

**AN INVESTIGATION INTO FACTORS INFLUENCING STUDENTS' ACADEMIC
PERFORMANCE IN PUBLIC SECONDARY SCHOOLS IN MATUNGULU
SUB-COUNTY, MACHAKOS COUNTY**

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A Research Project Submitted in Fulfillment of the Requirements for the Award of the Degree of
Master of Education in Educational Administration
South Eastern Kenya University

2017

DECLARATION

This research project is my original work and has not been presented to any other university for the award of a degree.

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DEDICATION

I wish to dedicate this work to my beloved children, Lydia Nzembi and Caleb Kieti.

ACKNOWLEDGEMENT

I wish to sincerely thank the Matungulu Sub county secondary school principals, teachers and students who provided vital data needed in this research study. I am also grateful to all my lecturers at SEKU for their tactful input in knowledge to me. Of greater help were my committed and able supervisors, Dr.Redempta Maithya and Dr.David Mulwa who offered timely advice and resourceful guidance throughout the research process. I also wish to thank my dear wife Gladys Mbithi and my beloved children Lydia Nzembi and Caleb Kieti for their unwavering support during my study. May God bless them abundantly.

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ABBREVIATIONS AND ACRONYMS

BPS	Board of Postgraduate Studies
CPE	Certificate of Primary Education
CRE	Christian Religious Education
DESA	Department of Economic and Social Affairs
EU	European Union
MOE	Ministry of Education
KCSE	Kenya Certificate of Secondary Education
KCPE	Kenya Certificate of Primary Education
KNEC	Kenya National Examination Council
LAB	Laboratory
MDG	Millenium Development Goals
MICNG	Ministry of Interior and Coordination of National Government
NACOSTI	National Commission for Science, Technology and Innovation
SEKU	South Eastern Kenya University
SD	Standard Deviation
SES	Socio Economic Status
SDG	Sustainable Development Goals
SPSS	Statistical Package for Social Sciences
UNESCO	United Nations Educational Scientific and Cultural Organization
UNICEF	United Nations International Children's Educational Fund
USA	United States of America

ABSTRACT

The study sought to investigate factors which influence students' academic performance in public secondary schools in Matungulu sub-county, Machakos County. The study was guided by the following research objectives; to establish the influence of learning resources on students' academic performance, to assess the influence of administrative practices on students' academic performance, to investigate the influence of teacher related factors on students' academic performance and to analyze the influence of the students' socio-economic background on academic performance. The study employed descriptive survey research design. The study targeted all the 2,300 form three students, all the 385 teachers and all the 32 principals in public secondary school in Matungulu sub-county. However, the sample size included 230 students, 40 teachers and all principals (10) of the participating schools. Stratified random sampling technique was used to allocate and sample the actual schools in various school categories. Simple random sampling technique was also used to select the 230 participating students and four teachers in each of the 10 public secondary schools in Matungulu sub-county participating in this study. All the principals (10) from all the 10 participating schools were purposively sampled. Three sets of instruments were used to collect data. These included the students' questionnaire (SQ); the teachers' questionnaire (TQ) and the principals' questionnaire (PQ). Statistical package for social sciences (SPSS) version 20, ANOVA and regression were used in data analysis. Tables and figures were used to present the analyzed data. The findings of the study revealed that the learning resources were inadequate and hence affected academic performance to a great extent. The study also revealed that the influence of administrative practices on academic performance was strongly positive and significant ($r = .844$, $P \leq 0.5$) and similarly, teacher related factors and socio economic background of the learners had a statistically significant influence on academic performance ($P \leq 0.5$). The study recommended among others that principals should intensify the routine checking of professional records by teachers to ensure adherence to the dictates of the professional records and that head teachers and the school management should ensure that relevant materials were procured for use by both the students and teachers.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

There are a number of factors that influence academic performance of learners. Some of these factors are the availability of learning resources, administrative practices, teacher related factors and students' socio-economic status (SES). Research has shown that clean air, good light, and a small, quiet, comfortable, and safe learning environment are important for academic achievement (Schneider 2002). Effective instructional leadership has been shown to result in school improvement and effectiveness (Lezotte, 2010). Teachers are the most important human resource and remain the backbone of any educational system (UNDP, 2003). It is argued that, children from low (SES) background are more likely to; have lower levels of literacy, numeracy and comprehension; have lower retention rates; and have generally lower higher education participation rates. It can therefore be inferred that academic performance of a child is influenced by various factors. Some of which will be addressed in this study.

The significance of education in national development as well as individual development is indisputable. For any country, a highly educated human resource contributes maximally to national development in various spheres. Individuals have used education as a ladder to climb to desired social economic levels. Education is also viewed as a tool for social economic changes (Njuguna, 2011). Nations spend fortunes to enhance the education process and improve academic

achievement of learners. Education is essential for the development of the society and the more educated the people of a society are, the more civilized and well disciplined the society might be.

A report by the UN on the achievement of the Millennium Development Goals (MDG's) notes that the absolute number of people living in extreme poverty globally fell from 1.9 billion in 1990 to 1 billion in 2011. The estimates suggest that another 175 million people were lifted out of extreme poverty as of 2015. Thus, the number of people worldwide living on less than \$1.25 a day has also been reduced by half from its 1990 level (UN, 2015).

Although the MDG's target of halving the proportion of people living in extreme poverty and hunger have been met or almost met, the world is still far from reaching the MDG goal of eradicating extreme poverty and hunger. In 2015, an estimated 825 million people still lived in extreme poverty (UN, 2015). The same UN report further indicates that the primary school net enrolment rate in the developing regions reached an estimated 91% in 2015, up from 83 % in 2000. From these findings, it can be argued that as access to education is increasing globally, poverty rates are declining. Universal eradication of poverty has not been achieved largely due to a substantial number of children left out of school and the fact that many children who begin primary school do not complete it, while others perform poorly and cannot continue with higher education.

After nearly achieving MDGs number two on universal access to primary education, the global community is now embarking on sustainable development goals (SDGs) after the expiry of MDGs in 2015. Previously, efforts have been on expanding access to primary education but in the post 2015, the global community has set in motion efforts to achieve universal access to quality secondary education. Investing in the quality of education and assessing whether children have mastered the skills they are taught and whether they are taught the skills they require in the twenty-first century is critical (UN, 2015).

In the last decade, the Kenya Government has embarked on expanding access to primary and secondary education through free primary and free day secondary education programs. According to UNESCO (2015), the number of children enrolled in both primary and secondary schools has increased significantly. This can be attributed to lowering of the cost education through government subsidies such as free primary education and free secondary education programs in 2003 and 2008 respectively (Gura, 2015). The Republic of Kenya Constitution (2010) decries that basic education includes secondary education and is a fundamental human right of every Kenyan child. It is therefore critical to improve on access and quality of basic education in Kenya. More important of any education system is to measure the quality of graduates produced at the end of the system.

Education outcomes are measured through examinations which have been accepted as an important aspect of the educational system. Examinations have

always been used as the main basis for judging a student's ability and also as a means of selection for educational advancement and employment. However, a lot of students do not perform well in national examinations in many countries around the world, Kenya included. The poor performance has raised concern and efforts have been made to find out the reasons behind it. For poor performance of students in schools, many factors such as lack of facilities in school, lack of teachers, student indiscipline, unfavorable home environment, low intelligence, anxiety and students' need to achieve have been found as being some of the causes (Cantu, 1975; Maundu, 1980; and Ndirangu, 2007).

Whereas access to schools has improved rapidly throughout the developing world since 1990, learning outcomes have lagged behind (UN, 2015). One question that has preoccupied researchers for decades is why some public schools consistently perform well in examinations while others consistently perform poorly. A group of school effectiveness researchers, including Edmonds (1981), Scheerens & Bosker (1997), Lezotte, Skaife & Holstead, (2002), and Daggett (2005), demonstrated that public schools can make a difference – even if their student body comprised of students whose families had disadvantaged backgrounds. These researchers discovered that the successful schools have unique characteristics and processes, which helped all children, learn at high levels (Kirk & Jones, 2004).

Poor academic performance is a wide spread phenomenon among students raising

concerns to parents, governments and stakeholders. Results of the boards of secondary and higher secondary education in Pakistan revealed that almost half of the students failed in secondary level examinations (Rafiq, Fatima, Sohail, Saleem & Khan, 2001) citing Punjab Statistics Bureau (2008). According to this report, besides the passing of students a significant majority secured less than 50% marks. In most European countries, academic performance is still low especially among senior secondary schools European (Union Monitoring Report, 2013). In Nigeria for example, a lot of students do not perform well in the senior secondary certificate examination (Alokan, Osakinle & Onijingin, 2013).

The scenario is not different in Kenya. For example, in 2011, of the 357,488 candidates who sat for their Kenya Certificate of Secondary Education (KCSE) in Kenya, only 27% obtained mean grade of C+ and above, which is considered the minimum university entry benchmark (Kigotho, 2012). The 2013's performance remained relatively similar to that of 2011, where, only 27.46% of the candidates (123,365) obtained the minimum university entry qualification of C+ in 2013 compared to 28.36% of the candidates in 2012 Soft Kenya, (2016). However, there was minimum improvement of performance in 2014, where 42.92% (208,405) of the candidates obtained the minimum entry requirement of joining university (Siringi, 2015). Overall, it can be concluded that more than half of students who sat for their KCSE in the period 2011-2014 failed to score a minimum of C+.

According to a UNICEF report (2011) on the state of the world's children, many adolescents in the Sub-saharan Africa are disenchanted for not getting good education to better their livelihoods. The report goes on to say that, many adolescents who have transited to secondary schooling in Sub-saharan Africa in recent years are not getting quality education that would prepare them for further education and world of work. That is the same situation prevailing in Kenya where almost over 5,500 secondary schools across the country have limited capacity to prepare their students for higher education and further training.

The Kenyan education system places a minimum grade (C+) which students must obtain before they are admitted to universities. Scrutiny of education statistics between 2011 – 2014 shows that, most schools had their students stacked in the lower end of the KCSE individual ranking (Soft Kenya, 2015). Notably, those are public county schools that usually admit over 70 per cent of students that join secondary education each year. But whereas those schools would like to link their poor performance to limited resources, emerging evidence indicate poor administrative style, chronic teacher and student absenteeism and student indiscipline as key to poor performance recorded by that category of schools (Kimani, Kara & Njagi, 2013; Nyagosia, 2011; & Wamulla, 2013).

The study was carried out in Matungulu sub-county of Machakos county where statistics from the Matungulu sub-county education office (2016) showed that; while some schools in this sub-county consistently performed well in KCSE

examinations, others continued to perform poorly. What are not clear are the factors that have enabled a few schools to perform well while the majority keep performing poorly in KCSE.

1.2 Statement of the problem

Researchers generally agree that a combination of familial, school, teacher and students factors exert significant influence on the educational aspirations and academic achievements of children Kimani, Kara & Njagi, (2013); Nyagosia (2011), Reche, Bundi, Riungu & Mbugua (2012). These influences can contribute to poor academic performance or improved academic performance. Academic performance in public secondary schools in Matungulu sub-county has always been below average. Information provided by the Matungulu sub-county education office (2016), indicated that the sub-county has hardly attained a mean score of 5.0 for the period 2009 – 2014, and thus the concern for this study. The mean score between 2009-2014 was as follows: 3.50, 3.84, 4.91, 4.35, 4.45 and 4.80 respectively.

Academic performance is obviously a result of a number of factors. It is, therefore, important to investigate and expose factors which are contributing to poor academic performance in Matungulu sub-county. This study therefore investigated the factors influencing students' academic performance in Matungulu sub-county. The study investigated whether school based factors such as; learning resources, administrative practices and teacher related factors such as; teachers' professional qualification, absenteeism, motivation and workload and students'

socio-economic background factors such as; socio-economic status of parents and family size are contributing to students' poor performance.

1.3 Purpose of the study

The purpose of this study was to investigate factors influencing the students' academic performance in public secondary schools in Matungulu Sub-county, Machakos County.

1.4 Research Objectives

The objectives of the study were:

- 1) To establish the Influence of learning resources on students' academic performance in public secondary schools in Matungulu sub-county.
- 2) To assess the influence of administrative practices on students' academic performance in public secondary schools in Matungulu sub-county.
- 3) To investigate the influence of teacher related factors on students' academic performance in public secondary schools in Matungulu sub-county.
- 4) To analyze the influence of students' socio-economic background on academic performance in public secondary schools in Matungulu sub-county.

1.5 Research Question

The research question of the study was:

To what extent do learning resources influence students' academic performance in public secondary schools in Matungulu sub-county?

1.5.1 Research Hypotheses

The hypotheses of this study were stated in null form as follows:

Ho₁: Administrative practices have no influence on students' academic performance in public secondary schools in Matungulu sub-county.

Ho₂: Teacher related factors have no influence on students' academic performance in public secondary school in Matungulu sub county.

Ho₃: Social economic background has no influence on students' academic performance in public secondary school in Matungulu Sub County.

1.6 Significance of the Study

The study was and is considered as significant and timely because the government, parents and other stakeholders in education spend large portions of their respective resources in education. Low levels of performance in examinations leads to undesirable wastage and denies students entry into their preferred course when trying to further their courses or profession. The effect spills over to the labour market, where the students fail to get employed in lucrative jobs. The outcome of the study would be important to all stakeholders in education.

The findings of the study could be used as a framework for improving academic performance in all public schools in Kenya. Principals may utilize the results of the study to establish ways and means of improving performance in their respective schools, including those that have been enjoying good academic standards. The factors that are responsible for poor academic performance would

be documented and can be used as a point of reference to carry out further research. Students could use the results at their personal level to avoid negative traits so as to enhance their personal academic performance.

1.7 Limitations of the Study

The study was limited by some factors such as teachers' workload. Overworked teachers usually had no good time to fill in the questionnaires or were too tired to give appropriate responses in one day. The researcher dropped the questionnaires for teachers and principals and left them to be filled when they had sufficient time. This however increased the study period making the researcher take a longer time to complete the study. To counter this challenge, the researcher reminded and encouraged them to take the shortest time possible and gave reasonable deadlines.

Attitude of respondents towards the researcher was another limiting factor. To counter this challenge the researcher tried to explain the value of the study to the respondents in order to reduce the negative attitudes. Another limitation was fear of victimization. Some respondents were afraid of their seniors in giving negative responses about their school. To mitigate this challenge the researcher explained to them that the study was for academic purpose only and assured them of their privacy. Additionally the researcher tried to be ethical during data collection.

1.8 Delimitations of the Study

The study was delimited to only secondary schools in Matungulu sub-county. It

was not possible to cover other parts of the county, not only because of logistics but due to the large amount of money that would be required to carry out a research of that nature.

The study was also delimited to particular factors influencing academic performance: learning resources, administrative practices, teacher related factors and students socio-economic background. There are many other factors that were not addressed in this study.

The study involved thirty two (32) schools in Matungulu sub-county. The researcher obtained primary data from a sample size of 230 form three (3) students, forty (40) teachers and ten (10) principals of the participating schools. Since the study was delimited to this sample size, the findings were not construed to be directly applicable to all schools in other parts of the Machakos County.

1.9 Assumptions of the study

The study was premised on the following assumptions that:

- i. Respondents would be willing to co-operate and comment honestly and truthfully on factors that influence students' academic performance in the public secondary schools.
- ii. All public secondary schools had well-kept academic records that reflected on students' academic performance.

1.10 Definition of significant terms

Academic performance is the ability to study and remember facts and being able to communicate the knowledge in writing internal examination.

Administrative practices refer to management of curriculum and instruction by a school principal.

Learning resources refers to text books, videos, software and other materials that teachers use to assist students to meet the expectations for learning and physical facilities such as classrooms, computers and laboratories.

Principal refers to a person appointed to administer a secondary school.

Public secondary school is a post primary education institution in Kenya funded by the government and students are prepared to write KCSE

Socio-economic status/background refers to a person's overall social position to which attainments in both the social and economic domains contribute. In this study, it refers to family size and family structure.

Teacher related factors refers to teacher related factors such as professional qualification of teachers, motivation, absenteeism and teacher work-load which influence students' outcomes.

1.11 Organization of the Study

This study is organized into five (5) chapters. Chapter one (1) contains background information of the study, the research problem, purpose of the study, objectives of the study, research question and hypotheses, significance of the study, limitations, delimitations of the study, definition of significant terms used

and the study and organization of the study. Chapter two (2) presents the literature review. Chapter three (3) covers the detailed study research methodology and entailed the research design, target population, sample size and sampling procedure, the research instruments, validity and reliability of research instruments, data collection procedures and data analysis techniques and ethical considerations. Chapter four (4) consists of data analysis, presentation and interpretation of the study findings while chapter five (5) presents the summary, conclusions, recommendations and suggestions for further research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews literature related to factors which influence academic performance among students. The chapter outlines literature relating to: influence of learning resources on students' academic performance, influence of administrative practices on students' academic performance, influence of teacher related factors on students' academic performance and influence of socio-economic background on student's academic performance; summary of reviewed literature, theoretical framework and conceptual framework.

2.2 Influence of learning resources on students' academic performance

A study done in USA by Earthman (2002) outlined that a good school facility supports the educational enterprise. In such a school, learning resources like physical facilities which include classrooms in habitable state, equipped library, computer room and laboratories are available and adequate. Other learning resources which include; - text books, projectors, videos, software and other materials coincidental to learning should be sufficient. Research has shown that clean air, good light, and a small, quiet, comfortable and a safe learning environment are important for general positive academic achievement of learners (Cash, 1993; Earthman and Lemasters, 1996; Lemasters, 1997; Lackney, 1999; & Schneider, 2002). Smaller class sizes in terms of population leads to better academic performance and more access to resources such as computers which have been shown to enhance academic achievement (Crosnoe et al., 2004 &

Eamon 2005). Conversely, the unattractive physical structures of the school could demotivate learners academically.

According to Earthman (2002), school facility conditions do affect student academic achievement. He argues that school building design features and components have been proven to have a measurable influence upon student learning. Among the influential features and components are those impacting on temperature, lighting, acoustics and age. He observes that older buildings usually do not have the main attributes of a modern building that are associated with a positive physical environment conducive to student learning. Other researchers have found a negative impact upon student performance in buildings where deficiencies in any of these features exist. According to Andersen (1999); Ayres (1999) and O'Neill (2000) many of the building factors that are necessary for proper learning environments are simply absent in older buildings, but are present and functioning in new buildings. This means that the older the building, the less the learning by students.

Location of a school facility is also another significant factor which can be linked to students' outcomes. Schools located close to busy roads expose children to traffic-generated air and noise pollution and may have a wide range of adverse health effects in children (Amram, Abernethy, Brauer, Davis & Allen, 2011). This is because children spend a large portion of time at school, and both air pollution and noise are elevated in close proximity to roads, so school location may be an

important determinant of pollution exposure. As a result, the locations of schools may negatively impact the healthy development and academic performance of a large number of children.

The adequacy and availability of learning resources affects the effectiveness of learning processes in a school setting. Teaching and learning resources enhance understanding of abstract ideas and improves performance. Schneider (2002) found out that school facilities have a direct effect on teaching and learning. Similarly, Reche et al (2012), observed that text books enable the pupils to follow the teacher's sequence of presentation of syllabus and aids in understanding of lessons. This indicates that most schools which perform poorly spend less money on the purchase of teaching resources. Unavailability of other critical facilities such as laboratories may affect delivery of science oriented subjects. Therefore, libraries need to be equipped with sufficient books while laboratories need to be installed and equipped with required apparatus and chemicals.

A World Bank report (1987) on school and classroom effects on student learning in Thailand reported that students in larger schools learn more than students in smaller schools. However students in schools with higher student-teacher ratio learn less than students in schools with lower student-teacher ratio. It concludes that larger schools may be more effective due to economies of scale – lower student-teacher ratio, less crowding and conversely a greater teacher-student contact.

A descriptive study conducted in Nigeria by Ekundayo (n.d) on school facilities as correlates of students' achievement in the affective and psychomotor domains of learning established that the schools' learning resources were not all that adequate. The study further revealed that the students did not achieve well in the affective and psychomotor domains of learning. The study found out that there was a significant relationship between school facilities and students' achievement in the affective domain as well as a significant relationship between school facilities and students' achievement in the psychomotor domain of learning. It was concluded that, the Government should improve upon the level of learning resources in schools so as to improve the students' achievement in these areas of learning. Studies conducted in Kenya point to similar conclusions.

Wamulla (2013) conducted a study on factors which influence academic performance in K.C.S.E in private schools in Westland Division, Nairobi county. The data obtained was analyzed and interpreted using descriptive statistics. The study concluded that the availability of physical and teaching facilities have a positive influence on performance. The condition of the learning resources in terms of cleanliness and in good state of repair, have also been confirmed to bear positive impact on performance in K.C.S.E. A study by Reche et al (2012) on factors contributing to poor performance in Kenya Certificate of Primary Education (KCPE) in public day primary schools conducted in Kenya in Mwimbi division, Maara district established that inadequate learning resources are

contributing to poor KCPE performance. This findings were consistent with those of Schneider (2002) which found that school facilities have a direct effect on teaching and learning, and consequently academic performance.

According to Matungulu education office in 2016, the average mean score in KCSE of schools in the sub-county for the period (2009-2014, see Table 1.1) is 4.309, which is an equivalent mean grade of D+.

Table 2.1: Performance in mean scores of public secondary schools in Matungulu sub-county mean scores from 2009 – 2014

Year	Sub-county mean score
2009	3.50
2010	3.84
2011	4.911
2012	4.349
2013	4.453
2014	4.80
Average Mean Score	4.309

Source: Matungulu sub-county education office, (2016)

The performance in the sub-county as shown in Table 2.1 can be considered as very low. While the average grade in the sub-county is D+, what is not clear is why some schools average a B- mean grade in KCSE in the same sub-county which is a good performance. This implies that some factors which contribute to poor performance in Matungulu sub-county may be intrinsic to specific schools such as availability and adequacy of learning resources. The researcher has not found any empirical study conducted in the proposed study site on the level of

learning resources and their impact to students' academic outcomes. The current study therefore sought to fill this gap.

2.3 Influence of administrative practices on students' academic performance

In line with a study done in Indianapolis, USA by Lezotte (2010) contemporary educational reform places a great premium on the effective instructional leadership and management of schools. The logic of this position is that an orderly school environment, that is efficient and well managed, provides the preconditions for enhanced student learning. Effective instructional leadership is generally recognized as the most important characteristic of school administrators (Hoy & Hoy, 2009; Lezotte, 2010). It is expected that, effective instructional leaders are proactive and seek help in building team leadership and a culture conducive to learning and professional growth.

Effective instructional leadership has been shown to result in school improvement and effectiveness (Scheerens & Bosker, 1997; Lezotte, Skaife & Holstead, 2002; Lezotte, 2010). The indicators of schools having effective instructional leaders have been shown through research to include factors like teacher morale and satisfaction school and organizational culture, teacher effectiveness and time on task; as well as and improved academic performance (Wilson, 2005).

Almost every single study on school effectiveness has shown that both primary and secondary leadership are key factors (Wamulla, 2013). Gay (1981) argued

that, the importance of the head teacher's leadership is one of the clearest of the messages from school effectiveness research. He draws attention to the fact that there is no evidence of effective schools with weak leadership that has emerged in review of effectiveness research. Leadership is not simply about the quality of individual leaders, but it also involves the role leaders play, their style of management, their relationship to the vision, values and goals of the school and their approach to change. Leadership at work in educational institutions is thus a dynamic process where an individual is not only responsible for the groups' tasks, but also actively seeks the general collaboration and commitment of all the group members in achieving the entire groups goals in a particular context at a given time (Cole, 2000).

Leadership in this context pursues effective performance in schools because it does not only examine tasks to be accomplished and who executes them, but also seeks to include greater reinforcement characteristics like recognition, conditions of service and building of morale, coercion and remuneration (Balunywa, 2000). Maicibi (2003) contends that, without a proper leadership style, effective performance cannot be realized in schools. This means that, even if the school has all the required instructional materials and financial resources, it will not be able to use them effectively if the students are not directed in their proper meaningful use of resources or if the teachers who guide in their usage are not properly trained to implement them effectively.

Looking at the research literature as a whole, it would appear that different styles of leadership can be associated with effective schools, and a very wide range of aspects of the role of leaders in schools have been highlighted. As Bossert et al (1982) concluded; no single style of management seems appropriate for all schools, and therefore principals must find the style and structures most suited to their own local situation. However, a study of the literature reveals that three characteristics have frequently been found to be associated with successful leadership; these are, strength of purpose; involving other staff in decision making and professional authority in the process of teaching and learning (Wamulla, 2013).

Effective leadership is usually firm and purposeful. Research by Lezotte (1991) has led to a conclusion that in the effective school, the head teacher is the key agent in bringing about change in many of the factors affecting school effectiveness. He adds that an effective head teacher is, in most cases, not simply the most senior administrator or manager, but is in some sense a leading professional. This implies involvement in about what goes on in the classroom, and knowledge about it including the curriculum, teaching strategies and monitoring of pupils' progress, in practice Wamulla (2013). This requires the provision of a variety of forms of support to teachers, including encouragement and practical assistance.

According to Reche et al (2012) the head teacher acts like a company chief

executive officer who coordinates and controls all the activities in the school either directly or indirectly through delegation. Whichever the case, his/her physical presence in the school is important in order to supervise all the managerial aspects. Reche et al (2012) asserts that the major duties and responsibilities of a school head include; holding staff meetings to facilitate coordination of various activities in the school, checking teachers' schemes of work and lesson plans and internal supervision of curriculum implementation through physical observation of teachers' while lessons are in progress. All these functions require the school head to be physically present in the school.

The global monitoring report by World Bank (2015) indicates that in Kenya, 20% of teachers are absent from school. These findings are generally consistent with similar findings by African Population and Health Research Centre (APHRC) in 2015. The study shows that teacher absenteeism rates in average to 13%, and as high as 17% for teachers in public schools. In a study by Ngware (2015) in Kenyan primary schools, less than 40% of head teachers in low-performing schools were present during researchers visitations compared to 75% of those in high-performing schools.

A study by Reche et al (2012) on factors contributing to poor performance in Kenya certificate of primary education in public day primary schools conducted in Kenya in Mwimbi division, Maara district established that; principals are holding few staff meetings, and that head teachers rarely checked the teachers'

schemes of work and lesson plans. It was also noted that majority of the head teachers do not at all physically observe classes conducted by the teachers in a given term. These findings indicate that there is less monitoring and reporting of the progress of the schools activities and head teachers do not follow up on curriculum implementation during the course of the term. This could be a factor contributing to poor performance in national examinations. The current study sought to establish whether factors surrounding administrative practices as shown in the literature review are impacting on students' academic performance in Matungulu sub-county.

2.4 Influence of teacher related factors on students' academic performance.

According to Creamer (1994), teacher related factors are those within the teachers that could hinder or promote academic performance of pupils in their schools. Aspects of teacher based factors may include: teachers' commitment, teachers' frequency of absenteeism, teachers' motivation and teachers' work load. Good performance is as a result of high commitment levels by the teachers. For example, when teachers absent themselves from school frequently, students go unattended and do not do well in examinations. Absenteeism by teachers reduces the amount of instructional time and this result in the syllabus not being completed. This in turn leads to lower output of work by the students (Ubogu, 2004).

Teacher satisfaction is generally related to achievement. Satisfied teachers would concentrate; hence enhance academic performance of their students. It is also

argued that high teacher turnover has a negative effect to students' academic outcomes. According to Schneider (2002) high teacher turnover forces schools to devote attention, time and financial resources attracting replacement of teachers. On the other hand, overloaded teachers do not have enough time to prepare well for class work and this impact negatively on students' academic performance.

A study done in Nigeria by Okoye (1998) affirms that, the quality of the learning environment at the school depends to a large extent on the quality of the human resources capacity available. Teachers are the most important human resource and remain the backbone of any educational system (UNDP, 2003). The quality of teachers in any educational system determines, to a great extent, the quality of the system itself (Okoye, 1998). One key factor in determining examination results is the availability and quality of teachers. Trained teachers represent a significant social investment and their levels of motivation and career commitment is of concern to policy makers (UNDP, 2003).

Adeyemo (2005) remarks that; no profession in Nigeria has suffered reversal of fortune than teaching. This, he submits, has affected the commitment expected of teachers. This then implies that the quality of service rendered by an unmotivated teacher could affect academic achievement of learners. It is reported that, there are situations whereby primary school pupils or secondary school students receive an average of 125 and 150 hours of teaching respectively against the recommended 250 and 300 hours per week respectively (Adeyemo, 2005).

Teacher quality depends on their qualification, experience and level of discipline which in-turn, determines the level of commitment. Ubogu (2004) asserts that the quality of the teacher is very crucial to determining examination outcomes in a school. The roles of a teacher includes; organizing the instructional environment, setting time framework and carrying out the instructional process (Wamulla (2013). According to Wamulla (2013), lack of teachers results in some classes being left unattended and sometimes the teachers who are present take up extra loads to make up for absentee teachers. This leads to inconsistency and ineffective teaching and sometimes loss of valuable time meaning that students may not adequately cover the syllabus to effectively prepare for national examinations.

One of the leading problems in education in Africa as cited by UNESCO (1991) is the persistent shortage of both qualified and properly trained teachers. In Kenya, this problem has not been caused by lack of trained teachers in the job market but largely due to government inability to absorb qualified teachers which has a negative impact on the academic achievement of students. Osman (1989) in his study on poor performance in KCPE in north eastern province, Kenya noted that poor performance was mainly a result of unequal distribution of teachers where there was understaffing in most schools and teachers rarely attended in-service refresher courses.

Kathuri (1986) concurs with Osman (1989) regarding the effect teacher quality has on the educational achievement of children. In a study on factors that

influence performance in Certificate of Primary Education (CPE), Kathuri (1986) established that the quality of teachers contributed to the nurturing of pupils' performance. He also cites efficient use of teaching methods and good administrative set up as a reflection of teacher quality and as important factors in examination performance of pupils. Simiyu (2002) established that teachers who were involved in marking CRE at KCSE level produce better results in the subject than those who were not. Marking KCSE examinations is a form of training that helps teachers improve their understanding of the subject as well as learning to interpret examination questions. Pearson (1988) noted that in-service training is an important aspect of increasing teachers' effectiveness. He recommended that teacher training courses should be geared towards the improvement of teaching skills and making teachers aware of changes in curriculum. Pearson further pointed out that in-service training also helped teachers to use the available teaching resources more effectively and efficiently.

On teacher commitment, Wamulla (2013) argues that the low salaries paid to teachers in Kenya compelled them to engage in other income generating activities. He asserts that these allegiances of teachers were more on their personal businesses rather than teaching and that the teachers were often absent or ill prepared for teaching. The teachers were therefore not able to prepare students adequately for examinations because they were not able to utilize their teaching time properly. He further argues that many trained teachers in Kenya opted for teaching profession after failing to secure other courses and were therefore always

on the lookout for opportunities elsewhere. These teachers, according to him, were therefore ill motivated and were not committed thus students performed poorly in national examinations.

A study by Reche et al (2012) on factors contributing to poor performance in Kenya certificate of primary education in public day primary schools conducted in Kenya in Mwimbi division, Maara district established that; most teachers are absent from school, most teachers are not motivated, teacher turnover rate was high and teachers workload was quite high. These findings are consistent with World Bank (2015) report which also indicate that teacher absenteeism in Kenya is as high as 20% which concur with another study by African Population and Health Research Centre (APHRC) study which shows that teacher absentee rates to average 13%, and as high as 17% for teachers in public schools, Ngware (2015). The implication of these findings is that much of the instructional time is lost.

Much of these studies have been concentrated to primary schools Reche et al. (2012), World Bank (2015), APHRC (2015) as cited by Ngware (2015) except Wamulla (2013) study which was conducted in private schools in Westland district. Wamulla study even though it was conducted in secondary schools, its findings cannot be generalized to public secondary schools context. Whereas other studies conducted in Kenya have found that teachers in public schools are overloaded, majority of subjects (teachers) in this study said they are not

overloaded. Schools in Westland district enjoy affluent neighborhood for most of inhabitants are relatively richer and this contrasts with schools in Matungulu sub-county, which is poor peri-urbane locality. Academic performance at KCSE in Matungulu sub-county remains low yet there are no empirical studies conducted to establish whether teacher based factors are contributing factors. The study, therefore, sought to fill this gap.

2.5 Influence of socio-economic background on students' academic performance

A study done in Australia by Ainley, Brian, Long & Batten (1995) showed that the socio economic status (SES) of a child is most commonly determined by combining parents' educational level, occupational status and their income level. Studies have repeatedly found that SES affects students' academic outcomes and that students who have a low SES earn lower test scores and are more likely to drop out of school (Hochschild, 2003; & Eamon 2005). The SES has also been shown to override other educational influences such as parental involvement. It is believed that low SES negatively affects academic performance.

High poverty levels lead to distractions and little opportunity for concentration are the norm. The net effect of distractions and lack of concentration is that homework is not guided, poorly done, incomplete or never done at all, and therefore precipitates conflicts at school and at home (Ogunsola et al., 2014). Economically disadvantaged parents are less able to afford the cost of education

of their children at higher levels and consequently their children do not work at their fullest potentials. A study by Makewa, Role and Otewa (2010) found that family type is statistically and significantly correlated with the child performance where the children with both parents performed better compared to their counterparts from different family types. However, children from guardian and step mother and real father families performed averagely the same with a difference with their counterparts in single family type. The lowest performing category was pupils from step fathers and real mother family type.

A study done in Nigeria by Alokun, Osanikinle and Onijingin (2013) argue that illiteracy of parents could have a negative effect on the academic performance of their children. According to them, children whose parents are illiterates have been seen to lack home encouragement. They conclude that as some illiterate parents refuse to provide their children with needed textbooks, and are also discouraging them from learning. David (2007) stated that textbooks aid studies after normal school teaching because some students from illiterate parents lack assistance because of parents' illiteracy and ignorance.

The home environment has an exceedingly great role to play on the academic performance of every child (Wamulla, 2013). Home environment may enhance positive self-esteem which may improve academic performance (Smith et al., 1989) and thus the home environment must be encouraging and supportive towards academics. Mworio (1993) opines that for a child to make the most of his

educational needs at home the child should have easy access to instruments like books, newspapers and building facility with space, light and silence that is convenient for studying. Social class is common to all societies ancient or modern. Socio-economic status is usually determined by wealth, power and prestige. When evaluating and comparing people, the criteria used to rank people as wealthy is to look at their possessions in terms of type and size of house, area of residence and number of cars and quality of clothes (Wamulla, 2013). Wealth is strongly correlated with education and occupation. Morakinyo (2003) indicate the existence of relationship between SES and academic achievement.

The students' KCPE and KCSE performance could be attributed to the SES or may be related to their innate ability. While several comprehensive reviews of the relationship between SES and educational outcomes exist Mukherjee (1995) and Ainley et al (1995) make it clear that children from low SES families are more likely to exhibit the following patterns in terms of educational outcomes compared to children of high SES families; have lower levels of literacy, numeracy and comprehension; have lower retention rates; have lower higher education participation rates. The degree of individual variance in academic performance accounted for by variation in genetic factors, however, is the subject of intense debate (Sparkes, 1999).

Finally, the socio economic disadvantage has been found to be strongly associated with factors such as the home literacy environment, parents' teaching styles and

investment in resources that promote learning such as quality child care, educational materials and visit to museums Shonkoff & Phillips (2000). Families with low income face greater hurdles in achieving effective parenting which in turn often harms their children's development and educational achievement (Berk, 1997). High socio economic background is associated with high literacy of the parents who may be working professionals. Literate parents are highly involved in academic activities of children both in school and at home. According to Kenya Population and Housing Census Report (2009), poverty level in Machakos county was at 59.6 % against a national average of 47.2 %. This positioned the county at 33 out of the 47 counties. What this means is that more than half of Machakos county residents were poor by then and hence had low SES. The study therefore sought to investigate whether students' socio-economic background could be a factor contributing to low academic performance in Matungulu sub-county.

2.6 Summary of the reviewed Literature

Literature reviewed has established that a combination of factors influence students' academic performance. On learning resources, the review has found that inadequacy and poor conditions of learning resources negatively impacts on students' academic performance. The review has also established that there is a correlation between administrative practices and students' academic performance. Strong leadership practices was found to be a key factor leading to improved students' academic performance and weak leadership practices as a factor which can contribute to low students' academic performance. On teacher related factors,

professional qualification, absenteeism, motivation and workload were reviewed as factors within the teacher which influence students' academic performance.

Quality teachers were found to contribute to improved students' academic performance and vice versa. Absenteeism, motivation and workload were found to be other factors which negatively influence academic performance. The review also established that student' socio-economic background impacts on their academic performance. It has established that family size and family structure have a weak positive correlation to students' academic performance. The review has established that there are no empirical studies conducted in the proposed study site to expose factors contributing to low students' academic performance yet performance of schools in this sub-county remains relatively low. The current study sought to fill this gap.

2.7 Theoretical Framework

The study was premised on the effective schools model advanced by Lezotte (2010). According to this model, an effective school is a school that can, in measured student achievement terms, demonstrate the joint presence of quality and equity. According to the theory, there are seven correlates of effective schools; strong instructional leadership, clear and focused mission, safe and orderly schools, climate of high expectations for success, frequent monitoring of student progress, positive home-school relations, and opportunity to learn/time on task. Strong instructional leaders are proactive and seek help in building team

leadership and a culture conducive to learning and professional growth. In the effective school, the principal and others act as instructional leaders and effectively and persistently communicate and model the mission of the school to staff, parents, and students.

Having a clear and focused vision and mission means everyone knows where they are going and why. A clear focus assists in aligning programs and activities for school improvement. To effectively determine a specific focus, school leadership and stakeholders use a collaborative process to target a few school goals and then build consensus around them. A safe and orderly school is defined as a school climate and culture characterized by reasonable expectations for behaviour, consistent and fair application of rules and regulations, and caring, responsive relationships among adults and students. Classrooms are warm and inviting, and learning activities are purposeful, engaging, and significant. Personalized learning environments are created to increase positive relationships among students and between students and their teachers. Students feel that they belong in the school community, and that they are valued and honoured while their heritage and backgrounds are viewed as “assets,” not deficiencies.

In a climate of high expectations, the mantra, “all students can learn” must be followed by instructional practices and teacher behaviour that demonstrate that teachers believe in the students, believe in their own efficacy to teach students to high standards, and will persist in teaching them. Teaching advanced skills and teaching for understanding together with basic skills are required for all students

to achieve at high levels

This theory is relevant to this study in that the correlates of effective schools require effective leadership on the part of the school administrators. This is in line with Sullivan et al (2000) assertion that a prime task of school leaders is to exercise instructional leadership of the kind that results in a shared vision of the directions to be pursued by the school, and to manage change in ways that ensure that the school is successful in realizing the vision. In investigating factors which influence academic performance, the study set out to establish whether the first correlate of the model as advanced by Lezotte (2010), that is, strong instructional leadership has an influence on students' academic outcomes, in addition to availability of physical facilities and learning resources, teacher related factors and the socio-economic background of learners.

Conceptual Framework

Independent variables

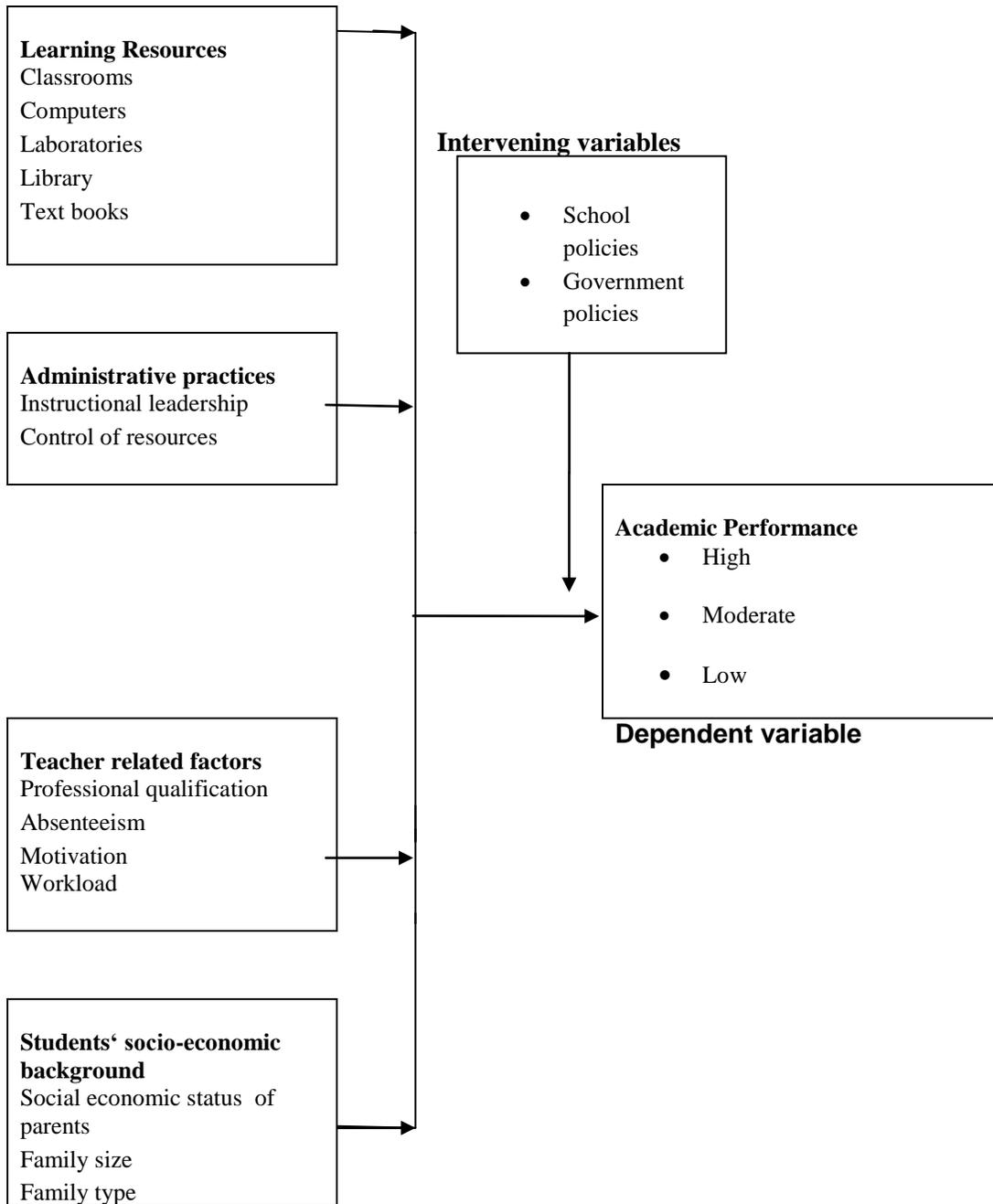


Figure 1: Conceptual framework showing relationship among variables.

According to the conceptual framework (figure 1), it is generally accepted that there are many factors which influence the students' academic performance. This research has focused on four groups of factors; learning resources, administrative practices, teacher related factors and students' socio-economic background. The section on learning resources described the resources available in the school, including the availability and state of the classrooms, laboratories, library, text books and exercise books. Administrative practices sought to determine the extent to which the school leadership influenced school academic performance. It considered the qualifications of the principals (head teachers) and their control of resources, including the human resources (teaching and non-teaching staff).

In this study, teacher related factors looked into the teachers' professional qualification, absenteeism, motivation and workload. The section on students' background described the socio economic status (SES) of the family, family size and how they influence students' academic performance. The students' KCPE performance was also considered as a factor that can influence the learner's academic performance. The end result is that academic performance can be high, moderate or low.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes procedures and strategies that were used in the implementation of the proposed study. It covers the research design; study population, sample size and sampling procedure, research instruments, validity and reliability of the instruments and an outline of the methods used to collect and analyze data.

3.2 Research design

This study adopted the descriptive survey design which involves asking questions often in the form of a questionnaire to a large group of individuals either by mail, by telephone or in person. This design was most suitable for this research because it involves a large group of students, teachers and head teachers and has the advantage of providing a lot of information from a large sample of individuals. Creswell (2002) observes that a descriptive research design is used when data is collected to describe persons, organizations, settings or phenomena. The study aimed at describing the behavior of the subjects under study without influencing them in any way and therefore descriptive survey research design was the most appropriate for this study.

3.3 Target population

The target population is the population that the researcher uses to generalize the findings of the study (Mugenda & Mugenda, 2003). According to the Matungulu

sub-county education office (2016), there were 32 public secondary schools with an approximate population of 32 principals, 385 teachers and 2,300 form three students by the time the study was being conducted. This study therefore targeted all form three students, teachers and principals in the sub-county. Form three (3) students were chosen to take part in the study because they are the senior most class apart from form (4) students who were busy preparing for their KCSE during the study period.

3.4 Sample size and sampling procedure

The researcher arrived at a smaller manageable number of schools, principals, teachers and students representing the entire population as outlined in figure 3.1.

Mugenda and Mugenda (2003) propose that a researcher should take at least 10% of the total population when the population sampled from is relatively large and 30% for a relatively smaller population depending on time and resources available to the researcher. The researcher sampled ten (10) public secondary schools representing 31.25%. According to the researcher, a population of thirty two (32) schools is a relatively smaller population. The researcher employed stratified random sampling technique to identify the actual number of schools in different school categories that were involved in the study. According to Mugenda & Mugenda (2003), stratified sampling is a probability sampling technique where the researcher divides the entire population into different subgroups or strata, then randomly selects the final subjects proportionally to form a random sample. Public secondary schools in Matungulu sub-county were stratified into extra-county schools, county schools and sub-county schools. Proportionate samples

were randomly picked from the three different strata. Table 3.1 indicates the sampling plan.

Table 3.1: Sample size for schools

School Category	Available schools per strata	Proportional allocation	Schools allocated per category
Extra county schools	1	$\frac{1}{32} * 10 = 0.3125$	1
County schools	8	$\frac{8}{32} * 10 = 2.5$	2
Sub-county schools	23	$\frac{23}{32} * 10 = 7.18$	7
Total	32		10

Source: Matungulu sub-county education office, (2016)

A sample is defined as a smaller group obtained from the accessible population, Mugenda and Mugenda (2003). The researcher sampled 230 form three students, representing 10% of the accessible form three's population in Matungulu sub-county. The researcher also sampled 40 teachers representing 10.38% of the total teachers' population in Matungulu sub-county. These sample sizes were considered adequate according to Mugenda and Mugenda (2003). The researcher randomly sampled twenty three (23) form three students and four (4) teachers from each of the participating schools. The researcher also purposely sampled all the ten (10) school principals of the participating ten (10) schools. According to the researcher, this class of respondents possessed some desired information important to this study. Purposive sampling is a sampling technique in which a researcher relies on his or her own judgment when choosing members of population to participate in the study Mugenda and Mugenda (2003). Table 3.2 gives the sample sizes.

Table 3.2: Sample size for students, teachers and principals

Category	Population	Sample size	Sample per school
Students	2,300	230	23
Teachers	385	40	4
Principals	32	10	1
Total	2,717	280	28

Source: Matungulu sub-county education office, (2016)

3.5 Research instruments

The research instruments were designed based on the objectives of the study. The students' questionnaire was administered to form three (3) students in the sample population. The questionnaire had three (3) main sections. Section one (1) captured students' demographic data while section two (2) captured data on students' socio-economic background. Data on socio-economic background was meant to satisfy objective four (4). Section three (3) captured data on learning resources and was analyzed to give information relating to objective one (1).

The questionnaire for teachers had four (4) sections. Section one (1) captured teachers' demographic data. Section two (2) was designed to gather data on teacher related factors. This data was intended to satisfy objective three (3). Section three (3) was designed to capture data on instructional leadership. This data was analyzed to give information on objective two (2). Section four (4) had been designed to gather data on learning resources and was meant to capture data on objective one (1).

The questionnaire for principals had four (4) main sections. Section one (1) captured school heads' demographic data. Section two (2) captured data on administrative practices and was analyzed to give information on objective two (2): Section three (3) was designed to elicit responses on learning resources. It was intended to satisfy objective one (1). Section four (4) collected data on teacher related factors and was analyzed to give information on objective three (3). Section five (5) gathered data related to socio-economic background of students.

3.6 Validity of instruments

Validity is the degree to which the empirical measure or several measures of the concept accurately measure the concept (Kothari, 2008). It is essentially concerned with establishing whether the questionnaire content is measuring what it purports to measure. For the purpose of this study the content validity was checked through piloting of research instruments. Three (3) schools were involved in the pilot study where three (3) principals, twelve (12) teachers and sixty nine (69) students were included to participate. The three (3) secondary schools which were used in piloting were not used in the actual study. After the analysis of the responses, it was necessary to revise and modify some items. The pilot study helped to improve the face and content validity of the instruments. The researcher also consulted with the supervisors who gave their expert opinion.

3.7 Reliability of the instruments

According to Mugenda & Mugenda (2003) reliability is a measure of the degree

to which a research instrument yields consistent results or data after repeated trials. Reliability in research is influenced by random error, of which if it is high, reliability is low and vice versa.

The Pearson's Product Moment correlations coefficient formula was used

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}$$

The questionnaires were subjected to a single test administration for reliability and the following alpha coefficients were obtained. For students questionnaire, the Cronbach alpha was 0.71, while that for the teachers it was 0.87 and 0.73 for the principals. Since these coefficients were more than the required threshold of 0.7. According to Mugenda & Mugenda (2003), the questionnaires were considered highly reliable for use in data collection.

3.8 Data collection procedures

The researcher requested to be issued with introduction letter from the board of postgraduate studies (BPS) at South Eastern Kenya University (SEKU). The introduction letter enabled the researcher to obtain a research permit from the National Commission for Science, Technology and Innovation (NACOSTI). The researcher used the permit to obtain authority to collect data in schools from Matungulu sub-county education office before embarking on the data collection exercise. The researcher, after being authorized to collect data, visited the sampled schools and introduced himself to the schools management to obtain their consent to administer the research instruments. On finalizing the

administrative arrangements, the researcher proceeded to administer the instruments and guided the respondents appropriately. Filled in questionnaires were collected after completion.

3.9 Data analysis techniques

According to Kothari (2008), the most commonly used method in reporting descriptive survey research is by developing frequency distribution tables, calculating on percentages and tabulating them appropriately. After receiving the completed questionnaires, the researcher inspected all of them for completeness, appropriate marking of responses and suitability for coding. The open ended questions were categorized and coded together with the closed ended questions and were analyzed thematically. Analysis of the data was performed using the Statistical Package for Social Science (SPSS) computer program (version 20) and ANOVA. Descriptive statistics such as frequencies, percentages, means and standard deviations and inferential statistics like regression analysis were used to analyze the data. Tables and figures were used to present the analyzed data.

3.10 Ethical considerations

The researcher first obtained the respondents' informed consent before issuing out questionnaires. Participants were made aware of the type of information the researcher wanted from them, what purpose it would be used for, how they were expected to participate in the study, and how it would directly or indirectly affect them. Respondents were also assured of their rights, including the rights to consent, protection of information, disclosure and respect for their privacy.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter focused on the questionnaire return rate, analysis, presentation of data collected from the field and interpretation of the results thereof. In this chapter, data analysis is presented in line with the study objectives thus: influence of learning resources; administrative practices; teacher related factors and students' socio-economic background on academic performance of secondary school students in Matungulu sub-county.

4.2 Questionnaire response rate

This study administered ten (10) questionnaires to principals, forty (40) to teachers and 230 to students. Out of these, all the questionnaires were returned by principals, thirty nine (39) were returned by teachers and 220 were returned by students. These return rates are respectively 100 % for principals, 97.5% for teachers and 95.6% for students. According to Babbie (2010) and Best and Khan (2011), a response rate of 50% is considered adequate, 60% good and above 70% very good. Therefore, the response rate from these respondents was considered to be very good and as such the researcher proceeded to analyze the data as planned.

4.3 Demographic information

The study sought to find out the teachers and principals bio-data by way of age, gender, professional qualification, and experience of the respondents. The

information about this parameter is presented in sections 4.3.1 through 4.3.4

4.3.1 Gender of teachers and principals

Tables 4.1 shows the distribution in terms of gender of teachers, and principals as shown below

Table 4.1: Gender of respondents (teachers & principals)

	Teachers		Principals	
	Frequency	Percent	Frequency	Percent
Male	17	43.6	3	30.0
Female	22	56.4	7	70.0
Total	39	100.0	10	100.0

As seen from Table 4.1, the gender distribution clearly depicts that there were more female teachers (56.4%) than male teachers (43.6%). The same trend is depicted by the gender spread among the principals. As can be observed from the table, male principals accounted for 30% while female principals represented about 70% of the principals' population within the study area. It should be noted that the 30% gender rule, Republic of Kenya (2010) in the public service has been achieved in the study area, with majority of the population being that of females.

4.3.2 Age of the respondents

This study further sought to establish the age distribution of teachers and principals. Analysis of this parameter is as shown in Tables 4.2

Table 4.2: Age distribution (teachers and principals)

	Teachers		Principals	
	Frequency	Percent	Frequency	Percent
Below 25 years	3	7.7	0	0
26 – 34 years	10	25.6	1	10
35-44 years	13	33.3	0	0
45– 54 years	11	28.2	7	70
Above 55 years	2	5.1	2	20
Total	39	100.0	10	100

From Table 4.2, it can be observed that majority (61.5%) of the teachers lie between the ages of 35-54 years. Similarly, majority (90%) of the principals lie between the ages of 45 years and above. This shows that principal's appointment is based on age and experience in the field (Ubogu, 2004)

4.3.3 Teaching experience

The study sought to find out from the teachers and principals the number of years they have served in the teaching service and by extension the current school that they were currently serving. Analysis of this parameter is shown in Table 4.3

Table 4.3: Teaching and headship experience in high school

	Teachers experience in high school		Principals experience as head in high school	
	Frequency	Percent	Frequency	Percent
Below 5 years	7	17.9	3	30.0
6 to 10 years	7	17.9	5	50.0
11 to 15 years	11	28.2	1	10.0
above 16 years	14	35.9	1	10.0
Total	39	100.0	10	100.0

It is clear from Table 4.3 that about 64 % of the teachers had worked in the teaching service for over 11 years while about 18% had worked for between 6-10 years and a similar number had also worked for below 5 years. This means that the teachers had the knowledge of whatever problems that are affecting the teaching service particularly in relation to the study variables. With regard to the principals experience the study found as shown in Table 4.3 that; most (50%) of them had served as school heads for a period of between 6-10 years while about 30% of them had served for a period of less than 5 years. A few (20%) however , had served for a period of over 11 years. This indicates that both teachers and principals had adequate experience in teaching.

4.3.4 Professional qualification

The study further sought to find out the level of professional qualification for the teachers and principals and the results are shown in Table 4.4

Table 4.4: Professional qualification (teachers and principals)

	Teachers qualification		Principals qualification	
	Frequency	Percent	Frequency	Percent
Certificate	1	2.6		
Diploma (D.Ed)	4	10.3	1	10.0
Degree(B.Ed)	31	79.5	4	40.0
Masters (M.Ed)	3	7.7	5	50.0
Total	39	100.0	10	100.0

Table 4.4 shows the distribution of teachers and principals in terms of their professional qualification. It can be observed that majority of the teachers are

degree holders (79.5%) in education with about 10% of them being diploma holders, while about 8% of them are master of education degree holders. On the other hand, about half (50%) of the principals selected are master of education degree holders while 40 % of them are bachelors in education holders and 10%, representing one head teacher who is a Diploma in education holder. This is a clear indication that school headship is done by qualified professionals who are capable of understanding the problems bedeviling the sector, and particularly academic issues.

4.3.5 Gender of students

The gender distribution among the form three students who constituted the sample is as shown in Table 4.5 below

Table 4.5: Students' gender

	Frequency	Percent	Cumulative Percent
Male:	85	38.6	38.6
Female:	135	61.4	100.0
Total	220	100.0	

Table 4.5 repeats the same trend as was earlier observed in the distribution for teachers and principals. It can be seen clearly that female students (61.4%) were more than male students who constituted about 38.6% of the student population in form three within the study area.

4.3.6 Age of students

The age distribution among students is as shown in Table 4.6

Table 4.6: Distribution of age among students

Age	Frequency	Percent	Cumulative Percent
14-15	8	3.7	3.7
16-17	129	58.6	62.3
18-19	73	33.2	95.5
20-21	10	4.5	100.0
Total	220	100.0	

It can be seen from Table 4.6 that majority (91.8%) of the students in form three are between the ages of 16-19 years while about 3.7% can be considered underage and the rest (4.5%) are considered overage.

4.3.7 Students KCPE mark (2013)

It was important to know the mark which the students scored in their KCPE mark as a baseline for making comparative analysis in future performances. Analysis is as shown in Table 4.7

Table 4.7: KCPE score, (2013)

Marks Range	Frequency	Percent
200 and less:	11	5.0
201-300:	141	64.1
301-400:	63	28.6
401-500:	5	2.3
Total	220	100.0

From Table 4.7, it can be observed that majority (64.1%) of the students in the secondary schools in Matungulu sub county scored between 201-300 marks in KCPE followed by about 29 % of them who scored between 301-400 marks. About 5 % scored 200 and less marks. It should therefore be noted that a large number of students were below the average mark of 250, indicating that the entry mark is low which could be a cause of poor academic performance in the sub-county.

4.3.8 Overall mean grade in term I, 2016

Further to the KCPE mark, the study sought to find out the performance of these students in form three. They were asked to indicate the overall mean grade score for first term of the year 2016. Analysis of this aspect is as shown in Table 4.8.

Table 4.8: Overall mean grades in term I, 2016

Grade category	Frequency	Percent
A	6	2.7
B	40	18.1
C	105	47.8
D	68	30.9
E	1	.5
Total	220	100.0

From Table 4.8, it can be seen that majority (47.8%) of the students scored a categorical grade of C, while about 30 % of them scored grade D. About 20 % of the students scored between categorical grades of B and A. It is worth noting that the scores in grade categories are a reflection of the performance in the KCPE

score wherein majority of the students were a below average category. This finding is in agreement with reports of obtained from Matungulu sub-county education office (2016).

4.4 Analysis in relation to objectives of the study

This study was predicated on four objectives thus: to establish the Influence of learning resources on students' academic performance in public secondary schools in Matungulu sub-county; to assess the influence of administrative practices on students' academic performance in public secondary schools in Matungulu sub-county; to investigate the influence of teacher related factors on students' academic performance in public secondary schools in Matungulu sub-county and to analyze the influence of socio-economic background on students' academic performance in public secondary schools in Matungulu sub-county.

The following sections relate to the analysis of the findings in relation to the themes as espoused in the objectives that guided the study. These include learning resources, administrative practices, teacher factors and socio-economic factors and academic performance. The last section dealt with test of hypotheses that were formulated for the study

4. 4.1: Influence of learning resources on students' academic performance

The first objective sought to establish the Influence of learning resources on students' academic performance in public secondary schools in Matungulu sub-county. All the respondents (teachers, principals and students) were subjected to

the same type of questions which were measured on an ordinal scale and calibrated on a five point categorical scale whereby 1 represented strongly disagree, 2= disagree, 3 = neutral, 4 = agree and 5 = strongly agree. The analysis with respect to each of the respondents is as shown in Tables 4.9 and Table 4.10

Table 4.9: Influence of learning resources on students’ academic performance (teachers view)

Learning Resources	Mean	Std. Deviation
The students always have the textbooks required	3.90	.995
Students are overcrowded in the classroom	2.79	1.151
The school has a library	2.23	1.202
The school has enough laboratories	2.44	1.294
Students always gets the required books in the library	2.28	1.099
The classrooms and laboratories have adequate equipment and materials	2.54	1.253
The classrooms are well ventilated and always clean	3.49	.970
Teachers have the required and sufficient teaching aids	3.51	.970
The computer lab is well equipped	2.36	1.530

Teachers were asked a variety of questions of which they were supposed to state their views on a scale of 1-5 where 1 represented strong level of disagreement and 5 represented strong level of agreement to the statement. Analysis of their views in respect to the statements in the questionnaire is as shown in Table 4.9.

From Table 4.9, it can be observed that majority of the teachers agreed that students always have the textbooks required (mean = 3.90). However, they expressed a neutral position with regard to students being overcrowded in the classrooms (mean= 2.79). In addition, teachers generally were of the view that instructional materials were highly unavailable. In particular, they disagreed to the

statement that the school has a library (mean= 2.23). They also disagreed that the School has enough laboratories and that students always get the required books in the library (mean =2.28). Further, the teachers disagreed with the view that classrooms and laboratories have adequate equipment and materials (mean = 2.54). Conversely, they nearly agreed although with some ambivalence to the statements that the classrooms are well ventilated and always clean (mean = 3.49) and that teachers have the required and sufficient teaching aids (mean = 3.51). They however disagreed that the computer lab is well equipped (mean = 2.36) On the other hand, looking at the parameter of learning resources from the principals' point of view the study found as follows as analyzed in Table 4.10.

Table 4.10: Influence of leaning resources on students' academic performance (from the principal's view point)

N= 10	Mean	S.D
The students always have the textbooks required	4.40	.516
Students are overcrowded in the classroom	2.70	1.059
The school has a library	2.60	1.430
The school has enough laboratories	3.10	1.197
Students always get the required books in the library	2.80	1.033
The classrooms, laboratories have adequate equipment and materials	3.50	1.179
The classrooms are well ventilated and always clean	4.20	.919
Teachers have the required and sufficient teaching aids	4.20	.632
The computer lab is well equipped	3.20	1.751

From Table 4.10, it can be seen that most principals expressed a strong level of agreement to the statements that the students always have the textbooks required (mean = 4.40); the classrooms are well ventilated and always clean (4.20) and teachers have the required and sufficient teaching aids (4.20). This implies that in their view the mentioned learning resources were adequately available. It should however be noted that this particular view is not shared by the teachers who are the curriculum implementers as shown in Table 4.9 above. Accordingly, teachers expressed an ambivalent attitude towards the availability of the mentioned resources. Similarly, Table 4.10 shows that principals expressed a neutral attitude towards statements such as; the classrooms, laboratories have adequate equipment and materials (mean = 3.50); the computer lab is well equipped (mean = 3.20) and the school has enough laboratories (mean = 3.10).

This can be interpreted to mean that although such resources were available, they are not adequate in measure. Further, the findings depict that most principals disagreed with the statements which stated that: Students are overcrowded in the classroom (Mean = 2.70); the school has a library (mean = 2.60) and the students always get the required books in the library (mean = 2.80). This means that even though there is no problem of overcrowded classrooms, the resources for learning are quite limited in the study area. Quite often libraries are lacking in most schools and the few study materials available may not be relevant as the principals generally insinuated.

Table 4.11: Students’ views on influence of learning resources on academic performance.

N = 220	Mean	Std. Deviation
The students always have the textbooks required	3.43	1.178
Students are overcrowded in the classroom	2.35	1.246
The school has a library	1.83	1.144
The school has enough laboratories	2.64	1.473
Students always get the required books in the library	1.85	1.219
The classrooms, laboratories have adequate equipment and materials	2.62	1.361
The classrooms are well ventilated and always clean	3.65	1.332
Teachers have the required and sufficient teaching aids	3.66	1.357
The computer lab is well equipped	1.97	1.503

It was also necessary to get the views of the users of the leaning resources for purposes of triangulating the findings of this study. Analysis of this parameter from the students’ perspective is as shown in Table 4.11.

According to Table 4.11, it is discernible that students generally expressed views ranging from disagreement to neutral. In particular, the students expressed an ambivalent opinion to the following statements. The students always have the textbooks required (mean = 3.43); The classrooms are well ventilated and always clean (mean = 3.65) and teachers have the required and sufficient teaching aids (mean =3.66). Notably, these are the same statements that teachers were expressing neutrality towards and also they are the same ones that the principals

highly rated. This implies that whereas the providers of the resources think they have done enough to provide them, the users of these resources think that they are not adequately supplied. It is therefore important for the head teachers to ensure that the materials are adequate for quality education.

Similarly, it can be seen that students disagreed to most statements such as the school has a library (mean = 1.83); the computer lab is well equipped (mean = 1.97), the students always get the required books in the library (mean = 1.85). These statements served to demonstrate that learning resources are not adequate in the study area. The view is well corroborated by those of the teachers and the principals. Overall, one gets the feeling that there is inadequacy in the supply and provisioning of the learning resources which are critical in academic performance of the learners. This finding is in support of Schneider (2002) who found out that school facilities have a direct effect on teaching and learning. Ubogu (2004) as cited by Reche et al (2012) observes that text books enable the pupils to follow the teacher's sequence of presentation of syllabus and aids in understanding of lessons. Eshiwani (1983) also indicates that most schools which perform poorly spend less money on the purchase of teaching resources. Unavailability of other critical facilities such as laboratories may affect delivery of science oriented subjects. Libraries need to be equipped with sufficient books and laboratories need to be installed and equipped with required apparatus and chemicals. All these literature served to demonstrate that learning resources are critical in performance enhancement among students.

4.4.2: Influence of administrative practices on students' academic performance

Instructional leadership and management is touted as the epitome of good academic performance. An orderly school environment, that is efficient and well managed, provides the preconditions for enhanced student learning (Nyagosia, 2011). Effective instructional leadership is generally recognized as the most important characteristic of school administrators (Hoy & Hoy, 2009; Lezotte, 2010).

According to Reche et al (2012) the major duties and responsibilities of school head include; holding staff meetings to facilitate coordination of various activities in the school, checking teachers' schemes of work and lesson plans and internal supervision of curriculum implementation through physical observation of teachers' while lessons are in progress. On the basis of the aforementioned, the second objective of the study sought to assess the influence of administrative duties on students' academic performance in public secondary schools in Matungulu sub- county. In order to achieve this, it was important to gather teachers and principals views on the frequency of performing the various administrative practices in school. The measurement scale adopted was a five point scale in which a score of 5 represented always, 4 = sometimes, 3 = neutral, 2 = rarely and 1 = never. Analysis of the administrative practices from teachers and principals perspective is as shown in Tables 4.12 and 4.13

Table 4.12: Influence of administrative practices on students' academic performance (teachers' viewpoint)

ADMINISTRATIVE PRACTICES N = 39	Mean	S. D
1. Checking teachers lesson notes, records of work with schemes.	4.38	.990
2. Evaluate performance of teachers	4.46	.884
3. Checking teachers punctuality in classroom	4.54	.854
4. Encourage teachers to benchmark/ visit other schools and learn from colleagues	3.90	1.209
5. Supervising teachers to ensure they complete the syllabus on time	4.54	.822
6. Holding regular meetings with teachers to check on performance update	4.51	.823
7. Involving teachers to decide on best strategies to improve teaching and learning	4.38	1.091
8. Purchasing and maintaining teaching and learning materials	4.28	1.075
9. Makes decision on who to admit in the school (cut off points)	3.74	1.332
10. Makes decisions on staff development activities	4.10	1.252
11. Building teamwork among teachers to ensure they support one another	4.18	1.211

Table 4.12 shows the viewpoint of teachers with regard to the frequency in which various administrative practices were carried out by the principals as school administrators. It can be noticed from Table 4.12 that majority of the teachers' were of the view that principals always checked teachers lesson notes, records and scheme of works (mean=4.38). Principals always evaluated teachers performance (mean = 4.46) and always checked on the punctuality of teachers (mean=5.54). Similarly, supervising teachers to ensure they complete the syllabus on time (mean = 4.54); holding regular meetings with teachers to check on performance update (mean =4.51) and building teamwork among teachers to ensure they

support one another (mean = 4.18) were always being done. It should be noted however that encouraging teachers to benchmark/ visit other schools and learn from colleagues (mean = 3.90) and making decisions on who to admit in the school (mean =3.74) were done sparingly (sometimes).

In order to corroborate the teachers' views, it was important to establish the views of the principals on how the administrative practices were being discharged from their viewpoint. Analysis of this is shown in Table 4.13

Table 4.13: Influence of administrative practices on students' academic performance (principals viewpoint)

Administrative practices N= 10	Mean	S.D
1. Checking teachers lesson notes, records of work with schemes.	4.50	.972
2. Evaluate performance of teachers	4.80	.422
3. Checking teachers punctuality in Classroom	4.70	.483
4. Encourage teachers to benchmark/ visit other schools and learn from colleagues	3.90	.568
5. Supervising teachers to ensure they complete the syllabus on time	5.00	.000
6. Holding regular meetings with teachers to check on performance update	4.80	.422
7. Involving teachers to decide on best strategies to improve teaching and learning	4.80	.422
8. Purchasing and maintaining teaching and learning materials	4.90	.316
9. Makes decision on who to admit in the school (cut off points)	4.20	1.317
10. Makes decisions on staff development activities	4.50	.707
11. Building teamwork among teachers to ensure they support one another	4.70	.483

It can be seen from Table 4.13 that principals always checked teachers lesson notes, records and scheme of work (mean = 4.50) and always evaluate teachers performance (mean = 4.80). They also supervise teachers to ensure completion of syllabus on time (mean = 5.00), always hold regular meetings with teachers to update themselves on performance (mean = 4.80). In addition, the principals always do purchasing and maintenance of teaching and learning materials and make decisions on staff development activities among others. All in all, principals always perform all the duties that were mentioned in the questionnaire. This corroborates well with the view of the teachers who also averred that most of the time, principals performed their administrative duties. These findings contradict those by Reche et al (2012). Reche et al (2012) in a study on factors contributing to poor performance in Kenya Certificate of Primary Education (KCPE) in public day primary schools conducted in Mwimbi division, Maara district established that, principals are holding few staff meetings, all head teachers indicated that they randomly check the teachers' schemes of work only once a term, most head teachers check lesson plans once a month, and that majority of the head teachers do not at all physically observe classes conducted by the teachers in a given term.

4.4.3 Influence of teacher related factors on students' academic performance

Teacher related factors are the factors within the teachers that could hinder or promote academic performance of pupils in their schools. Aspects of teacher based factors may include: teachers' commitment, teachers' frequency of absenteeism, teachers' motivation and teachers' work load (Reche et al. 2012).

The third objective therefore sought to investigate the influence of teacher related

factors on students' academic performance in public secondary schools in Matungulu sub-county. It was therefore important first to find out the views of teachers and principals regarding the extent they felt some teacher related factors contributed to academic performance. The scoring matrix for this parameter was based on a five point scale in which 5 represented great extent, 4 = moderate extent, 3 = neutral, 2 = small extent and 1= no extent. Analysis of this parameter is shown in Tables 4.14 and 4.15 which shows views espoused by both the principals and teachers

Table 4.14: Influence of teacher related factors on students' academic performance (teachers' viewpoint)

TEACHER RELATED FACTORS (N = 39)	Mean	S.D
Teacher satisfaction	4.28	.826
Teacher qualification	4.08	1.178
Teacher absenteeism	3.46	1.430
Heavy work load by the teacher	4.15	.904
Opportunities for career development	4.13	.767

From the teachers point of view, it can be observed as per Table 4.14 that teacher satisfaction (mean = 4.28); teacher qualification (mean = 4.08); heavy work load of the teacher (mean = 4.15) and opportunities for career development (mean =4.13) influence academic performance to a great extent. On the other hand however, teacher absenteeism influenced academic performance to a moderate extent. Similarly, the views of principals are expressed in Table 4.15 as follows

Table 4.15: Influence of teacher related factors on students' academic performance (principals' viewpoint)

TEACHER RELATED FACTORS	Mean	S.D
Teacher satisfaction	4.30	.823
Teacher qualification	4.40	1.265
Teacher absenteeism	4.50	.972
Heavy work load by the teacher	3.80	1.033
Opportunities for career development	3.50	1.080

As can be noted from Table 4.15, it is clear that principals held the view that teacher satisfaction (mean = 4.30); teacher qualification (mean 4.40) and teacher absenteeism (mean= 4.50) greatly influenced performance. However, according to them, heavy work load by the teacher (mean = 3.80) and opportunities for career development (Mean = 3.50) influenced performance to a moderate extent. This finding is in line with the findings by Okoye (1998) who avers that the quality of teachers in any educational system determines, to a great extent, the quality of the system itself. One key factor in determining examination results is the availability and quality of teachers. Trained teachers represent a significant social investment and their levels of motivation and career commitment is of concern to policy makers (UNDP, 2003). Ubogu (2004) also asserts that the quality of the teacher is very crucial to determining examination outcomes in a school. It is important to note that although teachers and principals agreed in many aspects in so far as the parameter is concerned, they expressed contrary views in regard to the aspect of teacher absenteeism. Principals strongly held the view that absenteeism was affecting performance whereas teachers held a contrary view. This could indicate that principals and teachers do not agree on influence of absenteeism on academic

performance, especially if most teachers are absent from schools.

4.4.4: Influence of socio-economic background on students’ academic performance

The social environment has an exceedingly great role to play on the academic performance of every child (Wamulla, 2013). Home environment may enhance positive self-esteem which may improve academic performance (Smith et al., 1989). In view of this, the fourth objective sought to analyze the influence of students’ socio-economic background on academic performance in public secondary schools in Matungulu sub-county. In order to establish more about the parameter, students biodata on socio-economic background was checked in respect of the following parameters: type of primary school attended, number of siblings in family, family structure, fees payment support, level of education and employment status of sponsor

Table 4.16 shows the type of school in which the students sat for their KCPE examinations

Table 4.16: School category from which candidates sat for KCPE

School Category	Frequency	Percent	Cumulative Percent
Private school:	45	20.5	20.5
Public school	175	79.5	100.0
Total	220	100.0	

As can be observed from the Table 4.16, majority (80%) of the students sat their

KCPE examinations from public schools as opposed to about 20 % who sat their exams from private schools. This is a clear indication that most of the students come from not well to do schools with families considering that fees in public schools is subsidized as opposed to private academies. In order to determine the number of siblings in the family where the students hailed from, a question about how many brothers and sisters do you have, was posed and Table 4.17 shows the particular responses

Table 4.17: How many brothers and sisters (siblings) do you have?

	Frequency	Percent	Cumulative Percent
None:	5	2.3	2.3
1- 2:	92	41.8	44.1
3- 4:	87	39.5	83.6
5 and above	36	16.4	100.0
Total	220	100.0	

Clearly from the Table 4.17, it is noticeable clearly that majority of the students (42%) averred that they had between 1 and 2 siblings followed by those who said they had between 3 and 4 siblings. Relatively, the students came from small families. With regard to the family structure from where the students hailed, the study found that majority (80%) came from nuclear type of background while about 16 % were from single parenthood and the rest were either from step- father family or step mother family (Table 4.18)

Table 4.18: Family Structure

	Frequency	Percent	Cumulative Percent
Single parent family	34	15.5	15.5
Step-father family	3	1.4	16.8
Step mother family	7	3.2	20.0
Nuclear family	176	80.0	100.0
Total	220	100.0	

Table 4.19: Who meets costs related to your education?

	Frequency	Percent	Cumulative Percent
Father	122	55.5	55.5
Mother	55	25.0	80.5
Guardian	25	11.4	91.8
both father and mother	18	8.2	100.0
Total	220	100.0	

This study found it important to understand the education sponsorship of the student by finding out who met the cost of education for the student as shown in Table 4.19 above.

From Table 4.19, it can be observed that majority (56%) of the students indicated the father as the largest contributor to their education followed by the mother (25%) and others. With regard to the level of education of the person paying school fees the study found as shown in Table 4.20

Table 4.20: level of education of person paying fees

	Frequency	Percent	Cumulative Percent
Primary	32	14.5	14.5
Secondary	68	30.9	45.5
College	67	30.5	75.9
University	53	24.1	100.0
Total	220	100.0	

Information in Table 4.20 reveals that about 55% of the sponsors had college education and above while about 45% had education either secondary education or lower. With regard to employment status, the study found that nearly half of the sponsors are in formal employment while about 30 % are in self employment and the rest are not in any employment Table 4.21. The illiteracy of parents directly affects students' academic performance (Alokan et al, 2013)

Table 4.21: Employment status of person paying fees

	Frequency	Percent	Cumulative Percent
Employed	111	50.5	50.5
In self-employment	66	30.0	80.5
Not employed	43	19.5	100.0
Total	220	100.0	

Views of the Principals with regard to the influence of socio-economic factors on academic performance are shown in Table 4.21 above. Principals were asked to rate their views on a five point scale concerning the effect of the various selected socio economic factors on the academic performance of the students and Table 4.22 shows the analysis of this information.

Table 4.22: Influence of socio-economic background on students' academic performance.

Socio Economic Factors	Mean	S.D
Learner with both parents working	4.40	.843
Learner with parents not working	4.40	.699
Learner with many siblings	4.30	.675
Learner with few siblings	4.10	.738
Learner with step parents	4.60	.699

It can be noticed from Table 4.22 that all the selected socio-economic factors affected academic performance to a great extent. In particular the effect of learner with step parents was greater (mean = 4.60), followed by learner with both parent working (mean = 4.40) and learners with both parent not working (mean = 4.40) and finally learners with few siblings (mean = 4.10). This implies that the conditions surrounding the learner from the family setting are very critical in influencing the performance of the child. It is important to note that the socio-economic status (SES) of a child is most commonly determined by combining parents' educational level, occupational status and income level (Jeynes, 2002). Studies have repeatedly found that SES affects student outcomes (Hochschild, 2003).

Students who have a low SES earn lower test scores and are more likely to drop out of school according to Eamon (2005). A study by Makewa & Otewa (2010) found that family type is statistically and significantly correlated with the child performance. Most children with both parents performed better compared to their

counterparts from different family types. However, children from guardian and step mother and real father families performed averagely the same with a difference with their counterparts in single family type. The lowest performing category was students from step fathers and real mother family type.

4.5 Hypotheses Testing

This study sought to test premises that were formulated in form of hypothesis to achieve the objectives that were laid down for the study. All the premised hypotheses were tested using simple regression analysis at the .05 level of significance

Testing Hypothesis 1

The first null hypothesis stated thus

H₀₁: Administrative practices have no influence on students' academic performance in public secondary schools in Matungulu sub-county.

In order to test the validity of this claim, simple linear regression analysis was run at the .05 level of significance and the following results were found as shown in Tables 4.23 and 4.24

Table 4.23: Influence of administrative practices on students' performance
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.841 ^a	.708	.671	.13176

a. Predictors: (Constant), Administrative practices

From the Table 4.23, it can be seen that R = .841 implying that there was a very

strong positive relationship between administrative practices and academic performance. The R square value of .708 also shows that administrative practices accounted to nearly 71 % of the total variance in academic performance.

In order to test whether the administrative practices could predict academic performance, ANOVA analysis as shown in Table 4.24 shows that the model summary as shown was a good predictor ($F(1,8) = 19.36; P \leq .05$).

Table 4.24: ANOVA for academic performance and administrative practices

Model		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	.336	1	.336	19.360	.002 ^b
1	Residual	.139	8	.017		
	Total	.475	9			

a. Dependent Variable: Academic Performance

b. Predictors: (Constant), Administrative practices

Further, the partial regression coefficient reveals that administrative practices statistically and significantly predicted academic performance of students, $\beta = .841; t(9) = 4.40, p < .05$. (Table 4.25)

Table 4.25: Regression coefficients: influence of administrative practices on students' academic performance.

Model		Unstandardized Coefficients		Standardized Beta	t	Sig.
		B	Std. Error			
	(Constant)	1.806	.682		2.648	.029
1	Administrative practices	.611	.139	.841	4.400	.002

a. Dependent Variable: Academic Performance

From the findings in Tables 4.23-4.25, it is clear that the administrative practices and academic performance are not independent of each other. Therefore the null hypothesis which stated that administrative practices have no influence on students' academic performance in public secondary schools in Matungulu sub-county was rejected at 0.05 level of significance and conclusion was made that academic performance and administrative practices are statistically dependent.

Testing Null Hypothesis 2

The second null hypothesis stated thus:

H₀2: Teacher related factors have no influence on students' academic performance in public secondary schools in Matungulu sub-county

In order to test the validity of this claim, a simple linear regression analysis was carried out and the following results presented in Tables 4.26, 4.27 and 4.28 were realized

Table 4.26: Influence of teacher related factors on students' academic performance: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.688 ^a	.474	.408	.17678

a. Predictors: (Constant), teacher related factors

Table 4.27: ANOVA for academic performance and teacher related factors

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	.225	1	.225	7.200	.028 ^b
1 Residual	.250	8	.031		
Total	.475	9			

a. Dependent Variable: Academic Performance

b. Predictors: (Constant), teacher related factors

Table 4.28: Regression coefficients for influence of teacher related factors on students 'academic performance

Model	Unstandardized		Standardized	t	Sig.
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(Constant)	3.000	.673		4.457	.002
1 Teacher related factors	.375	.140	.688	2.683	.028

a. Dependent Variable: Academic Performance

From the Table 4.26 it can be seen that $R = .688$ implying that there was a strong positive relationship between teacher related factors and academic performance. The R square value of .408 also shows that teacher related factors accounted to nearly 47 % of the total variance in academic performance. In order to test whether the teacher related factors could predict academic performance, ANOVA analysis as shown in Table 4.27 shows that the model summary as shown was a good predictor ($F(1,8) = 7.20$; $P \leq .05$). Further, the partial regression coefficient reveals that teacher related factors statistically and significantly predicted academic performance of students, $\beta = .688$; $t(9) = 2.683$, $p < .05$ (see Table 4.28) From the findings in Tables 4.26-4.28, it is clear that teacher related factors and

academic performance are not statistically independent. Therefore the null hypothesis which stated that teacher related factors have no influence on students' academic performance in public secondary schools in Matungulu sub-county was rejected at the 0.05 level of significance and conclusion made that academic performance and teacher related factors are statistically dependent.

Testing Null hypothesis 3

The third null hypothesis stated as follows:

Ho₃: Socio-economic background has no influence on students' academic performance in public secondary schools in Matungulu sub-county.

In order to test the validity of this claim, a simple linear regression analysis was carried out at the .05 level of significance and the following results presented in Tables 4.29, 4.30 and 4.31 were realized

Table 4.29: Influence of Socio-economic background on students' academic performance Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.688 ^a	.474	.408	.17678

a. Predictors: (Constant), Socio-economic background of the learner

Table 4.30: ANOVA for socio-economic factors and academic performance

Model		Sum of Squares	of Df	Mean Square	F	Sig.
	Regression	.225	1	.225	7.200	.028 ^b
1	Residual	.250	8	.031		
	Total	.475	9			

a. Dependent Variable: Academic Performance

b. Predictors: (Constant), Socio-economic background of the learner

Table 4.31: Regression coefficients for influence of socio-economic background on students' academic performance

Model	Unstandardized		Standardized	t	Sig.
	Coefficients				
	B	Std. Error	Beta		
(Constant)	3.450	.506		6.815	.000
1 Socio-economic background of the learner	.300	.112	.688	2.683	.028

a. Dependent Variable: Academic Performance

Just like for the teacher related factors, the socio-economic factors seemed to influence academic performance in similar manner, as can be seen from Table 4.29, $R = .688$ implying that there was a strong positive relationship between socio-economic background of the learner and academic performance. The R square value of .474 also shows that socio-economic background of the learner accounted to nearly 47% of the total variance in academic performance. In order to test whether the socio-economic factors could predict academic performance, ANOVA analysis as shown in Table 4.30 shows that the model was a good predictor ($F(1,8) = 7.20$; $P \leq .05$). Further, the partial regression coefficient reveals that socio-economic background of the learner statistically and significantly predicted academic performance of students, $\beta = .688$; $t(9) = 2.683$, $p < .05$ (see Table 4.31)

From the findings in Tables 4.29-4.31, it is clear that learner's socio –economic background and academic performance are not statistically independent.

Therefore the null hypothesis which stated that socio-economic background has no influence on students' academic performance in Matungulu sub county was rejected at the 0.05 level of significance and conclusion made that academic performance and socio-economic background of the learner are statistically dependent.

CHAPTER FIVE

STUDY SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 SUMMARY OF THE FINDINGS

This study aimed at investigating the factors influencing students' academic performance in public secondary schools in Matungulu sub-county, Machakos County. The study was guided by four objectives thus: to establish the influence of learning resources on students' academic performances in public secondary schools in Matungulu sub-county; to assess the influence of administrative practices on students' academic performance in public secondary schools in Matungulu sub-county; to investigate the influence of teacher related factors on students' academic performance in public secondary schools in Matungulu sub-county; and to analyze the influence of students socio-economic background on their academic performance in public secondary schools in Matungulu sub-county. Upon analyzing the collected data, the following are the study's major findings:

5.1.1 Influence of learning resources on students' academic performance

Learning resources play a vital role in influencing academic performance of learners. This study found that learning resources were not adequate as seen from the view point of the respondents. In particular the students disagreed to most statements such as the school has a library (mean = 1.83); the computer lab is well equipped (mean = 1.97) and that the students always get the required books in the library (mean = 1.85). Similar views were expressed by both teachers and the

principals alike. Overall, from the study findings, the supply and provisioning of the learning resources in the study area were found to be inadequate, implying that academic performance of learners was likely to be affected negatively.

5.1.2 Influence of administrative practices on students' academic performance

Some of the administrative practices which principals perform include checking teachers lesson notes, records and schemes of work (mean = 4.50); and evaluating teachers performance (mean = 4.80). They also include supervising teachers to ensure completion of syllabus on time (mean = 5.00), and holding regular meetings with teachers to update them on performance (mean = 4.80). In addition, the principals always do purchasing and maintenance of teaching and learning materials and make decisions on staff development activities among others. From the analysis, the study found out that there was a very strong positive relationship between administrative practices and academic performance ($r = R = .841$) and the coefficient of determination expressed by R square value of .708 shows that administrative practices accounted to nearly 71% of the total variance in academic performance.

5.1.3 Influence of teacher related factors on students' academic performance

This study found out that teacher satisfaction (mean = 4.28); teacher qualification (mean = 4.08); heavy work load by the teacher (mean = 4.15) and opportunities for career development (mean = 4.13) influenced academic performance to a great

extent. On the other hand, teacher absenteeism influenced academic performance to a moderate extent. Overall there was a strong positive relationship between teacher related factors and academic performance. The R square value of .474 also shows that teacher related factors accounted to nearly 48 % of the total variance in academic performance.

5.1.4 Influence of Students' socio-economic background on academic performance

The study found that socio-economic factors affected performance to a great extent. In particular the effect of learner with step parents was greater (mean = 4.60), followed by learner with both parents working (mean = 4.40) and learner with both parents and not working (mean = 4.40) and finally learner with few siblings (mean = 4.10). This implies that the conditions surrounding the learner from the family setting are very critical in influencing the performance of the learner. Consequently, there was a strong positive relationship between socio-economic background of the learner and academic performance ($r=R= .688$). The R square value of .474 also shows that socio-economic background of the learner accounted to nearly 47 % of the total variance in academic performance

5.2 Conclusions of the study

In this study, the factors that were being investigated include learning resources, administrative practices and socio-economic background of the learner. In view of the findings, the conclusions were made as shown below.

5.2.1 Influence of learning resources on students' academic performance

This study found that the supply and provisioning of the learning resources in the study area was inadequate. Since learning resources are critical determinant of performance, the inadequacy of these materials in the study area is likely to affect academic performance to a great extent. It can therefore be concluded that unavailability of learning resources affect performance negatively while their adequacy and availability will positively affect students' academic performance to a great extent.

5.2.2 Influence of administrative practices on students' academic performance

This study found a strong positive and significant relationship between academic performance and administrative practices by the principals. This therefore implies that academic performance and administrative practices are statistically dependent. Thus a conclusion was made to the effect that academic performance of learners is highly predicated on administrative practices. This means that if the principal is highly engaged in supervision of teachers, checking professional records and coordinating school activities, then the academic performance will greatly improve.

5.2.3 Influence of teacher related factors on students' academic performance

This study found that teacher related factors were positively related to academic performance. In particular teacher satisfaction levels, qualification and work load were critical in determining the performance of the learner. Also teacher related

factors were found to be statistically significantly related to academic performance. It was therefore concluded that teacher related factors and students' academic performance are statistically dependent. This implies that teachers' satisfaction, work load and qualification are critical in influencing learner performance. Highly satisfied teachers with higher qualification and a reasonable work load play a critical role in improvement of school performance. Teacher absenteeism was however found not to be very significant.

5.2.4 Influence of students' socio-economic background on academic performance

Finally, socio-economic factors were found to be significant in influencing academic performance of the learners. It was therefore concluded that socio-economic background of the learner and academic performance are statistically dependent. This implies that the environment where a child hails from plays an integral role in performance improvement, and that good performance can be predicated on the social and economic background of the learners

5.4 Recommendations

Since learning resources play a vital role in enhancing performance of the learners, the study recommended a need for all stakeholders to ensure schools are stocked with relevant and adequate learning materials if academic performance is to be improved. In particular, head teachers and the school management should ensure that relevant materials are procured for use by both the students and teachers. Also parents can be asked to support the initiative through buying

textbooks for their children to ease the burden of the schools in availing the relevant study materials to learners.

Principals should intensify the routine checking of professional records by teachers to ensure adherence to the dictates of the professional records. This effort must be supported by the quality assurance officers from the Ministry of Education who should be doing external quality reviews on a regular basis.

Efforts to remunerate teachers properly in order for them to be satisfied and motivated to work should be encouraged. In this endeavor, the Teachers Service Commission (TSC) should ensure that terms of teachers pay are improved to enhance their morale. Equally, principals must institute internal mechanisms of motivating teachers like rewarding top academic achievers and organizing capacity building seminars for teachers with an aim of improving satisfaction levels among them.

5.5 Suggestions for further study

1. A similar study can be replicated in other counties to find out if the same factors investigated in this study influence academic performance of the learners.
2. A study should be done to establish the factors that contribute to a greater extent to academic performance among learners.

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APPENDICES

APPENDIX I:

LETTER OF INTRODUCTION

**SOUTH EASTERN KENYA UNIVERSITY
P.O. BOX 170-90100
KITUI.**

Dear Respondent,

RE: PERMISSION TO CONDUCT RESEARCH IN YOUR INSTITUTION

I am a post graduate student in South Eastern Kenya University conducting a study on: **An investigation into factors influencing students' academic performance in public secondary schools in Matungulu sub-county, Machakos county.** The study is for the purposes of a research project, a requirement for the award of a degree of Master of Education.

I kindly request you to fill the attached questionnaire for me.

The information that you will provide will be useful to the study, will be treated in confidence and you will not be referred to by name in the report.

Your assistance is highly appreciated.

Yours faithfully,

John Mbithi Kieti

M.ED Student.

APPENDIX II

QUESTIONNAIRE FOR SCHOOL PRINCIPALS

Introduction.

This questionnaire is designed to collect data for academic study, a requirement for award of Master of Education degree in Educational Administration and Planning. The study seeks to investigate factors influencing academic performance of students in public secondary schools in Matungulu Sub-county, Machakos County. All information will be treated in confidentially.

Section I: Bio Data

Kindly tick in the brackets against that which is applicable to you

1. What is your gender? Male () Female ()

2. In which age category do you belong?

Below 25 years () 26 – 34 () 35 – 44 () 45 – 54 () Above 55 ()

3. How many years have you been a school head?

Below 5 years () 6 to 10 years () 11 to 15 years () Above 16 years ()

4. How many years have you headed the current school?

Below 5 years () 6 to 10 years () 11 to 15 years () Above 16 years ()

5. What is your level of professional qualification?

Certificate in teaching e.g P1 () Diploma [D.Ed] () Degree [B.Ed] ()

Masters [M.Ed] () PhD [Edu] ()

Section II: Administrative practices

6. In the tables below, indicate the extent of your level of agreement on what you

do in your school.

A – Always, S – Sometimes, NT – Neutral, R – Rarely, N - Never.

Statement	A	S	NT	R	N
1. Checking teachers lesson notes, Records of work with schemes.					
2. Evaluate performance of teachers					
3. Checking teachers punctuality in Classroom					
4. Encourage teachers to benchmark/ visit other schools and learn from colleagues					
5. Supervising teachers to ensure they complete the syllabus on time					
6. Holding regular meetings with teachers to check on performance update					
7. Involving teachers to decide on best strategies to improve teaching and learning					
8. Purchasing and maintaining teaching and learning materials					
9. Makes decision on who to admit in the school (cut off points)					
10. Makes decisions on staff development activities					
11. Building teamwork among teachers to ensure they support one another					

Section III: Learning resources

7. Kindly indicate your level of agreement with respect to the following learning resources in your school.

SA – Strongly Agree, A – Agree, N – Neutral, D – Disagree,

SD – Strongly Disagree.

		SA	A	N	D	SD
(a)	The students always have the textbooks required					
(b)	Students are overcrowded in the classroom					
(c)	The school has a library					
(d)	The school has enough laboratories					
(e)	Students always gets the required books in the library					
(f)	The classrooms, laboratories have adequate equipment and materials					
(g)	The classrooms are well ventilated and always clean					
(h)	Teachers have the required and sufficient teaching aids					
(i)	The computer lab is well equipped					

Section IV: Teacher related factors

8. Please indicate the extent to which the following teacher related factors affect academic performance in your school

	Great Extent	Moderate Extent	Neutral	Small Extent	No extent at all
Teacher satisfaction					
Teacher qualification					
Teacher absenteeism					
Heavy work load by the teacher					
Opportunities for career development					

Section V: Socio-economic factors

9. Please rate your opinion regarding the effect the following factors have on academic performance of the learner.

	Great effect	Moderate effect	Neutral	Small effect	No effect
Learner with both parent working					
Learner with parents not working					
Learner with many siblings					
Learner with few siblings					
Learner with step parents					

10. Please indicate the extent to which the following factors influence academic performance

	Great Extent	Moderate Extent	Neutral	Small Extent	No extent at all
Administrative practices					
Teacher related factors					
Socio-economic background of the learner					
Learning resources					

Thank you very much for taking your time to fill this questionnaire

APPENDIX III

TEACHER QUESTIONNAIRE

Introduction.

This questionnaire is designed to collect data for academic study, a requirement for award of Master of Education degree in Educational Administration and Planning. The study seeks to investigate factors influencing academic performance of students in public secondary schools in Matungulu Sub-county, Machakos County. All information will be treated with in confidentiality.

Section I: Bio Data

Kindly tick in the brackets against that which is applicable to you

1. What is your gender? Male () Female ()

2. In which age category do you belong?

Below 25 () 26 – 34 () 35 – 44 () 45– 54 ()

Above 55 ()

3. How many years have you been a high school teacher?

Below 5 years () 6 to 10 years () 11 to 15 years ()

above 16 years ()

4. What is your level of education?

Certificate () Diploma () Degree () Masters () PhD ()

5. Are you trained as a teacher?

Yes () No ()

If no, please specify the field of study -----

Section II: Teacher related factors

6. Have you participated in any professional workshop/ seminar in service course in the last?

- a) 0 – 2 years ()
- b) 3 – 5 years ()
- c) 5 years and above ()

8. Do you miss to attend school?

- Yes () No ()

9. How many times do you miss school in a school term

10. Do you miss to attend class while you are in school?

- Yes () No ()

11. State four major reasons which contributes to your absenteeism from school

- i.
- ii.
- iii.
- iv.

12. State four major reasons which contributes to your absenteeism from class

- i.
- ii.
- iii.
- iv.

13. Are you satisfied with your current job as a teacher?

- Yes () No ()

14. To what extent are you satisfied with your current job?

- To large extent () To a moderate extent ()
- To a small extent () Not satisfied at all ()

14. If offered another job would you prefer to quit your current job?

- Yes () No ()

15. List four motivating and four demotivating factors of your current job

Motivating factors	Demotivating factors
1.	1.
2.	2.
3.	3.
4.	4.

16. The average number of lessons a teacher has per week

15 and below () 16 to 25 () 26 to 35 () 36 and above ()

17. Please indicate the extent to which the following teacher related factors affect academic performance in your school

	Great Extent	Moderate Extent	Neutral	Small Extent	No extent at all
Teacher satisfaction					
Teacher qualification					
Teacher absenteeism					
Heavy work load by the teacher					
Opportunities for career development					

Section III: Administrative practices

18. In the table below, indicate the extent to which your school principal engages in the activities provided. Use the scale below to respond.

A – Always, S – Sometimes, NT – Neutral, R – Rarely, N – Never

Statement	A	S	NT	R	N
1. Checking teachers lesson notes, Records of work with schemes.					
2. Evaluate performance of teachers					
3. Checking teachers punctuality in Classroom					
4. Encourage teachers to benchmark/ visit other schools and learn from colleagues					
5. Supervising teachers to ensure they complete the syllabus on time					
6. Holding regular meetings with teachers to check on performance update					
7. Involving teachers to decide on best strategies to improve teaching and learning					
8. Purchasing and maintaining teaching and learning materials					
9. Makes decision on who to admit in the school (cut off points)					
10. Makes decisions on staff development activities					
11. Building teamwork among teachers to ensure they support one another					

Section IV: Learning resources

19. Kindly indicate your level of agreement with respect to the following learning resources in your school.

SA – Strongly Agree, A – Agree, N – Neutral, D – Disagree,

SD – Strongly Disagree.

		SA	A	N	D	SD
(a)	The students always have the textbooks required					
(b)	Students are overcrowded in the classroom					
(c)	The school has a library					
(d)	The school has enough laboratories					
(e)	Students always gets the required books in the library					
(f)	The classrooms, laboratories have adequate equipment and materials					
(g)	The classrooms are well ventilated and always clean					
(h)	Teachers have the required and sufficient teaching aids					
(i)	The computer lab is well equipped					

Thank you very much for taking your time to fill this questionnaire

8. I come from a

i. Single parent family ()

ii. Step-father family ()

iii. Step mother family ()

iv. Nuclear family ()

9. Respond to the following statements

i. Who meets costs related to your education?

Your father () Your mother () Guardian ()

Other(s) state -----

ii. What can you say about the person you have indicated about his education and profession?

a. Level of education

Primary () Secondary () College ()

University ()

b. He/she is

Employed () In self-employment () Not employed ()

Section III: Learning resources

10. Kindly indicate your level of agreement with respect to the following learning resources in your school.

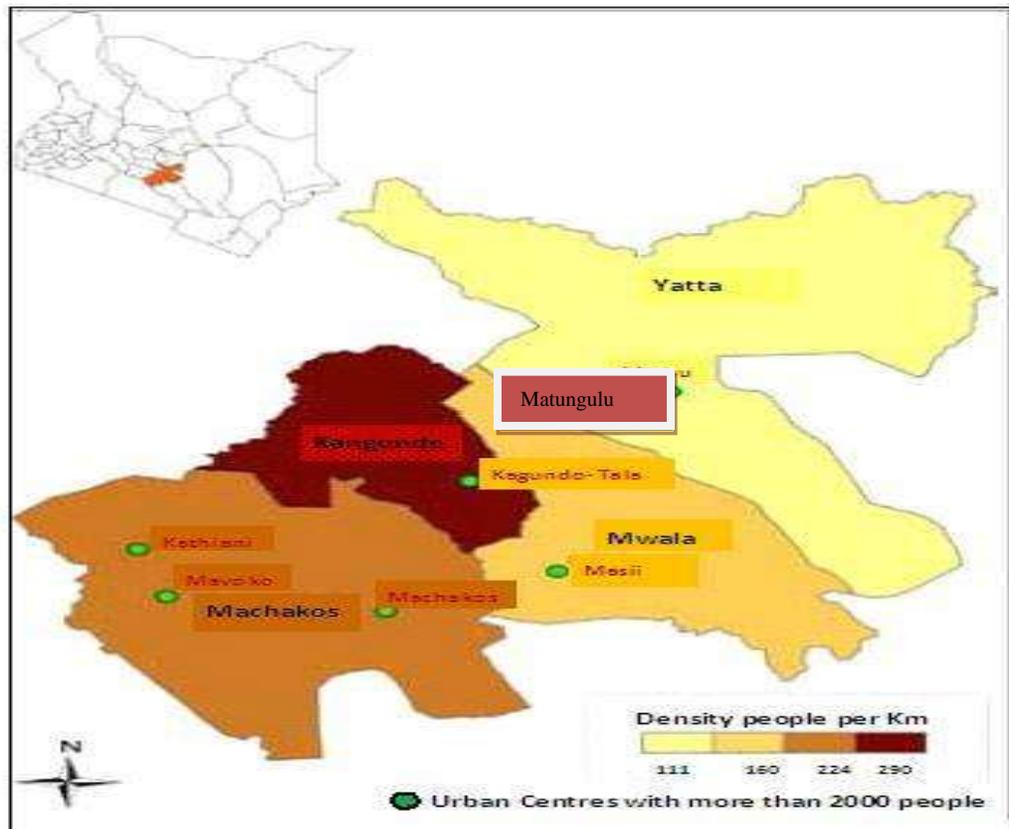
SA – Strongly Agree, A – Agree, N – Neutral, D – Disagree,

SD – Strongly Disagree.

		SA	A	N	D	SD
(a)	The students always have the textbooks required					
(b)	Students are overcrowded in the classroom					
(c)	The school has a library					
(d)	The school has enough laboratories					
(e)	Students always gets the required books in the library					
(f)	The classrooms, laboratories have adequate equipment and materials					
(g)	The classrooms are well ventilated and always clean					
(h)	Teachers have the required and sufficient teaching aids					
(i)	The computer lab is well equipped					

Thank you very much for taking your time to fill this questionnaire

APPENDIX V: MAP OF MACHAKOS COUNTY



Source: www.googleearth.com/kenya/machakoscounty

APPEND VI: RESEARCH PERMIT

THIS IS TO CERTIFY THAT:
MR. JOHN MBITHI KIETI
of SOUTHERN EASTERN KENYA
UNIVERSITY, 32-90131 TALA, has been
permitted to conduct research in
Machakos County

on the topic: AN INVESTIGATION INTO
FACTORS INFLUENCING STUDENTS'
ACADEMIC PERFORMANCE IN PUBLIC
SECONDARY SCHOOLS IN MATUNGULU
SUB-COUNTY, MACHAKOS COUNTY

for the period ending:
21st November, 2017


.....
Applicant's
Signature

Permit No : NACOSTI/P/16/84082/14717
Date Of Issue : 23rd November, 2016
Fee Received :Ksh 1000




.....
Director General
National Commission for Science,
Technology & Innovation