AN INVESTIGATION OF THE QUALITY OF SECONDARY EDUCATION IN
NKUENE DIVISION OF IMENTI SOUTH DISTRICT, MERU COUNTY

BY
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E55/CE/11114/08

A PROJECT REPORT SUBMITTED TO THE SCHOOL OF EDUCATION IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF
A DEGREE OF MASTER OF EDUCATION OF KENYATTA UNIVERSITY

MAY, 2012
DECLARATION

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

………………………………………………………………………………………………

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E55/CE/1114/08

This project has been submitted with our approval as university supervisors.

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DEDICATION

To my sons Kevin & Edwin

Thank you for encouraging me and understanding during my absence

To Maston

You were my source of inspiration all through.
AKNOWLEDGEMENT

I express my sincere gratitude to my supervisors, Ms. Githogori and Dr. Nyerere, for their enabling guidance and support from the beginning to completion of my study. My special thanks goes to my lectures who provided guidance and encouragement throughout the study. I would like to take this opportunity to sincerely thank Dr. Orodho for his stream of knowledge in proposal writing.

My sincere gratitude goes to Maston Maina for impressing on me not only to take up masters course but for his tireless moral and material support. I wish to thank him for finding time to read through my work.

My gratitude also goes to Emma Njiraini and Esline who spent their invaluable time in typing this work and spent most of their time in ensuring that the typing is completed in time.

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May the Good Lord bless you all.
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<td>BOG</td>
<td>Board of Governors</td>
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<td>DQASO</td>
<td>District Quality Assurance and Standards Officer</td>
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<tr>
<td>EFA</td>
<td>Education For All</td>
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<td>GST</td>
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<td>IPS</td>
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<td>ROK</td>
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<td>Statistical Package For Social Sciences</td>
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<td>TSC</td>
<td>Teachers Service Commission</td>
<td></td>
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<tr>
<td>UNESCO</td>
<td>United Nations Education Scientifc and Cultural Organization</td>
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ABSTRACT

Development of education in Kenya is guided by the education Act of 1968 which empowers the education minister to promote education at all levels both quantitatively and qualitatively. This implies that any educational development and expansion should strike a balance between the two aspects. The primary purpose of this study was to investigate into the quality of secondary education in Nkuene Division of Imenti South District, Meru county. The main objective was to propose strategies and policies planners of education can employ to increase quality of secondary education. The study also sought to indentify challenges facing quality of education and suggest ways of addressing them to ensure match between quality and quantity of secondary education in Kenya.

Literature review explored qualitative and quantitative aspects of educational expansion at global, regional and more specifically Kenya. The researcher adopted an exploratory approach using descriptive survey design. The survey design enabled the researcher to collect definite information about people attitudes, opinion or any other variety of educational issues. The study targeted 17 public secondary schools with a population of 17 principals, 136 heads of departments (HODS), form four students in the 17 schools and 1 District quality assurance and standards officer (DQASO). A sample of eight (8) schools was picked through stratified sampling with 5 heads of departments each, (Humanities language, mathematics, science and technical department); 8 principals of the sampled schools, 56 form four students and 1 Quality assurance and standards officer.

Data was collected from Heads of department, students and principals using questionnaire, interview schedule for district quality assurance and standard officer and observation schedule for the researcher. A pilot study was undertaken to pre-test the reliability of the instruments before the main research was rolled out. Construct validity of the instruments was be assessed by the supervisors. A pilot allowed for modification of instruments at this stage to improve their reliability and validity. Data was analyzed with the aid of statistical package for social sciences (SPSS).

On teacher adequacy, 68% of students indicated lack of teachers in all subjects. Regarding teaching materials, 52% indicated lack of a functional library cruel in learning process while 48% having functional libraries. A whole 75% of students show that teachers check assignments sometimes while 76% sometimes recover missed lessons. 75% of principals do not attribute unsatisfactory performance to increased enrollment though DQASO indicates that increased enrolment has affected quality of education in upcoming schools. The study established that it is not necessarily the increased enrolment that has led to poor quality of education but rather, the fact that the provision of other related services such as teachers has not kept pace with this increment in enrolment. Accordingly, the study recommended the that there is a need to provide adequate facilities such as lab equipment and libraries if the quality of education is to be kept high, hire more trained teachers, increasing the frequency of inspection of the schools and exploring ways of boosting the morale of the teachers and the provision of adequate teaching and learning materials can be possible viable strategies for enhancing quality of education, in order to create a balance between quality and quantity of education provided in Nkuene Division.
CHAPTER ONE

1.0 INTRODUCTION

This chapter deals with background to the study, statement of the problem, purpose of the study, objectives of the study, research assumption significance of the study, scope, limitations and delimitation of the study, theoretical framework, conceptual framework and operational definition of terms.

1.1 Background of the Study

Development of education in Kenya is guided by the education ACT of 1968 which empowers the education ministers to promote education at all levels both quantitatively and qualitatively. This implies that any educational development and expansion should strike a balance between the two aspects. Quantitative expansion of education involves increase in numbers in terms of student enrolment, facilities like classrooms, class size and other learning facilities. It also involves the number of personnel like teachers, education officers, non teaching staff and inspectors involved in the implementation of education and learning. Quality aspects of education involves quality resources and inputs, quality content, quality process and quality output and outcome (Adams 1993). Adams Ibid, that educational quality can be defined as one of the above or a combination of the above aspects of educational quality.

Quality expansion of education involves availability of well trained and prepared teachers, availability of quality teaching and learning materials like text books, teacher’s guides, effective curriculum supervision, suitable curriculum evaluation like
examinations, appropriate and effective teaching learning methods besides other quality aspects like quality facilities. In Kenya, development of education has been one sided, emphasizing on quantitative expansion. In colonial Kenya, education provided to Africans was to prepare them for low status jobs, like clerks and water meter readers. Europeans believed that African mental development could not accommodate higher level of education, thus they provided Africans with basic skills of numeracy and literacy to enable them serve the European population in the country. Attainment of independence in 1963 came with access to education as one aspect of liberation and doors of education were opened to all Kenyans. Through session paper number 10 of 1965, the Kenyan government committed to eradicate ignorance, poverty and diseases using education as basic tool to achieve this end. There was also need to train skilled manpower to fill the vacuum left by expatriates after independence. Since independence, the government policies have been directed at expanding education system at all levels so as to increase access and faster economic envelopment. Mutua and Namaswa (1992), concede that education is a prime mover of economic growth in a country. Among the main documents that expound the role of education in Kenya is the Ominde commission (1964) mandated to review education policy in Kenya. The commission gave two main goals of education which guides education policies in Kenya- to provide universal primary education to promote unity and foster economic development. This document education in guided education in Kenya into great expansion at all levels and school going population rose to large population.
The recommendations of Ominde report (1964) were in line with the Addis Ababa conference of 1961, which committed independent African countries to achieve universal primary education in the first two decades of their independence. Enrolment in primary schools increased with the introduction of free primary education in grades 1-4 in 1974 in economically marginal districts in Kenya as well as other incentives like school milk scheme of 1979 (Eshiwani, 1993) and lately, the free primary education (FPE) in January 2003. FPE resulted in increased number of students seeking to join secondary level, only made possible through the Tuition waiver policy of 2008 in all public secondary schools.

While primary level of education witnessed the greatest expansion, greater expansion in Kenya’s education system has been realized in secondary school level of education with an increase from 151 schools in 1962 with an enrolment of 31,120 students to 2395 schools in 1986 with an enrolment of 500,000 students in 2003. The greatest expansion in secondary level of education was realized 2008 after implementation of the tuition waiver policy in all public secondary schools. Even higher enrolment ratios, registering an increase from 46-3% in 2003 to 83.2% in 2009 an increase of 36.9% was realized (Daily Nation 17th September 2010). This expansion has been due to the emphasis placed on secondary education by government as the immediate source of middle grade manpower and feeder of institution of higher learning. At the same time, the public expects high social economic returns from its level of education. As such, both the public and the government are willing to make heavy sacrifice and investments in expansion of educational facilities.
According to the Ministry of Education in 1994, there were 2,639 secondary schools with 90.5% being public schools. This enrolment increased due to the operation of partnership between the government, communities, donor communities, NGOS and private entrepreneurs. As the government took over the existing public schools from colonial government and build new ones, the communities and private entrepreneurs founded Harambee and private schools respectively. (MOEST and UNICEF,1994). Accordingly secondary schools in Kenya were categorized as government maintained and aided secondary schools, Harambee and private secondary schools.

The table below shows how secondary education has continued to expand quantitatively since 2002. For the last seven (7) consecutive years, secondary education in Kenya has continued to register high enrolment. Students increased from 85,936 in 2002 to 1,180,267 in 2007, an increase of 38.6%. In 2008, enrolment increased by 15.0% to reach 1,382,211 with introduction of tuition waiver policy in secondary schools. This steady quantitative expansion is shown in table 1.1. The key question remains, is this quantitative expansion matched with qualitative expansion?

**Table 1.1: Enrolment in Public Secondary Schools, 2002-1008**

<table>
<thead>
<tr>
<th>Year</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
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<td>Enrolment</td>
<td>851,836</td>
<td>881,328</td>
<td>934,068</td>
<td>928,148</td>
<td>1,030,080</td>
<td>1,180,207</td>
<td>1,328,211</td>
</tr>
</tbody>
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To achieve vision 2030 calls for intensive and deliberate effort to increase access, reduce wastage and improve relevance and quality at all levels of education (MOE report the task force on student indiscipline and unrest in secondary: September 2001).
According to the session paper 1 of 2005 the government is committed to providing quality education and training as a human right in accordance to Kenya law and international convection such as EFA goals (ROK, 2005). However, as Kenyan government celebrates leaps made in quantitative expansion of education, there are glaring indicators that education offered is not matched with quality a requirement by education act of 1968.

Development of education in Kenya has been one sided mainly to create access at the expense of quality. The Ominde report of (1964) had warned that opening Harambee schools should be restricted as most schools could not qualify to be called secondary schools. By 1992, the quality of secondary education in Kenya had not improved much. For instance by 1980 the full pass in KCSE results had fallen to a miserable 33% (weekly review 6th Feb, 1991), due to increased candidature for examination without improving quality of schools. The percentage full pass in national examinations from 69% in 1967 to 60% in 1968 and 55% in 1970 and the reason given for this decline was the large number of Harambee schools whose first candidates were tested in 1968.

The Minister for education Professor Sam Ongeri, while releasing secondary national results for 2010, noted that there has been continuous improvement in performance; with 87% candidates scoring grade c and above up from 85% in 2009. Despite this improvement, graduates continue to suffer unemployment, raising questions on the quality of education offered in Kenya especially with secondary tuition waiver policy that saw communities being allowed by government to convert part of their primary school
facilities to secondary schools to accommodate greater demands for secondary education. This has translated to one sided large expansion, opening up schools, with no facilities to effectively implement curriculum provided and teachers not well trained. Accordingly, there should be some mechanisms to ensure that these mushrooming schools meet required quality standards stipulated in the policies. Categorization of schools does not auger well for quality of education. Schools in Kenya fall into the categories of national schools, provincial schools, district boarding and day schools.

These different categories enjoy different facilities and other inputs related to teaching and learning such as quality of students, yet they sit for the same examination. At the same time, the quality of education in these schools vary significantly. This calls for an in-depth research aimed at investigating the indicators of quality at secondary level of education with a view of establishing whether there is a balance between quantitative and qualitative expansion of this level of education in Kenya.

1.2 Statement of the Problem

While secondary level of education in Kenya has continued to expand quantitatively, there is a glaring evidence of imbalance with qualitative expansion. While education is a prime mover of economic and social development, the way education is being practiced in Kenyan secondary school sector leaves a lot to be desired in creating balance between quality and quantity. The problem of greater enrolment in different categories of secondary schools has begged that standards of teachers training and qualification, facilities and equipment that support quality teaching and learning as well as mode of
admission, supervision and other teacher support materials and programs should be provided to ensure qualitative expansion is matched with qualitative expansion in secondary schools.

The study area has especially portrayed great deficiency in this balance. This area which comprise the Nkuene Division has clearly demonstrated that through Kenya certificate of secondary school education (KCSE) examination results in the last five years that the traditional classical good schools with facilities and experienced teachers continue to perform well with the two provincial schools with a mean score of between 9 and 7 from the possible 12 points; and 3 of the 7 district boarding schools, 4 scoring a mean grade of between 4 and 2. Assistant Education minister Kilemi Mwiria described Kenyans education system as “quality challenge” following elimination of fees at primary level of education in 2003 (Mwiria, 2006). Session paper number 1 of 2005 pointed out that one challenge in secondary education is that the quality of education has remained low (Rok, 2005). Everyone agrees that improving educational quality is an important objective. Given the recent concern regarding educational quality in Kenya, it is essential that policy initiative created to improve quality springs from clear understanding of its nature (Leila, 2006).

This calls for an investigation into aspects of quality like teachers adequacy, qualification and preparedness, quality teaching and learning materials, effective curriculum evaluation, effective curriculum supervision and appropriate teaching methods to establish for balance between quantitative and qualitative expansion of secondary level of
education in line with education Act of 1968. This kind of study has not been done in Nkuene Division of Imenti south district Meru County in the past, a gap this study intends to fill.

1.3 Purpose of the Study

The purpose of this study was to investigate the balance between quantitative and qualitative expansion of secondary level of education in Nkuene Division of Imenti south district, Meru County.

1.4 Objective of the Study

The study was guided by the following study objectives:

i. To establish teacher training, qualification and availability.

ii. To determine availability and suitability of teaching learning materials.

iii. To examine curriculum content implementation, review and reform.

iv. To establish challenges facing quality of education.

v. To suggest ways of creating balance between quantitative and qualitative expansion of secondary education in Nkuene Division.
1.5 Research Questions

The following research questions guided the study:

i. What is the qualification of teachers in secondary schools in Nkuene Division?

ii. How adequate is staffing and distribution of qualified secondary school teachers in Nkuene Division?

iii. To what extent are secondary schools in Nkuene in Division adequately equipped with teaching and learning materials available?

iv. How effective is the curriculum supervision in secondary schools?

v. What percentage of content is covered before curriculum evaluation at the end of four year course?

vi. How can quantitative and qualitative expansion of education be balanced in Nkuene Division?

vii. What are the challenges facing quality of secondary level of education?

1.6 Research Assumptions

The following were the assumptions of the study:

i. All schools have Heads of Departments appointed by Teachers Service Commission.

ii. There is regular inspection of schools.

iii. There are adequate teaching and learning materials.

iv. All schools have implemented the government policy of internal or schools based assessment of teachers.
1.7 Significance of the Study

This is a crucial and very important problem which has led to public outcry in the society and attracted recognition by the government officials. For example, assistant minister for education, Kilemi Mwiria, describes Kenya’s education system as ‘quality challenge’, (Mwiria, 2006), this could be true especially in schools of lower category, with high enrolment due to free secondary education.

1.8 Scope, Limitation and Delimitation of the Study

1.8.1 The Scope of the Study

The study locale has 17 public schools. However, only eight (8) secondary schools were selected to make a thorough study of the area and enable inference be drawn over schools with similar characteristics. The study was carried out only in Nkuene Division within a district with four divisions. There are several indicators of quality education, but this study only focused on teacher training and staffing, availability of teaching and learning materials, curriculum content and evaluation, curriculum supervision. However, other indicators of quality like quality of physical facilities, background of the learners, health and nutrition were not discussed.

1.8.2 Limitation of the Study

The study was limited to public schools and therefore cannot be generalized for quality of education in private secondary schools. The study was limited to Nkuene Division of Imenti south District Meru County. The division does not host a national school. Hence, the research findings cannot be generalized for education quality in national schools.
The initial intention of the researcher was to study the entire district. However, due to lack of sufficient time and money, the study was carried out in one of the four divisions in the district.

1.8.3 Delimitation of the Study

The area the researcher collected data from is part of rural Kenya, and schools found are same as those in other parts of the country. The data was collected from education personnel same as those found in other schools in the country, like heads of department, principals, quality assurance and students who are consumers of the education offered. Since the area under study is part of rural Kenya, the results of the study can be applicable to other areas in Meru and other rural areas in Kenya on factors that affect quality of secondary education.

1.9 Theoretical Framework

This study was based on the general systems theory (GST) of Bertalanffy L.V (1968). According to GST, a system is composed of regularly interacting, or interrelating groups of activities. The theory recognizes that organization is a complex social system, and reducing the parts from the whole reduces the whole overall effectiveness of organization. In educational setting, educational development is an interplay of two key aspects: quantitative and qualitative expansion, hence, educational development emphasizing one aspect such as quantitative expansion and ignoring the other equally important aspect of educational development which is qualitative expansion renders an education system imbalanced and ineffective. Therefore, quantitative expansion in terms
of number of schools, number of students, number of teachers, and number of facilities should be matched with qualitative expansion in terms of adequate and appropriate teaching and learning materials, appropriate curriculum content, implementation review and reform, and curriculum supervision and administrative styles in secondary schools.

1.10 Conceptual Framework

From the above theory, a conceptual flow chart can be drawn as in Figure 1.1

**Figure 1.1 Conceptual Flow Chart**

<table>
<thead>
<tr>
<th>Indicators of quality education</th>
<th>Quality of education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequate and trained teachers</td>
<td>High Educational quality</td>
</tr>
<tr>
<td></td>
<td>- Good performance in national examination</td>
</tr>
<tr>
<td></td>
<td>- Low repeater rate</td>
</tr>
<tr>
<td></td>
<td>- Low dropout rate</td>
</tr>
<tr>
<td>Adequate and appropriate teaching and learning materials</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- High graduation rate</td>
</tr>
<tr>
<td></td>
<td>- Quality output</td>
</tr>
<tr>
<td>Appropriate administrative styles and effective curriculum</td>
<td>Low educational quality</td>
</tr>
<tr>
<td></td>
<td>- Poor performance in national examination</td>
</tr>
<tr>
<td></td>
<td>- High repeater rate</td>
</tr>
<tr>
<td></td>
<td>- High dropout rate</td>
</tr>
<tr>
<td></td>
<td>- Poor output</td>
</tr>
<tr>
<td>Appropriate curriculum content implementation, review and reform</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Poor outcome</td>
</tr>
</tbody>
</table>

Source: Researcher’s own
From the conceptual flow chart, quality education is an interaction of availability of trained teachers, appropriate curriculum content, implementation and appropriate administrative styles and supervision in secondary schools. Thus, in the presence of these quality indicators high level of education quality is achieved. Their absence will lead to low quality education.

1.11 Operational Definition of Terms

**Enrolment**- Number of students enrolled at a given level of education

**Teacher’s student ratio** Average number of student per teacher at specific level of education.

**Secondary education**- Education level designed to continue basic programmes of primary level but teaching is typically subject focused requiring more specialized teachers for each subject area.

**Trained teacher**- A teacher who has received the minimum organized teacher (pre or in-service) required for and at a relevant.

**Quantitative expansion of education** - Increase in terms of numbers of schools, students enrolment, teachers and physical facilities.

**Qualitative expansion of education**- **Refers** to quality of content, inputs, process output and outcome.
CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

Aspects of quality education have been tackled by various writers, educationists, various bodies, diaries and government reports. This chapter highlights past literature on expansion and quality of education in the world, within Africa and more specifically highlight literature on various indicators of educational quality in Kenya. The chapter has various subsections whose literature review is connected to this study problem. The heading includes: availability and training of teachers, availability and suitability of teaching learning material, curriculum content implementation review and reform and administration styles and supervision in secondary schools. A summary of the main issues on the quality education as well as the gaps for further studying will be highlighted in this chapter.

2.2 Literature Review outside Africa

In the many countries that are striving to guarantee all children the right to education, the focus on access often over shadows the issue of quality; yet, quality stands at the heart of Education For All. It determines how much and how well students learn and the extent to which their education achieves a range of personal, social and development goals. This study sets the quality debate in its historical context in order to understand the current knowledge about factors that influence quality of education. Recent debates about quality of education makes it dear that good quality in education should facilitate acquisition of knowledge, skills and attitudes that have intrinsic value and help in addressing important
human goals, hence the question as to how best to improve the quality of education is urgent. Quantitative analysis is one approach of understanding and improving quality of education.

Adams (1993) defined educational quality as quality resources and inputs, quality content, quality process and quality output and outcome. Adams (1993) further adds that educational quality can be defined as one of the above or a combination of the above as seen in UNICEF (2004). World conferences on education expansion stressed the need to match quantitative with qualitative expansion of education. Dakar framework for action 2000 in Senegal made it clear that efforts to expand access to education will be in vain if quality is not ensured. UNICEF (2005), adds to notion that consideration of educational quality are not isolated from other aspects of an educational system notably access.

The world conference in Jomtien Thailand announced an action plan to ensure that nations provide education of acceptable standards for all their citizens, (world declaration on EFA, 1990). The 2005 EFA global monitoring report entitled “quality imperatives” stress the achievement of universal participation in education will be fundamentally dependent on quality of education offered. In developing countries like Sri Lanka, Bangladesh, Brazil and Chile which used economic development dependant on education, have successfully expanded education quantitatively as well as making effort to increasing quality of education in terms of learning outcomes (UNESCO 2005). Poor countries like Bangladesh are faced with the challenge of closing the enrolment while at the same time addressing the quality of education offered. Republic of Korea is
one of the South East Asian countries, which pursued a strategy of building a larger stock of trained human resources, to attract knowledge required in intensive investment and boost economic expansion. By 1959, Korea had managed 96% of its children in primary school leading to rapid development of education of youth and adults and sustained economic growth. By 1980, Republic of Korea had shifted its emphasis on education quality (KEDI) 1979. This was because expanding demand for schooling had resulted in overcrowded classrooms and excessive competition for scarce places in secondary and tertiary education; which was felt to be harmful for parents and learners. To improve quality, teachers, received longer training, better incentives and school physical facilities were improved. Advisory bodies that transcended political regimes were founded and sought consistency in educative policy (ROK Korea 2003: 23037).

In Cuba, access to education is abundant and easy at all levels due to high investment in education, like 10-11% of GDP. To improve quality, emulation occurs among pupils, teachers and schools. Mechanism are put in place to ensure that students, teachers and schools benefit from the experience of others, for example, group of teachers meet frequently for mutual learning and joint development of curricular, methods and materials for teaching and learning process, (Gasperini 2007 –14 ). Sirilanka is making progress in both access and quality. Grade repetition and dropout rate have declined while promotion rate stood at 98% in 2001, an indicator of quality. Teacher pupil ration fell from 24:1 to 22:1 between 1992 and 1999 (National Institute of education of Sirilanka 2002).
2.3 Review of Literature from Africa

In Africa, countries like Senegal and Egypt have managed to expand education quantitatively. However, quality of education remains a challenge. For example in Senegal, learning achievement is still a problem, with pupils demonstrating minimum levels of mastery of basic subjects high at 50% (Latif 2004, 9) and as low as 9% (Education watch 2000). Though three quarters of pupils completed education, nevertheless, there is weakness in curricula, teaching and quality assurance – (Latif 2004).

In Egypt, 1990 to 2000 saw a great expansion in education. Quality was placed high on agenda. Though grade repetition and dropout rates have been declining since early 1990s, achievement tests did not indicate any progress in quality (would bank 2002 9). Judging from the performing developing countries, for qualitative reforms to succeed in countries or systems where there is universal access like Kenya, the governments need to play a leading role and a robust long term vision for education. Contextual difference limit the transferability of policy lessons from one country to another even among relatively comparable countries, especially reforms aimed at rising quality of education are politically more difficult to pursue than those that aim at expansion. This means that political context is likely to have a strong impact on the prospects for reform irrespective of the technical and resource context of the school system. (OECD, 2004a). This calls for study in Kenya on qualitative and quantitative of secondary education.
2.4 Literature Review from Kenya

This section covers review of literature on indicators of quality in education to determine levels of quality of education in secondary level of education in Kenya. Review was on headings like: adequacy and qualification of teachers, teaching and learning materials, curriculum implementation, administrative and supervision styles. A summary of literature review was done to help identify gaps for further study.

2.4.1 Availability and Qualification of Teachers

Quality of education offered depends on the number of teachers available and the quality of work provided by those teachers. Teacher training and in service is important for quality learning while teacher training equipments the teacher with methodology and mastery of subject matter, in service keeps the teachers abreast with changing trends in education. Majason (1995) asserts that teachers have the responsibility of transmitting knowledge skills and moral values to the learner. Onyango (2001) emphasizes that the human resource is the most important aspect in a school organization and teachers comprise the most important staff in the school. According to session paper 1 of 2005, teachers are an important resource in teaching and learning process, and their training and utilization therefore requires critical consideration. The government is aimed at providing qualified teachers hence, central to ensuring the provision of quality education (ROK, 2005). However, in his study of rural schools in Kenya, Rafu (1973), found out that most of the schools lacked properly trained teachers and had to accept unqualified teachers, who were not aware of modern trends in teaching methods and curriculum.
Efficiency in teaching and learning is a function of the teacher`\textquotesingle s competence in teaching through proper training and retraining of teachers. Secondary school teachers are trained on both diploma colleges and universities. There are many diploma colleges as well as universities; which train teachers. However, there is no standardized format of teacher training at universities; though in most cases it involves subject content and professional courses. The training also involves teaching practice where some universities such as Moi University have two teaching practice sessions while others have one session. Qualification to training colleges also varies a great deal; university versus diploma. These disparities raise issues of concern on the teacher competence. According to the MOEST (2004), growth of quality of education services for teachers entail continuous skill up grading for teachers. If this has not been the case, the limited opportunity for in service training denies teachers chance to enhance basic training.

MOEST (2004), further concedes that due to inadequate resources, it has no comprehensive teacher in service program to prepare teachers cope with changes and emerging challenges in teaching. MOEST (2004) adds that quality of teaching is affected by the fact that many teachers joined teaching as their last and only available option, while others trained and selected to join teaching not in areas of their interest but in the field where vacancies existed. Despite the importance of qualified teachers for quality education, there has not been adequate staffing. Availability and distribution of qualified teachers provide an important index on the quality of education provided. MOEST (2004), concedes that unplanned teacher recruitment affect deployment of teachers thus distorting distribution as most teachers prefer working in urban and other high potential
areas while remote areas continue to suffer shortage of trained teachers. For instance, teacher balance exercise faced resistance (ROK 2004) Teachers Service Commission (TSC) told international press service (IPS) that with the introduction of tuition waiver policy in secondary schools in January 2008, there were plans to take on 4000 teaches to handle additional high school students, but noted that authorities had frozen recruitment of additional teachers, only hiring to replace those leaving. Hence, some teachers have to deal with overly large classes.

According to session paper 1 of 2005, challenges in secondary education is, imbalance in teacher production due to poor projections. The paper further points out that secondary teacher training combine methodology and subject masterly and both suffer from an over burden program. Chapter five of the same session paper on teacher education notes that, class size at university are too large for lecturers to pay special attention to methodology, hence, compromising quality of teacher produced (ROK, 2005). This methodology can be improved through in service programs, which are lacking as Tugiee (1987, pg 109), found out that in service courses in Mount Elgon district were quoted as irregular. He established that lack of adequate in service programs is one of the factors hindering teachers from playing an effective role in quality teaching. Olembo (1989, pg 6) explains how demand for secondary education increased resulting from introduction of Harambee schools which had to accept untrained teachers. This seems to have recurred with tuition waiver policy in secondary schools.
Communities have been allowed to convert section of their primary school into day secondary schools because the ministry of education has not provided adequate trained teachers, hence, these schools are forced to employ school leavers with as low as mean grade of C to teach the very content they were not able to understand during their high school years. They also lack methodology; hence quality of education in such schools is at stake. This study sought to find out qualification of teachers and their availability in secondary school in Nkuene division.

2.4.2 Availability of Appropriate Teaching and Learning Materials

Available literature supports the use of teaching and learning materials resource in schools for quality learning to take place. They make learning become meaningful and abstract concept simplified and made real by use of resources. Onyango (2001), explains that material resources are those designed, modified and prepared to assist in teaching and learning. Such included text books, reference books, chats, teacher’s guides, manuals, journals, reports, maps and raw materials like laboratory chemicals. Onyango (1984), planning of material resource involves identifying the resource requirement, assessing quality in terms of need and establish criteria for standard.

Ayot, (1984) concurs with Onyango, when he emphasizes that text books are valuable books for teaching but their value is limited if the pupils cannot obtain or do not use them. According to Eshiwani (1993), schools achievements are determined by the availability of facilities such as desks, text books, quality teachers, laboratory facilities and library facilities. Lack of text books and other teaching learning materials, and
teacher unpreparedness, who taught without schemes of work and lesson plans are some of the major problems postulated by Malusu (1981), hence, importance of textbooks and other teaching learning material cannot overemphasized; and requires proper planning in production and distribution to enhance quality education.

In Kenya, there are no policy guidelines on production and distribution of teaching and learning materials from a central point as was the practice up to early 1980’s through Kenya school equipment scheme. The Kenya institute of education (KIE), is charged with responsibility of drawing the curriculum and approving text books for use in schools. However, KIE source for already published books in the market and approves many titles in the same subject. To ensure quality of teaching and learning materials, curriculum should be drawn first, then appropriate support material produce. The tendering for approval of textbooks by KIE seem to be flawed in that, some books approved have shallow coverage of content. Also with many approved titles for same subject, leaves schools to choose on the course book to adopt, hence, there is lack of uniformity on best course book as was the case when the then Kenya school equipment scheme distributed textbooks for various level; yet these students sit for a common examination. This study will seek to establish availability of appropriate teaching learning materials for quality teaching and learning process.

2.4.3 Curriculum Content, Implementation, Review and Reform

Education, the acquiring and developing of desired knowledge, skill and attitude occurs as a result of student carrying out some learning activities. Thus, planning learning activities through which desirable learning will be expected to take place (Oluoch, 1982),
is crucial. This comprise the curriculum content as contained in the syllabus, to guide teachers on the scope of content coverage, teaching methods to apply, teaching and learning activities and evaluation methods. Kenyan secondary school curriculum is broad based and leaves little time for students to study and master the core-subjects, hence, poor performance in National examinations. Curriculum development would not be complete without implementation process. For successful curriculum implementation, there should be in servicing or orientation of teachers and other educational personnel, support services through the quality assurance officers, provide necessary facilities and other support material and information. (Oluoch, 1982).

However, this has not been the case in Kenya as witnessed with implementation of 8-4-4 system without piloting. Teachers play a crucial role in implementation of the curriculum, thus teaching methods they employ determines to quality of education offered. Methodology, which are teaching methods used by the teachers in achieving the stated objectives includes; approaches to teaching the subject, instructional methods, teaching and learning activities and development of the required skills in the learner. Teaching strategies can be grouped into two: teaching and learning approaches versus strategies, with the teacher playing major role, called transmission approach like lecture or where students is actively involved like discussion group work and interactive learning is most appropriate. However, most teachers adopt traditional teacher centered methods where the teacher is in-charge.
According to Fuller, et al (1999), learning occurs when teachers engage students in instructional activities, than attending to other non instructional process. Kanyike, Namenya and Claire (1999), concurs with Fuller et al from their study of Uganda, suggesting that active student based participation method enhances quality process as it promotes critical thinking, problem solving and team work. This is further crowned by Samoff (2005), UNICEF (2000), saying that one aspect of quality process is use of teaching methods that encourage students centered learning.

According to MOEST, (2004), teacher training combine methodology and subject matter mastery hence both aspects of training suffer from an over burdened program, which denies the teacher, adequate time to acquire appropriate methods of content delivery. Session Paper 1 of 2005, large class sizes in the university make lecturers not to pay special attention to much needed methodology (ROK 2005). According to Information on internet on 14th December 2007, some teachers are still teaching the way they were taught by their teachers, whom they still hold with great admiration such teachers have failed to embrace the new trends in teaching and learning. This is further confirmed by Carron and Chau (1996), who says that teaching styles in many places remain traditional teacher centered, fairly rigid or even authoritarian.

According to Barnet (1995), the difficulty of effective implementation of student centered teaching methods rises as the number of students rise in the classroom increases and this is true of Kenyan Secondary Schools especially in this era of tuition waiver policy in secondary schools. Curriculum implementation should be followed by curriculum evaluation. To evaluate is to assess the worthwhile of something. Examinations are the
simplest method to measure the achievement of educational objectives set to provide point of departure for curriculum review and reform. Orodho (1996), asserts that grades scored by learners in exams are indicators of teacher effectiveness, as well as learner’s achievement. Evaluation help assess the effectiveness of teaching methods used, teaching and learning materials and achievement of set goals, thereby providing areas that need change or improvement. Adams (1995), asserts that quality considered as output and outcome is arguably the most popular components of educational quality in a current school system. This view is supported by Adam and Chapman (2002), who asserts that quality is reflected through test scores.

Wasanga (2004), further supports the above ideas when he observes that quality as output and outcome seems to be especially stressed in Kenyan educational context considering the importance placed on a centrally administered national examinations, the results of which are used as indicators of educational quality in Kenya. At secondary level, one examination after 4 years of secondary schooling is not adequate to gauge a learner or quality of an education system. Manifestation of schooling quality is literacy, greater cognitive abilities and better student performance. School curriculum offers assessment dominated by examinations with no emphasis on qualities like diligence, confidence, promptness and timeliness.

National examinations do not give sufficient attention to formative monitoring but instead are used for selection and certification purpose, as no examination however skillfully constructed can do more than sample the broad range of competencies set out
by a well defined curriculum. Kenyan does not have an internal system of monitoring learning achievement of various competencies at all levels of education cycle. This study sought to establish teaching methods in Nkuene division, mode of evaluation, their feeling on Kenyan examination systems and other suggestion on review and reform on the curriculum to improve the quality of education in the Division and Kenya in general.

2.4.4 Administrative and Supervision Styles

Effective curriculum supervision enhances educational quality. Quality of education highly depends on the nature of teaching and learning process that takes place in the school. Therefore, great emphasis should be put on improving the condition which surrounds the learning and growth of students and teachers. This can be attained through effective school management and instructional supervision. The function of supervision is to assess, maintain and improve quality of teaching and learning activities so that intended goals of education might be more effectively achieved, (Kimosop, 2002). Curriculum supervision is carried out by quality assurance and standards officers at their respective areas of jurisdiction viz National, Provincial, district and area officer; by Board of Governors, principals and heads of departments. However, it is mainly the principals and QASO who carry out the exercise. MOEST is specific about instructional supervisory role of principals. A manual for the heads of secondary schools in Kenya (1987) spell out duty of head teachers as checking the teaching standards by referring to schemes of work, lesson notes, lesson plans, records of work and pupils exercise books and by actual visits to classroom to assess individual teachers during actual teaching.
Ayot (1984), stated that the essential need in a school is to create an atmosphere which will provide a healthy climate for academic improvement. This is by the head teacher creating the interdependence and co-operation with the teaching staff and heads of departments must be involved in curriculum supervision. This can only be possible if the principal upholds democratic leadership, holding consultation as he makes decision on issues that deal with teaching and learning process. According to MOEST and Human Resource development Kenya (1999), that head teacher has to play leadership role in guiding staff towards classroom practice that will enable pupils to obtain an education of high quality.

Eshiwani (1984), notes that head teachers are best suited in estimating the performance for the close monitoring of all the activities in the school. Eshiwani (Ibid) attributed poor results to the arm chair head master who do not know what goes on in the classroom. Wamahiu (1993), said that some head teachers and do not supervise pupils academic work; which makes them incapable of influencing educational standards in their schools. Wamahiu, further says that in most cases, head teachers do not supervise activities, some even fear teachers. The inspectorate arm of MOEST monitors educational standard through curriculum supervision by quality assurance and standards officers (QASOS). They are expected to visit schools to ensure appropriate curriculum implementation; advising teachers and ensuring that they have relevant curriculum support material like schemes of work, syllabus, book, lesson plan and also give quality tests. However, considering expansion of secondary school population translating in many schools, some schools are rarely or never been visited, and teachers are left to implement the curriculum
the best way they know. Other schools are located in impassable areas hence, accessing them is a nightmare. QASOS are meant to ensure teaching and learning resources are put into proper use to achieve the desired outcome. This study sought to establish the level of involvement by the principals, HODs and QASOs in curriculum supervision in Nkuene Division.

2.5 Summary of the reviewed Literature

From the reviewed literature, it is clear that quality in education is an interplay of various key quality indicators like, adequacy and qualification of teachers, adequate and suitable teaching materials, appropriate teaching methods or curriculum implementation methods and administrative and supervision styles. From the literature review, it is clear that these indicators have not been adequately addressed by the stakeholders in provision of secondary education in Kenya. The current research is therefore set to investigate into quality of education offered in secondary level of education in Nkuene Division of Imenti South District, Meru County.
CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the methodology of conducting the study. The areas highlighted in this chapter includes: research design, the variables, location of the study, target population, sampling techniques and samples size, research instrument, pilot study, validity and reliability of the research instruments. The method of data collection and data analysis plan are also presented in this chapter.

3.2 Research Design

The researcher adopted exploratory approach using descriptive survey design. Descriptive survey is a method of collecting information by interviewing or administering a questionnaire to a sample of individuals (Orodho, 2009). It can also be used when collecting information about people’s attitudes, opinions, habit or only of the variety of educational or social issues.

According to Orodho, (2009), descriptive survey designs describes the nature of existing condition and establishes standards against which existing conditions can be compared and establish relationship that exist between specific events, in this case, quantitative versus qualitative expansion of education in Nkuene Division. Surveys are very reliable when one wants to measure characteristic of a large population. Descriptive methods are unusually popular in obtaining data used in evaluating present way of action. Kerlinger (1983), asserts that survey design allows the researcher to study variables as they exist,
the researcher will have no power to manipulate such quality variables as availability and qualification of teachers, teaching and learning materials, curriculum content, implementation, review and reform and administrative styles and supervision. This design helped the researcher to obtain information that can be generalized about educational issues considering the population variables.

3.3 Variables
In this study, indicators of quality were the independent variables and the quality of education attained were the dependent variables. The quality of education received by learners depends on, among other things, presence of adequate and qualified teachers, adequate and suitable teaching and learning materials, appropriate curriculum content, implementation, review and reform, and effective administrative styles and supervision.

3.4 Location of the Study
The study was conducted in Nkuene Division of Imenti south district, Meru County. The area has cool temperatures, and tea, coffee and banana growing zones. Singleton (1993), observed that, the ideal setting for any study is directly related to the researcher’s interest. The division was selected for this study because the researcher was concerned with the mushrooming of day schools with the implementation of tuition waiver policy in secondary schools in January 2008. This saw many primary schools hosting a secondary school in some of the primary schools facilities. Hence, the researcher desired to establish the balance between quantity and quality of this education offered. The area was also
cheap for the researcher. Besides, the good infrastructure made travelling from one school to another convenient to the researcher.

3.5 Target Population

Target population is the total number of units for which the study is designed to be carried out. It is from this population that the sample is selected. The targeted population of this study was 17 principals, eight heads of department in the 17 sample schools making a total of one hundred and thirty six (136), form four students in the 17 sample schools, and one District quality assurance and standard officer (DQASO).

3.6. Sampling Techniques and Samples Size Schools

3.6.1 Schools

The study targeted seventeen (17) public secondary schools in the Division. Due to the fact that the population from where this sample is drawn is not homogenous, stratified sampling was used to obtain a representation of eight (8) sample schools. According to Krathwol (1993), researcher will classify the units in the sampling frame into strata on basis of a characteristic that if not properly represented in the sample, it may bias the inferences the researcher makes. According to Mugenda and Mugenda (2003), the goal of stratified sampling is to achieve a desired representation from various sub groups in the population. In stratified random sampling, the subjects are selected in such a way that the existing sub groups in the population are more or less reproduced in the sample. Orodho (2009), concurs when he says that the sample should be selected in such a way
that one is assured that certain sub group in the population will be represented in the population itself.

For the purpose of this study, the indentified five strata includes: provincial boarding schools for (boy’s) and (girl’s) and district boarding for (boy’s) and (girl’s), and district day schools (mixed). Comprising one provincial boys boarding and one for girls, three district boarding schools for girls and two for boys, and eight district mixed day schools. The researcher selected eight (8) secondary schools from the target population of seventeen (17) public secondary schools in Nkuene Division. This translated to 47.1% of the total schools in the Division. According to Mugenda and Mugenda (1999), for descriptive studies, 10% of the accessible population is an enough sample to be used.

Both provincial girls and boy’s board automatically qualified for sampling. Simple random sampling was used to select one school each from the three girl’s and the two boy’s district boarding schools. Still, through simple random sampling, four schools were selected from the eight (8) mixed day schools for proportional representation.

Therefore, each stratum was represented as follows:

- Provincial boys boarding – one (1)
- Provincial girls boarding – one (1)
- District boys boarding – one (1)
- District girls boarding – one (1)
- District mixed day – four (4)

Sample size comprised eight (8) public secondary schools.
Table 3.1: Sample for Schools

<table>
<thead>
<tr>
<th>Type of School</th>
<th>Target population</th>
<th>Sample</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provincial boys boarding</td>
<td>1</td>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td>Provincial girls boarding</td>
<td>1</td>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td>District boys boarding</td>
<td>3</td>
<td>1</td>
<td>33.3%</td>
</tr>
<tr>
<td>District girls boarding</td>
<td>4</td>
<td>1</td>
<td>25%</td>
</tr>
<tr>
<td>District mixed day</td>
<td>8</td>
<td>4</td>
<td>50%</td>
</tr>
<tr>
<td>Totals</td>
<td>17</td>
<td>8</td>
<td>47%</td>
</tr>
</tbody>
</table>

Source: Researcher’s own

3.6.2 Heads of Department and Principals

Stratified sampling was used to select heads of department (HODs) from the sampled schools to be included in the study. In stratified random sampling, the population was first divided into two or more mutually exclusive segments called strata based on categories of one complete stratified sample (Orodho, 2009). All principals from the 8 sample schools under study were included in the sample. In the 8 sample schools, five heads of academic departments namely; language, mathematics, science, humanities and technical department were included in the study, totaling to 40 heads of department from the population of one hundred and thirty six (136) in the sampled schools translating to 62.5%. The district quality assurance and standards was also included in the sample.

3.6.3 Students

The sample included four students from the eight sampled schools. 10% of the total population in each school was sampled depending on the number of streams. The eight
schools have a total population of 560 form four students, giving a total of 56 form students distributed as follows.

Table 3.2: Sampling grid for the Form Four Students

<table>
<thead>
<tr>
<th>Number</th>
<th>Type of school</th>
<th>Number of streams</th>
<th>Form population</th>
<th>Sample size</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Provincial boys</td>
<td>4</td>
<td>160</td>
<td>16</td>
<td>10%</td>
</tr>
<tr>
<td>1</td>
<td>Provincial girls</td>
<td>3</td>
<td>120</td>
<td>12</td>
<td>10%</td>
</tr>
<tr>
<td>1</td>
<td>District boarding</td>
<td>2</td>
<td>80</td>
<td>8</td>
<td>10%</td>
</tr>
<tr>
<td>1</td>
<td>District boys</td>
<td>1</td>
<td>40</td>
<td>4</td>
<td>10%</td>
</tr>
<tr>
<td>4</td>
<td>District day mixed</td>
<td>1</td>
<td>160</td>
<td>16</td>
<td>10%</td>
</tr>
</tbody>
</table>

**TOTALS** | 14 | 560 | 56 | 10% |

Source: Researcher own

Summary of Sampling Grid

Table 3.3 Summary of Total Sample Population

<table>
<thead>
<tr>
<th>Name of school</th>
<th>Sampled schools</th>
<th>Population of HODs</th>
<th>Sample</th>
<th>students</th>
<th>Sample of QASO</th>
<th>Student population</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nkubu Boys</td>
<td>V</td>
<td>8</td>
<td>5</td>
<td>1</td>
<td>160</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Nkuene Girls</td>
<td>V</td>
<td>8</td>
<td>5</td>
<td>1</td>
<td>120</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Uruku Girls</td>
<td>V</td>
<td>8</td>
<td>5</td>
<td>1</td>
<td>80</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Mikumbune Boys</td>
<td>V</td>
<td>8</td>
<td>5</td>
<td>1</td>
<td>40</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Kaubau Mixed Day</td>
<td>V</td>
<td>8</td>
<td>5</td>
<td>1</td>
<td>40</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Kathantathu Mixed Day</td>
<td>V</td>
<td>8</td>
<td>5</td>
<td>1</td>
<td>40</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Nkubu Mixed Day</td>
<td>V</td>
<td>8</td>
<td>5</td>
<td>1</td>
<td>40</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Nkumari Mixed Day</td>
<td>V</td>
<td>8</td>
<td>5</td>
<td>1</td>
<td>40</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>8</td>
<td>64</td>
<td>40</td>
<td>8</td>
<td>1</td>
<td>560</td>
<td>56</td>
</tr>
</tbody>
</table>

Source: Researcher Own
3.7 Research Instruments

Three instruments were used in carrying out the research and facilitating gathering of information. Orodho (2009) asserts that in education and social science research, the most commonly used instruments are questioners interview schedules, observation guides and analysis of data and documents. For clarity, unstructured or close ended question, unstructured or open ended and matrix questions were constructed to get information required (Mugenda and Mugenda, 2003).

3.7.1 Questionnaires for Principals, HODs and Students

A questionnaire is an instrument used to gather data, which allows measurement for or against a particular view point (Orodho, 2009) pg25). It is composed of a list of questions that relate to the topic under study. This is given to targeted people in the field who in turn give their response. The desired information is then extracted from the questionnaires. Questioners have a big advantage in that so much information can be gathered and analyzed with a short time and since they are on presented paper, there is no opportunity for interview bias. Mugenda and Mugenda (2003) concur with this by noting that questionnaires give response. There were close and open ended questions in the questionnaire to be able to capture both objective and subjective questions. Questioners enabled the researchers gather information in a relative short period. They also offer a considerable advantage in administration. Questioners present an ever stimulus potentially to a large number of people simultaneously and provide the investigator with an easy accumulation of data. (Kerlinger, 1983).
i. Principal’s Questionnaire

Questionnaires were self administered by the researcher to the respondent because it is straight forward and less time consuming. It was used to gather information concerning indicators of quality in schools like adequate and qualification of teachers. Adequacy and suitability of teaching learning materials, curriculum content and implementation and teaching learning as monitored by the principals.

ii. Heads of Department’s Questionnaire

Being involved in curriculum implementation and leading departments, HODs hold crucial information. Except for demographic informant, of the questions in the questioner for HODs was similar to those for the principal’s to be able to compare their response on same areas to test consistency. For aspects that require specific response from principals, an interview schedule for principals supplemented the questionnaire.

iii. Student’s questionnaire

The researcher used it to collect data from students. Since students are the consumers of an educating system, they can give very important information on effectiveness especially of their teacher’s level of perception as effective methods of teaching adequacy and in availability of text books, laboratories, library and other support materials, general feeling about education quality offered to them.
3.7.2 Interview schedules for DQASO

This interview was on quantitative and qualitative expansion of education. It involved scheduled interview where the researcher met face to face with the principal and quality assurance and standards officer. It involved having a direct discussion. Interview schedules make it possible to obtain the data required to meet the objectives of the study. They are also used to standardize the interview situation so that interviewer can ask the same questions in the same manner (Orodho, 2009). The interviewer is also able to observe how the person being interviewed responds and read the facial expression of the interviewee. This helped clarify some of the responses made.

3.7.3 Observation schedule

This is a tool that provides information about the actual behavior. Direct observation allows the researcher to put behavior in context and thereby understand it better (Orodho and Kombo 2002). The researcher interacted with the principals ASO teachers as they discharge their duties like teaching, instructional supervision. These research instruments can be summarized as shown in Fig 3.1.
3.8.0 Pilot Study

A pilot study was carried out in two of the school’s in the division before the main research is rolled out to the sample schools. In this instance, all the research instruments were presented to ascertain their suitability well in advance. In its pilot, one principal, five heads of departments and four form four students were involved. Findings from the pilot study assisted the researchers to fine tune all the instruments.
3.8.1 Validity

Validity is the degree to which a test measures what it support to be measuring validity can also be joined to be the degree to which results obtained from an analysis of data actually represent the phenomenon under investigation (Orodho 2009). In the interest of this study, the researcher sought for assistance from experts who are lecturers at Kenyatta University to ascertain the face and construct validity of the instruments used.

3.8.2 Reliability

Reliability of an instrument is the constituency in providing a reliable results .reliability focus on the degree to which empirical indicators are consistent across two or more attempts to measure the theoretical concept (Orodho 2009). According to Wiersma (1985) reliability is the consistency of the measuring instrument in measuring whatever it measures. It is the degree to which an instrument will give similar results for the same individual at different times. The researcher used spilt half method in testing reliability of the instruments. This method required only one testing session then splitting the test into two halves each halve scored independently of the other with items of the two halves matched on content and difficulty. Spearman’s rank order correlation was used to compute correlation co-efficient. The coefficient co-relation determined the extent to which the two sets of ranking are similar or dissimilar.

This was determined using the spearman’s rank order formula:

\[
Rho(r') = \left[ 1 - \frac{6 \sum d^2}{n(n^2 - 1)} \right]
\]
D - Difference between rank of the two variables.
N - Number of persons of observation.
A correlation co-efficient \((r)\) of about 0.75 should be high enough to judge the reliability of the instruments.

### 3.9 Data Collection Procedure

The researcher got permission in form of an introduction letter from the Graduate school Kenyatta University, ascertaining that she is a *bona fide* student of the university. The researcher then applied for authority from the Ministry of Education Science and Mechnology (MOEST) which enabled her to go to the field and collect data. The researcher personally delivered all questionnaires to the respective respondents and collected the items after about one week.

### 3.10 Data Analysis and Presentation

According to Mugenda and Mugenda (2003), data obtained from the fields in raw form is difficult to interpret. Such data must be cleared, coded, key punched into computer and analyzed. All the questionnaires were ascertained for completeness before analysis started. Discrete data from the responses was crucial in answering the research questions that were generated. Descriptive statistics was used to analyze data and information generated was tabulated by use of frequencies and percentages.

Mugenda and Mugenda (2003), assert that the purpose of descriptive statics is to enable the researcher to meaning fully describe the distribution of scores or measurements using
a low indices or statistics. Once the questionnaire and other instruments are administered, the mass of raw data collected was systematically organized in a manner that facilitated analysis; data was converted to numerical codes representing attributes on measurement variables. Graphical representation of statistical data was also used in data analysis. The graph enables the reader to see the distribution more easily than is possible by simply working at numbers in a frequency distribution, (Mugenda and Mugenda 2003)As Onyango (2001) observes, it statically package for social science (SPSS) is known for its ability to handle large amount of data and given its wide spectrum of statically procedures purposefully designed for social science, it also quite efficient. The findings were presented through narrations, use of graphs and direct quotations. Quantitative data was analyzed descriptively using frequency and percentage, tables, bar graph and pie charts. Thereafter inferences, conclusions and recommendations were being drawn.

3.11 Logistical and ethical consideration

For successful completion of conducting research the researcher undertook certain logistical and ethical issues. In this case, pre field work logistics involved developing research tools and before using item, reliability and validity was checked. Requesting for permits, drawing time table and budget was undertaken during data collection, research created support with the respondents rights was represented by researcher persuading item to give information volunteering and the information was handled in confidence. The names of respondents were optional unless one volunteered to write. Human and legal issues in research were also be taken care of by the researcher.
CHAPTER FOUR

4.0 DATA ANALYSIS, PRESENTATION AND DISCUSSION

4.1 Introduction

This chapter presents an analysis and interpretation of data that was collected during fieldwork. The analysis and interpretation have been done within the framework of the core objectives that the study sought to address. These include seeking to establish teacher training, qualification and availability, to determine availability and suitability of teaching learning materials, to examine curriculum content implementation, review and reform and to examine curriculum implementation supervision in secondary schools, to establish challenges facing quality of education and thereafter, to suggest ways of creating a balance between quantitative and qualitative expansion of secondary education in Nkuene Division.

The study was conducted in Nkuene division of Imenti south district, Meru County. The respondents included samples of 56 form four students, 40 HODs of the various departments, 8 school principals and 1 District Quality Assurance and standards Officer. Data presented here is categorized into four themes based on the key research questions that guided fieldwork for the study. These are:-

i. What is the qualification of teachers in secondary schools in Nkuene Division?

ii. How adequate is staffing and distribution of qualified secondary school teachers in Nkuene Division?
iii. To what extent are secondary schools in Nkuene in Division adequately equipped with teaching and learning materials available?

iv. How effective is the curriculum supervision in secondary schools?

v. What percentage of content is covered before curriculum evaluation at the end of four year course?

vi. How can quantitative and qualitative of expansion of education be balanced in Nkuene Division?

vii. What are the challenges facing quality of secondary level of education?

4.2 Demographic Characteristics of the Sample

This study proceeded in different phases. The data collection phase first sought to establish the demographic and social characteristics of the respondents. This section presents some of the demographic aspects of the respondents, especially those that have a great bearing on the interpretation of data collected on the various objectives of the study. Accordingly, the main demographic features of the respondents featured in this section include: Gender of both the students and the HODs, Number of years of service for HODs in the current station, categories of schools, names of departments and nature of the school, length of service as HOD, students age, Highest level of education of headteacher, length of time served as a principal as well as in the current station.
4.2.1 Distribution of respondents by Gender

During the data collection phase, the researcher administered a questionnaire in which the respondents were asked to indicate their gender. This was the case for all the categories of respondents in the study. The results are presented in the table 4.1 below:

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Students</td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td>HODs</td>
<td>18</td>
<td>21</td>
</tr>
<tr>
<td>Principals</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>DQASO</td>
<td>1</td>
<td>-</td>
</tr>
</tbody>
</table>

From table 4.1 above, indicates gender parity in the distribution for the students. This is because the students were purposively sampled to have equal gender representation. However, for those that were not necessarily sampled by gender, the gender distribution shows significant differences such that the male HODs comprised 46.2% while the female HODs comprised of 53.8%. The situation of the principals was perhaps more fascinating. Out of the eight principals that participated in the study, 3 (37.5%) of them indicated being males while 2 (25%) indicated being females. The remaining three principals responded by way of ticking on the questionnaire in both of the boxes (for male and for female), in a way indicating that they are both male and female. Of course this may not necessarily have been what they intended to communicate but perhaps out of
sheer carelessness or lack of concentration while filling the questionnaire may be the possible causes for this kind of situation. As for the DQASO, there was only one such officer and who happened to be a male.

### 4.2.2 Distribution of the sampled schools by their nature

Other than gender, all the questionnaires for respondents apart from that of the DQASO required them to indicate the nature of their school. Analysis of the responses collected for this question indicated that 13.5% of the schools were boys boarding while 48.6% were mixed day. The girls’ boarding constituted 37.8%. These results are presented in table 4.2 below.

**Figure 4.1: Distribution of the sampled schools by their nature**

![Pie chart showing the distribution of school nature](image)

One clear issue that comes out when one looks at this distribution is that there is a variety of schools in Nkuene division in terms of nature of schools. And these types are well represented in significant proportions. This provided good scenery for understanding the
effect of the quantitative expansion of secondary schools on secondary school education in Nkuene division.

4.2.3 Distribution of HODs by length of time in their position

The HODs who respondent to the questionnaires were also asked to state the length of time for which they have held office as heads of department. In their responses, the majority of the respondents indicated that they had been HODs for between 3 – 4 years and this category constituted 44.7% of the respondents. This group was followed by the category that had served as HODs for 5-6 years and above 6 years constituting 26.3% each. The least category comprised of 2.6% who had served as HODs for only 1-2 years. These findings were presented in the figure below.

Figure 4.2: Distribution of HODs by length of time in their position
From the figure overleaf, one can rightly observe that the majority of the respondents of the category of HODs had been in the position for three years and above. This was very useful in itself because it meant that most of the HODs had been in those schools for a period long enough to be able to comment on the quantitative and qualitative trends in the provision of education in those schools.

4.3 Teacher Training, Qualifications and Availability in Secondary Schools in Nkuene Division

One of the main objectives of the study was to establish the situation of teacher training, their qualifications and their availability in school. This section discusses the findings on this issue.

4.3.1 Teacher Qualifications

In the principals’ questionnaire, the respondents were asked to indicate the qualifications of the teachers in their respective schools. Their responses are as presented below:
4.3.2 Teacher training

In the principals’ questionnaire, the respondents were asked to indicate the number of times their teachers attend in-service courses. Their responses are as indicated below.

Figure 4.4: Teachers’ Frequency of Attendance of In-service
In the figure 4.4, it is indicated that half of the teachers attended in-service course between 1 to 2 times in a year while 12.5% attended in-service over three times a year. However, it is notable that 37.5% of the teachers had not attended any in-service courses.

Information given by the principals concerning teacher training was also triangulated by information from the interview with the DQASO. In this interview, it was noted that the DQASOs opinion on teacher training in Kenya was that training is adequate for the students who get to the university through the joint admissions board. However, to the DQASO noted the teachers who train at the university in the parallel programmes are ‘not well prepared’ since to him, ‘this training has been commercialized’ and is not imparting the necessary teaching skills. This being the case, the researcher sought to establish whether, given this situation, there were any in-service programmes in the district. On this issue, the DQASO was categorical that the district does not have any institutionalized in-service courses. However, he pointed out that there are instead some center like those for SMASSE which provide in-service courses for mathematics and science teachers. Accordingly, it was highly hoped that these centers will later be changed into in-service center.

4.3.3 Teacher Availability

The question of teacher availability was asked in trying to establish whether the schools had enough teachers for all the subjects. And so, to begin with, the HODs were asked to indicate the staffing status of their respective departments. Their responses are as presented in figure 4.4.
Figure 4.5: Status of Staffing

![Status of staffing chart]

Figure 4.4 shows that the majority of the HODs contend that they have enough teachers. This tends to subvert the widely held view in Kenya that schools are grossly understaffed considering the fact that about 57.5% indicated that the teachers were either adequate or inadequate.

At the same time, the principals were asked to fill a table with certain aspects which revolve around the main issue of availability and training of teachers in the respective sampled schools. Their responses are as presented in table 4.2.
Table 4.2: Availability and Training of Teacher

<table>
<thead>
<tr>
<th>Availability and Training of Teachers</th>
<th>5 (SA)</th>
<th>4 (A)</th>
<th>3 (D)</th>
<th>2 (SD)</th>
<th>1 (UN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The school has enough teachers</td>
<td>-</td>
<td>37.5</td>
<td>50.0</td>
<td>12.5</td>
<td>-</td>
</tr>
<tr>
<td>All teachers are trained</td>
<td>-</td>
<td>62.5</td>
<td>37.5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>There is regular in-service of teachers</td>
<td>-</td>
<td>-</td>
<td>87.5</td>
<td>12.5</td>
<td>-</td>
</tr>
<tr>
<td>All subjects have adequate and trained teachers</td>
<td>-</td>
<td>37.5</td>
<td>62.5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>There is continuous professional development of teachers</td>
<td>-</td>
<td>87.5</td>
<td>12.5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Teachers are satisfied with their jobs</td>
<td>100.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diploma teachers have better mastery of content than graduates</td>
<td>25.0</td>
<td>75.0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From table 4.2 there is a general trend showing that the highest percentage of respondents (50%) disagreed with the statement that their schools have enough teachers while the majority (62.5%) agreed that all the teachers in their respective schools were trained. A majority (87.5%) also supported the view that there is regular in-service of teachers as well as the fact that there is a continuous professional teachers. This latter aspect was supported by (87.5%) of the respondents. It is interesting to note that all the respondents to these maintained that they are satisfied with their jobs while a majority of 75% disagreed with the idea that diploma teachers have better mastery of content than graduate.
On their part, the students were asked to state whether they have teachers in all subjects. Their responses are as presented in figure 4.5.

**Figure 4.6: Staffing per subjects**

![](image)

The above findings indicate that the majority of the students do not have enough teachers. This is evidenced by the fact that only 32% of the students reported that they have teachers in all the subjects.

**4.4 Availability and Suitability of Teaching and Learning Materials**

This section sought to establish the availability or even the adequacy as well as the suitability of the teaching and learning materials in the secondary schools in Nkuene division. The findings are therefore presented in subsections to ensure an exhaustive discussion of the issues.
4.4.1 Availability of Teaching and Learning Materials

Here the main question was whether the teaching and learning materials were available, and perhaps, if they are, then what are the sources of these materials. In other words, who provides these materials? And are the available materials adequate? To begin with, the students were asked whether they had adequate textbooks. Their responses are presented in the table below:

Figure 4.7: Possession of Textbooks

From the figure above, the responses of the students sampled for the study indicated that half of the students have adequate textbooks while half of them do not. This being the case, the students were asked to indicate the ratio in which they share these textbooks since some of them said they were not adequate. They responded as presented in the figure below:
From the figure above, one can see that whereas the recommended ratio is that of 1:2, only 29 (51.8%) of the sampled students indicated having the textbooks shared in that ratio. Otherwise, 13 (23.2%) indicated sharing them in the ratio of 1:3 while 14 (25%) indicated sharing them in the ratio of 1:4. There is a way in which this data is telling a story of how clearly the textbooks are not adequate given that almost half of the student respondents share these books in a ratio below the recommended one.

Another dimension of adequacy of the textbooks is in terms of whether they cover the content of teaching to their satisfaction. This aspect is important since if the books do not cover the syllabus content satisfactorily, it would then mean that the teachers have to source for more books since what is available is not sufficient in terms of the syllabus coverage needs. Accordingly, the students were asked to indicate the extent to which the
books they have cover the syllabus to their satisfaction. Their responses are as indicated in the figure below:

**Figure 4.9: Textbook Coverage of Syllabus**

![Pie chart showing textbook coverage of syllabus]

The distribution of the responses on this question show that three quarters of the sampled students 42 (75%) find the books adequate in terms of coverage of the syllabus while 13 (23.2%) indicated that they were shallow in coverage of the content. It is however interesting to note that one student respondent indicated that the textbooks were too detailed. In an interview with the DQASO however, it was revealed that the well established schools in the divisions are the ones that have adequate teaching and learning materials while those that are not well equipped with these teaching and learning materials are the upcoming ones.
At this point, the researcher sought to establish the sources of these teaching and learning materials. The student respondents were therefore asked to indicate who provides the textbooks. Findings on this question indicated that all of them unanimously said that the school is the one that provided all the textbooks. This presents a scenario where other stakeholders have taken a back seat in terms of playing out their various roles in the provision of education and have left everything to the school or government for that matter. Perhaps if the other stakeholders such as parents, NGOs, the church and well wishers came in their different ways, these materials would be adequate in all the schools.

4.4.2 Use of Teaching and Learning Materials

It is one thing to have the teaching and learning materials and another thing all together to have them put to good use. Accordingly, the student respondents were asked to indicate whether their teachers often use teaching aids in class. Their responses are as presented below:

**Figure 4.10: Frequency of teachers using teaching aids**

![Pie chart showing the frequency of teachers using teaching aids: Never 21%, Sometimes 29%, Rarely 50%]
The findings presented above paint a picture of a situation where the teachers do not quite make use of the teaching aids adequately. This is evidenced by the fact that 16 (28.6%) of the student respondents reported that their teachers use these teaching aids sometimes while 28 (50%) of them reported that their teachers rarely use these materials. It is worthy of noting that 12 (21.4%) indicated that their teachers have never used the teaching aids. It has always been argued that effective teaching proceeds not such abstractly, but by way of using teaching aids such as maps charts and so on, otherwise, it turns out to be rote learning. The situation in Nkuene division is therefore one where the teachers are not taking advantage of the services of teaching aids in working towards effective teaching which is an indicator of quality education. Instead, perhaps because of increased enrolments, they resort to rote teaching and learning possibly to cover the syllabus since the inspection requires them to complete the syllabus at specified times.

4.4.3 Suitability of the Teaching and Learning Materials

Just like having teaching and learning materials does not always mean using them, so is their usability. In other words, whereas schools may have certain teaching and learning facilities, they may be there in principle but are either not usable or are not functional. The student respondents were therefore asked to indicate whether their schools have functional laboratories and libraries. To begin with, they were asked whether their schools have a laboratory and if they do, the students to state whether it the laboratory is well equipped. Their responses are as indicated below:
The findings on this question indicated that 41 (73.2%) confirmed having a laboratory in their schools while 15 (26.8%) indicated that they did not have a laboratory. However, the study further wanted to find out whether these laboratories were well equipped. The responses on this question are presented in the table below:
Going by the findings, it appears that 75% of the student respondents go to schools where there are laboratories that are well equipped. 27% however attend schools which either do not have laboratories or they have them but are not well equipped. For those students who said their laboratories were not well equipped, they identified a number of factors that bring about the lack of equipment in these laboratories. They gave a number of reasons which included the fact that the schools had not purchased the equipment, the fact that they were sharing the laboratory facilities with the neighbouring schools and also, there were those who maintained that they did not even have a laboratory technician.

The other facility was the library. Again, the student respondents were asked to indicate whether they have a functional library. They responded in the following patterns.

**Figure 4.13: Possession of Functional Library**

![Pie chart showing possession of functional library](image)

The findings on this issue show that 27 (48.2%) indicated having a functional library, meaning, a library that is stocked and which serves the purposes of lending and borrowing. However, a majority 29 (51.8%) clarified that they did not have a functional
library as such. In other words, most of the schools do not appear to have functional libraries. Again this is one area where there is some need for stakeholder involvement in the provision of such services.

The table below gives a summative picture of all the issues related to teaching and learning materials in Nkuene division.

**Table 4.3: Availability of Learning Material**

<table>
<thead>
<tr>
<th>Availability of Teaching /Learning</th>
<th>1 UN</th>
<th>2 SD</th>
<th>3 D</th>
<th>4 A</th>
<th>5 SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>The school has enough textbooks, teacher's guide reference books, globes, maps, charts, and stationery</td>
<td>2.7</td>
<td>32.4</td>
<td>56.8</td>
<td>5.4</td>
<td>2.7</td>
</tr>
<tr>
<td>The school has adequate laboratory chemicals and other equipment</td>
<td>-</td>
<td>2.8</td>
<td>52.8</td>
<td>41.7</td>
<td>2.8</td>
</tr>
<tr>
<td>Teachers have been in-serviced on how to use teaching learning materials.</td>
<td>-</td>
<td>8.1</td>
<td>8.1</td>
<td>83.8</td>
<td>-</td>
</tr>
<tr>
<td>KIE approved text books have well detailed and organized content</td>
<td>-</td>
<td>89.2</td>
<td>-</td>
<td>5.4</td>
<td>5.4</td>
</tr>
<tr>
<td>All KIE approved books are appropriate</td>
<td>-</td>
<td>81.1</td>
<td>5.4</td>
<td>10.8</td>
<td>2.7</td>
</tr>
<tr>
<td>KIE approved books with poor content coverage</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>82.3</td>
<td>17.7</td>
</tr>
<tr>
<td>There should be a common course book for each subject for all schools.</td>
<td>10.8</td>
<td>29.7</td>
<td>51.4</td>
<td>2.7</td>
<td>5.4</td>
</tr>
<tr>
<td>There are functional teacher’s resource centers in the division</td>
<td>5.4</td>
<td>24.3</td>
<td>24.3</td>
<td>40.5</td>
<td>5.4</td>
</tr>
</tbody>
</table>

From the table above, we can see that the general idea about adequacy of textbooks and teaching aids is that they are not adequate. These findings also concur with those from the students. The facilities such as the laboratory and the library are also ill equipped. The
teachers have however reportedly been in-serviced on how to use teaching materials even though, as the students noted, they do not often use them. The KIE approved textbooks are generally seen as not adequate while there is a general feeling that there should be a common course book for each subject for all schools. It is also generally notable that there are functional teacher’s resource centers in the division.

One general pattern that is emerging is that it is evident that most of these facilities are available in some of the schools in Nkuene division. However, the functionality of these facilities is still wanting. This is because not many of these facilities are fully equipped and this makes them not function as they should. And as a result of all this the majority of the students constituting 51% indicated that this situation is affecting their performance negatively. In other words, the increased enrolments have stretched the existing facilities to the level that they cannot serve all the students adequately and as well, there seems that focus has gone into some short term issues like buying books and other learning/teaching aids other than stocking the library or the laboratories.

4.5 Supervision of Curriculum Implementation

This section focuses on the issue of content coverage as well as the supervision of the entire range of activities that constitute teaching and learning in the schools. To begin with, the students were asked to indicate whether classroom teachers check their assignment and notes. In their responses all the students affirmed that the teachers do check their assignments and notes. The students were further asked to indicate the frequency at which their teachers check their assignments and notes. Their responses are as indicated below:
According to the distribution of the above responses, it is clear that only a small percentage of students 17.9% reported that their teachers always check their assignments and notes. However, a majority of the students 75% reported that their teachers sometimes check their assignments while 7.1% of the students maintained that rarely do their teachers check their assignments. Other than teachers checking their assignments and notes, the students were asked whether their teachers miss lessons and if they do, students were to indicate whether these teachers make attempts to recover the missed lessons later. Findings to the question as to whether the teachers miss lessons indicated that an overwhelming majority of the students 96.4% answered it in the affirmative while a minority of 3.6% indicated that their teachers do not miss any lessons. However, asked whether these teachers make attempts of recovering the missed classes, they responded as indicated below:
The findings presented above indicate that the majority of the students 75.9% hold that it is only some of the teachers who miss lessons that make an attempt to recover them. This is a situation that is supposed to be addressed by the DQASO on their visits. However, the interview with DQASO revealed that whereas they are supposed to be inspecting secondary schools after every 3 years and once a term in primary school, this does not happen because of ‘inadequate officers, communication and transport’ which he says they constitute a big problem. It is also notable here that 2 students remained non-committal on this question since they did not respond to this question. The students were then asked to state whether the HODs or principals inspect the actual teaching in class. The findings indicate that all the student respondents unanimously said that the HODs and principals do not inspect the actual class teaching. In the absence of impromptu inspection, teachers are left to do it their way.
4.5.1 Syllabus Coverage

The situation presented in the foregoing sections is one of many setbacks to curriculum coverage. In the HOD questionnaire, the study sought to establish how much of the syllabus is often covered. When asked to state the extent of syllabus coverage in their respective schools before presenting their students for KCSE examinations, they responded in the following pattern.

Table 4.4: Extent of syllabus coverage before examinations

<table>
<thead>
<tr>
<th>Syllabus Coverage</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>80%</td>
<td>1</td>
<td>2.6</td>
</tr>
<tr>
<td>100%</td>
<td>36</td>
<td>97.4</td>
</tr>
</tbody>
</table>

The findings on this issue indicate that the majority of the schools 97.4%, at least as per the HODs that participated in this study, indicated that they complete the syllabus before examinations while a minority of only one respondent indicated that they cover only up to 80%.
The HODs were asked to give their summative views on a number of issues that border on curriculum implementation and supervision. The findings are presented in the table below:

**Table 4.5: Curriculum Supervision**

<table>
<thead>
<tr>
<th>CURRICULUM SUPERVISION</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teachers prepare scheme of work, lesson plans, lesson notes, record of work as required</strong></td>
<td>2.7</td>
<td>10.8</td>
<td>27.0</td>
<td>59.5</td>
<td>-</td>
</tr>
<tr>
<td><strong>HOD are involved in curriculum supervision</strong></td>
<td>-</td>
<td>10.8</td>
<td>54.1</td>
<td>32.4</td>
<td>2.7</td>
</tr>
<tr>
<td><strong>Principal organizes subject seminar</strong></td>
<td>13.9</td>
<td>80.6</td>
<td>5.6</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>The principal organizes subject seminars</strong></td>
<td>13.9</td>
<td>80.6</td>
<td>5.6</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Principals observe teaching in classes regularly</strong></td>
<td>47.2</td>
<td>41.7</td>
<td>11.1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Quality assurance and standard officer frequently inspect schools and do not advise teachers</strong></td>
<td>2.7</td>
<td>45.9</td>
<td>37.8</td>
<td>10.8</td>
<td>2.7</td>
</tr>
<tr>
<td><strong>Teachers miss lesson and do not compensate</strong></td>
<td>16.2</td>
<td>27.0</td>
<td>75.7</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>The principal is frequently out of school</strong></td>
<td>13.5</td>
<td>2.7</td>
<td>54.1</td>
<td>27.0</td>
<td>-</td>
</tr>
</tbody>
</table>

From the table above most of the HODs 59.5% disagreed with the statement that Teachers prepare scheme of work, lesson plans, lesson notes, record of work as required. This means not all of the teachers do so. At the same time 54.1% of the HODs disagreed with the fact that the HODs are involved in curriculum supervision. The overwhelming majority of 80.6% however affirmed that the principal organizes seminars and even subject seminars. There is also a general affirmation that principals observe teaching in classes regularly. There is however, a dominant view that the DQASOs carry out inspection but do not advice the teachers.
4.6 Challenges Facing the Provision of Quality Education

One of the basic assumptions that guided this study is that the increased enrolment in secondary schools has come with its own challenges. The study therefore sought to establish these challenges. To begin with, the principals were asked to rate the quality of education in their respective schools. Their responses are represented below:

**Figure 4.16: Quality of education**

![Pie chart showing the quality of education in schools](image)

From these findings as presented in the figure above, it is clear that the majority of the principals 63% affirm that the quality of education is unsatisfactory while 25% feel that the quality is just average. However, it is important to note that 12% confirmed that the quality of education in their schools is good. This in itself poses a challenge. However, the study also sought to find out whether these challenges are brought about by the increased enrolments. The principals were therefore asked to indicate whether they thought that is was as a result of increased enrolment. Their responses were as follows.
One important observation one makes on these findings is that an overwhelming majority constituting 75% of the principals; sampled population do not see the poor or rather ‘unsatisfactory’ quality of education in Nkuene division as brought about by increased enrolment in secondary schools. This is important because contrary to the basic assumption of this study that the rather poor education quality in secondary schools in Nkuene division is caused by the increased enrolment, these findings have indicated otherwise. In other words, according the principals in the sampled schools in Nkuene division, this is just a perception of the public and which does not have any empirical basis. However, in an interview with the DQASO, he felt that increased enrolment has led to the rather low quality of education as indicated below:

R: Has increased enrolment in secondary schools affected quality of education?
DQASO: Yes, this is mainly due to understaffing particularly in upcoming schools.

A keen reading of what the DQASO is saying reveals that it is not necessarily the increased enrolment that has led to poor quality of education but rather, the fact that the provision of other related services such as teachers has not kept pace with this increment in enrolment. In other words, the provision of such services has not been proportionate to the increment in enrolment. It is in this perspective that one would also understand the inadequacy of many other factors. The other factors mentioned for being responsible for this poor quality include; lack of resources to enable teachers to attend an in-service course at least once a year, lack of facilities such as well equipped laboratories and libraries, reduced frequency of inspection in schools, the tendency for teachers to adopt a carefree attitude and not having commitment to their work, teachers’ non use of teaching aids and lack of continuous professional development on the part of teachers.

4.7 Balancing the Quantitative and Qualitative Expansion of Education in Nkuene Division

Even though it did not come out as the only or main factor, there appears to be a way in which the rather poor quality of education is related to the increased enrolment. This means that there is certainly a way in which increase in enrolments may negatively affect the quality of education. In this section therefore, suggests ways of harmonizing the quantitative increase of schools and the quality of education provided. Reflection on the responses of the sample population suggests a number of ways. These include: provision
of adequate lab equipment, hiring more trained teachers, equipping laboratories and libraries, increasing the frequency of inspection of the schools, exploring ways of boosting the morale of the teachers and the provision of adequate teaching and learning materials.

4.8 Discussion of Findings

This study sought to investigate the quality of secondary education in Nkuene Division of Imenti South District. The findings on the various aspects of quality education revealed a number of issues. For instance, it was established that all the sampled teachers had the minimum requirements and that at least half of them were undergoing in-service training. This implies that teacher qualification may not be the issue. In other words, if the quality of education is not good enough, then it must be for other reasons apart from teacher qualifications. It is even notable that more than half of these teachers are attending in-service to improve the quality of their production. Nevertheless, the teachers are not adequate in the schools within the sample. This then becomes the teacher dimension in the whole issue of the relative low level of quality of education. Beyond this, there seems to be another controversial angle to the teacher dimension, that is, the teachers who graduated from the parallel programmes are not as competent as those who went through the joint admissions board. There is a 1% of teachers whose qualification is KCSE who lack pedagogical skills. This, in a way, constitutes another angle to the teacher dimension to quality education.
The other dimension to the issue of quality education in secondary schools in Nkuene division is the inadequacy of teaching and learning materials. Half of the students did not have adequate textbooks and even where there are books, they are shared in the ratio of 1:3 and in other cases, the ratio of 1:4. One clear trend that emerged here, however, is that, the newly established schools are the ones that face more challenges at the level of providing suitable teaching and learning materials.

A third dimension of the quality of education in secondary school education in sampled schools in Nkuene division supervision of curriculum implementation where it was noted that majority of the teachers check the students’ assignments occasionally even though nearly all the sampled schools indicated that they cover the syllabus.

In the light of all the foregoing consideration, it is reasonable to argue that increased enrolment is not the only factor that is behind the rather lower quality of education in sampled schools in Nkuene division of Imenti South District, Meru County.
CHAPTER FIVE

5.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The chapter discusses the summary, discussions, conclusion, implications of the findings and recommendations based on the findings.

5.2 Summary of the Findings

The primary purpose of this study was to investigate the quality of secondary education in Nkuene Division of Imenti South District, Meru county. The main objective was to propose strategies and policies planners of education can employ to increase quality of secondary education. The study also sought to indentify challenges facing quality of education and suggest ways of addressing them to ensure match between quality and quantity of secondary education in Kenya.

To begin with, the study sought for some demographic characteristics of the sample population by such as gender of students, HODs and Principals, level of education or qualifications of HODs and head teachers and length of time HODs have served in the position. However, of prime importance were the findings of the study as per the objectives of the study. A summary of the findings are therefore as presented below:

As regards Teacher Qualifications/training, all the teachers had the minimum requirements for a secondary school teacher. In addition, half of the teachers attended in-
service course between 1 to 2 times in a year while 12.5% attended in-service over three times a year. Up to 37.5% of the teachers had not attended any in-service courses. There were some impressions through the interviews held with DQASO that the teachers who train at the university in the parallel programmes are as ‘not well prepared’ as the regular ones since, to the officer, ‘this training has been commercialized’ and is not imparting the necessary teaching skills.

With regards to teacher availability, and in view of the various views given concerning the adequacy of the teachers, the study concluded that there are not enough teachers in the sampled schools in Nkuene division. At the same time, in terms of availability and suitability of Teaching and Learning Materials, half of the students have adequate textbooks while half of them do not. The few books there are shared in the ratio of 1:3 while 25% share them in the ratio of 1:4. The books were found adequate in terms of coverage of the syllabus while 13 (23.2%) found it to be shallow in coverage of the content. However, the well established schools in the divisions are the ones that have adequate teaching and learning materials while those that are not well equipped with these teaching and learning materials are the upcoming ones.

The teachers do not quite make use of the teaching aids adequately since only 28.6% of the student respondents reported that their teachers use these materials sometimes while 50% reported that their teachers rarely used them with 21.4% indicating that their teachers have never used the teaching aids.
In terms of Suitability of the Teaching and Learning Materials, the study established that 73.2% confirmed having a laboratory in their schools while 26.8% indicated that they did not have a laboratory. However, the study further wanted to find out whether these laboratories were well equipped. At the same time 75% of the student respondents’ schools had that are well equipped laboratories while the rest attend schools which either do not have laboratories or they have them but are not well equipped. At the same time, 48.2% indicated having a functional library while 51.8% indicated that they did not have a functional library as such.

In terms of supervision of curriculum implementation, only 17.9% of the students reported that their teachers always check their assignments but the majority of the students, 75%, reported that it is only sometimes that their teachers their assignments while 7.1% of the students maintained that rarely do their teachers check their assignments. Further than this, in terms of syllabus Coverage, HODs reported that majority of the schools 97.4%, complete the syllabus before examinations while a minority of only one respondent indicated that they cover only up to 80%.

Finally, in terms of the challenges facing the provision of quality education, the majority of the principals 63% affirm that the quality of education is unsatisfactory while 25% feel that the quality is just average. It is only 12% of the principals that confirmed that the quality of education in their schools is good. This means that it is a challenge for many schools to achieve quality education. But most importantly, majority of the principals,
75% maintained that it is not that increased enrolment has led to poor education quality in their schools.

5.3 Conclusions

From the findings of the study, the following conclusions were made:

It is not necessarily the increased enrolment that has led to poor quality of education but rather, the fact that the provision of other related services such as teachers has not kept pace with this increment in enrolment. Further than this, it can also be concluded that there are other factors that are responsible for this poor quality education and they include; lack of resources to enable teachers to attend an in-service course at least once a year, lack of facilities such as well equipped laboratories and libraries, reduced frequency of inspection in schools, the tendency for teachers to adopt a carefree attitude and not having commitment to their work, teachers’ non use of teaching aids and lack of continuous professional development on the part of teachers.

5.4 Recommendations

Based on the findings of the study, it was recommended that,

i. There is need to provide adequate facilities such as lab equipment and libraries if the quality of education is to be kept high,

ii. Hiring of more trained teachers and increasing the frequency of inspection of the schools is another way of keeping the quality of education.
iii. Exploring ways of boosting the morale of the teachers and the provision of adequate teaching and learning materials can be possible viable strategies for enhancing quality of education.

5.5 Suggestion for Further Research

The same study should be replicated in other districts especially the rural districts so as to enable generalization of the findings.
REFERENCES


Adams, D .and Chapman, D (2002). The Quality of Education: Dimension and Strategies; Education is the Developing Asia vol 5.


Inyega, J. (1997). Primary School Administration Constrains in the 8 .4.4 Education System with Special Reference to the Head Teacher: Kisii District Case Study, Kenyatta University.


APPENDIX I

Questionnaire for form four students

The aim of this research is to establish if there is a balance between quantitative and qualitative expansion of secondary education in Nkuene Division. Please kindly fill this questionnaire to the best of your knowledge, accurately and honestly. Your response will be treated with confidence. If you have any optional and important comment not captured, feel free to write at the back of the questionnaire.

Part 1: demographic information

Tick (√) or answer appropriately.

1. Gender; male [ ] Female [ ]

2. Name of school (optional)…………………………………………

3. Category of your school.
   District [ ] provincial [ ]

4. Nature of your school
   Boys boarding [ ]
   Girls boarding [ ]
   Mix day [ ]
   Girls day [ ]
   Boys day [ ]

5. Which year did you join form 1?.........................................
6. Your age in years

15-16 [   ]  17-18 years [   ]  19-20 years [   ]  above 20 years [   ]

7. Has your school expanded in terms of number streams since you joined? YES [   ]
NO [   ]

Part 2: Questions on pertinent areas

A: Adequacy and qualification of teachers

1. Do you have teachers in all subjects?
   Yes [   ]  No [   ]

2. Do teachers come to class well prepared?
   All [   ]  some [   ]
   Very few [   ]

3. Do your teachers display proper mastery of what they teach?
   Yes [   ]  No [   ]

4. How often do your teachers use lecture methods as you listen?
   Always [   ]  most of the time [   ]  rarely [   ]

B. Adequate of teaching materials

1. Who provides textbooks in your school?
   School [   ]  parents [   ]  donors [   ]
2. Do you have adequate class textbooks? Yes [ ] No [ ]. What is the ratio? 1:2 [ ] 1:3 [ ] 1:4 [ ] 1:5 and above [ ]

3. Do the text books you have cover syllabus content to your satisfaction? Adequately [ ] shallow [ ] too detailed [ ]

4. Do you have laboratory? Yes [ ] No [ ]
   If yes, is it well equipped? Yes [ ] No [ ]
   If No, what is the shortcoming?

5. How often do teachers use teaching Aids in class like maps, charts?
   Always [ ] sometimes [ ] rarely [ ] never [ ]

6. Does your school have functional library? Yes [ ] No [ ]
   If no, does it affect your performance? positively [ ] negatively [ ]

C. **Teaching methods**

1. Do teachers involve students in classroom participation?
   Yes [ ] No [ ]
   If yes, how often?
   Always [ ] sometimes [ ] rarely [ ]
2. Do teachers give assignment?

Yes [ ]  No [ ]

If no, which are the most affected subject? mathematics [ ] languages [ ]
Humanities [ ] Technical [ ]

3. From your observation, do secondary school teachers enjoy their work?

4. If you were to gauge those who love their job and give you quality teaching, how would you rate the number that enjoy their teaching in a percentage scale?

10-30% [ ]
40-60% [ ]
70-90% [ ]

5. Most your teachers inspire or discourage you. Inspire [ ] Discourage [ ]

D. Curriculum content and evaluation

1. How would you rate 8.4.4 curriculum content?

Too wide [ ] too shallow [ ] too demanding [ ]

Give reason for your answer __________________

2. Is KCSE adequate measure of your ability?

Yes [ ] No [ ]
3. Would you support KCSE be scrapped to give way for continuous assessment at school level?

Yes [ ]                       No [ ]

Give reason ____________________________

4. Would you consider the examinations set by your teachers of KCSE standard?

Yes [ ]                       No [ ]

5. How would you rate KCSE results in your school?

Good [ ]                       fair [ ]                  poor [ ]                 very poor [ ]

E. Curriculum supervision

1. Do teachers check your assignment and notes? Yes [ ]                       No [ ]

If yes, how frequent? -always [ ]                  sometimes [ ]                  rarely [ ]

2. Do they all check class notes? yes [ ]                       No [ ]

If yes, how many times in term?

1 [ ]                         3 [ ]

2 [ ]                         4 [ ]

3. Do your teachers miss lessons?

Yes [ ]                       No [ ]. If yes, how many recover missed lesson later? All [ ]       Some [ ]

None [ ]
4. Do head of Departments or principal’s inspect teachers during actual teaching in class?
   Yes [ ]                     No [ ]

5. Suggest ways of improving educational quality in your school.

   ..........................................................................................................................
   ..........................................................................................................................
   ..........................................................................................................................

Thank you for responding to this questionnaire.
APPENDIX II

Questionnaire for Heads of Department on Qualitative versus Quantitative Expansion of Education

The aim of this research is to establish if there is a balance between quantitative and qualitative expansion of secondary schools in Nkuene Division. Please, kindly fill this questionnaire to the best of your knowledge accurately and honestly. Your response will be treated with confidence. If you have any optional comments, feel free to write at the back of the questionnaire. Tick ( ) appropriately.

Part 1: demographic information.

1. Gender: Male [ ] Female [ ]

2. Name of the School

(option) .........................................................................................................................
.................................................................................................................................

3. Name of your Department. Humanities [ ] Science [ ] Language [ ] Mathematics [ ]
Technical [ ]

4. Category of the school

Provincial [ ] District [ ]

5. Nature of your school. Boys boarding [ ] mixed day [ ]
Girls boarding
6. Years of service in this school. 3 years and below [ ] 4 to 6 years [ ] 7 to 9 [ ]
10 to 15 years [ ] Above 15 [ ]

7. Method of appointment. By TSC interview [ ] Appointed by the principal [ ]
Volunteered [ ]

8. How long have you been HOD?
Less than one year [ ] 1 to 2 years [ ] 3 to 4 years [ ] 5 to 6 years [ ]
Above six years [ ]

9. How is the status of staffing in your department? Very adequate [ ] adequate [ ]
inadequate [ ] very inadequate [ ]

10. In your opinion, has increased enrolment of students negatively affected quality of
education? YES □ No [ ]. Give a reason for your answer………………………………………………………………………………………………………………………………………………

11. What percentage of syllabus is covered before the form four examination.
a. 20% [ ]
b. 40% [ ] c. 60% [ ] d. 80% [ ] 100 % [ ]

Part 2: The following statements relate to the indicators of quality education. Please
indicate to what extent they are applicable in your school. Please react to the following
five points likert scale by ticking appropriately against the matrix questions. Besides each
of the statements, please indicate with a tick [ ]
Key:

SA - strongly agree 5  
A - agree 4  
D - disagree 3  
SD - strongly disagree 2  
UN - undecided 1

### AVAILABILITY AND TRAINING OF TEACHERS

<table>
<thead>
<tr>
<th></th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>The school has enough teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All teachers are trained</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>There is regular in-service of teachers</td>
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<tr>
<td>All subjects have adequate and trained teachers</td>
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<tr>
<td>All teachers are employed by TSC</td>
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<td></td>
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<tr>
<td>Teachers have good mastery of content</td>
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### AVAILABILITY OF TEACHING / LEARNING

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<tr>
<th></th>
<th>UN</th>
<th>SD</th>
<th>D</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>The school has enough textbooks, teacher’s guide reference books, globes, maps, charts, and stationary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>The school has adequate laboratory chemicals and other equipment</td>
<td></td>
<td></td>
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<tr>
<td>Teachers have been in-serviced on how to use teaching learning materials.</td>
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<tr>
<td>KIE approved textbooks have well detailed and organized content</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All KIE approved books are appropriate</td>
<td></td>
<td></td>
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<tr>
<td>KIE approved books with poor content coverage</td>
<td></td>
<td></td>
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<tr>
<td>There should be a common course book for each subject for all schools.</td>
<td></td>
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<tr>
<td>There are functional teacher’s resource centers in the division</td>
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<tr>
<td>TEACHING METHODS</td>
<td>5</td>
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<tr>
<td>SA</td>
<td>A</td>
<td>D</td>
<td>SD</td>
<td>UN</td>
<td></td>
</tr>
</tbody>
</table>

- Teachers use student centered method of teaching
- Teaching methodologies taught during training are inadequate
- In-service help teachers acquire methods of teaching emerging issues.
- Most teachers use lectures method because classes are large.
- Teachers have difficulties in teaching some topics
- Teachers use teaching strategies which do not inspire learners.

<table>
<thead>
<tr>
<th>CURRICULUM EVALUATION</th>
<th>5</th>
<th>4</th>
<th>3</th>
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<tr>
<td>SA</td>
<td>A</td>
<td>D</td>
<td>SD</td>
<td>UN</td>
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</tr>
</tbody>
</table>

- KCSE is adequate to test four years of teaching and learning
- Teachers do not teach areas not tested by KNEC
- Teachers use table of specification in setting school based tests.
- Teachers set teacher friendly examination.
- Teachers give assignments regularly
- Our KCSE result for the last five years show quality grades.
- KCSE should be scrapped to give way for continuous assessment
### CURRICULUM SUPERVISION

<table>
<thead>
<tr>
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<th>5</th>
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<td>SA</td>
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</tbody>
</table>

- Teachers prepare scheme of work, lesson plans, lesson notes, record of work as required
- HOD are involved in curriculum supervision
- Principal organizes subject seminar
- The principal organizes subject seminars
- Principals observe teaching in classes regularly
- Quality assurance and standard officer frequently inspect schools and do not advise teachers.
- Teachers miss lessons and do not compensate
- The principal is frequently out of school.
APENDIX III

Principal's questionnaire

The questionnaire which follows seeks information concerning your school on quantitative and qualitative expansion of education. Please provide answers to all questions as accurately and honestly as possible. Your response will treated with confidence. If you have any comments that this questionnaire has not captured and is useful to this study, please feel free to write at the back of the questionnaire.

Part 1: Demographic information.

1. Gender: Male [ ] Female [ ]

2. Name of the school
(optional)……………………………………………………………………………………………………

3. Category of your school: Provincial [ ] District [ ]

4. Nature of your school; Boy’s boarding [ ] Girl’s boarding [ ]
   Mixed day [ ]

5. What is your highest level of education?
   PhD [ ] M.ed [ ] B.ed [ ] Diploma [ ] others (specify) [ ]

6. How long have been a principal? 2 years and below [ ] 3 -5 years [ ] 6- 8 years [ ]
9-11 years [ ] 12-14 years [ ] 15 years and above [ ]

7. How long have you been the principal of this school?

Less than a year [ ] 1 – 3 years [ ] 4 – 6 years [ ] Above 6 years [ ]

8. How many teachers does your school have?....................................

9. What are the qualifications of your teachers?

<table>
<thead>
<tr>
<th>QUALIFICATION</th>
<th>Number of teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>K. C. S.E</td>
<td></td>
</tr>
<tr>
<td>K. A. C. E</td>
<td></td>
</tr>
<tr>
<td>SI</td>
<td></td>
</tr>
<tr>
<td>DIPLOMA</td>
<td></td>
</tr>
<tr>
<td>UNTRAINED GRADUATE</td>
<td></td>
</tr>
<tr>
<td>B.ED</td>
<td></td>
</tr>
<tr>
<td>M.ED</td>
<td></td>
</tr>
<tr>
<td>PHD</td>
<td></td>
</tr>
</tbody>
</table>

10. How many students does the school have presently?

F1------ F2-------- F3--------- F4………..

11. What are the minimum marks required for students to be admitted in school?

a) Over 300 marks [ ] b) Between 250-300 marks [ ] c) Below 250 – marks [ ]

d) any of the above [ ]

12. Increased enrolment has led to poor education quality in your school.YES [ ] NO [ ]

13. How do you rate the quality of education in your school generally? Very good [ ]

Good [ ] Average [ ] unsatisfactory [ ]
14. How many times do your teachers attend in service courses a year? Between 1 – 2 times [ ] Over 3 times [ ] none [ ]

Part 2: The following statements relate to the indicators of quality education. Please indicate to what extent they are applicable in your school. Please react to the following five points Likert scale appropriately against the matrix questions. Beside each of the statements, please indicate with a tick (√)

Key: SA- Strongly agree -5 A –Agree-4 D- Disagree-3 SD-Strongly disagree-2 UN – Undecided-1

<table>
<thead>
<tr>
<th>AVAILABILITY AND TRAINING OF TEACHERS</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SA</td>
<td>A</td>
<td>D</td>
<td>SD</td>
<td>UN</td>
</tr>
<tr>
<td>The school has enough teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All teachers are trained</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There is regular in service of teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All subject have adequate and trained teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There is continuous professional development of teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teachers are satisfied with their jobs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diploma teachers have better masterly of contend than graduation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADEQUACY OF TEACHING/LEARNING MATERIALS</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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<tr>
<td>----------------------------------------</td>
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<td>---</td>
</tr>
<tr>
<td><strong>SA</strong></td>
<td><strong>A</strong></td>
<td><strong>D</strong></td>
<td><strong>SD</strong></td>
<td><strong>UN</strong></td>
<td></td>
</tr>
<tr>
<td>The school has enough text books teacher’s guide reference books, globes ,maps, chats and stationary.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The school has adequate laboratory chemicals and other equipments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teachers have been in-serviced on how to use teaching learning material</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KIE approved text books have well detailed and organized contend</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All KIE approved books with poor contend coverage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KIE approved books with poor contend coverage</td>
<td></td>
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</tr>
<tr>
<td>There should be a specific course book for each subject for all schools</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There are teacher’s resource centre in the division.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TEACHING METHOD</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SA</strong></td>
<td><strong>A</strong></td>
<td><strong>D</strong></td>
<td><strong>SD</strong></td>
<td><strong>UN</strong></td>
<td></td>
</tr>
<tr>
<td>1. Teachers use student centered method of teaching</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Methodology taught during training is inadequate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. In-service help teachers use acquire methods of teaching emerging issues</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Most teachers have difficulties in teaching some topics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Most teachers use method because classes are large</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Teachers use teaching strategies which do not inspire learners</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>
### CURRICULUM EVALUATION

<table>
<thead>
<tr>
<th></th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SA</td>
<td>A</td>
<td>D</td>
<td>SD</td>
<td>UN</td>
</tr>
</tbody>
</table>

- K C SE is adequate to test four years of teaching and learning
- Teachers do not teach areas not tested by KNEC
- Teachers use table of specification in setting school based tests
- Teachers give and mark assignments regularly
- Teachers set teachers friendly examinations easy to mark.
- Our K C S E results show quality grades in the last five years
- K C.S.E should be scrapped to give way for continuous assessment.

### CURRICULUM SUPERVISION

<table>
<thead>
<tr>
<th></th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SA</td>
<td>A</td>
<td>D</td>
<td>SD</td>
<td>UN</td>
</tr>
</tbody>
</table>

- Teachers prepare scheme of work, lesson plans, lesson notes, record of work as required
- HODs are involved in curriculum supervision
- Principals teach lessons on the time table
- The principal organizes subject seminars at school level
- Principals observe teaching in classes regularly
- Quality assurance and standards officer frequently inspect schools and advise teachers
- When teachers miss lessons they recover later
- The principal is rarely out of school
APPENDIX IV

Interview Guide for the Quality Assurance and Standards Officer on Quantitative Versus Qualitative Expansion of Education

1. Gender  Male ________________ Female __________

2. How many times do you inspect secondary schools in Nkuene Division?

3. From your inspection visits, do schools have adequate teaching and learning materials?

4. Do all teachers prepare schemes of work and records of work in the schools you inspect?

5. What is your opinion on secondary teacher training in Kenya?

6. Curriculum based establishment has led to some teachers being overworked. What is your opinion?

7. Has increased enrolment in secondary schools affected quality of education? Give your opinion

8. Do you have programmed in service programs in your district?

9. How do you ensure that assessment test in schools are of standard?

10. What would you say about the standards of education in Nkuene Division?

11. What measures are being put in place to improve quality of education?

12. The ministry introduced life skill education in schools, are they taught/programmed in the school you inspect?

13. The ministry introduced internal assessment at school level has this been implemented in your school? Are they aware?

APPENDIX V

Observation Guide for Researcher

Section A: Demographic Information.

1. Name of the school _________________________________________
2. Year the school was started ________________________________
3. Category of school _________________________________________

Section B. Teacher Adequacy and Training

<table>
<thead>
<tr>
<th>NO.</th>
<th>ITEMS OBSERVED</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Adequate staffing</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Teachers enthusiasm about teaching</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Teachers have certificates of in-service courses</td>
<td></td>
</tr>
</tbody>
</table>

Section C: Teaching and Learning Materials

<table>
<thead>
<tr>
<th>NO.</th>
<th>ITEMS OBSERVED</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Availability of adequate text books</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Evidence of well equipped library</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Presence of teaching aids like globe</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Evidence of a well equipped laboratory</td>
<td></td>
</tr>
</tbody>
</table>
Section D: Teaching Methods

<table>
<thead>
<tr>
<th>NO.</th>
<th>ITEMS OBSERVED</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Presence of discussion groups</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Teachers give and mark assignments</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Teachers encourage peer teaching</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Teachers use interactive teaching methods</td>
<td></td>
</tr>
</tbody>
</table>

Section E: Curriculum Evaluation

<table>
<thead>
<tr>
<th>NO.</th>
<th>ITEMS OBSERVED</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Regular Testing in school</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Standard examinations test</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Analyzed KCSE results</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Quality grades are attained</td>
<td></td>
</tr>
</tbody>
</table>

Section F: Curriculum Supervision

<table>
<thead>
<tr>
<th>NO.</th>
<th>ITEMS OBSERVED</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>The principal in school and monitoring class attendance</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Principals delegates to HOD</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Availability of schemes and records of work</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Teachers enjoy support from administration</td>
<td></td>
</tr>
</tbody>
</table>
## APPENDIX VI

### TIME SCHEDULE

<table>
<thead>
<tr>
<th>TIME</th>
<th>ACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>A  September 2010</td>
<td>Concept paper writing</td>
</tr>
<tr>
<td>B  October-November 2010</td>
<td>Concept paper correction and first proposal writing</td>
</tr>
<tr>
<td>C  December 2010</td>
<td>Correction of proposal</td>
</tr>
<tr>
<td>D  January 2010</td>
<td>Presentation of the proposal at department level</td>
</tr>
<tr>
<td>E  February- March 2010</td>
<td>Data collection</td>
</tr>
<tr>
<td>F  April 2010</td>
<td>Data analysis</td>
</tr>
<tr>
<td>G  May 2010</td>
<td>Correction and editing project work</td>
</tr>
<tr>
<td>H  June 2010</td>
<td>Defense</td>
</tr>
</tbody>
</table>
APPENDIX VII

BUDGET

Budget Item

<table>
<thead>
<tr>
<th>Part 1</th>
<th>Ksh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production of research instrument</td>
<td>800</td>
</tr>
<tr>
<td>Typing charges 70 pages @ 20</td>
<td>1,400</td>
</tr>
<tr>
<td>Binding 5 copies of the project @ 400</td>
<td>2,000</td>
</tr>
<tr>
<td>Transport for 30 days @ 250</td>
<td>7,500</td>
</tr>
<tr>
<td>Subsistence for 30 days, breakfast, lunch</td>
<td>30,000</td>
</tr>
</tbody>
</table>

**Subtotal** 41,700

<table>
<thead>
<tr>
<th>Part 2 incidental costs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Other costs (stationary, pens, pencil)</td>
<td>1,000</td>
</tr>
</tbody>
</table>

**Subtotal** Kshs 1,000

**Grand total** Kshs 42,700
APPENDIX VIII

RESEARCH AUTHORIZATION

NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

NCST/RRI/12/1/SS-011/1502/4

Mary Kinanu
Kenyatta University
P. O. Box 43844
NAIROBI

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on "An investigation into quality of secondary education in Nkueje division of Imenri South District, Meru County" I am pleased to inform you that you have been authorized to undertake research in Imenri South District for a period ending 31st December, 2011.

You are advised to report to the District Commissioner & the District Education Officer, Imenri South 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
APPENDIX IX

RESEARCH PERMIT

THIS IS TO CERTIFY THAT:
Prof./Dr./Mr./Mrs./Miss/Institution
Mary Kinanu
of (Address) Kenyatta University
P.O BOX 43844, Nairobi
has been permitted to conduct research in

\textit{Imenti South}

\textit{Eastern}

\textit{District}

\textit{Province}

On the topic; \textit{An investigation into quality of Secondary education in Nkuene Division of Imenti South District, Meru County}

for a period ending \textit{31st December 2011}

\textbf{Research Permit No.: NCST/RRI/12/1/SS011/1502}

\textbf{Date of issue: 1st November, 2011}

\textbf{Fee received: Ksh 1,000}

\textbf{Applicant’s Signature}

\textbf{Secretary National Council for Science and Technology}