of school resources on student performance, leading to considerable controversy in policy discussions. Additionally, policy discussions about class size reduction heightened academic study of the relationship of class size and achievement.

2.1 Conceptual Framework

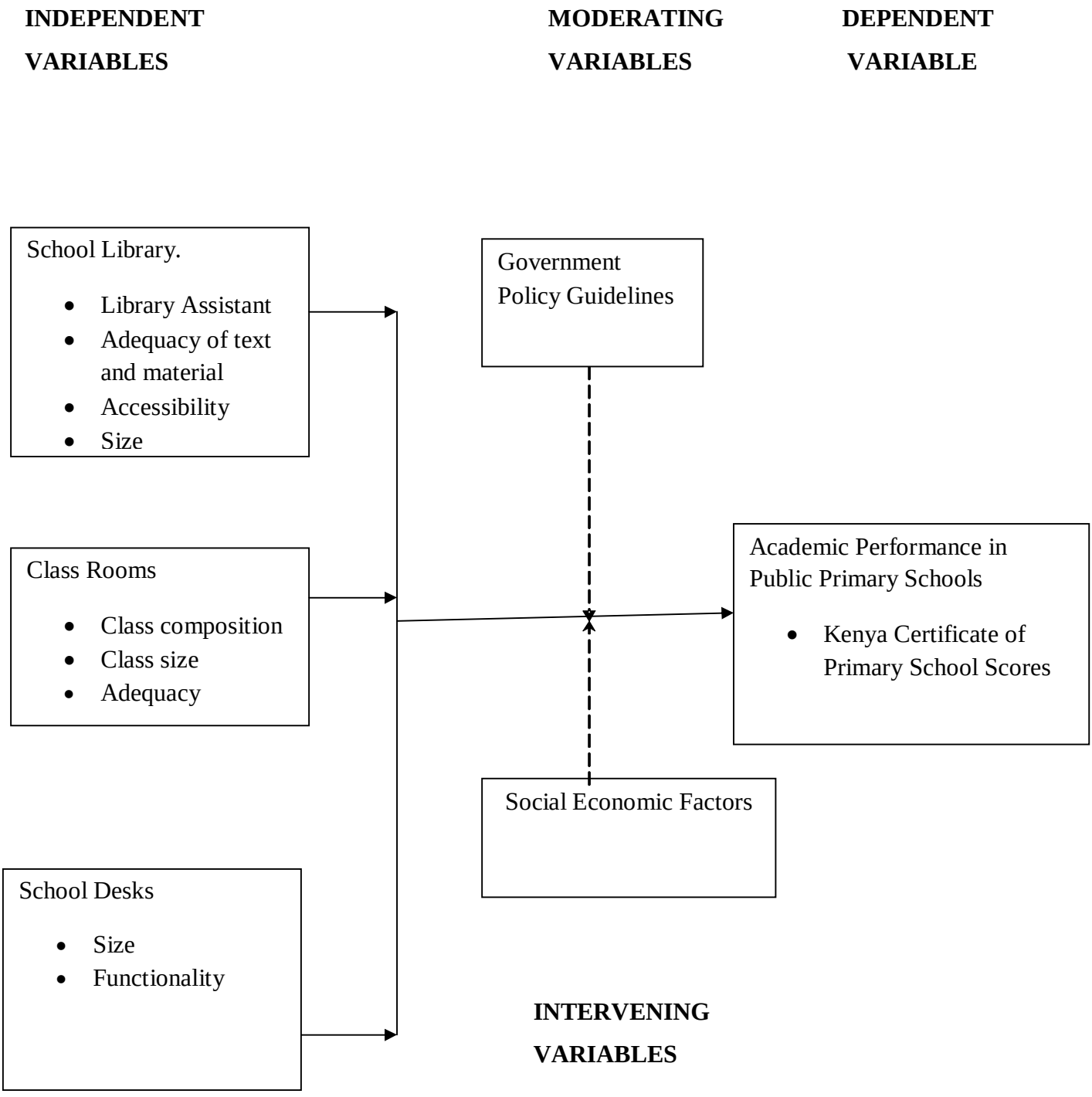

Figure 1. Conceptual Framework

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section presents Methodology used in the study. It is presented under; Research Design, Target population, Sample Size ,Sampling Technique and, Research Instruments, Validity of Research instruments, Reliability of Research instruments, Data collection procedures and Data Analysis Techniques.

3.2 Research Design

This study used a descriptive survey research design. In using this design, data collection was carried out in a structured process. Kumar (2005) argues that the goal of descriptive research is to describe the characteristics of a selected phenomenon and involves the collection of data without manipulation of variables. The sole purpose of descriptive research is to provide an accurate and valid representation of the factors or variables that are relevant to the research question .Descriptive survey research is helpful in indicating trends in attitudes and behaviors, and enables generalization of the findings of the research study to be done .Neuman, (2000). This design is appropriate for this study because it will enhance the amount of quality information.

3.3 Target Population

Target population is the specific components that the study focuses on and to which the findings of the research are generalized (Patton, 2002).

Target population is finite in size, exists within a given time frame, and is accessible. Patton (2002) argues that for a target population to be plainly defined there is need to clearly define the properties that the researcher anticipates to investigate by use of a working definition.

The study targeted all the 7 public primary schools in Ruiri Location because they are few and have been presenting candidates for KCPE examination up to 2012, the 7 head teachers because they are responsible for implementation of education curriculum policy at school level , 14 standard eight teachers , two from each sampled school , 181 pupils within the target schools .The study targeted standard eight classes because they have been in the school system long enough to understand the school based factors affecting their academic performance and understand sources of school funding better than the lower classes.

Table 3.1 Target Population

Population	Total No.	Sample	Percentage
Head teachers	7	7	100
Teachers	56	14	25
Pupils	871	181	21
Schools	7	7	100
TOTALS	934	202	

3.4 Sampling Procedure

To determine the sampling techniques the researcher, after weighting each of the sampling units in the research, utilized a combination of probability and non-probability sampling techniques. Chava, F and Nachmas, (1996) indicate that the researcher has to establish the weight of the sampling units and employ appropriate sampling techniques. They add that the choice of the sample size must be chosen by some logical process and should be determined by the researcher depending on the following: Population, type of study, standard of accuracy desired, and availability of resources among others. In this study, all the 7 primary schools are selected for the study due to their small number and they are included in the government school funding program. These schools were also information rich with respect to the purpose of the study because they have been presenting KCPE candidates for a number of years.

3.4.1 Sample Size

When the population is more than 10,000 individuals 384 of them are recommended as the desired sample size Mugenda and Mugenda, (1999).Mugenda and Mugenda, (1999), recommend the following formula to calculate sample size when the population is less than 10,000. The schools selected, gave a sample of 22%. Cohen &Manion, (1994), state that a sample of between 20-30% is accepted in a survey. For pupils, the researcher established the desired sample size using the formula recommended in Mugenda and Mugenda, (1999) and revisited by Kothari, (2009) as shown below:

nf = n / 1+ (n/N)

Sample size: 384

1+ (384/934) = 202

Where:

nf – The desired sample size when population is less than 10,000

n - Desired sample when population is more than 10,000 and this is given as 384.

N - Estimate of population size.

Using this formula, the pupils sample size will be = 202

3.5 Methods of Data Collection

This involved self-administered questionnaires, interview and observation schedules. At first, the researcher requested for an introductory letter from University of Nairobi. Then he sought a permit from the National Council for Science and Technology within the Ministry of Education Science and Technology. This was presented to the County Director of Education and the Sub county Education Officer for authority to carry on with research in the study locale. He then visited schools for introductory purposes and request for appointment from the head teachers about the nature of the study. On the appointment date, the researcher visited the sampled schools for responses from the pupils and then explains to them the purpose of the study and what is required of them. The researchers assured the respondents of confidentiality before distributing the questionnaires to them, and ask them not to indicate their names. The researcher then collected the completed questionnaires to avoid distortion of the respondents' answers by other pupils. The sampled class teachers were given the questionnaires and assure them of their confidentiality. When they completed filling them, the researcher collected the questionnaires. The head teachers in each school were interviewed in their respective offices. The observation schedules were completed by the researcher in the sampled schools during the study. All completed instruments were bound separately depending on their category and sample school for analysis.

3.6 Validity of Research Instruments

Validity is the accuracy and meaningfulness of inferences drawn from the researcher findings. It is the degree to which results obtained from the analysis of the data actually represent the phenomena under study Mugenda and Mugenda, (2003). In this study, the validity was taken to mean the extent to which the instruments cover the objectives. Validity refers to quality of data gathering instrument or procedures that enable the instrument to measure what it is supposed to measure Kumar, R. (2005). To ascertain content validity of this research instrument, the researcher consulted expert's literature in research methodology in the Department of Education, Administration and Planning in the University of Nairobi. This enabled the researcher to develop instruments that yielded content valid information.

3.7 Reliability of Research Instruments

Reliability is the ability of the instrument to give consistent results after a number of repeated trials Kerlinger, (2003). Reliability was enhanced through use of instrument triangulation technique which is an acceptable technique in survey research that is qualitative in nature since it leads to credibility to the findings of the study Kothari, (2008); Mugenda and Mugenda, (2003).

A pilot study was conducted by administering the questionnaires to few head teachers, class teachers and pupils from neighboring schools in Rwarera location with the intention of determining the reliability of the questionnaire. Kothari (2004) argued that reliability is the consistency of measurement and is frequently assessed using the test–retest reliability method. Reliability is increased by including many similar items on a measure, by testing a diverse sample of individuals and by using uniform testing procedures.

Cronbach's Alpha was applied to measure the co-efficient of internal consistency and therefore reliability of the instrument. A reliability coefficient of 0.71 was obtained and considered high enough for the instruments to be used for the study Jwan (2010).

3.8 Methods of Data Analysis

The study used Statistical Package for Social Sciences (SPSS) to analyze data. This is done by first cleaning, coding, entering and then analyzing. The data was analyzed both qualitatively and quantitatively. Quantitative data was edited to eliminate inconsistencies, summarized and coded for easy classification in order to facilitate tabulation and interpretation. Descriptive statistics was used in describing the sample data in such a way as to portray the typical respondent and to reveal the general response pattern. Analyzed data was then presented in form of percentages, means, standard deviations and frequencies. Based on the research questions and the objectives and thereafter, inferences and conclusions will be drawn

3.9 Ethical Consideration

Written permission will be sought from the principle secretary Ministry of Education Science and Technology. The research protocol and consent will be sought and approved by the University of Nairobi. The aim of the study will be explained to all potential participants. Permission to include them in the study will be sought and where necessary written consent will be obtained. The participant will be informed of their freedom to withdraw any time without diving reasons. A reason not to participate will be highly respected; also confidentiality and privacy will be ensured and maintained throughout the study.

3.10 Operationalization of Variables

Table 3.2 Operationalization of Variables

Research Objective	Variables	Indicators	Measurement	Scale	Data Collection	Data Analysis
To investigate the influence of School Library on academic performance in public primary schools in Ruiri Location	**Independent Variables** School Library	- Availability of Library - Study materials stocked	Checklist on library	Ratio	Questionnaire Observation schedule	Descriptive
To examine the influence of classrooms on academic performance in Public Primary Schools in Ruiri Location.	**Independent Variables** Classrooms	-Gender -Number of Pupils in class -Number of Classrooms	Checklist on Number of classrooms -Class register	Nominal	Questionnaire Observation Schedule	Descriptive
To Determine the influence of school desks on academic performance in Public Primary Schools in Ruiri Location	**Independent Variables** School Desks	-Number of desks per class - Size (Number of pupils per desk)	Checklist on number of desks in the class	Ratio	Questionnaire Observation Schedule	Descriptive

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter contains data analysis, presentation and interpretation of findings. The study intended to investigate the influence of school infrastructure on academic performance in public primary schools. The chapter discusses results of the study under the following headings: questionnaire return rate, demographic characteristics of the respondents, objectives of the study namely how school library, classrooms, and school desk influence academic performance in public primary schools in Ruiri Location.

4.2 Questionnaire Return Rate

The questionnaire return rate was 97.6 %, as 209 (181pupils questionnaires, 14 teachers' questionnaires, 7 head teachers interview schedule and 7 observation schedule) were used. This was possible because the interviewer waited for the respondent to complete the questionnaires and interview schedules and collect them immediately.

4.3 Demographic Characteristics of the Respondents

This section discusses the pupils' gender, number of years in the institution and school enrolments.

4.3.1 Study Responses by Gender

The pupils were asked to indicate their gender. The responses are shown in Table 4.1.

Table 4.1 Gender of the Pupils

Respondent	Frequency	Percentage
Male	76	43.2
Female	100	56.8
Total	176	100.0

The study findings indicated that 43.2 % were males while 56.8% were females among the pupils. The findings have shown that in the public schools in Ruiri Location girls are more than boys.

4.3.2 School Enrolment

The headmasters were asked to indicate the school enrolment from 2008 to 2012 and the responses are in Table 4.2.

Table 4.2 School Enrolment

School	Day or boarding school	2008	2009	2010	2011	2012
Ncoroiboro	Day	450	419	310	297	314
Matuuru	Day	160	162	172	171	228
Loire	Day	250	245	239	200	220
Kathunguru	Day	520	500	501	486	386
Mutuma	Day	117	109	158	163	142
Mutethia	Day	41	71	55	27	35
Tutua	Day	85	70	79	83	90
Total		1623	1576	1514	1427	1415
Mean		231	225	216	203	202

The study findings indicated that the school enrolment was 231 pupils in 2008 and 202 pupils in 2012. The study shows that the school enrolment has been decreasing over the years. This is due to low academic performance as indicated.

4.4 School Library and its Influence on Academic Performance in Public Schools

In this section, the researcher sought to find out how school library influences academic performance in public schools.

4.4.1 Observation Schedule for Library

An observation was conducted using observation schedule in the schools concerning library and responses indicated on Table 4.3

Table 4.3 Observation Schedule for Library

Issue	Frequency	Percentage
Has library	1	14.2
Permanent library	1	14.2
Has library assistant	1	14.2
Study materials are adequate	1	14.2
	6	85.7
Library accessible	1	14.2
Library neat and spacious	1	14.2

From the observation schedule in the schools, only 14.2 % (1 school) of institutions have libraries which are permanent and have library assistants while 85.7% (6) disagreed that the schools have library which have adequate materials. However, majority of the respondents (85.7%) disagreed that the study materials in the library are adequate. The findings also indicated that the library is sometimes accessible and respondents strongly agreed that the library is neat and spacious. Lack of library and availability of adequate materials may contribute to low academic performance.

4.4.2 Sources of Funds for Physical Infrastructure

The researcher asked the pupils to indicate the source of funds for library in schools and responses are in Table 4.4.

Table 4.4 Source of Funds for Library

Source of funds	Frequency	Percentage
Government and parents	160	90.9
Parents and fees donors	15	8.5
Constituency Development Fund	1	0.6
Total	176	100.0

From the study, 90.9 % of the pupils indicated that library can be constructed from funds obtained from government and parents. This shows that with good will funds from government and parents are sufficient to build library in schools.

4.4.3 Library Comfortable

The pupils were asked to indicate the state of libraries in their schools and their responses are shown on Table 4.5.

Table 4.5 State of the Library

State of library	Frequency	Percentage
Very comfortable	2	1.1
Comfortable	3	1.7
Fairly comfortable	10	5.7
No library	161	91.5
Total	176	100.0

From the findings, 5.7% of the pupils indicated that the library is fairly comfortable while only 1.1% of pupils indicated that the library is very comfortable. Therefore the libraries require some improvement. Only one school has the library. Comfort in library lead to pupils concentrate well in their studies. Discomfort may defeat academic performance.

4.5 School Classrooms and its Influence on Academic Performance in Public Schools

This section sought information concerning the influence of school classrooms on academic performance in public schools.

4.5.1 Funds for Classroom Construction

The respondents were asked to indicate the source of funds for classroom construction and responses are shown on Table 4.6

Table 4.6 Funds for Classroom Construction

Source of funds	Frequency	Percentage
Government	1	0.6
CDF and Government	125	71.0
Parents and government	50	28.4
Total	176	100.0

The findings has shown that 71% of pupils indicated that funds for classroom construction is obtained from Government and Constituency Development Fund (CDF) while 28.4% of pupils indicated that funds for classroom construction is obtained from Parents and government as shown on results from pupils questionnaires.

4.5.2 Reason for Overcrowding in Schools

The pupils were asked to indicate whether they are overcrowded in classrooms.

The pupils were asked the reason for being overcrowded and Table 4.7 shows the responses.

Table 4.7 Reasons for Overcrowding in Classrooms

Reasons	Frequency	Percentage
Very many pupils in a classroom	44	25.0
Inadequate desks	50	28.4
Not crowded and thus comfortable	82	46.6
Total	176	100.0

From the study, only 46.6% of pupils indicated that they are not overcrowded and thus comfortable in their classrooms. The study also indicated that the classrooms have very many pupils (25%) and have inadequate desks (28.4%). 53.4% of respondents indicate overcrowded classrooms. This may lead to low academic performance.

4.5.3 Seating Arrangements

The teachers were asked to indicate the seating arrangement of pupils in the classroom and Table 4.8 shows the responses.

Table 4.8 Seating Arrangements

Arrangement	Frequency	Percentage
Mixed gender	7	100
mixed academic ability	7	100

The study has shown that all the seven public schools (100%) have mixed gender and mixed academic ability as their seating arrangement. This enables weak pupils to be assisted by clever pupils.

4.5.4 Seating Arrangements Observation Schedule

An observation schedule was conducted concerning the conditions of classrooms and responses indicated on Table 4.9 and Table 4.10.

Table 4.9 Observation Schedule for Conditions of Classrooms

Issue	Response	Frequency	Percentage
Has special facilities	Yes	3	42.9
	No	4	57.1
Number of classrooms	Permanent	73	84.9
	Temporary	13	15.1
Cleanliness	Tidy	1	14.3
	Fairly tidy	6	85.7
Number of desks		142	-
Number of pupils per desk	2	2	28.6
	3	3	42.9
	1	1	28.5
Lighting of classrooms	Adequate	4	57.1
	Fairly adequate	1	14.3
	Inadequate	2	28.6
Class fixed with	Yes	6	85.7

Issue	Response	Frequency	Percentage
Has special facilities	Yes	3	42.9
	No	4	57.1
Number of classrooms	Permanent	73	84.9
	Temporary	13	15.1
doors	No	1	14.3
Doors lockable		6	85.7
Classrooms accessible		7	100

From the observation schedule, 42.9% of schools have special facilities, 84.9% of classrooms are permanent, 85.7% are fairly tidy, 42.9% of desks shared by 3 pupils, 57.1% of classrooms are adequately lighted, and 85.75 classrooms are fitted with doors while 85.7% have lockable doors. This shows that most public schools lack special facilities for special pupils and as such needs of these pupils not met and hence low academic performance.

Table 4.10 Observation Schedule for Furniture and Classrooms

Issue	Response	Frequency	Percentage
Painted	Yes	2	28.6
	No	5	71.4
Plastered	Yes	1	14.3
	No	6	85.7
Clearly illuminated	Yes	6	85.7
	No	1	14.3
Roofed	Yes	6	85.7
	No	1	14.3
Has doors and windows	Yes	6	85.7
	No	1	14.3
Type of floors	Earthen	6	85.7
	Cemented	1	14.3
Sitting arrangement	Orderly	6	85.7
	Not orderly	1	14.3

From the observation schedule, 28.6% of schools are painted,14.3% plastered,85.7% clearly illuminated, properly roofed, fitted with doors, have special facilities, 84.9% of classrooms are permanent, 85.7% are fairly tidy, have earthly floors and have orderly sitting arrangements. This shows that public schools require to be assisted with physical infrastructure.

4.6 School Desks and their Influence on Academic Performance in Public Schools

This section covers issues appertaining to school desks and their influence on academic performance in public schools.

4.6.1 Source of Funds for Desks and Problems with Desks

The headmasters were asked to indicate the source of funds for desks and responses are shown on Table 4.12.

Table 4.11 Source of Funds for Desks

Source	Frequency	Percentage
Member of Parliament	1	14.3
CDF	1	14.3
Government	2	28.55
Government and parents	2	28.55
Fees donors	1	14.3
Total	7	100.0

From the findings, 28.55% of headmasters indicated that the source for funds for desks is obtained from government and parents while 14.3% of headmasters indicated that the source for funds for desks is obtained from CDF, Member of Parliament and other fees donors.

The pupils were asked to indicate the problems with their class desks and responses are shown on Table 4.13.

Table 4.12 Problems with Class Desks

Problems	Frequency	Percentage
Tearing of clothes	70	39.8
uncomfortable to sit on	104	59.1
Not applicable	2	1.1
Total	176	100.0

The study has indicated that 59.1% of pupils indicated that the desks are uncomfortable to sit on while 39.8% indicated that the desks tear their clothes. This indicates un sustainability of desks in class. This may lead to discomfort to pupils and may lead to poor academic performance.

4.6.2 Type of Desks

The teachers were asked to indicate the type of desks in the classrooms and responses are shown on Table 4.14

Table 4.13 Type of Desks

Type	Frequency	Percentage
One seater	1	7.1
Two seater	6	42.9
More seater	7	50.0
Total	14	100.0

From the findings, 50% of the teachers indicated the desks are sat on by more than two pupils while only 7.1 % of desks are one seater desks. The desks are not adequate for pupils to sit comfortably. That is each pupil to sit alone or at least two pupils per desk and this may lead to low performance.

4.7 Academic Performance in Public Schools

This sections show the academic performance of pupils in public primary schools.

4.7.1 Trends of Academic Performance from 2008 to 2012

The teachers were asked to indicate the schools performance from 2008 to 2012 and their responses are shown on Table 4.15.

Table 4.14 Trends of Academic Performance from 2008 to 2012 (KCPE mean grade)

School	2008	2009	2010	2011	2012
Ncoroiboro	180.37	190.35	208.7	214.04	211.31
Matuuru	185	182	191.06	225.83	244.17
Loire	182.34	183.94	192.03	187.7	210.95
Kathunguru	169.89	127.95	162.87	187.07	200.00
Mutuma	180.81	195.38	180.78	215.71	222.01
Mutethia	179.3	156.25	148.73	212.41	220.15
Tutua	256.19	242.08	233.12	255.26	254.04
Total	1333.9	1277.95	1317.29	1498.02	1562.63
Mean	190.6	182.6	188.2	214.0	223.2

Source D.E.O'S Office

From the findings, the mean score for 2008 was 190.6 marks, 188.2 in 2010 and 223.2 in 212. The results show that the academic performance dropped in 2009 but has risen over the years to 223.2 by 2012. However, even the improved mean score is still below half of the maximum score of 500.

CHAPTER FIVE

SUMMARY OF FINDINGS, DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter focuses on the summary of findings of the study which formed the foundation for discussions. The discussions provided a firm basis upon which conclusions and recommendations were advanced to address the influence of school infrastructure on academic performance in public primary schools in Ruiri Location, Buuri Sub- County in Meru County. It also includes suggested areas for further research.

5.2 Summary of Findings

The following are the key findings presented under the three objectives of the study as follows

5.2.1 School Library and its Influence on Academic Performance in Public Schools

The study shows that a large majority of the schools in Ruiri Location had no library and that even those schools that had a library the reading materials in them were inadequate. Also, often the library was inaccessible. In fact, the study established no difference in performance between the schools with or without a library.

5.2.2 School Classrooms and its Influence on Academic Performance in Public Schools

The study shows that majority of public primary schools in Ruiri Location have permanent classrooms. However, most of the classrooms are unpainted, have no cemented floors, their walls are un plastered and are overcrowded with pupils. Such facilities are not conducive to good academic performance.

5.2.3 School Desks and their Influence on Academic Performance in Public Schools

The study shows that most of public primary schools in Ruiri Location have inadequate desks. Available desks are shared by more than two pupils and most of the desks are broken and often tear pupils' clothes.

5.3 Discussion of Findings

This section discusses the key findings of the study against literature on academic performance in primary schools.

5.3.1 School Library and its Influence on Academic Performance in Public Schools

The study shows that a large majority of the schools in Ruiri Location had no library and that even those schools that had a library the reading materials in them were inadequate. In fact, the study established no difference in performance between the schools with or without a library the study agrees with Ogunseye (1986) who stated that total absence of an organized school library spells doom for thousands of primary school students since schools operating without libraries has their academic performance of their pupils affected.

5.3.2 School Classrooms and its Influence on Academic Performance in Public Schools

The study shows that majority of public primary schools in Ruiri Location have permanent classrooms. However, most of the classrooms are unpainted, have no cemented floors, their walls are unplastered and are overcrowded with pupils. Such facilities are not conducive to good academic performance. This finding agrees with the Government of Kenya in the Koech Report (1999) which noted that congestion within classrooms affect the teaching /learning environment. The finding on overcrowded classrooms support Eshiwani's (1988) finding that one of the factors that caused poor KCPE performance is lack of learning and teaching materials as these led to reduced learners' motivation.

5.3.3 School Desks and their Influence on Academic Performance in Public Schools

The study shows that majority of public primary schools in Ruiri Location have inadequate desks that forces at least two pupils to share one. Often these desks were broken and leading to tearing of pupils' clothes. This situation does not provide conducive learning environment. The findings agrees with Chimombe (2011) who noted that school environment that is not conducive for learning may lead to underperformance. The finding on adequacy of desks supports Lumuli (2009) findings that an adequate learning facility is a factor that enhances quality and relevance of skills imparted to learners.

5.4 Conclusion of the Study

The study concluded that, in general, infrastructure in public primary schools in Ruiri Location is poor. There was only one primary school that had a library and even this one had inadequate study materials. Also most classrooms in all the schools were overcrowded with nearly all learners sharing desks in classrooms that called for painting of the walls as well as plastering and cementing the floors. While accepting that infrastructure is just one determinant factor, it would not be far-fetched to conclude that infrastructure has been a key factor in the below average performance of Ruiri pupils in national examinations over the years.

5.5 Recommendations

The following policy recommendations were made from the findings of this study.

a) The Ministry of Education should ensure that schools infrastructure, including spacious and well-tendered classrooms with adequate number of desks should be availed to every public primary school.

b) In addition, the Ministry of Education should ensure that every primary school has a spacious library that has an adequate amount of relevant books.

c) In this effort, the Ministry should seek cooperation of donors that included concerned parents.

5.6 Suggested areas for further Research

The following areas are suggested for further study.

i. The influence of school infrastructure on academic performance in public primary schools in other parts of Kenya.
ii. The influence of school infrastructure on academic performance in public secondary schools in Kenya.

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APPENDICES

APPENDEX 1: LETTER OF INTRODUCTION

Raphael Nturibi
P.O. Box 60200-1004
Meru.
28-5-2015

The Head Teacher,

Dear Sir. /Madam,

RE: LETTER OF INTRODUCTION ON DATA COLLECTION.

I am a student at the University of Nairobi carrying out a research study leading to award of Masters of Arts degree in project planning and Management at the University of Nairobi. This study aims at investigating and analyzing the Influence of school infrastructure on academic performance in public primary schools in Ruiri Location.

Your school has been selected for the purpose of participation in this study. It is my humble request for your authority for me and my enumerators to interact with target groups within your school (Teachers, Students). The sample population will be provided with questionnaire and participants will participate willingly. I have attached here a draft questionnaire for your review. The information collected will be treated with utmost confidence.

I take this opportunity to thank you in advance for your co-operation.

Yours faithfully,
Raphael Nturibi.
Reg.No. L50/66239/2010

APPENDIX 2: LETTER OF CONSENT

I am Raphael Nturibi from the University of Nairobi. I kindly request to know your views on influence of school infrastructure on academic performance by pupils in public primary schools in Ruiri Location. Your school has been sampled for this study. If you consent to participation, you will be requested to answer some questions on the about factors influencing academic performance in your school. Your response will be treated as confidential, only to be known by the interviewers. Your participation is entirely voluntary and you are free to refuse to participate or stop answering questions at any point.

Answering the questions will not take more than twenty or so minutes of your time.

Participant statement:

I agree to participate in the interview.

Participant signature……..

Date……

APPENDIX 3: PUPILS QUESTIONNAIRE

Dear respondent, I the researcher, is a post-graduate student at University of Nairobi. I'm seeking information on the influence of infrastructure on academic performance in public primary schools in Ruiri location. Please read the instructions for each question and fill appropriately. You are assured that the information you give will be treated confidentially and will be used for the purpose of the research ONLY.

Part one: General information

1. Name of the school ……..
2. Zone ……..
3 Class ……
4. Gender

Male	1
Female	2

5. Type of school

Boarding	1
Day	2

Part two: Questionnaire on Adequacy of Physical facilities

1. There are various sources of funds for physical infrastructure in this school. According to you, where does the money used to build or repair the following structures come from?
   (Tick as appropriate)

Physical facilities Source

(a) Classes:

Member of Parliament	1
CDF	2
Government	3
Fees Donors	4

(b) Library:

Member of Parliament	1
CDF	2
Government	3
Fees Donors	4

(c) Furniture -Desks:

Member of Parliament	1
CDF	2
Government	3
Fees Donors/parents	4

2 (a) When your desks break who repairs them?

…… ……..

(b) Are they repaired in time?

……

3. Do you find yourself overcrowded in class?

……

If yes what has lead to this?

.....

4. Do you face any problems with your desks?

……...

If yes, list them

……

……

……

5. Has the availability of physical facilities contributed to you coming to school?

Yes	1
No	2

6. How comfortable are you with the following:

(Tick as appropriate

(a) Library:

Very comfortable	1
Comfortable	2
Fairly comfortable	3
Not comfortable	4

(b) Classes:

Very comfortable	1
Comfortable	2
Fairly comfortable	3
Not comfortable	4

(c) Furniture (DESK):

Very comfortable	1
Comfortable	2
Fairly comfortable	3
Not comfortable	4

7. Can a teacher access all students in class fairly? …….

If not, why?

……

……

……

……

APPENDIX 4: CLASS TEACHERS QUESTIONNAIRE

Dear teacher, the researcher is a post-graduate student at University of Nairobi .I'm seeking information on the influence of infrastructure on academic performance in public primary schools in Ruiri Location. Please read the instructions for each question and fill appropriately. You are assured that the information you give will be treated confidentially and will be used for the purpose of the research ONLY.

Part one: General information

1. Name of the school…….

2. Zone……

3. For how long have you taught in this school?

Part two: Questionnaire on adequacy of physical facilities.

1. What is the source of funds for physical infrastructure in your school?

CDF	1
LATF	2
DONORS	3
KESSP	4
Others	5

2. Do these provide sufficient funds for school physical infrastructure?

Yes	1
No	2

3. How would you rate the adequacy of the physical facilities? (Tick appropriately)

(a) Class:

Very adequate	1
Adequate	2
Fairly adequate	3
Not adequate	4

(b) Furniture:

Very adequate	1
Adequate	2
Fairly adequate	3
Not adequate	4

4. (i) what type of desks are in your class?

One seater	1
Two Seater	2
More seaters	3

(ii) How many pupils share a desk?

.....

5. Do you have any pupils with special needs in your school?

Yes	1
No	2

6. How satisfied are you with the general condition of the school physical infrastructure?

…….……

7. What do you feel about the level of funding for physical infrastructure in school?

Tick as appropriate

Very adequate	1
Adequate	2
Fairly adequate	3
Not adequate	4

8. What is the composition of the pupils in you class?

Boys only	1
Girls only	2
Mixed Gender	3

9. What is the seating arrangement in your class?

Separator Gender	1
Mixed Gender	2
Ability	3
Mixed Ability	4

Others please specify ……..

APPENDIX 5: HEADTEACHERS INTERVIEW SCHEDULE

Dear head teacher, I'm a post-graduate student at University of Nairobi. I'm seeking information on the influence of infrastructure on academic performance in public primary schools in Ruiri location. Please read the instructions for each question and fill appropriately. You are assured that the information you give will be treated confidentially and will be used for the purpose of the research ONLY

Part 1: General information

1. Name of the school……..

2 Length of time in the school……

Part 2: Interview on Adequacy

1. What are the sources of funds for physical infrastructure in your school?

KESSP	1
CDF	2
FPE	3
DONORS	4
OTHERS	5

2. a) School enrolment

2008……

2009……..

2010…….

2011…….

2012……

b). with the above enrolment what amount of funds was required to adequately cater for school physical infrastructure needs for this enrolment?

……

c). approximately, what percentage of the above is provided by the following?

GOVERNMENT	1
DONORS	2
LATF	3
CDF	4
Others	5

d) .How adequate is funds provided for school physical infrastructure funding?

Tick appropriately

Very adequate	1
Adequate	2
Fairly adequate	3
Not adequate	4

Part 5: Interview on Education Achievement

1. What are the KCPE scores trend in your school between 2008 and 2012?

a) Number of pupils/ mean score in 2008

b) Number of pupils/ mean score in 2009

c) Number of pupils/ mean score in 2010

d) Number of pupils/ mean score in 2011

e) Number of pupils/ mean score in 2012

2. How has the availability of physical infrastructure affected the school educational achievement?

……

……

3. To what level does physical infrastructure funding help in improvement of school academic performance?

……

……

4. a) Have you had any pupils dropping out in your school this year?

……

If yes how many? ……

b) What are the reasons for their dropout?

……

……

5. What concerns do teachers express about the conditions of infrastructure?

……

6. What do you think is necessary for improvement?

APPENDIX 6: OBSERVATION SCHEDULE ON SCHOOL INFRASTRUCTURE ANDLEARNING FACILITIES

Part 1: Observation on adequacy

The observer will observe the following:

Physical facilities

(a) Type and condition of classes, furniture.

i. Are they permanent?

Yes	1
No	2

ii. Semi-permanent?

Yes	1
No	2

iii. Painted?

Yes	1
No	2

iv. Plastered?

Yes	1
No	2

V.Are they clearly illuminated?

Yes	1
No	2

If yes, how many?.....

(b) Condition of teaching and learning resources

i. Furniture……

ii. Desks ……..……

iii. Tables ……..……

Iv.Blackboards/Blackwall ……

(c) Condition of classes

i. Roofed ……

ii. Doors and windows…….

iii. Type of the floor…….

Iv.Permanent/Semi permanent……

v. Seating arrangement…….

(d) Condition of library.

Please tick appropriately

- Is there any library?

Yes	1
No	2

- The library is permanent or temporally

Permanent	1
Temporally	2

- There is library assistant

Yes	1
No	2

- There are enough and various study materials in the library

Strongly agree	1
Agree	2
Disagree	3

-The library is accessible to all pupils.

Always	1
Sometimes	2
Rarely	3

-The library is neat and spacious

Strongly agree	1
Agree	2
Disagree	3

Part 3: Observation on classrooms

1. Are there any special facilities constructed to cater for the specific gender needs?

Yes	1
No	2

a) Number of classrooms in the school permanent … ……

Temporally ……

b) Classroom cleanliness

Tidy	1
Fairly Tidy	2
Untidy	3

c) Number of desks in the classroom occupied ……

d) Number of pupils per desk ……..

e) Lighting in the class is

Adequate	1
Fairly adequate	2
Inadequate	3

f) Class composition

Mixed ender	1
Single gender	2

g) Classrooms are fixed with doors and windows

Yes	1
No	2

h) Classroom doors are lockable when not in use

True	1
False	2

2. Are the classrooms easily accessible by all pupils and teachers?

Yes	1
No	2

APPENDIX 7: KCPE Mean Scores for Public Primary Schools in Ruiri Location (2008 -2012)

Table 1.1

	Years				
Primary School	2008	2009	2010	2011	2012
LOIRE	182.34	183.94	192.03	187.70	210.95
KANTHUNGU	180.81	195.38	180.78	215.71	222.01
NCOROIBORO	180.37	190.35	208.70	214.04	211.31
MATUURU	185.00	182.07	191.06	255.83	244.17
MUTUMA	179.30	156.25	148.73	212.41	220.15
TUTUA	169.89	127.95	162.87	187.07	200.00
MUTETHIA	256.19	242.08	233.12	255.26	254.04

Source: District Education Officer's Office – Buuri.