INFLUENCE OF SCHOOL BASED FACTORS ON STUDENTS' ACADEMIC PERFORMANCE IN PUBLIC SECONDARY SCHOOLS IN MIGORI COUNTY KENYA

HEZEKIAH OTIENO OMOLO

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DECLARATION

DECLARATION BY THE CANDIDATE:

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HEZEKIAH OTIENO OMOLO

PEA/7512/2014

DECLARATION BY SUPERVISORS:

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

Signature …… **Date……...**

PROF. ENOSE M.W. SIMATWA

Department of Education Policy and Management

Tom Mboya University College

Signature …… **Date……...**

DR. ALFRED OTARA

Department of Management and Foundations

Rongo University.

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DEDICATION

This work is dedicated to my parents; Sospeter Omolo Nyamita and Dorice Omolo.

ABSTRACT

Academic performance is measured through results obtained from examinations. Examination outcome is so important since in many countries it has been used as the major basis for deciding a student's academic progression and employment. The importance of education to both national and individual development is indisputable. Reports on national examination results indicate that many students do not excel in national examinations in many countries around the world, Kenya included. Over the years, the dismal performance has raised alarm and efforts have been made to identify what factors lead to this, but the problem still persists. On the other hand, it is apparent that school based factors have a bearing on academic performance. Among the school based factors are; principals' leadership skills, student factors, school environmental factors and parental factors. Therefore, the purpose of this study was to survey the influence of school based factors on students' academic performance in Migori County. The Objectives of the current study were to: determine the influence of school based factors such as principal's leadership skills on students' academic performance, establish the influence of student factors on students' academic performance, determine the influence of school environmental factors on students' academic performance and parental factors on students' academic performance. The study used a mixed method approach. The study adopted descriptive survey research design and correlation research design. The population was 245 principals and 14300 form four students within Migori County. Principals were categorized according to their Sub-Counties. The study was guided by Krejcie and Morgan Table (Appendix F) to get sample size of 152 out of 245 principals and 275 students out of 14300. Questionnaires and interview schedule were used for principals and focus group discussion for students to collect data. Piloting was done to establish reliability. Internal consistency reliability coefficient was used to determine reliability of the questionnaires. Principals' questionnaires attained reliability coefficient of 0.79. Experts in Educational Administration and Policy studies determined the validity. Means, standard deviation, Regression Analysis and Analysis of Variance (ANOVA) were used to analyze quantitative data while qualitative data was coded, transcribed and organized thematically. Ethics was observed during both data collection and reporting of findings. It was established that principals' leadership skills highly influenced students' academic performance with mean overall rating of the principals (Mean=4.07, SD=0.55), while student factors were rated at 3.92 on the influence of students' academic performance implying that it has a high influence. School environmental factors were also rated at 3.87 (SD=0.57) implying the high influence on students' academic performance. Parental factors were also rated at 3.63 (SD=0.76) implying that it had a high influence on students' academic performance. In general, student factors had a low influence on students' academic performance, and had a positive and significant relationship ($r=0.316$, $p<.05$). Findings obtained from this study are important to educational administrators, Teachers Service Commission and other stakeholders. It will also contribute to the body of information on school based factors that influence student academic performance in future for those interested in pursuing this line of thinking.

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ACRONYMS AND ABBREVIATIONS

ANOVA	-	Analysis of Variance
CDF	-	Constituency Development Fund
FGD	-	Focus Group Discussion
FIG	-	Figure
IT	-	Information Technology
K.C.S.E	-	Kenya Certificate of Secondary Education
LQT	-	Leadership Quality Theme
MoE	-	Ministry of Education
N	-	Number
NACOSTI	-	National Commission of Science and Technology and Innovation
PCT	-	Parental Environment Theme
R	-	Value- Correlation value
SSA	-	Sub-Saharan Africa
SD	-	Standard Deviation
SIG	-	Significant
SLD	-	Student-Learning Decision
SPSS	-	Statistical Package for Social Sciences
TSC	-	Teachers Service Commission
VIF	-	Variance Inflation Factor
WET	-	Work Environment Theme

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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

After nearly achieving the Global Educational Goal that stipulates the universal access to primary education for all children regardless of their locality and nationality, the global community has turned its focus to Sustainable Development Goals (SDGs) after the expiry of Millennium Development Goals (MDG) in 2015. Previously, global efforts were directed towards expanding access to primary education but in the post 2015 era, the global shift is on achieving universal access to quality education. Investing in quality education and assessing whether children have mastered the skills they are taught and whether they are taught is critical in the 21st Century (UNESCO Report, 2015).

At the national level, almost all countries administer a national examination which helps to categorize learners in a country for placement and progression. Written, oral and practical or skill based examinations have been widely acceptable as a tool of assessment of individual learners' academic performance. The results obtained from the examinations has served the vital purpose of gauging the abilities and standards of individual students that in turn determine their marketability in the employment sector as well as creating a bridge to academic advancement. The importance of education to both national and individual development is indisputable. This is because highly educated human resource is a requisite for national development in all nations all over the world. Individuals have used education as a tool for socio-economic development hence; education is valued as a tool for social development. Countries spend much of their time to enhance their education process and

improve on learners' educational achievement. The value of education to the contemporary society cannot be over-emphasized. It is for this reason that UNESCO 2015 stated that the higher the educated people in a particular society, the higher the level of civilization and discipline in that society.

Whereas access to school has been appreciated throughout the world since 1990, learning outcomes have lagged behind (UNESCO, 2015). One fundamental issue that has pre-occupied researchers' minds for a long period of time is the main reason behind the disparities in performances of public secondary schools such that some schools perform considerably better than their counterparts that pose dismal performances. For example, in Pakistan, results of boards of secondary schools established that quite a good number of students obtained results that are below average, especially at secondary school level (Punjab Statistics Bureau, 2008). In most European countries, academic performance is still low especially among senior secondary schools (European Union Monitoring Report, 2013).

In Africa, for example in Nigeria, majority of students normally have dismal performance in the senior secondary certificate examinations (Alokan, Osakinle & Onijingin, 2013). The UNESCO 2011 report on the educational situation of children around the world reveals that a good number of children in the Sub-Saharan Africa (SSA) are discouraged from getting good education to better their livelihood. The report further reiterated that many adolescents that transit to secondary school in (SSA) in the recent years do not get quality education that would prepare them for further education and the world of market.

Many students do not perform well in national examinations in many countries around the world, Kenya inclusive (European Union Monitoring Report, 2013). The below average performance has necessitated concerns from various educational stake holders, prompting concern and concerted efforts to reverse the scales. A number of school based factors have been cited for this phenomenon; such as lack of facilities in schools, parental support, inadequate staffing, student discipline, unfavourable school and home environment (Ndirangu, 2007).

The academic performance of individual students in public secondary schools in Kenya has been under the influence of school based factors over time and remains to be a topic of discussion in a number of educational sectors (Njagi, 2013). School based factors should be interpreted to mean all aspects of education that have a platform within the school. These factors should have a bearing on school as an entity and must have an impact or relate to academic performance. In this study, school based factors are referred to as variables that influence the achievement of students' academic performance. Some of these factors are; principals' leadership skills, student factors, school environmental factors and parental factors (Njagi, 2013). Some of the factors are not explicit or obvious but contribute towards academic factors. One such case is the role of parents as remote contributors to academic performance. For instance, data obtained from documents which illustrate parents' ability to pay fees, parents' interest and involvement in the support of the activities of the school, constant visits to the school to monitor his or her child's progress in academics and involvement in disciplinary cases of their children in school, become school based factors. This study did not involve parents directly as respondents but garnered their support via the documents in the school.

Generally, leadership styles are of different categories, for instance; autocratic, democratic, transformational, charismatic, situational and laissez-faire. All these leadership styles are achieved through leadership skills used by the principals. In this study, principal leadership skills refer to the practices or activities carried out by the principals of secondary schools that influence students' academic performance. They include: Administrative skills, Staff improvement, Guidance and counseling, Supervision, Monitoring and Assessment skills (Kochamba & Murray, 2010; Mukherjee, 2013; Onyara, 2013; Waheed & Waheed, 2011; Nzoka & Orodho, 2014; Wambui, 2015).

Among other factors as in the study done by Andrews (2008) on the reasons why some students achieve high academic performance as compared to others, reveal four theoretically fundamental determinants for academic performance. These consist of school plant, principals' leadership styles, students' behavior and teacher characteristics. The results observed that the secondary school principals who are effective and focused are committed in developing a positive school community relationship and establishment with many features which include: respect for all members of school Community, accepting solution-oriented team, professional atmosphere and effort to include staff and students in a range of activities. This can be achieved by employing good leadership practices or activities carried out by principals. All these are categorized as leadership skills.

In contextualizing school based factors that hinge on the principals leadership skills as school based factors, various studies have reported the following findings. The findings on the study conducted by Glanz (2000) on the role of school principals on academic performance indicated that the principal has the knowledge with respect to the school activities such as teaching and learning in the perspective to change the ongoing improvement in the school. Therefore, if they fail in the task then the entire school fails. Another study by Seashore and Leithood (2004) looking at effective leadership in University of Minnesota and Toronto, indicated that influential teachers, effective leadership from principals, teaching fraternity and support staff, tantamount to improved academic performance among secondary students. The principal's role is to make sure that each of the elements summarized as; principals' leadership skills, students' factors, School environmental factors and parental factors that contribute towards the improvement of students' learning are available; working successfully and in alignment with all other elements (Hill, 2006). Therefore, it is manifestly evident that the individual principals' leadership skills impact heavily on students' academic performance.

Sergon (2005) conducted a study on schools' success and found out that schools' performance depends on the principal's ability. Results of this study indicated that a school's success depends on the school principals and their management qualities. The study further intimated that these qualities are very pertinent and requisite for the principals' success in their role as school administrators. This study further compared the management of secondary schools to controlling a ship sailing through turbulent waters and it is through the use of the right leadership skills that learners' desirable academic performance can be realized (Sergon, 2005). It was this concern that

prompted the researcher to further investigate the influence of leadership skills of principals as one of the determinant issues that dictate the nature of academic performance of students in different secondary schools.

Another important aspect that is school based is student's factors. They refer to the situations within the school environment that lend credence to individual students' unique personality as well as their efforts towards academic achievement (Peter, Bantu & Martin, 2016). Therefore, in this study, form four students were used as they have interacted with other students for more than three years. This implies that they have more experience than other students on the issues that affect performance as they have interacted with other candidates for three years and now they are in the same class. Several aspects were identified from literature review including: students' ambition, learner's individual efforts, learners' attitude towards subjects (Chepkorir, Cheptonui & Chemutai 2014), lack of learners' ambition, learners' competitive spirit, learners own set targets, students' unrest and absenteeism from school, Students' discipline in schools, Participation in co-curricular activities; (Lourdes, Monteiro & Peixoto, 2012; Al-Musa & Saeed, 2016).

School environmental factors are the internal conditions of the school. These include: teaching, learning materials, IT and Teacher support, School climate (Ayça & Ali, 2017; Ojukwu, 2017; Odigwe & Idowu, 2013; Lacoe, 2013). Similarly, Onukwo (2004) additionally observed that improvement of a child's growth and development is due to a favorable environment. A peaceful and friendly school setting makes students feel happy whereas schools located within the busy town centers are susceptible to street noise that

interferes with students' concentration in their studies. The net results are remarkably lower in performance of students in such schools in comparison with their counterparts in other schools. The present study therefore, was an effort to determine the role played by factors within the school environment in as much as the academic performance of secondary school students is concerned.

Siringi (2010) says that influence of school environmental factors on academic performance indicates that majority of schools have less facilities, no ventilation and poor buildings. Therefore, it is worth noting that such compromising environmental situations might put both teachers and students' health at risk, resulting to negative academic trajectory. This study further posits that, location or site of an institution is among the major determinants of academic success in addition to other factors that influence students' academic performance. For instance, under conditions whereby location of an institution is within an environment that is full of noise, such as around the airport or within the busy centers of big towns like Nairobi and Mombasa, students' learning is constantly under interruptions so much so that their academic performance is evidently lower than their colleagues in different set- ups (Siringi, 2010).

Ministry of Education of Kenya (1993), also noted that the admission of top students in academic performance and school facilities do not matter, what matters is what goes on inside the schools. Positive climate, hard work by teachers and students' discipline and effective teaching, were the most vital factors behind good results in national examinations. The report further noted that the environment in which students learn and teachers' satisfaction affect students' performance. Such school environments create quality of results

and prestige to any learning institution. Quality of results in national examinations measures the extent to which the school achieves its academic goals. The researcher's intent in this study was therefore, to consider a dichotomy of factors that play a long in dictating students' academic performance under various environmental conditions.

A related study by Sermon (2005) on principals' relationship with computer technology revealed that the achievement of a school relies on the head teachers, since it is the leader that ensures and enables accomplishment of tasks: having the power to moderate, influence, direct, control and motivate. Equally, Okello, Sichari and Odera (2017) further conducted a research on the impact of environmental factors on the retention of secondary school teachers in Homa –Bay County. The results noted that great concern to stakeholders is to motivate students to achieve set goals in a school. Child rearing practices come forcefully into play in as far as the academic ability of the child is concerned.

The principal is the main link between secondary school and the catchment area and therefore, the way he/she performs in this capacity, largely decides the attitudes of the parents and students towards the school (Seashore & Leithood, 2010). These study findings further revealed that the school's success mainly depends on the principal's management practices, namely: being vibrant, innovative and child centered in order to register positive performance.

Page (2008) also did a study on outcome of team leadership on learning in USA and Britain. The study findings showed that student factors such as the student's socio-economic background is more essential in the clarification of students' educational achievement than

school characteristics and its long experiences. The results further indicated that decision to attend parent's day depends on their socio –economic level as well as attending parent-teacher association meetings and always involve principals and class teachers in the discussion about the educational achievement of their children at secondary school. Such initiatives if prudently taken can enhance learners' commitment, resulting into higher academic achievements (Jepkoech, 2002). Aduda (2009) carried out a study on top marks for Alliance in Nairobi Kenya and the findings showed that parents take their children to school and are partly responsible for their requirements. Parents also form parents' teachers' association which is part of school administration. The findings of the study further emphasize that parental level of education and payments of parents' jobs dictate their concern towards the educational progress of their children (Aduda, 2009).

In Kenya, almost over 5,500 secondary schools across the country have limited capacity in relation to physical facilities, teaching learning resources, staffing, and parental support to prepare their students for higher education and further training (Kieti, 2017). The Kenyan education system places a minimum of grade (C+) which students must obtain before they are admitted to universities. Scrutiny of education statistics show that between 2013-2017 students stacked in the lower ranks of the KCSE individual ranking of candidates (Kieti, 2017). Notably, this is evidently experienced in secondary schools in Kenya that usually register 70 percent of secondary students that join secondary education each year. However, while those schools would like to link their poor performance to limited resources, emerging evidence indicate poor administrative skills, chronic teacher absenteeism and student

indiscipline as key to poor performance recorded by different categories of schools (Wamulla, 2013).

Despite the efforts to improve students' academic performance in secondary schools, students' poor performance is still prevalent in many areas in Kenya especially within the last three years. The Kenyan government has however tried to employ more teachers, increase teachers' salaries to motivate them in their work, improve school learning infrastructure through Constituency Development Funds (CDF), provision and distribution of free text books to both primary and secondary schools. However, many students in Migori County still indicate minimal performance in their national examinations (Migori County Director of Education Office, 2018).

Educational statistics shown in Table 1.1 revealed that over the last four years (2013-2016), Migori County has been registering constant decline in students' performance in KCSE examinations (Migori County Director Education Office, 2018). The results show evidence of dissatisfaction and inconsistency in the outcome for four consecutive years in Kenya Certificate of Secondary Education in Migori County.

Schools in Migori County in Kenya depict a similar scenario. School based factors such as principals' leadership skills, student factors, environmental factors and parental factors, considered as school based factors, have an influence on academic performance. Before carrying out this study, the researcher of this study had observed casually that the academic performance was deteriorating over the years in Migori County. Indeed from document analysis as shown in the national examination results for the period 2013 to 2016,

educational achievement at the Kenya Certificate of Secondary Examination (K.C.S.E), it is evident that academic performance was worsening. This situation among other factors motivated the researcher to do an in-depth study of Migori County and find out if secondary schools in Migori County had similar effect. The findings of this study have supported very similar effects of school based factors.

Table 1.1

Examinations Results for Migori County in the Year 2013-2016

Year	Enroll	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E	Y	MS
2013	9791	103	293	434	845	937	1001	1200	1398	1396	1290	881	65	20	**5.61**
2014	10902	47	327	570	781	1080	1258	1509	1666	1633	1175	529	22	-	**4.88**
2015	12192	58	316	630	1014	1391	1580	1683	1881	1757	1202	413	08	-	**5.30**
2016	13578	1	82	224	723	7615	856	1137	1630	2051	2765	3411	574		**3.64**

Source: Migori- County Director of Education's Office (2018).

From Table 1.1, it is evident that out of the total student population of forty-six thousand four hundred and sixty-three (46463) who sat for KCSE during the period 2013-2016, only an average of 47.7% of the candidates managed to get a C+ and above, thus qualifying to join higher education at the University, from Migori County. The implication of this data is that about 52.3 % of the candidates failed to further their education due to low performance and if this trend is not controlled, it may lead to negative outcomes for the entire population of Migori County and by extension, Kenya. There is sufficient evidence that for the last five years, the county has continued to record low mean score in the KCSE examinations. During the period of 2013- 2016, Migori County hardly attained a mean score of 6.0 thus raising concern among researchers, stakeholders and parents. The mean scores were as follows: 5.6

in 2013, 4.8 in 2014, 5.3 in 2015, 3.6 in 2016 and 3.8 in 2017 (Migori County Director Education Office, 2018).

These are some of the factors that motivated the researcher to find out factors within school that influence students' academic performance especially in Migori County. Further, a number of researchers have approached the question of performance from the students' socio-economic background and have barely touched on factors within the school and their impact on academic performance. This study therefore, sought to find out the school based factors that influence educational achievement of students in public secondary schools in the County of Migori.

1.2 Statement of the Problem

Large portion (figures) of students in Migori County, have consistently attained low grades in the KCSE National Examinations and improving on this remains a challenge to most learning institutions. KCSE results from various schools in Migori County between 2010 and 2017 showed dissatisfaction in students' performance (see Table 4.2). This has raised concern to the stakeholders (Principals, teachers, students and parents) as there is low transition of learners from high schools in Migori County to universities and middle level colleges. Earlier studies focused on issues of school leadership and student performance, leadership styles by principals and academic coordinators, relationships between leadership skills used by public secondary school principals; however, there has been minimal address of school based factors that influence educational achievement of students in public secondary schools. On this basis, the researcher seeks to find out school based factors that influence students'

academic performance. Prompted by the continuous dismal academic performance and the fact that the researcher did not come across a study in Migori County that had focused on school based factors influencing students' academic performance, the need for verifying the situation in Migori County was necessary. It is this reason that has prompted the researcher to look into school based factors that have influence on the educational performance of students and equally their actual contributions in schools.

1.3 Purpose of the Study

The purpose of this study was to establish the influence of school based factors on students' academic performance in public secondary schools in Migori County.

1.4 Research Objectives

The objectives of this study relating to Migori County were to:

i. Determine the influence of principals' leadership skills on students' academic performance in Public Secondary Schools
ii. Establish the influence of student factors on students' academic performance in Public Secondary Schools.
iii. Determine the influence of school environmental factors on students' academic performance in Public Secondary Schools.
iv. Assess the influence of parental factors on students' academic performance in Public Secondary Schools.

1.5 Research Hypotheses

This study was centered on the following null hypothesis:

Ho_1: Principals' leadership skills do not have significant influence on students' academic performance in public secondary schools.

Ho_2: Students' factors do not have significant influence on their academic performance in public secondary schools.

Ho_3: School environmental factors do not have significant influence on students' academic performance in public secondary schools.

Ho_4: Parental factors do not have significant influence on students' academic performance in public secondary schools.

1.6 Justification of the Study

Educational achievement of students is important to schools, and school based factors should play a significant role in ensuring that this is achieved, hence such factors should be considered to provide good learning environment for students. Most studies conducted on school based factors influencing academic performance were done outside Kenya (Akinola & Obafemi, 2013; Ross and Gray, 2006; Olofsson, 2017; Moses, Augustina & Rahama, 2018; Bada & Adebiyi, 2014; Abdulkadir, Ali & Raqia, 2017). Many previous studies done focused on the issues such as school leadership and student performance, leadership skills executed by principals and academic coordinators and connection in leadership styles practiced by secondary principals. However, there is scanty literature on the school based factors as a package to show their influence on academic performance of students in secondary schools (Nandeke, Chumba & Kiprop 2017; Moses, Lucy & John, 2016; Nyongesa, 2015; Ambogo,

2014; Onyara, 2013; Wambui, 2015; Makau, Ronoh & Tanui, 2016; Otieno, Simatwa & Gogo, 2016).

1.7 Significance of the Study

The findings of this study will be helpful to the Education Ministry, Teachers Service Commission (TSC) as well as being informative to the principals on the various indicators of school based factors that should be relied upon to improve educational achievement of students in Migori County and Kenya as a whole. This could be achieved through workshops and seminars. Secondly, the school principals may use the findings in this study to redesign better leadership skills in order to promote academic performance of their students and also offer solutions to students' teething problems. The findings may also enable parents to understand their responsibilities and involvement in issues of educational achievement of their children in secondary schools. It will, in addition, help principals in improving school environmental factors and parental factors that influence students' academic performance.

Finally, the study will open up further research and discussions on the school based factors that have influence on the educational achievement of students in secondary schools.

1.8 Assumptions of the Study

This study was based on the following assumptions:

i. The secondary school principals were aware of the role of leadership skills in enhancing academic performance.
ii. The students were aware of their behavior that enhance their academic performance.
iii. The school environmental factors were conducive to academic performance in all schools.

iv. Parental factors enhance academic performance of students in secondary schools.

1.9 Limitations and Delimitations of this Study

1. 9.1 Limitations of the Study

Some questions from the returned questionnaires were not duly filled. This was noted from 4 principals (1.32%). This did not affect the data analysis process significantly having attained questionnaire return rate of 76%. This response level was adequate, representative and obeys Mugenda and Mugenda (2009) requirement accepting a response of 50% rate as being adequate, 60% being good, a response rate of above 70% as being excellent for analysis and reporting on a descriptive survey study.

1.9.2 Delimitations of the Study

The research was specifically meant for public secondary schools within Migori County. It also focused on the school based factors that have influence on academic performance for the years 2013-2017. This study simply concentrated on the following school based factors: principals' leadership skills, student factors, school environmental factors and parental factors. A sample size of one hundred and fifty-two (152) principals and one hundred and twenty (120) students of the participating public secondary schools in Migori County were involved. This study collected data using questionnaire, interview schedule and focus group discussion. This study employed the use of descriptive survey research and correlation research designs.

1.10 Theoretical Framework

Students' academic performance involves a number of steps and commitments by different groups within the school community. These groups include; management, students, parents and staff. The school administration plays a very instrumental function in ensuring that academic performance of the students is achieved and retained. Many theories address administrative roles within the learning institutions advanced by several authorities as a basis to improving students' academic performance. One of such which is notable and of relevance to this study is the Systems Theory. The biologist Ludwig von Bertalanffy proposed this theory in 1936 which was then further improved by Ross Ashby von Bertalanffy and both were reacting against reductionism and trying to recover the science unity (Moswela, 2014). Moswela emphasized that actual systems are open to, and interaction take place with their surroundings and that they can as well acquire qualitatively new properties through emergence, which leads to continual evolution.

The universal and essential property of a system is the interdependence and a logical relationship of parts (Hansen, 1994). The parts can be things such as the parts in a living thing or non-living thing. They can also be matters such as teachers in a school in a social interaction and therefore, we can speak of a school as a social system (Moswela, 2014). The social systems theory reasons that a school is a dynamic interrelationship between its organizational structures and the people who inhabit it having features of a collectivity of persons who are bound together by collective bonds or purposes, work to be completed being divided into subtasks and allocated as official duties (Owens, 2004; Sergiovanni & Starratt, 2002).

This study pinpoints that by their nature, schools are open social systems as;

> "It is difficult to have an imagination of a social system like a school that has no interaction with its surroundings. A totally closed system would not acquire human or material resources for its production system and not even distribute a complete product into the location and therefore, could not occur" (Hanson, 2003:121-122).

This theory recommends a symbiotic relationship among stakeholders where there is give and take exchange to influence students' academic performance by give- and- take, therefore, the necessity for team work in an interactive situation. The schools benefit from the contributions of the society in the form of knowledge, students, value systems, financial support and material. The society, working collaboratively with schools, in turn acquires productions in the form of changed individuals. This is further replicated within the school where students, parents, and principals work to achieve academic excellence. This synergy is a win-win condition where the success of every individual is the team's achievement. Owens (2004) and Sergiovanni and Starratt (2002) again noted that, in an open social system, duties are shared, distributed and assigned as official responsibilities. There is also interconnectedness and persons in the organization are clear as to who is to perform what, how, why, when, and to what degree (Cummings & Worley, 2014). This style has the potential to encourage collective responsibility and accountability. In a school condition, the stakeholders include; management, staff, parents and students. As subsystems, this theory explains the framework within which their responsibilities reside and the school principal would recognize that he/she has general accountability in students' performance.

1.11 Conceptual Framework

Conceptual framework used in this research displays the link among the school-based factors and their influence on students' academic performance. The conceptual framework is designed on the understanding that there exists a relationship between school-based factors and educational achievements of students. Independent variables include: principals' leadership skills, student factors, school environmental factors and parental factors.

Mukherjee (2013) notes that principals carry out a lot of tasks that directly impact on performance; students and teachers monitoring, execution of students' assessment, delegation of duties and responsibilities, incorporating guidance and counseling programs in schools, uniting teaching and non-teaching staff (Akinola & Obafemi, 2013), initiating teamwork among the teaching staff, monitoring students' discipline, quality improvement measures, communication and listening skills, mobilizing of adequate staffing (Onyara, 2013), coordination, supervisory and training on managerial skills, (Modo, Sanni, Uwah & Mogbo, 2013). A principal of a school gives direction to all activities within the school that assist him in achieving the goals of the school. If principals give direction to students and set a good working atmosphere for teachers, then realization of the set goals may be easier. He must also relate well with the parents to allow him get other requirements not provided by the government. In a school, principal, teachers, parents and students should pool towards the same direction in order to achieve the set goals. In this study, administrative skills, staff improvement, guidance and counseling and supervision, monitoring and assessment skills are studied.

Student factors refer to the situations within the school environment that lend credence to individual students' unique personality as well as their efforts towards academic performance (Peter, Bantu & Martin, 2016). Therefore, in this study, the following indicators of students' factors were identified from literature review: students' ambition, learners' individual efforts, learners' attitude on subjects (Chepkorir, Cheptonui & Chemutai, 2014), learners' competitive spirit, learners own set targets, students' unrest and absenteeism from school, students' discipline in schools, participation in co-curricular activities; (Lourdes, Monteiro & Peixoto, 2012; Al-Musa & Saeed, 2016). However, for in-depth interrogation, the indicators were analyzed using the following themes: students' focus and attitude, discipline and drug abuse, and involvement in co-curricular activities were studied.

School environmental factors are the internal condition of the schools (Lacoe, 2013). These include: peer influence, school security, presence of internets and other electronics, trained and experienced teachers, teachers financial motivation, library, laboratory, instructional materials (Ayça & Ali, 2017; Ojukwu, 2017; Odigwe & Idowu, 2013). Similarly, Onukwo (2004) equally noted that a child's growth plus development is improved by a conducive environment. The current study therefore, was an attempt to identify school environmental factors and their influence.

Parental factors are the activities or practices carried out by parents that influence the improvement of educational achievement of their children in secondary schools. According to this study, certain aspects that have been identified from previous studies and this study such as Mathew and Shaun, (2012), and Khan and Tasneem (2015), will be investigated. These will include: education level, parental involvement/follow-up, parental socio-

economic status (Chowa, Masa & Tucker, 2013; Page, 2008). The principal is the main bond between the parents' community and the school and the way he/she accomplishes duties in this capacity as the principal portrays the attitude of parents and students towards the school (Seashore & Leithood, 2010).

Dependent variable is the output, that is: the improved performance of students in academics. Effective leadership practiced by the principal to other variables leads to increase in academic performance, improved discipline and motivation of other variables. In this study, improved performance in KCSE examinations which is done at a period of every four years in secondary school is considered key as it assesses the learners' ability throughout their secondary education.

Intervening variables influence both independent and dependent variables. Government policies form the foundation upon which school activities and decisions are executed, therefore, the principal is expected to strictly adhere to them. In relation to this study, the Children's Act (2001) is important as it spells out and recognizes education as children's basic right. This is further reiterated in the Basic Education Act (2013), which provides for free and compulsory education. Figure 1 displays independent, intervening and dependent variables explored in the current research, and their relationships.

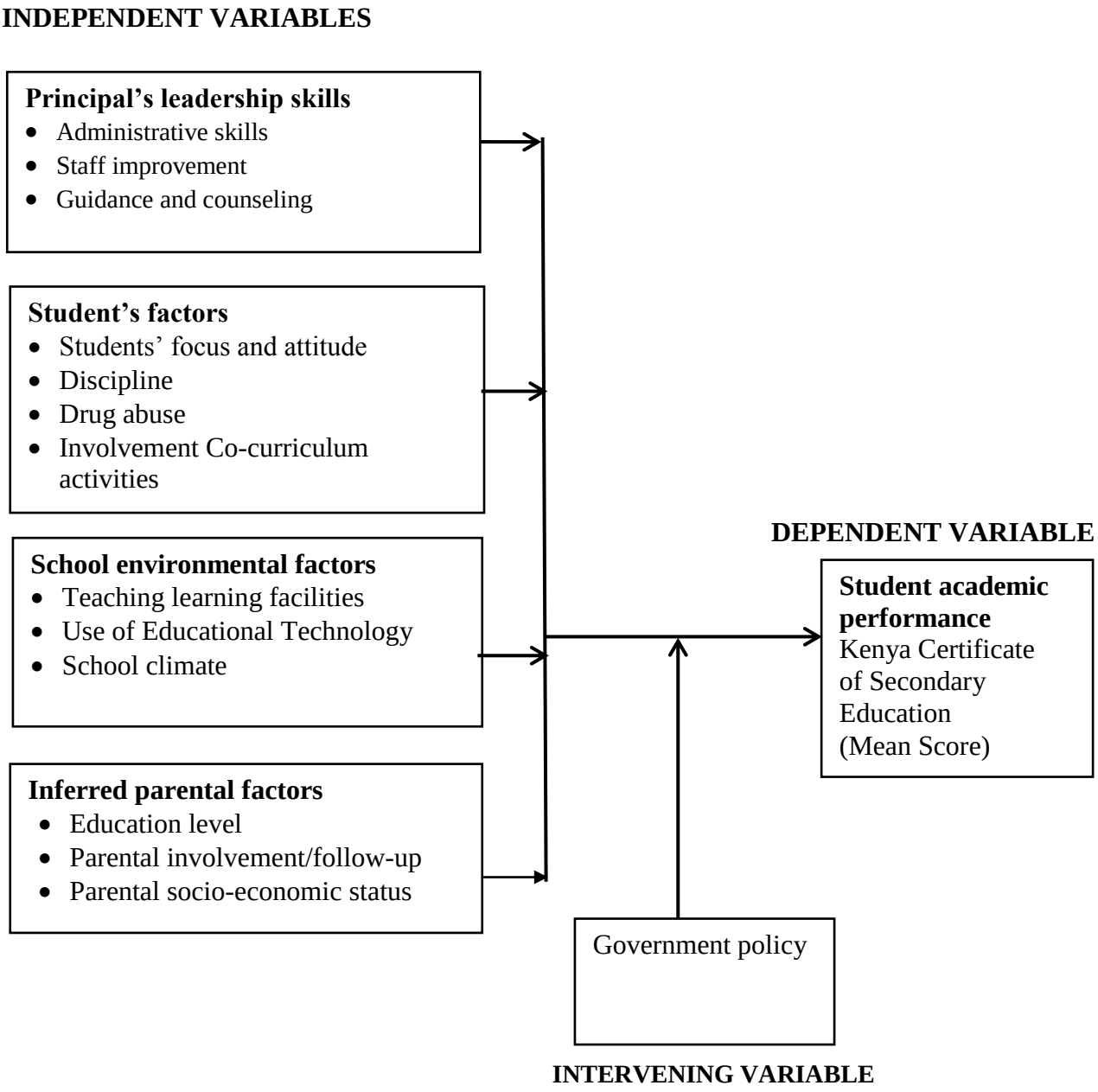

Figure 1: Conceptual Framework showing Influence of School Based Factors on Academic Performance

Source: Researchers' Own Conceptual Framework

1.12 Definition of Operational Terms

Academic Performance: In this study it refers to the achievement levels of students in Kenya Certificate of Secondary Education (KCSE) examination measured by the mean scores of students.

Kenya Certificate of Secondary Education: It refers to the final examination done at the end of Secondary education in form four.

Parental factors: Are the activities or practices carried out by parents that influence the improvement of educational achievement of their children in secondary schools. In this study they have been inferred from the documents analyzed.

School environmental factors: These are factors within the school environment that influence students' academic performance. As used in the study, it refers to teaching and learning materials availability, availability and use of ICT in learning and the school climate.

School based factors: Factors within the school that have influence on students' academic performance and include; Principals' leadership skills, students' factors, School environmental factors and parental factors.

Student factors: Situations within the school environment that lend credence to students' personality and their efforts towards academic achievement. They refer to factors such as students focus, attitude, discipline and involvement in co-curricular activities.

Public secondary Schools: Schools managed and funded by the government of Kenya.

Principal's leadership Skills: Activities or practices carried out by the principals while executing their duties as leaders of secondary schools.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Related literature is reviewed in this chapter. This chapter is organized under the following sub-sections: Influence of principals' leadership skills on academic performance of students, influence of student factors on students' academic performance, influence of school environmental factors on academic performance and influence of parental factors on students' academic performance in public secondary schools.

2.2 Influence of Principals' Leadership skills on students' academic performance

Leadership has been defined by Sue and Glover (2000) as the ability of a person in authority to sway behavior of juniors to follow a particular route or course of action. Leadership is an influencing process directed at shaping behavior of others (Mullins, 2010; Pierce, 2008; & Draft, 2008). Knouzes and Posner (1997) describe leadership as the art of mobilizing other people towards the struggle for shared aspirations. They also state that those who lead others to greatness seek and accept challenges and learn by leading, while Draft (2008) emphasizes that great leaders should lead by examples and honesty. The issue of leadership has also been viewed as a performing art with a collection of practices and behaviors and not a position (Okombo, 2007; Pierce & Newton, 2008).

Thakur and Thakur (2004) states that secondary school leadership is the main determinant of the standard of education and school performance. Leadership is important in improving school management and raising quality of education. The quality of education relies on the nature of leadership practiced by the school principal, his or her skills to direct control and

guide both teachers and students. The quality of leadership also plays a vital role in students' achievement since it is concerned with teachers, pupils, regulations, policies and rules that are used in governing the school (Buhere, 2007).

A principal plays a major role in connecting the community to school. In this capacity, his role largely determines the attitudes of parents and students towards school. Seashore and Leithhood (2010) state that, if a school is active, child centered and innovative, has a reputation for excellence in teaching, and students excel well, then principals' management practices is a pillar to this success. Sermon (2005) noted that a principal influences the success of a school through his or her leadership skills. It is apparent that the principal, as a leader commands things done and has the ability to moderate, inspire, direct, guide and listen.

2.2.1 Influence of Principals' administrative skills on students' academic performance

In line with a study by Kochamba and Murray (2010) on principals and teachers perception of leadership skills, the findings observed that a principal need a set of leadership skills for effective school performance. The study majorly focused on principals and teachers' perception of leadership skills for effective performance, whereas the current study focused on the actual contribution of principals' leadership skills on students' academic performance hence the knowledge gap that is fulfilled by the present study.

In a similar study by Awuor, Aloka and Raburu (2018) on guidance and counseling effectiveness in management of student behavior in public secondary schools in Kenya, the findings stated that more than 79% of the principals frequently used the identified

administrative skills like counseling, monitoring students' discipline and ensuring assessment of students. Thus, the investigation concluded that principals' administrative skills had positive impact on students' academic performance. The previous study was concerned with the effectiveness of guidance and counseling skills as one indicator of principals' leadership skills in the management of students' behavior whereas the current study was concerned with all indictors in the principal's leadership skills that have influence on students 'academic performance among public secondary schools in Migori County.

In another study on the principals' and performance managerial skills of schools by Mukherjee (2013) in India, reported that there is a significant relationship between schools principal's managerial effectiveness and their school's performance based on key performance indicators. In the current study, school based factors was used to represent independent variables and overall school performance was the dependent variable. The focus of this study was on general school performance while the present study narrowed down to students' academic performance. Further, the present study was conducted in Kenya while the previous study was done in India which has a different background.

Akinola and Obafemi (2013) carried out a study on leadership skills of principals and school effectiveness in South Western Nigeria. The findings pointed out that secondary school principals had technical, conceptual, interpersonal and administrative skills. A substantial connection was found between principals' leadership skills and school effectiveness. This study did not indicate the extent to which leadership skills influence students' academic performance as indicated in the current study.

Roseline (2013) conducted a study on principals' leadership and student performance in senior high schools in Ebo State, Nigeria. The study established that the dimensions of personality, idealized influence and intellectual stimulation as predictors of school achievement in the sampled schools. The research found out that an important element in the school improvement is leadership. The previous study gave out a perception whereas this current study gave out the actual contributions of leadership on academic performance. Again, the study was done in Nigeria whereas the current study was done in Migori County, Kenya.

In a related study by Sultan (2017) on leadership skills executed by principals and academic coordinators, demonstrated that both the academic coordinators and the principal in most cases execute democratic leadership skills' tactic to expedite learning processes in the school. The study posits that democratic leadership skills approach was seen to be in effect in bringing about affirmative learning environment within the school. This research was carried out in private schools in Nigeria while the present study was conducted in public secondary schools in Migori County, Kenya with a different environment for learning.

Tatlah, Iqbal, Amin and Quraishi (2014) carried out a study on effects of leadership behavior of principals on students' academic performance. The findings indicated the positive effect in leadership behaviour of principals on academic performance of students but there was a substantial difference between the view point of the observers and leaders regarding this effect. While the study sought to compare the views of teachers only, the present study took into consideration the actual contributions of students through focus group discussions.

According to Bolanle (2017) who did a study on leadership skills of Principals and school effectiveness in South Western Nigeria, the results showed that administrative skill was found to be most prevalent, compared to conceptual and technical skills. The study employed the use of descriptive survey research design, 154 principals and 770 teachers, who were purposively selected, participated in the study possession, and exercise of' leadership skills of principals at sufficient levels to influence school effectiveness. However, the sampling technique used in the study might have led to some information being left out due to selective sampling. The present study gave a wider sample consideration, hence being able to fill this gap.

In a study done by Ambogo (2012) on impact of principals' administrative factors on performance in secondary schools in Eldoret, Kenya, the findings observed that the effect of the leadership of principals was not as significant predictor of performance in sciences in KCSE. The correlation between leadership and performance was found not to be very significant. Based on this finding as opposed to current study, it is necessary to confirm the truth.

Lydiah and Nasongo (2009) conducted a study on head teachers' role in academic performance in secondary schools in Vihiga District, Kenya. The study found out that principals used quality improvement measures, teamwork and ensured proper establishment of staff as organizational skills that influence academic achievement. The principals were also involved in academic activities by observing and checking the work of students and teachers, monitoring discipline of students and helping in eradicating cheating in

examinations. Whereas the previous study was carried out in Vihiga district, the present study was done in Migori County.

In a related study by Ouma, Auma and Orodho (2016) on principals' leadership skills and academic performance of students in public secondary schools in Homa Bay County, the findings revealed that most principals were deficient in the types of leadership behavior that support students' academic achievement. This research gave out the perception of principals' leadership skills on students' performance whereas the current study gave out the actual contributions of principals' leadership skills on students' academic performance in Migori County.

In another study by James (2009) on effects of leadership styles on students' academic achievement, the results demonstrated that school leadership has both direct and indirect implications leading to students' achievement. It indicated that most leadership influences are indirect and these indirect influences lead to increased collective efficacy and improved school culture. This study failed to involve students as respondents despite the fact that students are crucial in academic performance. The current study bridged this gap by including students as part of respondents.

A study on principals' managerial skills and students' unrest in public secondary schools in Nairobi County, Kenya by Cheloti, Obae and Kanori (2014) found out that there was no clear managerial skills that were predominant in the schools surveyed. The researcher further showed that mock exams, diet, bullying, high handedness of principals, pressure from other schools, transfer of principals, lack of communication between students and the principals,

poor facilities, and drug and substance abuse were common causes of students unrest. This study was done in Nairobi which has a different environment from the current study which concentrated in Migori County.

Waswa (2017) carried out a study to find out the influence of principals' communication skills on academic performance of students. Waswa used a mixed method approach and a descriptive survey design. By use of purposive and simple random sampling techniques, a sample size of 369 class teachers, 44 principals and 369 class prefects, was used in the study. The current study data was collected by the use of document analysis, focus group discussion, interview schedule and questionnaire. Qualitative data was analysed by explaining emerging themes from the respondents as per the laid down study objectives. The results showed a positive relationship between students' academic performance and principal's communication skills. Whereas this study dealt with the relationship between principals' communication skills and students' academic performance, the present study noted the influence of principal's administrative skills on academic performance of students.

In a study by Awuor et.al (2016) on guidance and counseling effectiveness in management of student behavior in public secondary schools in Kenya, the findings stated that more than 79% of the principals frequently used the identified administrative skills like counseling, monitoring students' discipline and ensuring assessment of students. Thus, the investigation concluded that principals' administrative skills had positive impact on students' academic performance. The previous study was concerned with the effectiveness of guidance and counseling skills as one indicator of principals' leadership skills in the management of

students' behavior whereas the current study was concerned with all indictors in the principal's leadership skills that have influence on students 'academic performance among public secondary schools in Migori County.

Nzoka and Orodho (2014) conducted a study on school management and academic performance of students in secondary schools in Embu North District, Embu County, Kenya. The study established that school principals used various strategies to improve academic performance of students. The strategies included: monitoring of instructional processes, closer monitoring of students, making learning institution free of drugs and closer student assessment; subsidizing government funding through free day secondary education using income generating activities and uncoordinated guidance and counselling programmes. Despite these efforts, the expected improved students' academic performance was not realized largely due to the fact that most school managers had not undergone managerial skills' training. This study was done in day secondary schools only which did not reflect public secondary schools' representation as done in the current study which included both day and boarding secondary schools.

Makau, Ronoh and Tanui (2016) in their study of the relationship between principals' instructional supervision and students' academic achievement in sciences in secondary schools found a strong relationship between the practice of instructional supervision and academic achievement in all the science subjects. This study used Science subject only which is not a mirror to KCSE performance as opposed to the current study which used KCSE performance to show academic performance of students.

2.2.2 Influence of Principal's Staff improvement on students' academic performance

According to Ross and Gray (2006) who did a study on school leadership and students in Canada, established that schools with higher levels of transformational leadership had a higher mutual teacher efficiency, greater teacher obligation to school mission, school community and school community partnerships had higher student achievement. Barrett& Breyer (2014) noted that educators and principals are facing challenges with meeting the higher demands of learning and teaching which develops difficulty in environments filled with adverse undercurrents, such as salary, poverty, teacher satisfaction and instruction. These studies were done in Canada thus prompting the researcher to conduct a similar study in Kenya in order to find out if it would yield similar results.

Waheed and Waheed (2011) conducted a study on employees' development on employees' performance and showed that employees' development variables such as employee learning and skill growth had an implication on employees' performance variable. Employee performance is defined as employee's means of efficiency and output as a result of employee growth hence impacting on employee performance, leading to organizational effectiveness. In a school set up, this implies that excellent academic performance depends on employees' growth. In their paper, Waheed and Waheed examined and investigated the literature review on employee growth and its effect on employees' performance in business context and not in a school. However, in the key variables are identified variables related to employee development performance like training and skill improvement as essential to performance as was considered in the current study.

Oluremi (2013) also noted that principals who employed quality improvement measures inspire team work with staff and students participation in academic activities that influence academic achievement in secondary schools. In a separate study by Dahie, Mahamud and Abdi (2016) on school leadership and student achievement in secondary schools in Mogadishu, Somalia, it was established that students' achievement had significant positive influence from three independent variables that is, teacher commitment to school mission, transformation leadership and collective teacher efficacy. Whereas this study was done in Somalia, the present study was done in Kenya.

An extensive study by Onyara (2013) on school related factors influencing students' academic performance at KCSE in Teso South, demonstrated that human resource is not well handled since in the findings, most of the director of studies and head teachers do not employ skilled and trained school workers and their numbers are not sufficient to take care of all the students. This study was done in Teso South District while the present study was done in Migori County.

2.2.3 Influence of Principals' Guidance and counseling skills on students' academic performance

Foluke and Bolu (2017) who conducted a study on influence of counseling services on perceived academic performance of secondary school students in Lagos Nigeria, indicated that there is no substantial relationship between school counseling services and learner's academic performance. However, a significant importance was established on the grounds that students' career awareness through guidance department and learners personal learning efforts influence academic performance. Whereas this study dealt with the general effects of

counseling services on perceived academic performance of students, the present study focused on the guidance and counseling skills that have influence on academic performance of students.

Modo, Sanni, Uwah and Mogbo (2013) carried out a study on guidance and counseling services in secondary schools as key strategy for improved academic performance of students in AkwaIbom State, Nigeria. The findings revealed that students who utilized the counseling services performed better than those who did not. This study however used only multifactor leadership questionnaire in collecting data while the present study used questionnaires, interview schedule and focused group discussions as data collection tools.

Ehiane (2014) carried a related research on discipline and academic performance in selected secondary schools in Lagos, Nigeria. The findings indicated that effective school discipline should be encouraged in controlling students' behavior, thus affecting students' general academic performance. This study concentrated on the relationship between discipline and performance and was done among the selected secondary schools in Nigeria, while the present study dealt with influence of guidance and counseling skills of principals on academic performance of students among the public secondary schools in Kenya.

Muhammad (2016) conducted a study on four-frame leadership and academic achievement of students. The findings showed that there is a positive, direct and slight correlation between student academic achievement and public secondary schools' guidance and counseling services. The results further revealed that guidance and counseling in schools

have direct influence on student achievement. The researchers concluded that closer contact between the teachers and the students can predict students' academic achievement. Whereas this study dealt with the general relationship between guidance and counseling versus student performance, the present study concentrated on the influence of the principals' guidance and counseling on students' academic performance.

According to Nyamwange, Nyakan and Ondima (2012) in a study on assessment of challenges facing secondary school guidance and counseling teachers in Nyamira District, Kenya, found out that there are many drawbacks facing the setting up of guidance and counseling services. These include: inadequate guidance and counseling training for teacher counselors; insufficient resources; and lack of requisite support to guidance and counseling, among other challenges. This was supported by Sidama and Wako (2016) who confirmed that many students in public secondary schools face myriad psychosocial and academic problems that need the help of dedicated and strong school counselor. Sidama and Wako concluded that students who utilize school guidance and counseling services properly are always successful in their academic endeavors. Whereas, these studies concentrated on the challenges facing guidance and counseling of teachers, the current study focused on influence of principals' guidance and counseling skills on students' academic performance.

In a study by Gitome, Katoba and Nyabwari (2015) on correlation between performance and discipline of students in KCSE, it was discovered that guidance and counseling, parenting and church involvement are instruments that can be applied in inculcating discipline among secondary school students in Kenya. Equally, a study by Kamore and Tiego (2015) on what

hinders guidance and counseling effectiveness in enhancing discipline in high schools in Murang'a County, Kenya, demonstrated that guidance and counseling departments are ineffective in improving school discipline. The study hence concluded that most teachers are equally overwhelmed with the huge work- load that they handle making them spend very little time on counseling services. Whereas these studies dealt with what hinders guidance and counseling in high schools in Murang'a, the present study dealt with the influence of guidance and counseling as a skill on academic performance in Migori County.

Awuor, Aloka and Raburu (2018) established that there is a correlation between guidance and counseling and the students' academic performance. They further argued that guidance and counseling regulates students' behavior and gives learners' moral dictates which enhance their academic performance. This study however used only students as the respondents leaving out principals as part of their respondents even though they are the general supervisors of the schools and the custodian of school information which is fulfilled in this study.

Wambui (2015) conducted a study on guidance and counseling services' effectiveness in Kenya secondary schools. The study found out that the time allotted for guidance and counseling sessions in most public secondary schools was too short and inappropriate as the sessions were mostly scheduled during lunch break or towards the end of the lessons. The findings of the study further indicated that only a few students sought counseling from the teachers in charge. In general, the teachers appeared skeptical as to whether students' academic performance was deteriorating due to ineffective career guidance in schools or due

to the students' entry behavior. The focus of the present study was therefore, to re-examine this relationship between guidance and counseling and students' academic performance that showed mixed results in some previous studies.

2.3 Influence of Student Factors on students' academic performance

Student factors are situations within the school environment that lend credence to individual students' unique personality as well as their efforts towards academic achievement (Peter, Bantu & Martin, 2016). As used in the study, they refer to factors such as students focus, attitude, discipline and involvement in co-curricular activities.

2.3.1 Influence of Students' attitudes and focus on their academic performance

Lourdes, Monteiro and Peixoto (2012) conducted a study on attitudes towards Mathematics and found out that students held positive attitudes towards mathematics and also highlighted the main effects of grade and Maths achievement on these attitudes. The study noted that no gender effect was identified although the girls showed a continuous decline in attitude the further they progressed in school. While the study was able to establish attitude and performance, the main focus was on Mathematics as opposed to the current study which used the students' mean score.

A study on influence of psychosocial factors on academic performance of students in one of Nigerian colleges of education by Ali, Munira and Nobaya (2017) indicated that only attitude and interaction could significantly predict academic performance of students by R2=65.6%. The current study indicates that only students' own set targets, discipline and

competitive spirit significantly predict academic performance and, therefore, this current study was necessary. This study was done in college whereas in the current study, the researcher collected data from public secondary schools, which was relevant for this study.

Omotade, Funke and Oyewumi (2016) conducted a study on attitude of students and interest as correlates of academic performance of students in Biology in senior secondary school and showed that there is significant relationship in the students' attitude and interest to Biology and students' academic performance in Biology. This study gave out a perception whereas the current study gave out the actual contribution of students' attitude and interest on students' academic performance.

Gilman (2016) also found that students differed in terms of their mastery of English, scoring higher in the structure section, while composition was the most poorly scored section based on the attitude formed by the students on the subject. The results observed that students in both form one and four had strong and positive attitudes to English. The study concluded that form one students had more positive interest and attitudes than their counterparts, form four students. This study combined both form one and four students whereas the currents study used only form four students.

Another study done by Akinyemi (2009) on enhancing students' attitude towards secondary school Physics through the use of cooperative, competitive and individualistic learning strategies also found out that cooperative learning strategy was the most effective in facilitating students' attitude towards physics. This study relied on subjects as opposed to the

current study which considered general school mean performance in KCSE to avoid biasness because not all students do the same subjects.

Oluremi (2011) conducted a study on attitude of students in secondary schools and academic performance of students with special needs in integrated setting. The findings of the study revealed that most students in secondary schools had positive attitude towards students with special needs while few students had negative attitude towards students with special needs. The findings further noted that there was no significant difference between the attitude of male and female students towards students with special needs. This study focused on special needs students as opposed to the current study which considered all categories of learners in public secondary schools in Migori County.

A study by Chepkorir, Cheptonui and Chemutai (2014) on the relationship between teacher-related factors and students' attitudes towards secondary school chemistry subject in Bureti District revealed that there are some factors influencing students' attitudes towards Chemistry, including lack of successful experiences in Chemistry and poor teaching. From the previous studies, it showed evidence that the researchers focused on specific subject areas such as Physics, Chemistry, Biology and Mathematics thus failing to address all subject areas and categories of learners thus prompting the present study to conduct an all-inclusive study.

A study carried out by Peter, Bantu and Martin (2016) found out that poor performance in Mathematics in Masaba South sub-county schools was due to poor attitude of students, lack of ambition, poor career choice, influence from other students, lack of competitive spirit, and no desire to set targets, among others. This study used qualitative data whereas in the present

study, the researcher used both qualitative and quantitative data which allowed for the confirmation of information gathered from the questionnaire.

Wabuke (2013) conducted a study on the role of student –related factors like: primary school Science which provides a requisite background for Biology at secondary school level; interest in Biology (theory and practical), provides a force for learners to participate in the learning process; their ability to carry out the practical effectively and students' ambition and attitudes. This is also confirmed by a study on effect of students' academic motivation and academic performance among high school students in Kenya, by John, Jackson and Catherine (2015) who indicated that there was a positive relationship between academic motivation and academic performance. This study used only Biology subject whereas in this current study the researcher used KCSE school mean performance, taking into consideration all other factors influencing students' performance at secondary school level.

2.3.2 Influence of Students' drug abuse on students' academic performance

The alarming evidence in the prevalence of drug abuse, the effects and consequences of substance abuse among students has called for concern and challenge to all helping professions, including teachers (Akanbi, Augustina, Bahago, & Muritala, 2015). Alcohol and drug consumption may have some detrimental effects on pupils' cognitive abilities, for instance, by decreasing their ability to concentrate (Ajala, 2012), undermine students' progress by making them less likely to attend classes or keep up with their studies (Chukwu, et al, 2017).

Moses, Augustina and Rahama (2018) conducted a study on drug abuse and academic performance among adolescent students in Nigeria. The study noted that drug abuse influence students' academic performance negatively. The findings further revealed that gender has a significant predictor of reported drug abuse and males have been reported to have a greater degree of drug abuse that greatly affects their academic performance in secondary schools. Whereas this study was done in Nigeria, the present research was conducted in Migori County in Kenya.

A study on alcohol consumption behaviour among secondary school students in Nigeria by Bada and Adebiyi (2014) revealed that family background and religion were strong correlates of alcohol consumption among secondary school students. The results further indicated that the family should take appropriate measures in curbing their children and also that religious bodies approach the issues of alcoholism with more firm measures to help in enhancing learners' academic performance by helping to curb drug selling to students. This study was done in Nigeria while the present study was done in Kenya.

Nwankwo, Sydney, Agbor and Mgbenkemdi (2013) further examined the effects of gender and locality on alcohol abuse among secondary school students. The study revealed that there is a significant influence of gender on substance abuse. They further observed that there is significant influence of locality on substance abuse and addiction. The researchers concluded that there was a significant effect of drug abuse on students' academic performance .The current study took into consideration the overall mean score for students in general to avoid biasness.

A study on Substance abuse among male secondary school students in Abha City, Saudi Arabia, by Al-Musa and Saeed (2016) found out that the prevalence of substance abuse among male secondary school students in Abha City is quite high. The study observed that most public schools in this region do not perform well in examinations due to drug influence. The study further noted that selling of drugs to students should be made illegal and punishable in courts of law. This study focused on males only as opposed to the current study which considered both males and females.

A study on alcohol consumption behaviour among secondary school students in Nigeria by Bada and Adebiyi (2014) revealed that family background and religion were strong correlates of alcohol consumption among secondary school students. The findings further noted that the family should take appropriate measures in controlling their children and also that religious bodies approach the issues of alcoholism with more firm measures. The study only used quantitative data whereas the current data used both quantitative and qualitative data.

Kiplagat and Mugasia (2014) established further that the presence of drugs, lack of enough facilities and food, students who have a negative attitude towards their schools, who do not do well in exams, who feel teachers do not understand their behaviour, succumb to peer influence and often resort to violence to express their dissatisfaction. All were the major causes of violence in schools. Likewise, Atemi and Ondieki (2012) found out that boys were the predominant drug users who made up at least two thirds of drug users in the hard drugs category. The researchers observed that the majority of the users of alcohol were boys and this could be the reason why girls are doing better than boys in a number of mixed schools in Kisii County, Kenya.

Tom, Japhet, Njuguna, Waweru, Benson and George (2014) conducted a study on effects of drugs on learners' academic performance in public secondary schools in Tana River County, Kenya. The study found out that there is a positive relationship between the drug addiction and students' performance. The study noted that drug abuse was found to have a significant effect on the students' performance in national examinations. This study used a population of nine schools only which is a very small size to be used in drawing conclusion in the county whereas the current study involved 152 public secondary schools in Migori County.

Chebukaka (2014) found that the extent of involvement in drugs by students in public secondary schools in Vihiga County was more than fifty per cent. Chebukaka further revealed that the commonly abused drugs by students in public schools in Vihiga County are alcohol, cigarettes, miraa, and marijuana which have negatively affected learners' academic performance. Similarly, Muusya and Kariuki (2015) earlier noted that abuse of drugs by students lead to poor academic performance and increase in indiscipline cases among students. These studies used quantitative method only whereas the current data used both quantitative and qualitative methods of data analysis.

2.3.3 Influence of Students' discipline on students' academic performance

A study on types, causes and management of indiscipline acts among secondary school students in Shomolu Local Government area of Lagos State by Ali, Dada, Isiaka and Salmon (2014) revealed that various acts of indiscipline like bullying and strikes were prevalent among secondary school students. It further gathered that several factors like the schools, students and the society at large contributed greatly to the acts of indiscipline among the

students. It also found that reduction strategies employed by various schools are not effective. Kambuga and Abich (2017) conducted a similar study in secondary schools in Tanzania and showed that good discipline, confidence and academic competence were the main qualities that aided most students in their academic performance. These studies were carried out in Nigeria and Tanzania respectively which had different environments as compared to the current study.

Okwakpam (2012) conducted a study on learners' discipline and students' unrest among secondary school students. The study indicated that there is a significant close relationship between student's unrest and discipline on learners' academic performance. The study also noted that the student's indiscipline contributes greatly to the student's level of performance and achievements. The study gave out the perception of the influence whereas the current study gave the actual influence on academic performance.

A study on influence of drug use on academic performance among secondary school students by Mary (2015) indicated that drug use is common among secondary school students in Matinyani District. The results indicated that it leads to poor academic performance and increase in indiscipline cases among students. The study, however, involved very limited number of respondents, 14 schools considered not to have given appropriate outcome, whereas in the current study, the researcher used more than 100 secondary schools which are good enough for generalization.

Sombor and Vojvodina (2014) conducted a study on individual and social factors related to students' unrest and academic achievement. The study found a positive correlation between

individual and social factors on students' unrest. Individual factors, that is the perceived interest in an individual student and perceived content usefulness for personal gain through peer influence proved to be the most significant predictors of students' unrest and misbehaviors. This study used only students as major respondents while the current study involved principals and students as the respondents.

Nandeke, Chumba and Kiprop (2017) conducted a study on rethinking of public secondary schools discipline in Kenya and revealed that students were haphazardly involved in the school management of students' discipline. Their role is not put clear to them. The study gave out perception on how discipline affects performance, whereas the current study gave out the actual effect of discipline on students' performance.

Belle (2018) also conducted a study on the causes of lack of discipline among secondary school students and revealed that the causes of learners' lack of discipline originate from the family, the learners' attitudes to education and schooling. This is practical in cases where parents don't do follow up on their children's education. The study did not show the level of effect on students' academic performance and that is why the current study is necessary.

A study on student indiscipline and academic performance in public secondary schools in Kenya by Rebecca (2012) showed that strikes lead to poor academic performance. The study further observed that the schools that had not been involved in unrests on average had more counselors than the schools that had unrests. The studies cited show that indiscipline and academic performance are closely related but the respondents used in the study was limited to teachers only. Furthermore, there was no attempt to establish the level of the relationship

between the independent and dependent variable and students' academic performance, thus prompting the present study.

According to Onyango and Simatwa (2016), physical punishment is one of the major contributors to indiscipline among students. In their study, they stated that punishment in schools should be replaced with counselling. The study was based on perception whereas the current study was based on actual contribution on the students' academic performance.

A study on principals' managerial skills and students' unrest in public secondary schools in Nairobi County, Kenya by Cheloti, Obae and Kanori (2014) found out that there were no clear managerial skills that were predominant in the schools surveyed. The researcher further showed that mock exams, diet, bullying, high handedness of principals, pressure from other schools, transfer of principals, lack of communication between students and the principals, poor facilities, and drug and substance abuse were common causes of students unrest. This study was done in Nairobi which has a different environment from the current study which concentrated in Migori County.

Ruirie, Kimosop and Kagema (2017) studied the use of alternative methods of enforcing learners` discipline in primary schools in Nyeri Central Sub-County, Kenya. The research found out that majority of the teachers used guidance and counselling in enforcing discipline in schools despite some still using corporal punishment. It further found out that learners need to be educated on the importance of obeying school rules. This study was done in primary schools whereas the current study was done in secondary schools.

Otieno, Simatwa and Gogo (2016) conducted a study on the influence of mental harassment ban on student discipline in secondary schools in Kenya: a case study of Ugenya, Gem and Siaya Sub-Counties, and established that there was a strong, positive and significant relationship between the level of mental harassment ban and students' discipline. However, the study did not establish if the student discipline eventually influences the academic outcome of the students; thus the knowledge gap that the present study discussed.

2.3.4 Influence of Co-curricular activities on Students' academic Performance

Fujita (2018) carried out a study to determine whether or not the activities in which junior high school students chose to participate in have an effect on their academic performance. The study's survey instrument which was distributed to students enrolled in grades 6 through 8 at Walnut Creek Christian Academy during the 2004-2005 school using a five Likert-type scale questions, revealed that, according to the students surveyed, playing sports, watching television, and participating in community service improve academic performance; while playing a musical instrument does not improve academic performance. Therefore, it was concluded that extracurricular activities affect academic performance and that the effect depends on the specific activities in which the student is involved.

Gail (2018) carried out a study to examine the impact of secondary school students' involvement in academic co-curricular activities on their academic performance in a Northeastern State of the United States. Data consisted of de-identified data taken from school student information systems. The number of academic co-curricular activities, the length of time for which a student participated and his or her grade point average were

included as variables in the study. The research questions for this study were analyzed using descriptive statistics. The results of the regression analysis suggested that academic co-curricular activities of students' participation improves their academic performance as measured by grade point averages, while gender, ethnicity, and school type were also identified as potential moderators of academic outcomes. The study was done in USA while the present study was done in Kenya.

Muhammad, Tahir, Ali and Maubeen (2012) revealed that involvement in the co-curricular activities has effect on academic performance of the students in their study. The study was conducted by using the questionnaire filling technique which was distributed among 500 students of the university. According to responses from the students, involvement in any kind of sports, drama and other literary activities positively affects academic performance, while watching the television has also some positive impact on academic performance. They concluded that co-curricular activities affect academic achievements of the students and this impact also depends upon those activities in which the students are keenly involved in. The study was conducted in University in Pakistan whereas the present study was done in secondary schools in Kenya.

In another study by Al-Musa and Saeed (2016)), seeking to determine the relationship between students' learners' participation in co-curricular activities and their performance in academics, noted that, while some studies report positive impact of co-curricular activities, some also report negative impacts. In their study, they employed the concurrent mixed methods design. The study's data collection techniques were stratified and simple random sampling techniques, from which a sample consisting of 250 students, 15 co-curricular

teachers, and 5 Principals were selected. Descriptive statistics and thematic analysis were used to examine qualitative data. Multiple regressions model was used to establish determinants of academic performance from the selected co-curricular activities.

Kapelinyang and Lumumba (2017) concluded that athletics, music, and soccer were positive and significant determinants of students' academic performance and recommended that more facilities that could promote co-curricular activities be availed in schools. These recommendations underscore the importance of co-curricular activities but do not quantify the extent to which these activities influence academic performance as opposed to the present study.

2.4 Influence of School Environmental factors on Students' Academic Performance

School environmental factors are the internal conditions of the school that influence students' academic performance. These are the teaching learning facilities, use of educational Technologies and school climate within the school that influence students' academic achievement in Secondary schools. Environmental factors to a large extent affect both the physical and psychological potentials of an individual. This has led to the contention that many students fail to develop their potentials due to inadequate environmental stimulation.

2.4.1 Teaching Learning Facilities on students' academic Performance

On their part, Ayça and Ali (2017) conducted a study on the role of physical environmental factors on university students' academic performance in Turkey. Their findings contrast the findings of most studies on physical factors that there is no relationship and no effect between academic performance and physical environmental factors which could be unique to

the locale of the study. Further, Ado (2015) indicated that there is significance difference between the mean performance of students taught in an ideal learning environment and that of students taught in a dull learning environment. This finding focused on universities, whereas the current study focused on secondary schools.

A Study by Sammeni (2018) indicated that staff office, classroom spaces for teaching students and staff common room, represented the major areas that to a great extent affect the academic achievement of students in public schools with regard to buildings. The study further revealed that desks, current books and use of library assistants constituted the areas of influence on students' academic performance with regard to library services in public secondary schools.

A study on environmental influence on academic performance of secondary School students in Port Harcourt Local Government Area of Rivers State by Orlu (2013) found out the following: Performance is affected by environment and that improper maintenance of fixtures led to lower than average students' performance. The study was carried out in Port Harcourt Local government, whereas the current study was done in Kenya.

A study on school size and facilities utilization as correlates of secondary school students' academic performance in Ekiti State, Nigeria, by Adebule and Adeusi (2017) revealed that school size and facilities' utilization has impacted positively on the performance of secondary school students in Ekiti State. The previous research was done in Nigeria whereas the current study was done in Kenya.

Odigwe and Idowu (2013) appraising the state of maintenance and management of available secondary school facilities on students' academic performance in cross River State, Nigeria and found out that most of the respondents agreed that there exist a correlation between provision, maintenance and management of school facilities, on students' academic performance. This study was done in Nigeria whereas the current study was done in Kenya which has a different environment. Study on the effect of the adequacy of school facilities on students' performance and achievement in technology and livelihood education by Raguindin (2016) supported the assumption that insufficient school facilities were negatively impacting student performance and achievement, and the administrators concerned take no significant action in addressing this educational issue.

Owoeye and Yara (2011) conducted a study on class size and academic achievement of secondary school in Ekiti State, Nigeria and showed that there was no significant difference in the academic achievement of students in small and large classes from urban schools. While academic achievement was being measured in this study, it was mainly based on class sizes rather than achievement in an examination as was used in the present study. The study was done in Nigeria while the present study was done in Kenya.

Osei, Kate and Fentim (2014) conducted a study on school environmental factors that affect academic performance of senior high financial accounting students in Tamale metropolis in the Northern region of Ghana. The study revealed that availability of residential facilities in schools and instructional materials have a positive influence on the level of students' academic performance in financial accounting. The study focused on students' academic

performance in financial accounting, whereas the current study focused on students' academic performance in KCSE.

On their part, Mudassir and Norsuhaily (2015) also found out that students from a school with adequate facilities, good teachers and favourable environment, perform better than those from schools with fewer facilities, unqualified teachers and less enabling environment. Mudassir and Norsuhaily used only four secondary schools which are not sufficient enough to be considered or used in generalization.

Ilomo and Mlavi (2016) conducted a study on the availability of teaching and learning facilities and their effects on academic performance in Ward Secondary Schools in Muheza – Tanzania and found out that factors like lack of infrastructure, dormitories, laboratories, library, staff houses, classrooms, lead to poor performance in ward or community based secondary schools. This study was done in Tanzania which has a different environment and Syllabus as compared to Kenya.

Sephania, Too and Kirui (2017) conducted a study on perception of teachers on availability of physical facilities in secondary schools of Arusha District, Tanzania and indicated that schools have inadequate physical facilities such as classrooms, desks, chairs and the available classrooms are poorly constructed with inadequate spacing. The study was carried out in Arusha District in Tanzania, whereas the present study was done in Migori County in Kenya which is a totally different environment.

A study on teaching and learning resource availability and teachers' effective classroom management and content delivery in secondary schools in Huye District, Rwanda, by Bizimana and Orodho (2014) indicated that although the level of teaching and learning resources in the study locale was insufficient, hence compromising the effectiveness of classroom management and content delivery, there was a positive and significant correlation between most of the teaching and learning resources and level of classroom management and content delivery. This study used questionnaires only whereas the current study has used more tools for triangulation purposes.

2.4.2 Influence of the use of educational technology on students' academic performance

The trend towards technology enhanced classes has escalated quickly during the past five years as students have become increasingly tech-savvy, and textbook publishers now offer a wide variety of computerized teaching supplements. (Lavin, Korte, & Davies, 2015; Lowerison, Sclater, Schmid, & Abrami, 2006) suggest that technology has the potential to transform the learning environment from passive to active. This enables the learner to be more actively involved in his or her own learning.

Lowerison et al. (2006) carried out a study to investigate the relationship between the amount of technology used in post-secondary education courses, students' perceived effectiveness of technology use, and global course evaluations. Survey data were collected from 922 students in 51 courses at both the graduate and undergraduate levels. The survey consisted of 65 items broken down into various areas: student characteristics, learning experiences and course evaluations, learning strategies, instructional techniques, computer use in course, perceived

effectiveness of computer use and personal computer use. The results showed a positive relationship between course evaluations and the learning experiences that students engaged in. Students also indicated that they valued the use of computer technology for learning. Descriptive statistics on questions related to personal computer use showed a strong favorable response to computer use and: facilitation of learning, added aspects such as usefulness to other classes and/or career, learning material in a more meaningful way and working in groups with other students. The results showed that use of educational technology is important in learning which translates into better academic performance as was postulated in the current research, but the respondents were of higher academic level and only questionnaires were used to collect data among them. The present study employed both questionnaires and interview schedule to collect data.

A study on the effects of using educational technology in private secondary schools of Karachi, Pakistan by Waqar and Anila (2013) found out that both students and teachers are taking interest in using educational technology at secondary level. This study did not show the extent to which educational technology affects students' academic performance as shown in the current study. In addition to this, the study was done in private schools which have different conditions as compared to public secondary schools.

Haruna, Aisha, Umaru and Tukur (2016) conducted a study on impact of mobile phone usage on academic performance among secondary school students in Taraba State, Nigeria. The results revealed that mobile phone usage significantly influence academic performance among male and female senior secondary school students and age difference was not a significant factor in mobile phone usage on academic performance among senior secondary

school students. Researchers also noted that parents' occupation was not a significant factor in mobile phone usage on academic performance among senior secondary school students and that the frequency of mobile phone usage does not significantly influence academic performance among male and female senior secondary school students. This study supports the results found in the current study. The study did not show the extent to which mobile phone usage affects students' academic performance as indicated in the current study.

Kiseku and Kwasira (2015) conducted a study on an assessment of the use of innovative strategies on academic performance in secondary schools in Kenya and established that transformative leadership influences academic performance positively. The findings further noted that ICT negate the students' academic performance. This study used only one technique whereas the current study used both quantitative and qualitative technique in data collection.

Simuforosa (2013) conducted a study on the impact of modern technology on the educational attainment of adolescents and found out that modern technology impacts learning both positively and negatively. Olofsson (2017) conducted a study on students' voices about information and communication technology in upper secondary schools and showed that ICT plays a central role in the students' schooling not in terms of "state-of-the-art" technology, but rather as "state-of-the-actual", for example supporting the writing process and for peer support, digital documentation and storage. This study was done only in three schools which cannot be used to generalise the findings.

2.4.3 Influence of school climate on students' academic performance

These are what make learning condition of students to be conducive in a school environment. They include: safety and security (Wang, & Espinoza, 2011) and peer influence among students (Mosha, 2017). Safety of school facilities used by students in schools prevents unnecessary accidents in schools. Poorly built classrooms, broken desks, lack of first aid kits and bad groupings (peer influence) normally affect the learning atmosphere of students.

Nsa, Offiong, Udo and Ikot (2014) indicated that there was significant relationship between availability of laboratory facilities and students' performance in Agricultural Science. Abdulkadir, Ali, Aligees and Raqia (2017) also noted that climate, discipline of teachers, school physical facilities, have significant positive influence on academic performance. This study used only teachers to generalize its findings, whereas the present study involved principals and students.

Odeh, Oguche, Angelina, Ivagher and Dondo (2015) also indicated that school climate, discipline and physical facilities have significant influence on academic achievement of secondary school students. The study population consisted of teachers only, whereas in this current study, the study population included principals, teachers and students. Further to that, Odeh et al. (2015) relied on questionnaires only as opposed to the current study that embraced both questionnaires and interviews to gather information from respondents.

Studies on student performance have also sought to examine the role of school safety and security on students' academic performance. Related body of research investigated how school and neighbourhood crime affect performance and found disorder effect on school

achievement. Studies relying on student or principal reports found that violence within schools reduces school attendance, increases misbehaviour, and reduces the likelihood of high school graduation and college attendance (Chen, 2007). Peer disorder, such as bullying, is negatively related to school safety and achievement and is also associated with more serious school violence (Akiba, 2010; Juvonen, Wang, & Espinoza, 2011). In fact, these seemingly less serious issues were recorded to be stronger predictors of feelings of safety at school than violent crimes or personal experiences of crime (Mayer, 2010).

According to a study by Smith (2014) on the influence of safety concerns by students, staff and administrators on students' academic performance, it reported that the study of safety issues at one urban middle school in New Jersey had four objectives: (1) to identify the safety concerns of the staff and students of the school; (2) to determine effective strategies for improving safety; (3) to ascertain ways to implement strategies for improved safety; and (4) to determine ways to evaluate the strategies and decide their effectiveness. The study was based on the assumption that safety affects the learning environment, and therefore, it must be a concern to the parties involved. A purposive, non-random sampling of participants was used, and data were collected through a survey of 50 students, 25 staff members, and 3 administrators. The survey emphasized school safety with regard to hallways and common areas. The study concluded, among other points, that safety issues in a school encompass the everyday activities that make up the learning environment, and that making schools safe is a joint responsibility that requires a broad-based team approach. However, the study by Smith focused on strategies that can improve safety in learning environments, and did not directly analyse its influence on academic performance like the present study.

Additionally, a study by Lacoe (2013) underscored the fact that persistent racial and ethnic gaps in educational achievement have focused policy attention on school climate and safety as important elements of educational performance. He further recognized that in a special issue of educational research that focused on safety and order in schools. Cornell and Mayer (2010) further argued that school safety and school order are fundamental to studies of the achievement gap, teacher attrition, and student engagement. This work by Lacoe (2013) represented the first large-scale analysis of how feelings of safety at school affect educational outcomes. If student safety affects achievement there may be educational benefits of policies aimed at improving safety and order in schools and classrooms.

Ojukwu (2017) equally revealed that insecurity of school environment significantly affects the academic performance of secondary school students. The findings intimated further that students' gangsterism, smoking of Indian hemp, abusing other hard drugs, cult and related violent activities, were some of the factors that constituted insecurity of the school environment which eventually cause boys to leave school and join trading while leading girls to drop out and settle for marriage. Whereas the previous study was done in India, the present study was done in Kenya.

Gottfried's (2010) also carried out a study on the relationship between attendance and achievement in elementary and middle schools in Philadelphia. Using detailed student-level data and a school and classroom fixed effects approach, Gottfried finds that attendance and achievement are positively related. Therefore, a school where students feel that their safety is not guaranteed leads to absenteeism which may result into poor performance. Similar findings are reported by Aizer (2008). All the studies by Aizer (2008), Gottfried's (2010),

Lacoe (2013), and Mayer (2010) were done outside Kenya, and beyond a period of 5 years, which may not be the same as the current study whose locale and timing could offer further insights into the topic.

According to Allen et al. (2005), the peer group is a source of affection, sympathy, understanding, and a place for experimentation. It is always possible for parents to talk with school counselors and professionals to help with the problem. They report that adolescents who were well-liked by many peers displayed higher levels of ego development and secure attachment, as well as better interactions with their best friends. Experiencing peer rejection can produce heightened anxiety such as worry over being teased or left out, which interferes with concentration in the classroom and impedes children's acquisition and retention of information leading to poor performance.

Additionally, Butler-Barnes, Estrada-Martinez, Colin, and Jones (2015) further explored the gender perspective of the influence of peers and performance in the United States of America. The study was carried out on the premise that little scholarship explores how adolescents' beliefs about school and peers influence the academic outcomes of African American boys and girls. The sample included 612 African Americans; 307 boys, with a mean age of 16.84 years, and 305 girls with a mean age of 16.79 years. Latent Class Analysis (LCA) revealed unique patterns between boys and girls. Findings of the study indicated that for African American boys, school attachment was protective, despite having peers who endorsed negative achievement values. Overall, these findings underscore the unique role of school, peer, and gendered experiences in lives of African American adolescents. While the study focused on gender perspective, the current study focused on the actual contribution of

peers on students' academic performance in the Kenya Certificate of Secondary Examination (KCSE) national examination.

Jones, Irvin and Kibe (2012) also studied how peers living in urban, sub-urban and rural settings may influence African American adolescents' performance in Mathematics. The sample consisted of 1049 students across urban, suburban and rural areas. Findings showed that having a higher academic perception of friends is related to greater self-concepts across all the settings, hence better achievement in Mathematics as a result of sharing ideas. This study was done by using geographical living zones in America as sampling strata, and explored the peer influence on performance in a single subject, Mathematics only, as opposed to the present study that looked at performance in KCSE.

While it is thought that peer influence leads teens to engage in unhealthy and unsafe behaviours, it can also motivate youths to study harder in schools, volunteer for community and social services and participate in sports and other productive endeavours (De Guzman, 2007). These findings by De Guzman concur with those of Tope (2011) which found that students who form positive peer groups, show more effort during learning, doing social activities, also fear to engage in delinquent activities.

Leka (2015) examined effects of the role of peer and social interaction in adolescent academic achievement through a review of existing literature. The purpose of the study was to examine the different roles of peer aspects; frequent interactions and mutual membership in the group and the decrease or the increase of the learning outcomes in terms of academic

performance. The research question was; is there any effect of peer influence on academic achievement in adolescents of ages 12-15 years old? Results showed that peers create networks which lead to overestimation of the group effects on the traditional model and this causes them to change the objectives in the academic achievements. Further, it was observed that adolescents have an increased social motivation which is followed by a decrease of academic motivation; this consequence causes the demonstrations of the inability in academic areas in school. These results are understandable if the acceptance of the adolescent from the peer group is one of the measurement keys of positive and negative experiences at school.

Also, Mosha (2017) investigated the influence of peer group on adolescent students' academic performance in secondary schools in Tanzania. To achieve the objective of the study, three research questions were formulated. A total of 144 participants (120 students and 24 teachers) were involved in the study. The sample was purposively selected from two secondary schools (one government and one private). Instruments used were interview checklists and questionnaires. The study applied case study design. Both qualitative and quantitative approaches were utilized in the study. The study established that peer group had both positive and negative influence on adolescent students' academic performance at the selected schools. Comparatively, the influence was found higher in government than the private owned secondary schools. It was further established that peers relationship, socialization, environment, globalization and drug use had a great influence in determining students' academic performance. Mosha agrees with the present study that peer influence has an influence on students' academic performance. However, the study did not quantitatively

relate the factors to indicate the strengths of the relationships of various aspects of peers and academic performance which is recorded in the current study. In the studies carried out by Mosha (2017), Mwinsukha (2009) and De Guzman (2007), only one tool, questionnaire and a set of respondents, teachers, were involved. In the present study, the use of interviews and focus group discussions allowed for more in-depth perspective on the issue of peer groups and academic performance.

Uzezi and Deya (2017) also carried a study to examine the relationship between peer group influence and academic achievement of secondary school chemistry students in some selected secondary schools in Jalingo metropolis of Taraba State, Nigeria. The study employed a survey- Causal-comparative research design in line with its appropriateness to the research problem. A sample of 120 students comprising of equal number of male and female students were selected randomly from three secondary schools. A 15-item questionnaire Peer Group Influence Assessment Questionnaire and Chemistry Achievement Test containing 50-items was administered to the students. The data were analyzed using means, standard deviation in answering the research questions and t-test and Pearson Product Moment Correlation were used in testing the hypotheses. The result from the study showed that; there is significant difference between students that belong to peer group and those that do not belong to peer group on the academic achievement of chemistry, there was no significant difference between the academic achievement of male and female chemistry students that were involved in peer group and there is a positive and significant relationship between peer group influence and academic achievement of students in chemistry. The study recommended that school authorities/teachers should encourage peer

group activities in schools especially in the area of group discussion. The current and previous study differ in the designs, the former employed causal-comparative design, and focused on the performance of one subject area only as opposed to the present whose focus was on the whole of academic domain.

Korir (2014) carried out a study in which he examined the impact of school environment and peer influence on the students' academic performance. The study assessed school environmental factors and peer influence in terms of the level of psychological impact they have on learners. The study was based on Albert Bandura's Social Learning Theory, which considers learning as an interaction between environment, behaviour, and one's psychological processes. The study used a correlation research design where school environment and peer influence constituted the independent variables, whereas students' academic performance was the dependent variable. Twenty-one public secondary schools in Sabatia District of Vihiga County were used in the study. The respondents were selected using simple random sampling technique. Questionnaires were used to collect data on the school environment and the peer influence and school records were used to obtain students' academic performance. Data was analyzed using multiple regressions. The study established that school environment and peer influence made significant contribution to the students' academic performance.

2.5 Influence of Parental factors on students' academic performance

There is need to review literature on parental factors despite the fact that parents will not be the respondents in this study. Parental factors are part and parcel of students life while in

school as much as when they are at home. This is because all the basic needs of students are provided by parents on a day to day basis. That is, whereas the parents are not physically in school always, their influence is continuously felt in schools.

Among parental factors thought to influence students' academic performance are; parental involvement, level of parental education, and communication with the child's school and parental socio-economic status (SES) among others (Hill & Tyson, 2009; Ralph, 2014). According to (Raychauduri et al., 2010) socio economic factors which affected academic performance of students in school included; family income, distance from school, attendance in class, existence of trained teacher in school, sex of student, teacher-student ratio and mother's and father's level of education.

2.5.1 Parental educational level on students' academic performance

The study conducted by Mushtaq and Khan (2012) indicated that the performance of students in intermediate examination is related to students' outline which comprised of their attitude towards learning facilities, communication, family stress and proper guidance. The data for the study was grounded on student profile established on the basis of information and data composed through valuation from students of a collection of private colleges in Pakistan. While the present study also focused on influence of aspects of family, it was not touching on the Socio-economic background of the students. Further, it relied on secondary data from students' profile, unlike the present study that relied on primary data.

Farooq, Chaudhry, Shafiq and Berhanu (2011) did a study on factors influencing students' quality of academic performance among the students: A case study of secondary school students. The study found that socio-economic status (SES) and parents' educational level form a significant influence on students' general academic achievement and success in the subjects of English and Mathematics. The current study based its argument on the KCSE overall mean performance as opposed to the previous study.

Further to that Shoukat, Ilyas, Azam, and Hussain, (2012), conducted a study to discover the effects of parents' education on academic performance of children in public university in Pakistan. Cluster random sampling was done to get data from the respondents by use of a self-administered questionnaire. The analysis was done by the amalgamation of inferential statistics of descriptive, whereby Kruskal-Wallis H-test and Kendall's tau C tests were done for testing several hypotheses. The results showed that there was a greater association between parents' education and their children's academic performance. It also indicated that mothers' qualification level and fathers' qualification level have diverse opinions about the resources provided in reference to their education. Therefore, it can be concluded that parent's education is influential on children's educational performance globally. Like in the present study, self-administered questionnaires were used to collect data; however the study population and inferential analysis used were varied.

Khan and Tasneem (2015) conducted a study on the effects of educational level of parents on students' academic success at secondary level of education. The study employs the students' grades of the 9^{th} class in secondary school certificate examination availed by the Board of

intermediate and Secondary Education Dera Ghazi Khan. Observation, oral interview and questionnaire were used for this study. The study population was made up of students from private and public high schools of District Rajanpur, South Punjab. Testing of the null hypothesis was done using independent Z-test analysis. The findings revealed a significant positive connection between academic achievements of students and parents' education level. The previous study was conducted in South Punjab in India; while the present study was done in Migori County in Kenya thus the knowledge gap that the present study filled.

Similarly, Caño, Cape, Cardosa, Miot, Pitogo, Quinio, and Merin, (2016) studied the influence of parent-supported using Epstein's outline on the different methods of parenting and on its influence on linking the gap between pupils, parents and school routine. It also focused on socioeconomic status of parents and educational achievement to authenticate if these could influence the parental involvement. The study applied the naturalistic paradigm along with diverse instruments which instituted the qualitative-explanatory style to counter check the data gathered. The results revealed that parenting type has a moderately substantial relationship with higher academic performance. These pointed out to the conclusion that parental involvement has a positive effect on academic performance of pupils in offering successful pupils. The present study was intended to confirm or disapprove the findings of these earlier researches.

2.5.2 Parental involvement/follow up on students' academic performance

Parents take their children to school and are partially responsible for their necessities and they also formulate parents-teachers association which is a segment of school administration.

Parental regular follow up and personal guidance to ensure that their sons and daughters in schools excel academically, is an imperative ingredient to their educational endeavors.

Ralph (2014) conducted a research on the role of student attitudes and behaviours, parental participation academic achievement as mediators in Connecticut in the United States (US) and proved that parent-child and parent-school participation practices differentially impact student attitudes and behaviours, thereby indirectly affecting student achievement to wavering degrees. This study was done in the US, whereas the present study was done in Kenya, which has a different teaching and learning background.

Hill and Tyson (2009) conducted a research on parental involvement in intermediate school: a meta-analytic valuation of the approaches which promote attainment in Duke University, USA, and found out that parental involvement was positively allied to achievement, with the exception of parental help with assignment. The results further showed that participation that echoed academic socialization had the toughest positive association with success. This study was done in developed countries whereas the current study was done in developing countries.

Matthew and Shaun (2012) conducted a study on the influence of teacher-family communication on student commitment. Indication from a randomized field experiment which found that regular teacher-family communication instantly improved student engagement as checked on by on-task behavior, homework completion rates and class participation. Gina, Rainier and Jenna (2013) in a related study noted that parental participation is a bi-dimensional paradigm which comprises of school involvement and home. According to the study youth academic performance seems to be a role of the type of

involvement. That home-based parental participation is associated positively with educational performance, while school-based parental participation has a negative connotation. This study however was a quantitative study done in Ghana while the current study used both quantitative and qualitative methods of data collection in Migori County.

A study on a review of the link between students' academic performance and parental involvement by Kumar, Choudhury (2017) indicates that authoritative parenting approach is positively related to academic performance across all school level; although this finding is not regular across culture, ethnicity and socioeconomic status. The study further notes that parental home based and school based involvements have also been positively related to academic performance with some inconsistency. On the other hand, parental expectations for their child educational attainment have the strongest impact on academic performance compared to other types of parental involvement constructs such as participation in school events, parent-child communication, and help in homework. There is inconsistency according to this study and that is what the researcher sought to find out.

Mutodi and Ngirande (2014) conducted a study on the impact of parental involvement on student performance: A case study of a South African secondary schools found out that all the parents who responded are highly involved with their children's education. He further indicated that they have high expectations towards their children's education and performance. This study was generalized using Mathematics, whereas the present research used mean of KCSE which includes a number of subjects in the findings.

Fajoju, Oyaziwo and Ojugo (2015) conducted a study on parental involvement as a correlate of academic achievement of primary school pupils in Edo State, Nigeria and indicated that parental involvement significantly influenced pupils' academic achievements in three core subjects; English Language, Mathematics and Integrated Science, in primary school; and found out that the higher the parental involvement, the higher the achievement of pupils in the three core subjects. This study was done in primary schools, whereas the present study was done in secondary schools.

Chowa, Masa and Tucker (2013) conducted a study on involvement of parents' effects on academic performance: Indication from the Youth Save Ghana Experiment and suggested that parental participation as a dimensional construct comprises of home and school involvement. The study demonstrates that the influence of parental involvement on youth academic performance looks to be a purpose of the type of involvement. It further shows that Home-based parental participation is related positively to academic performance, while school-based parental participation has a negative connotation. This is a study in developed countries and the current study sought to know the results in developing countries.

A study on relationship between parental involvement and academic performance of senior high school students: The Case of Ashanti Mampong Municipality of Ghana by Owusu, Milledzi, Ampofo and Gyambrah (2018), shows that there is substantial positive link between students' academic performance and parental participation in education. This study was done on Mathematics and English language, whereas the present study was done based on mean of KCSE performance.

In line with Achieng, Simiyu and, Nyaga (2014) on the influence of give-and-take interactions in the family on academic performance among secondary school students in Kenya, the results revealed significant relationship between reciprocal interactions in the family and academic performance of students. There was positive correlation between parental expectation, autonomy granting, cross-sex behavior and students' academic performance. The reviewed literature involved teachers' parse, though teachers alone cannot be used for generalization of findings on the academic performance.

2.5.3 Parental socio-economic status

Page (2008) notes that, in the United States and Britain, the socio-economic background of a student is more important in explaining his or her academic performance than school characteristics and experiences. The impact of write in full first Social Economic Status (SES) SES on students' academic outcome has been well documented and the mechanisms' underlying this relationship remains poorly understood (Guo, Lv, Zhou, Liu, Liu, Jiang, & Luo, 2018).

According to Chen, Harmon, O'Sullivan and Walker (2013) who investigated the relationship between early school-leaving and parental education and paternal income modest effects of income, stronger effects of maternal education relative to paternal, and strong effects. However, this was observed more on sons than daughters. By further interrogation of data from UK Labour Force Survey (OLS) data, they also noted that over time, the maternal education effect disappears, while paternal education remains significant but only

for daughters. Thus policies alleviating income constraints to alter schooling decisions may not be as effective as policies which increase permanent income.

According to Ali, Haider, Munir, and Ahmed (2013) in their study on father/guardian social economic status on academic performance of graduate students, noted that, parental economic status significantly contributes to the academic performance of graduate students. The purpose of their study was to investigate the factors affecting academic performance of graduate students of Islamia University of Bahawalpur Rahim Yar Khan Campus. The variables under consideration were the academic performance (students' grades/marks) as a dependent variable and father/guardian social economic status among other independent variables. The data were collected from 100 students through separate structured questionnaire from different departments of Islamia University of Bahawalpur, Rahim Yar Khan Campus, using the simple random sampling technique. For analysis, linear regression model, correlation analysis, and descriptive analysis were used. A linear model was also proposed that will be helpful to improve the academic performance of graduate students at University level. Methods of the present study such as linear and multiple regressions are employed to show the actual contributions of parental socio-economic factors on the public secondary students as opposed to the previous study which gives a perception of the contribution of parental socio economic status on university students.

Obidile, Amobi, Uzoekwe and Akuezilo (2017) also found that institutional and socio-economic factors affect students' academic performance. A study on parental involvement and the academic achievement of Mexican American Youths by Altschul (2016) indicated

that the experience of positive effects of parental involvement among Mexican American parents occur through their home involvement, whereas parental involvement in school organizations is not associated with youths' achievement. He further noted that parents' investment of financial resources in their children's education was found to have a somewhat higher impact on achievement than forms of involvement that require parents' investment of time. The present study was done in Kenya to show the actual contribution, whereas the previous study was based on perception.

Guo, et al. (2018) carried out a study to establish the mediating role of parental expectation and parental involvement on Gender differences to show how family income and parental education relate to reading achievement in China. The study examined the process of how family SES especially family income and parental education relate to children's reading achievement along gender based data. Results showed that parental expectation and specific involvement behaviors played a critical role in this. The study participants included 624 grade 4-6 pupils and the parents in Liaocheng in China. They used bivariate correlation. They concluded that parental education and SES has a direct relationship, and positively predicted achievement, and even by gender group. The previous study was done in China while present research was based in Kenya to bridge that knowledge gap.

Ghysens (2009) conducted a study on parents,' teachers' and children's perception of parental involvement in relation to pupils' learning achievement and wellbeing in Ghent University, Belgium and indicated that there is congruence between parent and child perceptions, but parent and teacher ratings tend to diverge. The study further noted that this is

especially true for dimensions concerning home involvement and estimations for lower SES parents. He further indicated that for pupil achievement as well as wellbeing, parental involvement seemed to be an influencing factor, however exerting only a little to moderate effect. This study did not involve students, while the present study involved the students before generalization of findings in this study.

Anthonia (2015) conducted a study on home environmental factors affecting students' academic performance in Abia State, Nigeria and revealed among others that non provision of adequate educational material by parents and negative attitudes of some parents towards the education of their children, as well as the socio -economic status of the student's family, all affect the students' academic performance. The study further revealed that there are possible ways of improvements which, among others, include giving proper orientation to the parents on the implication and consequences of the type of family they may decide to adopt on the child's overall being, especially the child's academic performance. The target population of this study comprised of parents and students only whereas in the present study targeted principals and students.

Ifenyinwa (2017*)* equally carried out a study on the effect of socio-economic status of parents on the academic performance of students in Technical Colleges in Delta State in Nigeria. From the findings of the study, it was concluded that there is no significant difference between academic performances of students from poor background compared to those from wealthy homes. The results further indicated that there is no significant correlation between students from intact homes and those of broken homes. Whereas the previous study was done

in a Technical College of Delta in Nigeria, the present study was done among the public secondary schools in Migori County in Kenya.

A study on influence of home environment on academic performance of students in public secondary schools in Kitui West Sub County, Kenya by Jerome (2015) found that the parent's economic status influences students' academic performance (r =0.8); parent or family involvement influence students' academic performance in public secondary schools (r =0.45) and the parenting styles affects students' academic performance in public secondary schools (r =0.049) to a great extent. Thus, the study concluded that authoritative parenting was positively associated with academic performance and authoritarian and permissive parenting was negatively associated with good performance. This study was done at a sub-county level while the current study covered a whole county which was appropriate for the information sought.

A study on relationship between family background and academic performance of secondary schools students: a case of Siakago Division, Mbeere North District, Kenya by Kamau (2013), showed that parental marital status, family size, parents' education level and family financial status had a positive relationship with academic performance of students. The findings indicated further that while the marital status of the parents was not significant in explaining the academic performance of students, the type of family, either cohesive or conflictive had an effect on academic performance depending on the way they show commitments towards their children's education. The study observed that only 7% of students' academic performance would be explained by the parents' education. This study

was done in mixed day secondary schools and the current study was carried out in public secondary schools in Migori County.

Angel and Keith (2016) conducted a study on a new framework for understanding parental involvement: setting the stage for academic success in Duke University, USA and found that parental involvement does not operate through the typical channels posited by researchers, educators and policymakers and that traditional measures of parental involvement fail to capture the fundamental ways in which parents help their children academically. The previous study was done in Duke University in USA which is a developed country while the present study was carried out in public secondary schools in Kenya which is a developing country.

Peter (2016) conducted a study on analysis of family structure influence on academic performance among secondary school students in Bungoma East sub-county, Kenya. The study noted that nuclear family's economic background positively influenced academic performance of students and significantly accounted for 16.7% variance in student performance. The previous study concentrated in Bungoma East Sub-County, while the present study involved the entire County of Migori.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes research methodology that was used in this study. It consists of research design, the study area, the population of the study, sample and sampling techniques, research instruments, pilot study, reliability and validity of the research instruments, data collection procedure and methods of data analysis.

3.2 Research Design

The descriptive survey and correlation research designs were appropriate as they assisted the researcher to get data on school based factors that have influence on students' academic performance by asking individual principals and students their opinion on the school based factors that influence students' academic performance, and relate them to the dependent variable. Descriptive survey is often used to describe and explore human behavior without manipulation. Therefore, descriptive survey is commonly used to study phenomena in social and psychological research which was relevant to this study (Fraenkel & Wallen, 2009). It also allows for use of mixed method where quantitative and qualitative data is involved.

Correlation research design was used in this study to establish the relationship between the two variables (Creswell, 2013). In this study, it was based on the relationship between school based factors and students' academic performance.

3.3 Study Area

This is a county in the former Nyanza Province of South Western part of Kenya now with eight sub-counties in terms of educational administration. The headquarter of the county is Migori town. According to the population census of 2009, the entire Migori County had a population of 917,170 comprising of 444,357 males (48.6%) and 472,814 females (51.4%). The figures are according to Kenya National Bureau of Statistics (2010). This leads to high student population ratio because of high birth rate. The expected population growth of Migori County is 3.8% per annum resulting to 1,028,028 persons in the year 2012, 1,152,165 persons in 2015 and 1,243,272 persons in the year 2017 as per the Kenya National Bureau of Statistics (2010) which leads to understaffing due to high enrolment of students as a result of high birth rate. This means that the students' enrolment will increase exponentially, hence the need to pay more attention to factors that influence students' academic performance of schools in Migori County.

Migori County is the second most multi-ethnic county in the former Nyanza province after Kisumu. It is composed of ethnic groups like: Abagusii, Kuria, Somalis, Luhya, Suba-Luos and a small number of Indians, Arabs, and Nubians. This makes it to be in a better position for this study as it has almost all ethnic groups with their students in different schools within Migori County leading to sharing of ideas from various places. Migori town has a strategic geographical area since it acts as the link between Kenya and Tanzania. Besides, Migori town is the second most economically vibrant center in Luo-Nyanza region which enable most parents to be economically stable in terms of fee payment. Kisumu holds the first position in terms of population in the former Nyanza province. Within Migori County, there

are other major towns such as Isebania and Kehancha in Kuria District which accommodate some students from Tanzania. The population density is 353 persons/km^2. An estimated 85 percent of the entire land area in the region is arable and can be classified as high potential but the poverty level in the location stands at 43% as per the Kenya Housing and Population Survey (2017).

The county consists of 8 sub-counties, 23 divisions, 88 locations and 202 sub- locations (County Director Education Office, Migori 2013). The Sub-county with the highest number of administrative units and schools is Nyatike whereas Uriri Sub-county has the smallest number of administrative units due to its geographical size. Migori County has 40 wards with different population sizes ranging between 9,775 and 36,200 in Kaler and South Sakwa respectively as per Kenya National Bureau of Statistics (2013) which helps students with bursary to join different schools. The high population in South Sakwa is as a result of its good agricultural land and the presence of Sony Sugar factory that draws people from other region for employment opportunities. Harsh climatic conditions are experienced in Kaler which is not suitable for agricultural production thus the sparse population distribution. The ward with the smallest land is Isebania which has a land size of 5.30 Sq. Kms with the highest population density of 4,981 persons per square kilometre as per Kenya National Bureau of Statistics (2012). The high population density of Isebania is as a result of its geographical closeness to the Kenya Tanzania border where commercial activities take place which helps parents in paying fees for their children in schools.

3.4 Study Population

A population in research refers to a group of items in which a researcher has an interest (Kasomo, 2006; Orodho, 2003). In this study, population consisted of 245 principals of public secondary schools within Migori County and 14300 form four candidates in Migori County who participated as revealed in Table 3.1.

Table 3.1

Target Population

Categories of Respondents	Target Population
Principals	245
Form IV students of 2018	14300

Source: TSC Migori County Education Office, 2018

Table 3.1 shows the total number of principals in Migori County and form four candidates in the year 2018 as per the records of Migori County Director of Education Office, 2018. Principals were considered important respondents in this study because they are conversant with the factors that influence students' academic performance. They are also the secretary of Parents' Association (PA) in schools, secretary of Board of Management (BOM) in schools and also are familiar with the role parents play in enhancing students' academic performance on day to day basis. Above all, they are experienced teachers in charge of secondary schools as per Teachers' Service Commission regulations. Form four students were also used as respondents because they had the best experience for almost four years as compared to other students. They are also considered as a senior class and mature enough to understand the school learning environment. This qualification was deemed sufficient enough to allow them

give information about school based factors influencing KCSE performance in public secondary schools.

3.5 Sample and Sampling Techniques

This section describes sample and sampling techniques that were used in conducting the study. Subjecting the entire population of interest to investigations can be costly in terms of financial resources and time; hence, a sample refers to population sub-set that can be studied at reasonable cost and used to predict population parameters (Mugenda & Mugenda, 2003). A sample is used in a study when the researcher is not able to cover the entire population due to cost or time therefore; researchers collect information from a sample in such a manner that the knowledge gained represents the views of the whole population (Bryman, 2012; Fraenkel & Wallen, 2009). Samples should be representative of the population as much as possible, because a small sample is likely to under-estimate population attributes, particularly due to the effect of sampling error as indicated by Creswell. The study adopted stratified random sampling, simple random sampling and proportionate sampling techniques due to the nature of the target population. In order to obtain the sample size, various sampling procedures were used as explained below.

3.5.1 Sampling Procedure for Principals Questionnaire

Schools were organized according to sub-counties following the records gotten from the Teachers Service Commission and Migori County Director's Office, 2018. A table designed by Krejcie and Morgan (1970) guided the researcher to get a sample size of the population as shown in (Appendix G). A sample of 152 principals was considered adequate to give appropriate results for a population of 245 principals according to the table. This was 62

percent of the whole population for the eight sub-counties which is also accepted by Mugenda and Mugenda (2009). Out of a sample size of 152, a proportionate allocation was done using the county population against the sub-county population to get sample size per sub-county as indicated in Table 3.2. After proportionate allocation which was taken to be a sample size per sub-county, a simple random sampling was then used to get principals for the study out of the total population per sub-county as this gave principals equal chances of being selected. To obtain 152 principals using simple random sampling, students were used as symbols to represent principals of different schools for the identification of schools for the study per sub- county by marking 'Yes' (for sampled schools) and 'No' (for schools not sampled) cards for each student (principal). Each student (principal) was given a name of a school and a card marked 'Yes' or 'No'. This was done using each sub-county's sample size and population. This gave equal chances of all principals in the county to be selected for the study. There were 8 sub-counties which was totalling to 152 principals (schools) and 245 schools (principals). Out of 245 principals 25 (10%) principals were used in piloting. The sample size used in piloting represented 10 percent of the total population of the study as recommended by Mugenda and Mugenda (2003). Participants involved in pre-testing were excluded from the data collection in the main study. Table 3.2 indicates principals' population and sample size.

Table 3.2

Principals' Population and Sample by Sub-county

Sub-counties	Principals' Population	Sample size per Sub County
Uriri	31	19
Awendo	25	16
Suna East	22	14
Suna West	29	18
Rongo	28	17
Kuria West	38	24
Kuria East	24	15
Nyatike	48	29
TOTAL	245	152

Source: Migori County Education Office, 2018.

3.5.2 Sampling Procedure for Principals' interview schedule

Out of 152 principals used for questionnaire, twenty (20) of them were randomly sampled for interview. This was in line with Mason (2010) who outlined that a sample of 20 or so is appropriate for qualitative interviews. Using this authority, 20 principals were therefore, sampled for the study. To obtain 20 principals out of 152 using simple random sampling, students were used as symbols of principals (schools) for various schools by marking 'Yes' (for sampled principals) and 'No' (for principals (schools) not sampled) cards to help in the identification of various schools. This gave equal chances of principals in the eight sub-counties being selected. There were 20 'Yes' cards and 132 'No' cards. The interviews for the selected principals as respondents were carried out in the principals' offices where least

distraction was expected. Prior arrangements had been made with the principals to use time that was conducive to both the functions of the schools and data collection for the researcher. Maximum time taken was thirty minutes and the responses were recorded on mobile phones. The recorded data was downloaded after the completion of each interview. The findings from the interviews were used to supplement the information that supports the quantitative findings obtained through the questionnaires.

3.5.3 Sampling Procedure for Students' Focus Group Discussion

Out of 14300 students, 120 students were selected to participate in a focus group for this study. This is according to Mason (2010) who outlined that 15 and above groups (schools) are adequate for focus group discussion in education. 6 to 10 members per group are also recommended as proposed by Casey and Krueger (2000). This allowed the researcher to select 15 groups of 8 students each. This gave a total of 120 students. This meant that each school sampled was represented by eight students. To obtain 15 schools out of 152 schools using simple random sampling, students were used as symbols for various schools by marking 'Yes' (for 15 sampled schools) and 'No' (for 137 schools not sampled) cards to identify schools for the focus group discussion. After the identification of the schools, 8 form four students from each of the selected schools were picked at random for the FGD. This was done by the use of 'YES' and 'NO' cards. The researcher was guided by the class teacher after getting consent from the principals on this. The focus group discussions for the selected schools were carried out in the playground where least distraction was expected. Prior arrangements had been made with the school management to use time that was conducive to both the functions of the schools and data collection for the researcher. Maximum time taken

was one hour and the responses were recorded on mobile phones. The recorded data was downloaded after each focus group discussion was completed.

3.6 Research Instruments

Data for the study was collected by the use of three different tools. They included: a questionnaire, an interview schedule and focus group discussion guide to capture the study objectives which were taken to be essential in answering the pertinent questions raised in this study.

Fraenkel and Wallen (2009) observe that survey research has basic ways of collecting data in a study, namely; sending of questionnaires by mail, interviews by telephone, and administering the instruments 'live' to a group. Kothari (2004) further notes that a questionnaire is an ideal instrument to gather descriptive information from a large sample in a fairly short period. It can also be answered at the convenience of the respondent and even picked at a future time. Consequently, questionnaires were ideal in this study because it facilitated large coverage and collection of data in a fairly shorter time. In this study one questionnaire was used for principals. To facilitate collection of in-depth data, interview schedule was also used for interviewing the same principals at different intervals and focus group discussion for students.

3.6.1 Principal's Questionnaire (Appendix A)

This tool was divided into six sections A, B, C, D, E and F. Section A collected data on location of schools and the nature of schools. Section B addressed information on influence of principals' leadership skills on students' academic performance which included: Students

and teachers monitoring; execution of students' assessment; delegation of duties and responsibilities; incorporating guidance and counseling programs in schools; uniting teaching and non-teaching staff; initiating teamwork among the teaching staff; monitoring students' discipline; quality improvement measures; communication and listening skills; mobilizing of adequate staffing; Coordination and supervisory and training on managerial skills. Section C collected data on influence of student factors on their academic performance which the indicators were: students' ambition; learners' individual efforts; learners' attitude on subjects; learners' competitive spirit; learners own set targets; students' unrest and absenteeism from school; Students' discipline in schools and Participation in co-curricular activities. Section D gathered information on influence of school environmental factors on students' academic performance which included: Peer influence; School security; Presence of internets and other electronics; trained and experienced teachers; teachers' financial motivation; library; laboratory and instructional materials. Section E gathered information on parental factors on students' academic performance which also include: Education level of parents; communication between parents and teachers; regular checks by parents on academic performance; attitude of parents towards their children; parental homework support; parental investment of financial resources in their children's education and parental academic socialization. Principals provided this information using relevant documents such as: Visitors book, admission register, progress records signed by parents and financial records. Section F also gathered information about school mean performance. Principals used printout national examination results to give information on school overall mean performance for eight years. Section F was used to get mean of means per school then mean of means for all sampled schools for correlation (see Table 4.2 and 4.3).

The items in the questionnaire comprised of both open and close ended questions. The closed items were presented in the form of a Likert scale where respondents selected their responses. The response range was between 1 and 5 where; 1=very low influence = 2=Low influence, 3 = Moderate influence, 4 = High influence, 5 = Very high influence. Likert scale was used because it is easier to analyze and quantify views and opinions of individuals about a given construct for ease of tabulation and analysis, Joppe (2000).

3.6.2 Principal's Interview Schedule

The researcher designed an interview schedule for 20 secondary school principals to gather qualitative information on principals' leadership skills, student factors, school environmental factors and parental factors on students' academic performance as indicated in 3.6.1 in Public Secondary Schools in Migori County. Interview schedule was used to give more details on school based factors influencing students' academic performance since there was no room for explanation in the questionnaire. A semi-structured interview involved probing more deeply with open-form questions to attain more data (Gall, Gall & Borg, 2007). The semi-structured design was chosen to allow room for respondents to expound on their responses and for the researcher to probe these responses while limiting the interview to the pertinent issues for which information was sought for the study.

3.6.3 Students' Focus Group Discussions Guide (Appendix D)

Focus group discussion is a loosely constructed discussion with a group of persons brought together for the purpose of a study (Sarandakos, 2005). Focus group discussions guide was used in the collection of qualitative data from 275 students sampled. 120 students were used as recommended by Mason (2010), instead of 275. Fifteen schools of 8 students each were

sampled as the key informants in the study. The respondents were selected at random to give a picture of the whole school. They were all form four candidates because of their experience in the school for four years.

The questions were to give more information on student factors that influence their academic performance. This tool was to give more details on: Students' ambition; learners' individual efforts; learners' attitude on subjects; learners' competitive spirit; learners own set targets; students' unrest and absenteeism from school; Students' discipline in schools and Participation in co-curricular activities. This study therefore, used focus group discussion to gather more information related to the second objective on student factors. Focus group discussions were also used to provide more polished data by creating a forum for respondents to criticize each other's views.

3.7 Pilot Study

For the study to ensure effectiveness of the research instruments used, a pre-test was carried out (Kothari, 2004). The pilot study for questionnaires was conducted in 25 secondary schools where 25 principals were involved. This was 10 percent of the population. Focus group discussion guide was piloted in 2 schools, where each group per school consisted of 8 form four students. Further, piloting of Interview schedule for principals was done in 2 schools.The respondents involved in pre-testing were excluded from the data collection in the main study. The researcher used simple random sampling technique to select twenty five (25) principals from public secondary schools. Two schools were selected for students' focus group discussions and two (2) for interview schedule. Through the pre-test, ambiguities in questions were addressed before the actual study. The researcher used experts' knowledge to improve on the instruments before administering the instrument for the second time.

Irrelevant items identified in the questions during piloting were discarded or reworded to elicit the relevant responses. Based on the outcome, the instruments were revised in readiness for data collection.

3.8 Validity and Reliability of Research Instruments

The core concern of validity and reliability of data collection instruments is to improve data quality. They are tests of measurement that are employed to evaluate the effectiveness of a measurement instrument (Kothari, 2004).

3.8.1 Validity of Research instruments

According to Amin (2004), content validity is defined as the extent to which the test items really measure or are specifically related to the traits for which the test was designed and is to be used. Face and content validity is also defined as the subjective agreement amongst professionals that a scale logically seems to reflect accurately what it purports to measure (Bryman, 2012). In this case face and content validity were determined by presenting the instruments to the supervisors and three experts in the Educational Administration department in Rongo University for scrutiny and advice. They were required to evaluate the relevance of the content in the research tools to the central research questions and give proposals on how the researcher would improve on the validity of the instruments. Their recommendations were factored in the final documents. In qualitative data validity was achieved by arranging the items in the interview schedule and focus group discussion from simple to complex. The language used was also completely clearer and simpler and searching for more details (Creswell, 2014). This was through expert knowledge.

3.8.2 Reliability of the Research Instruments

Reliability refers to the measure of degree to which a research instrument yields consistent outcomes after repeated trials. Stability of the scores depends on the achievement of same or similar scores over repeated trials. There are a number of methods used to assess reliability of the instrument. In the current study, the instrument's internal consistency reliability coefficient was attained by computing Cronbach's alpha using Statistical Package for Social Sciences (SPSS). According to Mugenda and Mugenda (2003) who noted that a reliability coefficient of above 70 is acceptable as appropriate. The study assessed the sub-scale's internal consistency. The four sub-scales were: principals' leadership skills, student factors, school environmental factors and parental factors. The assessment was done using Cronbach's alpha, which enabled the researcher to examine the measurement scales' properties and the items that compose the scales. It calculates a number of frequently used measures of scale reliability and additionally provides information about the relationships between individual items in the scale. According to Oso and Onen, (2014), a questionnaire has good internal consistency if the Cronbach's alpha coefficient of a scale is above 0.70. In the principals' questionnaire, the researcher computed the reliability for multi-item opinion items independently for all the four subscales. Table 3.3 which indicates the Cronbach's Alpha for questionnaires established that the instruments for this had adequate reliability.

Table 3.3

Internal Consistence: Cronbach's Alpha Results for the Questionnaire

Scale	No. Items	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items
Principal's Leadership Skills	12	.858	.859
Student based factors	10	.676	.710
School Environmental factors	10	.756	.753
Parental factors	7	.852	.845

Source: Author (2018)

Given that the lowest acceptable value for Cronbach's alpha is .70 and a maximum expected value should be .90, all the subscales reached a threshold and were within this range. For example, the subscale of principal's leadership skills scale questionnaire composed of 12 items had internal consistency of $\alpha = .859$; subscale's items here were all worthy of retaining. It was also observed that all items were correlated with the total scale to a good degree as indicated in the SPSS output as shown in Appendix C. A correlation with the aggregate scale of above .90 would have meant that there is redundancy and repetition of items. However, in the sub-scale of student factors, the tenth item had to be deleted during the inferential analysis because it didn't tally well with the other nine items in the sub-scales. On the same note, Table 3.3 shows that the internal consistency for the other subscales in the questionnaire were adequate enough for the study. Questionnaires were generally indicated to be suitable for data collection by the findings, because they adequately measured the constructs for which they were intended to measure. The results of the SPSS outputs are as shown in Appendix B.

3.9 Data Collection Procedures

After clearance from Department of Educational Management and Foundations, and School of Education, a letter of introduction for permit request was sought for and received from School of Post Graduate Board, Rongo University (Appendix H). Later, authority and permission for the conduction of the study was granted by National Commission for Science, Technology and Innovation (NACOSTI) as shown in Appendices K and L. A replica of the permit granted by NACOSTI was presented to County Director of Education, Migori County and to the Sub County Education Officers. This letter was used to facilitate data collection from the respondents. Appointments were made with the arrangement of respondents three weeks before the start of data collection. Appointments were confirmed by telephone earlier to the administration of the questionnaires in respective schools. The researcher visited the schools on the agreed dates, and delivered coded self-administered questionnaires to the principals. Afterward, the researcher booked appointments with the students for Focus Group Discussions, and selected principals for interviews on the planned dates within the data collection time.

All Twenty Principals' interview sessions were carried out in the principals' office where least distraction was expected. Prior arrangements had been made with the principals to use time that was conducive to both the functions of the school and data collection for the researcher. Interview sessions lasted between thirty and thirty-five minutes and the responses were recorded using mobile phone, and downloaded after each interview was completed.

Students' FGDs were carried out in the respective school playgrounds where least distraction was expected. 120 students as indicated in FGD sampling procedure participated. Prior

arrangements had been made with the school management to use time that was conducive to both the functions of the school and data collection for the researcher. The FGD session lasted for an average time of one hour, and the responses were recorded using mobile phones. The recorded data was downloaded after each FGD session was completed. Data collection took two months.

3.10 Methods of Data Analysis

After the reception of completed serialized questionnaires, the data was scrutinized and coded. Data was analyzed both qualitatively and quantitatively.

3.10.1 Quantitative Data Analysis

The analysis of quantitative data was done using both descriptive and inferential statistics. The views of the participants were explained using descriptive statistics on each sub-scale, whereas making inferences and drawing conclusions was done with the help of inferential statistics.

In order to determine the school based factors that have influence on students' academic performance, 5-point rating scale was used. Data was collected in form of; very low, low, moderate, high and very high whereby: 1=very low influence = 2=Low influence, 3 = Moderate influence, 4 = High influence, 5 = Very high influence. All the participants' scores on a given aspect were totaled to give the aggregate score for each item. The mean rating was calculated by dividing aggregate score for each item by number of respondents per item. The mean ratings were then interpreted in agreement with Cheruiyot and Simatwa (2016) classification, using intervals as follows:

1.00-1.44 = very low

1.45 – 2.44 = low

2.45 – 3.44 = moderate

3.45 – 4.44 = high

4.45 – 5.00 = very high

Statistical tests, Linear regression was used to measure or ascertain how much independent variables influence dependent variable, ANOVA was used to show whether the independent variable was a significant predictor to the dependent variable and Multiple regression analysis was used to assess the actual influence of the independent variables on dependent variable and generate regression equations for prediction.

All tests of significance were computed at $\alpha = 0.05$. The Statistical Package for Social Sciences (SPSS) version 20.0 was used to analyze the quantitative data.

Table 3.4, shows a summary of statistical techniques used for analysis per objective.

Table 3.4

Quantitative Data Analysis Matrix

Null Hypothesis	Independent Variable	Dependent Variable	Methods Of Analysis
Principals' Leadership Skills have no significant influence on Students' Academic Performance	Leadership Skills	Students' Academic Performance	Percentages, means, standard deviation, Regression Analysis, Multiple Regression Analysis, Analysis of Variance (ANOVA).
Students' Factors have no significant influence on their Academic Performance	Students' Factors	Students' Academic Performance	Percentages, means, standard deviation, Regression Analysis, Multiple Regression Analysis, Analysis of Variance (ANOVA)
School Environmental Factors have no significant influence on Students' Academic Performance	Environmental Factors	Students' Academic Performance	Percentages, means, standard deviation, Regression Analysis, Multiple Regression Analysis, Analysis of Variance (ANOVA).
Parental factors have no significant influence on Students' Academic Performance	Parental factors	Students' Academic Performance	Percentages, means, standard deviation, Regression Analysis, Multiple Regression Analysis, Analysis of Variance (ANOVA).

According to the recommendations by Orodho (2012), interpretation of correlation coefficient values were as shown in Table 3.5.

Table 3.5

Interpretation of Correlation Coefficient Values

R-value	< .30	.30 -. 49	.50-.69	.70-.89.	.90-1.00
Interpretation	Very low	Low	Moderate	High	Very high

Source: Orodho (2012)

The prior significant level (p-value) was set at .05 such that if the p-value was lower than 0.05, the null hypothesis would be rejected and conclusion reached that there is existence of significant differences. Whereas if the p-value was more than 0.05, it would be concluded that there is no existence of significant difference.

3.10.2 Diagnostic Tests

Given that the study used analysis of Variance (ANOVA), simple correlation, linear and multiple regression analysis, the assumptions and the data appropriateness for the analysis were investigated. First, just to make sure that the measurements' scales for the data were suitable for multiple regression analysis, the measurements were converted into continuous scale. The assumptions investigated include; the information's normality and Multi-Co-linearity.

i) Normality of the data

Normality testing of the data was done through the use of formal test using Kolmogorov-Smirnov and Shapiro-Wilk tests, as shown in Table 3.6

Table 3.6

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	**Df**	**Sig.**	**Statistic**	**Df**	**Sig.**
Principals' Leadership Skills	.084	116	.044	.963	116	.063*
Students' Factors	.098	116	.068*	.979	116	.070
School Environmental Factors	.119	116	.090*	.981	116	.094*
Parental Factors	.122	116	.070*	.933	116	.080*
Students' Academic Performance	.116	116	.041	.956	116	.051

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

In Table 3.6 both Kolmogorov-Smirnov (K-S) and Shapiro-Wilk test results are shown, this study used the latter to interpret the variables' normality because Shapiro-Wilk's (W) is always recommended for small and medium samples up to n ≈ 2000, as suggested by Garson (2012). W is analogous to the correlation between a given data and its corresponding normal scores, with W = 1 when their correlation is perfectly normal. This indicates that a significantly ($p<.05$) smaller W than 1 means that the normality is not met. Hence, the normality of the data is when Shapiro-Wilk (W) is significantly greater than .05. It is evident from Table 3.6 that all the variables met the normality condition ($P>.05$); statistical

significant differences were not observed in any of the variables with their corresponding normal scores.

ii) - Test of Assumptions of Multi-Co-linearity

According to Leech, Barrett and Morgan (2005) who equally assert that multi-co-linearity is unacceptably high level of inter-correlation between the independent variables in a manner that the effects of the independent variables on the dependent variable cannot be detached from each other. This equally on the same note implies that when multi-co-linearity exists between variables, relative effects of the explanatory variables are exaggerated and therefore, cannot be relied on. This study evaluated the multi-co-linearity issues among the variables by examining Tolerance and the Variance Inflation Factor (VIF) which are co-linearity diagnostic factors. Table 3.7 illustrates the SPSS results that indicate Variance Inflation Factors and tolerance.

Table 3.7

Tolerance and Variance Inflation Factor (VIF) Statistics

Model		**Co-linearity Statistics**	
		Tolerance	**VIF**
1	Principals' Leadership Skills	.837	1.195
	Students' Factors	.769	1.300
	School Environmental Factors	.709	1.410
	Parental Factors	.886	1.129

a. **Dependent Variable**: Students' Academic Performance

Tolerance has been defined as the percentage of variance in the independent variable that cannot be accounted for by the additional independent variables. Leech, Barrett and Morgan (2005) observe that a small tolerance value may indicate that the variable under consideration is almost a perfect linear combination of the independent variables which is already in the equation and that it should not be added to the regression equation. Therefore, indication of very small tolerance values implies that a variable is redundant; consequently, values that are less than .10 may qualify for further investigation. The variable's Tolerance is $1-R^2$with VIF as its reciprocal. Hence, a variable whose VIF value is greater than .10 may also require investigation. From Table 3.7 it is evident that co-linearity settings were met due to the fact that each of the variables had adequate tolerance (tolerance value > .10) in addition Variance Inflation Factor (VIF <.10); showing that multi-co-linearity assumptions which is a requirement for multiple regression analysis was not violation

3.10.3 Qualitative Data Analysis

Qualitative data were obtained from the interviews and focus group discussions. Thematic analysis was used in analyzing these data. Interviews were organized and responses recorded with similar responses forming different themes. This option helped in displaying the relationship from the independent and the dependent variables of this study. The responses were grouped into themes, analyzed and integrated in discussions together with the quantitative data (Creswell, 2014**).** This summary is indicated in Table 3.9.

Table 3.8

Summary of Themes and Excerpts

Themes	Interview excerpt	Codes
Leadership Quality Theme	• **I**nterpersonal Skills • Leadership Skills • Learners' Discipline • Healthy School Climate System • Attitude and Conduct of teachers	**LQT**
Students' factors Student-Learning Decision	• **T**eachers commitment • Rules & regulations • Healthy student-teacher relationship • Involvement in class activities(students) • Asking and answering questions • Spending extra time wisely • Absence of drug abuse	**SLD**
Work environment theme	• **W**ell-equipped Libraries &laboratories • **G**ood lighting system • Conducive learning environment • Attractive class arrangements	**WET**
Parental commitment theme	• Close collaboration with teachers • Book donation & other learning materials • Support to school projects • Investments in crucial decisions in schools.	**PCT**

Table 3.8 shows the summary of themes and excerpts from the respondents.

Key: LQT-Leadership Quality Theme
SLD-Student-Learning Decision
WET-Work Environment Theme
PCT-Parental Commitment Theme

3.11 Ethical Considerations

The researcher sought permission from NACOSTI by applying for the research permit. The researcher then sought authority from County Director of Education and County Commissioner, school authorities and the respondents before carrying out the research. The respondents' identities were kept confidential and they were assured of non-disclosure of the information given. The respondents were assured that all information provided were used purely for conducting research and not for any other purpose. Students were allowed to respond only when deemed fit and were not forced to give information. Informed consent was evidenced by the consent form as indicated in Appendix I, for principals, and authorized permission on behalf of the student by school authority for those below 18 years. The information provided was confidential and their responses valued. Anonymity was ascertained through serializing of the questionnaires. In the final report, there was no credentials of respondents by names, or citing of places that could make their credentials known. The researcher first created a conducive atmosphere for the interviewees by establishing a good rapport. The purpose and intent of the study was explained. This included information on potential benefits of the study in helping to understand school based factors that influence students' academic performance. The interviewer requested the interviewees for their consent to audio record. All the respondents gave consent for the interview to be recorded as the dialogue progressed while the interviewer tried to ask one question at a time. The purpose of recording was to ensure that the original view was captured as accurately as possible.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents findings and interpretation of this study in line with the research methodology. The sections and subsections present information gathered according to themes. The presentation of the research findings were according to the study objectives which were to: determine influence of principals' leadership skills on students' academic performance, establish influence of student factors on students' academic performance, determine influence of school environmental factors on students' academic performance, assess the influence of parental factors on students' academic performance in Public Secondary Schools in Migori County.

Quantitative data was analyzed using both descriptive and inferential statistics. Descriptive statistics was used to describe views of the respondents on each sub-scale, whereas inferences and drawing of conclusions were made by the help of inferential statistics. Statistical tests and multiple regression analysis were additionally employed for the investigation of relationship that exists between the variables.

The use of multiple regressions was for the determination of a linear model, investigation on how well the group of independent variables could determine the level of educational performance of students in public secondary schools, investigation of relative contribution of specific variables and in addition to this, found out how much unique variance in the dependent variable that is explained by each of the independent variables. All tests of

significance were computed at $\alpha = 0.05$. SPSS version 20.0 was employed in the data analysis for quantitative data. This chapter also presents qualitative results and discussions of the data collected from in-depth interviews with public secondary school principals. For the qualitative data, a thematic analysis approach was employed.

4.2 Questionnaire Return Rate and Demographic Information

4.2.1 Questionnaire Return Rate

In Table 4.1, the summation of the rate of return for questionnaires indicated from the participants reveals the adequacy of the questionnaires for the present study.

Table 4.1

Questionnaire Return Rate

Respondents	**Questionnaire administered**	**Questionnaires returned**	**Return rate (%)**
Principals	152	116	76.3
Total	**152**	**116**	**76.3**

Source: Survey data (2018)

The study targeted a total of 152 respondents. These respondents provided information on this study through questionnaires. Out of this number, a total of 116 of the principals returned their questionnaires, translating to an overall response rate of 76.3, with the response rate above 76%. This response rate was sufficient, representative and in line with Mugenda and Mugenda (2009) that specifies that response rate of 50% is satisfactory, 60% is good and a response rate of 70% and over is excellent for analysis and reporting on a survey study. Relying on this ground, it is evident that the rate of response (76.3%) for the present study is

excellent. This high rate of feedback was due to personal administration of the instruments by the researcher to the respondents who were pre-notified of the intent of the study. It was also due to extra efforts that were made in form of visits to the participants to fill-in and return the questionnaires. The investigator made follow up calls to ensure that there was clarification of questions and prompting the participants for their cooperation in filling the questionnaires.

4.2.2 Demographic Data

The study sought to investigate the participants' demographic characteristics. Consideration of this data was necessary to allow the researcher to determine whether the target population was reflected in the sample of this study for making conclusion with the outcome from the study. Demographic data examined in this current study include: nature of schools (public secondary schools) and location of the schools (sub-counties) where the respondents come from. The demographic data provided insights on disparities on the kind of data elicited.

4.3 School Data on Students' Academic Performance in Public Secondary Schools in Migori County

Educational performance of students' assessment was pegged on their performance in national examinations. KCSE examinations' results were marked as a good sign for the academic performance of students in a school. It becomes a good sign due to its being a standardized instrument which qualifies it as being reliable for measuring the performance of students academically. Principals were therefore, requested to give information on the school's overall mean score in KCSE in the last eight years (2010-2017). Table 4.2 shows the schools' mean average score in KCSE for these years.

Table 4.2

KCSE Mean Score for Migori County 2010-2017

Performance index	Number of Schools	Frequency %	Cumulative Frequency %
1.00-2.54	2	1.72	1.72
2.55-4.09	42	36.21	37.93
4.10-5.64	30	25.86	63.79
5.65-7.19	27	23.28	87.07
7.20-8.74	12	10.34	97.41
8.75-10.29	3	2.59	100.0
10.30-12.00	0	0.00	100.0
Total	**116**	**100.00**	

Source: Research Survey data (2018)

From Table 4.2, it is clear that most of schools had low average mean grade in KCSE, with 87.07% of them having a mean of less than 7.20. Equally, the findings of the study show that over the last eight years, most secondary schools in Migori County recorded fairly low performance in KCSE examinations. This was reflected by the summaries of the sampled schools' KCSE mean scores as presented in Table 4.3.

Table 4.3

KCSE Average Mean Scores- Migori County 2010-2017

Year	2010	2011	2012	2013	2014	2015	2016	2017
Mean	5.81	6.06	5.85	6.18	6.17	6.38	4.78	4.96
SD	1.57	1.54	1.81	1.82	1.73	1.94	1.64	1.73

Source: Research Survey data (2018)

It is evident that the county's mean scores in KCSE has not gone beyond seven points as indicated by the summary of average mean scores for the sampled schools in the last eight years. Within this period, the best score was recorded in the year 2015 at 6.38 which has a standard deviation of 1.94, while the worst mean score was recorded in 2016 at 4.78 with a standard deviation of 1.64. Further exploration of 2017 KCSE examination results for Migori County reveals that most of the secondary schools did not do very well in 2017 KCSE as was revealed by a mean average score of only 4.96 (standard deviation=1.73) from the sampled schools. The relatively large standard deviations of 1.73 shows that the scores were quite spread and not very close to the mean. This implies that the score for KCSE results were very low indicating poor performance of secondary schools in Migori County. Figure 4.2 reflects this situation.

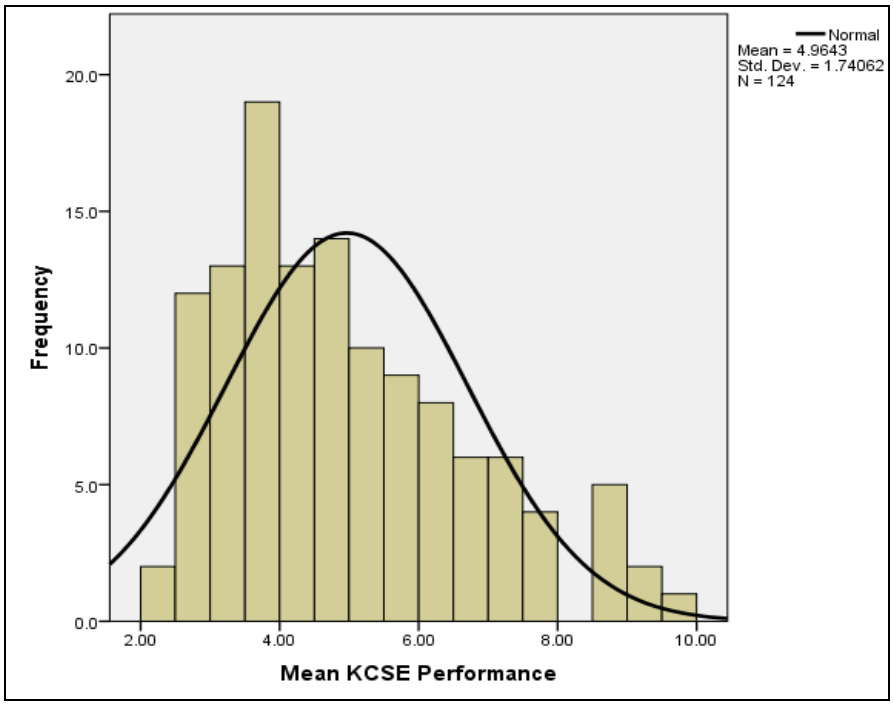

Figure 4.1: Distribution of KCSE 2017 School Mean Score in Migori County.

The distribution curve reveals that the scores were positively skewed; there is a long tail and distortion that is caused by many small values which pull the mean downward so that it is less than the median, indicating that most of the schools scored below the mean of 4.96. This finding mirrors the records held at the County Director of Education's Office, Migori (2018). Principals of public secondary schools were also asked to indicate the proportion of the students who had got grade C+ and above. Table 4.4 shows mean average percentage of the students per school in the county who scored at least C+ and above in KCSE in the last eight-year period.

Table 4.4

Mean Average Percentage of students who scored C+ and above

Year	2010	2011	2012	2013	2014	2015	2016	2017
Mean (%)	31.90	35.39	37.24	37.65	37.42	40.44	21.25	20.35
SD	27.12	28.30	31.61	33.64	32.65	32.28	17.12	15.89

Source: Research Survey data (2018)

It is clear that the percentages were under forty percent except in the year 2015 with an average mean of 40.4% (standard deviation=32.42). The worst years were 2016 and 2017 at 21.3% and 20.4%, respectively. These findings point out that significant majority of the students got below C+, which is an evidence of poor performance of most secondary school students in KCSE. This can be described as wastage of resources and facilities in education since goals of education were not met. However, fairly large standard deviations shown in the table implies that there are big disparities among schools in terms of students' performance in KCSE; some schools perform quite well while others perform dismally.

4.4 Influence of Principals' Leadership Skills on Students' Academic Performance

Descriptive and inferential statistics were both employed in this study for the purpose of establishing the principals' leadership skills that influence students' academic performance in public secondary schools.

Request was made to principals to give ratings on the influence of leadership skills practiced by the principals on students' academic performance. Participants were presented with items whose constructs measured principals' leadership skills and they were to give their ratings on the scale of 1-5, based on their influence on students' academic performance. The

respondents rated principals' leadership skills using the indicators such as: students and teachers monitoring, execution of students' assessment, delegation of duties and responsibilities, incorporating guidance and counseling programs in schools, uniting teaching and non-teaching staff , initiating teamwork among the staff, monitoring students' discipline, quality improvement measures, communication and listening skills, mobilizing of adequate staffing, coordination and supervision, training on managerial skills. Their responses were summarized in mean and standard deviation as presented in Table 4.5.

Table 4.5

Influence of principals' leadership skills on students' academic performances (n=116)

Skills	**Principals Ratings**	
	Mean	**Std Dev.**
X_1 Students and teachers monitoring	4.06	0.88
X_2 Execution of students' assessment	4.04	0.92
X_3 Delegation of duties and responsibilities	4.06	0.92
X_4 Incorporating guidance and counseling programs in schools	3.94	0.93
X_5 Uniting teaching and non-teaching staff	4.03	0.94
X_6 Initiating teamwork among the staff	4.28	0.81
X_7 Monitoring students' discipline	4.26	0.80
X_8 Quality improvement measures	4.03	0.92
X_9 Communication and listening skills	4.03	0.92
X_{10} Mobilizing of adequate staffing.	4.03	0.84
X_{11} Coordination and supervisory	4.04	0.79
X_{12} Training on managerial skills	4.04	0.87
Overall rating on leadership skills	4.07	0.55

Source; Survey data (2018)

Interpretation of Mean Rating:

1.00-1.44 Very low

1.45-2.44 Low

2.45-3.44 Moderate

3.45- 4.44 High

4.45-5.00 Very high

From Table 4.5, responses were summarized in percentage frequencies as shown in appendix E (i). From the Table, it can be established that although the respondents held varied views on the influence of leadership skills on students' academic performance, they all agreed that leadership skills have a significant amount of influence on students' academic performance. This was reflected by overall ratings of the principals (Mean=4.07; SD=0.55) on influence of leadership skills on students' academic performance in public secondary schools. In this respect it is in line with the findings of Buhere (2007) who equally found that leadership quality plays a very vital role in students' academic performance as it is concerned with students, teachers, rules, regulations and policies that govern the school. In this study the finding further confirms the belief that school leadership skills are critical in improving school management and it is a major factor influencing the school academic performance. The same view was supported by the findings of Seashore and Leithhood (2010) who noted that if a school is vibrant, innovative and child centered, has a reputation for excellence in school teaching and students perform well, then principals' management practices is valued as a key to this success. However, this was opposed by Ambongo (2012) who observed that the effect of leadership skills of principals was not a significant predictor of students' performance. It is clearly seen from this current study that principals' leadership skills is a

significant predictor of students' academic performance in secondary schools thereby, neutralizing the other views.

During the interview, it was noted that principals of secondary schools need to have the ability to successfully clarify the path to achievement of education goals set for the students on their academic work, they must also be able to remove obstacles on the path to achievement of these set targets for the students. In this respect, one principal stated:

> I have discovered that the principals who have interpersonal skills, view their primary role as that of providing support for their school teachers so that they could put in their best effort to teaching, achieving school effectiveness and ensuring that the best result is realized from the students (Principal 9)

From the verbatim quote from principal 9, it is clearly realized that for a school principal to be able to remove obstacles to achievement of school goals at any work environment, the principal must have the necessary leadership skills in order to know when there are obstacles, what to do and how to do it without any problem. Principal's leadership skills are crucial in ensuring academic performance of students. The poor academic performance of most public secondary school students in external examinations cast doubts on the possession of quality leadership skills by their principals.

Suffice it to say that, majority of the respondents in this study held that the value of education in their school is contingent to the leadership skills provided by their school principals. For example, a significant majority of principals agreed that the principal's leadership skills on students and teachers monitoring is of high influence on school academic performance, as reflected by the ratings of 4.06 (SD=0.88). This is in agreement with Nzoka and Orodho (2014) who found that school principals used various strategies to improve students'

academic performance; monitoring of instructional processes, closer monitoring of students, making learning institution free of drugs and strict or closer assessment of students, subsidizing government funding through free day secondary education using income generating activities and uncoordinated guidance and counselling programmes. Despite these efforts, the expected improved academic performance of students was not achieved largely due to the fact that majority of school principals or managers had not undergone management skill training. In consideration of these study findings, it is evident that principals need training on managerial skills to be effective in their supervision and monitoring of students and teachers.

The respondents held a strong belief that the level of academic success of a school is highly influenced by the leadership skill exhibited by the principal in monitoring students' discipline, as indicated by the ratings of 4.26 (SD=0.80) by the principals. This response is still in line with findings of Nzoka and Orodho (2014) who supported it but calls for training on managerial skills to improve on performance. In relation to this study finding, it is clear also that monitoring of students' discipline is very important but needs more skills from principals for enhancement of better performance.

Equally, close to four out of every five (79.6%) of the principals who participated in the survey held the assertion that execution of students' assessment is of great influence (mean=4.04; SD=0.92) to school academic performance. This was also still in line with the findings of Nzoka and Orodho (2014) who established that school principals used various strategies to improve students' academic performance like: inconsistent monitoring of

instructional process, closer monitoring of students, making learning institution free of drugs and closer students' assessment. This will help in eradicating poor academic performance and promoting discipline among students leading to improved performance.

The other item asked to know how the leadership skills of a school principal affect students' academic performance in final exam. One of the respondents reiterated that:

> It is common knowledge that lack of effective leadership skills demonstrated by school principals decreases students' academic performance because in the absence of quality leadership often results in ill adapted school organization and programs which in most cases end up interfering with learners learning process, hence dilapidated performance (Principal 11)

From the excerpts, it is evident that in the absence of appropriate principals' leadership skills there is; unstable and difficult staffing in most secondary schools, students' negative attitudes towards school academic work and discipline, an unhealthy school system and temperature and non-cooperation of both teachers and students in matters of academics. The consequences of school leadership skills failure are grave and lead to poor academic performance of the learners in school. This finding is also in agreement with Guruchandran (2009) who equally stated that principals with appropriate leadership skills are characterized by certain key qualities. They have possessed self-belief and motivation both to the teachers and students, they are team players, they are visionaries and they are listeners and observers and also possess a personality that aids them in achieving their set targets within their schools. In view of the findings and the literature arguments, it sounds clearly therefore, that school principals need to emphasize on transformative leadership skills as the application will influence academic performance positively.

The results of the survey established that training of the school leadership on managerial skills is a very important step towards high school academic performance. This was reflected by 83 (71.5%) of the principals who rated the influence of training on managerial skills on academic performance at 4.04 (SD = 0.87). This confirms the findings of Akinyi and Obama (2015) who established that principals used leadership skills that were not conducive to teacher-student interactive learner-centred learning that enhanced academic performance of students. This contradiction means that there is need for workshop, seminars and short courses for secondary school principals to improve on their managerial skills.

In addition, the results of the survey showed that quality of improvement measures put in place by the principals towards the schools' academic performance is key to the level of school's academic success and ensuing students' academic performance. This was reflected by close to three quarters. Eighty six (74.1%) of the principals who rated this influence at 4.03 (SD=0.92). This fact agreed with Akinola and Obafemi (2013) who stipulated that possession of technical, interpersonal, conceptual and administrative skills is crucial in school academic performance. It is clear therefore, that principals must possess leadership qualities that will enable them to identify improvement measures to be taken towards the improvement of students' academic performance. Likewise, the findings of the study confirmed that academic performance of a school is highly influenced (mean =4.04) by the level of coordination and supervision by the principals.

On the same note, the principals who participated in the survey agreed that responsibilities and delegation of duties influence academic performance of the school. This was established

by the fact that the principals rated delegation of duties and responsibilities at 4.06 (SD=0.92) on its influence on student academic performance. The findings that resonate with Oluremi (2013) who argued that principals who adopted quality improvement measures encourage team work with personnel, delegation of duties and students participate in academic activities that influenced academic performance in secondary schools. The study hence clearly indicates that promotion of team work by school principal contributes to the learners' academic performance.

However, it emerged that although the principals were in agreement that leadership skills of the principals influence schools' academic performance, their ratings on influence of some aspects of leadership skills varied. For example, more than 94 out of 116 (116) of the principals who participated in the survey of the study rated the principals' abilities of initiating teamwork among the teaching staff as of very high influence (mean=4.28; SD =0.81) on academic performance. The findings that were in contrast with Suleiman, Mustapha and Ibrahim (2016) who observed that there were no identified significant relationships between principals' teamwork initiative and academic performance of students in secondary schools. This study confirms that there is need for teamwork or delegation as confirmed by the findings to improve on students' academic performance as opposed to other scholars.

It was noted from the interviews that most well-coordinated schools do initiate and encourage a participatory decision making process through regular staff meetings in school, consultation with implementation committees and heads of department together with the discussion with students. This was in line with Okello (2018) who argued that secondary

school principals with relational leadership skills focus on the attainment of goals, motivate their teachers and learners and are concerned about the general well-being of team members. The principals believe that such a conducive atmosphere boosts ego and encourages student academic performance.

On the other hand, principal 13 stated that:

> "In my school, I have realized that the beliefs, attitudes and conduct of my teachers are influenced by the personal qualities or traits of me as their leader" (Principal 13)

The responses from principal 13 above shows that the school principals' personal character and values play a role in the school's effectiveness as these have influence on the attitude and cooperation of the school staff and students which in turn leads to improved academic performance of the students. Similarly, while the principals rated the influence of uniting teaching and non-teaching staff as very high (mean=4.03; SD=0.94) by the same token, majority of the principals were in agreement that their communication and listening skills influence academic achievement, rated at 4.03 (SD=0.92). This implies that most of the principals held a common point of view that principal's ability to unite the teaching and non-teaching staff, and improving on communication and listening skills have great influence on student academic performance in secondary schools.

On the contrary, it also emerged from the findings of this current study that although incorporation of guidance and counselling programs in schools by the principals was found to be of influence to academic performance, principals (mean=3.94) agreed that its influence is high. This is in agreement with the findings by Jackline and John (2014) who established that guidance and counseling programs in schools is one of the strategies that help in

enhancing students' academic performance. In this regard, it is a clear indication that there is a common agreement that guidance and counseling should be promoted in secondary schools for the improvement of students' academic performance. The family should be active to take appropriate measures in guiding their children as children take much time with family members especially during holidays. The religious bodies should also approach the issues of alcoholism and drug addiction by the youths with more firm measures.

On staffing, the results of the survey revealed that the principals' leadership skills regarding staff mobilization has considerable influence on academic performance, as reflected by ratings of 4.03 from the principals. This is supported by the view of Oluremi (2013) who concluded that principals who employed the use of quality improvement measures encourage team work with staff and student's participation in academic activities that influenced academic achievement in secondary schools. There is need for the school administrators to encourage communication between students and the office, the facilities like school libraries and laboratories should also be improved to help in controlling and eradicating students' unrest.

To establish the actual influence of principals' leadership skills on students' academic performance, the null hypothesis 'Ho_1: Principals' Leadership Skills do not Influence Students' Academic Performance' was used. In this respect, the data in Tables 4.2 and Appendix E (i) were used to compute regression analysis. The results were as shown in Tables; 4.7, 4.8 and 4.9.

Table 4.7

Model Summary of Regression Analysis of the influence of Principals' Leadership Skills on Students' Academic Performance in Public Secondary Schools

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	486[a]	.236	.230	1.46330	.236	35.273	1	114	.000

a. Predictor: (Constant), Principals' Leadership Skills
b. Dependent Variable: Students' Academic Performance

The model indicates that principals' leadership skills could only account for 23.0% (Adjusted R^2=.230) of the variation in students' academic performance in public secondary schools in Migori County. Other variation in students' academic performance was due to other factors which are not subject to this variable. The null hypothesis; Principals' Leadership Skills have no significant influence on students' academic performance was therefore rejected because r=.486, N=116, and p<.05. This means that principals' Leadership Skills influenced Students' Academic Performance. This was a fairly considerable amount of effect by only one predictor on the dependent variable in this study. However, to establish whether principals' leadership skills were a significant predictor of students' academic performance, Analysis of Variance (ANOVA) was then computed as shown in Table 4.8.

Table 4.8

ANOVA -- Influence of Principals Leadership Skills on Student Academic Performance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	75.529	1	75.529	35.273	.000[b]
	Residual	244.103	114	2.141		
	Total	319.632	115			

a. Dependent Variable: Students' Academic Performance

b. Predictors: (Constant), Principals' Leadership Skills

The *F*-ratio in the **ANOVA** shown in Table 4.8 tests whether the general regression model is a good fit for the data. The finding of the study shows that leadership skills of principals significantly predict the academic performance of students, F (1, 114) = 35.273, $p < .05$. This implies that principals' leadership skills could be used to significantly predict academic performance of students in public secondary schools. To determine the actual influence of principals' leadership skills, multiple linear regression analysis was computed and the results were as indicated in Table 4.9.

Table 4.9

Multiple Regression Analysis of Influence of principals' leadership skills on Students' Academic Performance

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant	1.231	1.234		.997	.001
X_1	.232	.219	.123	1.058	.009
X_2	.165	.210	-.092	-.788	.033
X_3	.179	.225	.100	.797	.027
X_4	.184	.237	.103	.774	.041
X_5	.041	.206	-.023	-.200	.042
X_6	.019	.235	.009	.080	.087
X_7	.126	.259	.061	.487	.028
X_8	.184	.209	.102	.880	.031
X_9	.054	.244	.030	.219	.027
X_{10}	.078	.256	.039	.306	.760
X_{11}	-.141	.256	-.067	-.550	.083
X_{12}	.253	.214	.133	1.181	.040

a. Dependent Variable: Students' Academic Performance

Regression Equation: $Y=\beta 0+\beta_1X_1+B_2X_2+\beta_3X_3+\beta_4X_4+\beta_5X_5+\beta_6X_6+\beta_7X_7+\beta_8X_8+\beta_9X_9$

KEY:

X_1-Students and teachers monitoring

X_2-Execution of students' assessment

X_3-Delegation of duties and responsibilities

X_4-Incorporating guidance and counseling programs in schools

X_5-Uniting teaching and non-teaching staff

X_6-Initiating teamwork among the staff

X_7-Monitoring students' discipline

X_8-Quality improvement measures

X_9-Communication and listening skills

X_{10}-Mobilizing of adequate staffing.

X_{11}-Coordination and supervisory

X_{12}-Training on managerial skills

From Table 4.9, it can be observed that nine principals' leadership skills out of twelve were found to be predictors of students' academic performance. This implies that they significantly influence students' academic performance. These skills were: students and teachers monitoring, execution of students' assessment, delegation of duties and responsibilities, incorporating guidance and counseling programs in schools, uniting teaching and non-teaching staff, monitoring students' discipline, quality improvement measures, communication and listening skills and training on managerial skills. The prediction model therefore, is as follows:

Students' Academic Performance=$1.231+.232X_1+.165X_2+.179X_3+.184X_4+$

$.041X_5+.126X_7+.184X_8+.054X_9+.253X_{12.}$

This means that for every one-unit increase in students and teachers monitoring, students' academic performance improves by .232 units as signified by coefficient of .232. This implies that students and teachers monitoring is effective in improving students' academic performance. Therefore, principals should frequently monitor students and teachers as this would enhance students' academic performance. It has also emerged that, increase in the

number of students' assessment by one unit has a bearing on students' academic performance by.165 units as signified by a coefficient of .165. This therefore, qualifies for more students' assessments in order to improve their academic performance. It appears that the more assessments the students do, the more improved the results are. This could be the reason for some schools engaging in administering continuous assessment tests more frequently.

It also seems that for every one-unit increase in delegation of duties and responsibilities, students' academic performance improves by .179 units as signified by coefficient of .179. This implies that principals should embrace teamwork by delegating duties and responsibilities in order to engage everybody towards the improvement of students' academic performance. It is therefore, necessary for principals to improve students' academic performance by involving the staff members. It can also be seen clearly that for every one-unit increase in incorporation of guidance and counseling programs in schools, students' academic performance improves by .184 units as signified by coefficient of .184. This therefore, direct the principals to incorporate guidance and counseling programs in schools to help students improve in their academic work.

Similarly, an increase of uniting teaching and non-teaching staff by one unit contributes to improvement of academic performance of students by .041 units as signified by a coefficient of .041. Principals should therefore, create good working atmosphere for both academic and non-academic staff members in order to improve students' academic performance. There is also an indication that increase of monitoring students' discipline by one unit improves academic performance of students' by.126 units as signified by a coefficient of .126. This therefore, calls for all the principals to ensure students' discipline in order to improve

students' academic performance. Increase in quality improvement measures also by one-unit improve students' academic performance by .184 as signified by coefficient of .184. It is therefore obvious that principals should implement quality measures in order to improve students' academic performance. Communication and listening skills also improves students' academic performance by .054 when increased by one unit. This therefore implies that principals should pay attention and give feedback to both outside and inside school community members for the betterment of students' academic performance. Increasing training on managerial skills by one-unit also improve students' academic performance by .253 as signified by a coefficient of .253. It is therefore necessary for the school principals to ensure that all staff members are trained on managerial skills to help in handling academic issues.

Other skills in this variable which were not significant but influencing students' academic performance include: initiating teamwork among the staff, mobilizing of adequate staffing, coordination and supervisory activities. This was shown by p-values which is more than 0.05 in each item. There was no relationship between these leadership skills and academic performance. This means that they cannot be relied upon to predict students' academic performance.

In conclusion, for principals to improve on students' academic performance , they should focus only on students and teachers monitoring, execution of students' assessment, delegation of duties and responsibilities, incorporating guidance and counseling programs in schools, uniting teaching and non-teaching staff, monitoring students' discipline, quality improvement measures, communication and listening skills and training on managerial skills. Therefore, initiating teamwork among the staff, mobilizing of adequate staffing, coordination

and supervisory activities should not be relied upon to predict students' academic performance.

4.5 Influence of Students' Factors on their Academic Performance

The second objective of the study was: To determine the influence of student factors on students' academic performance in public secondary schools. Influence of student factors on students' academic performance was established using both descriptive and inferential statistics in this study.

Principals were asked to rate the influence of student factors on students' academic performance. The respondents were presented with items whose constructs measured students' factors and they were asked to rate them on the scale of 1 to 5, based on their influence on students' academic performance. The respondents rated students' factors using the indicators of; students' ambition, learners individual efforts, learners' attitude on subjects, career choice and lack of learners' ambition, learners' competitive spirit, learners own set targets, substance abuse, students' discipline in schools, students' unrest and absenteeism from school, participation in co-curricular activities. Their responses were summarized in mean and standard deviation as indicated in Table 4.10.

Table 4.10

Influence of Student Factors on students' academic performance (n=116)

Students' factors	Principals Ratings	
	Mean	**Std Dev.**
X_1 Students' ambition	4.09	0.91
X_2 Learners individual efforts	4.03	0.79
X_3 Learners' attitude on subjects	4.14	0.88
X_4 Career choice and lack of learners' ambition	3.71	0.99
X_5 Learners' competitive spirit	4.15	0.79
X_6 Learners own set targets	4.09	0.86
X_7 Substance abuse	3.52	1.45
X_8 Students' discipline in schools	4.23	0.81
X_9 Students' unrest and absenteeism from school	3.63	1.36
X_{10} Participation in co-curriculum activities	3.67	1.19
Overall Ratings on Student factors	3.92	0.52

Source: Survey data (2018)

Interpretation of Mean Rating:

1.00-1.44 (Very low)

1.45-2.44 (Low)

2.45-3.44 (Moderate)

3.45-4.44 (High)

4.45-5.00 (Very high)

Responses were summarized in percentage frequencies as shown in Appendix E (ii). It is evident that 57 (49.2%) respondents rated student factors as high influence on students' academic performance.

From Table 4.10, it can be revealed that student factors have substantial amount of influence on students' academic performance. On the scale of 1 to 5, the principals who took part in the study survey rated overall influence of student factors on academic performance at 3.92 (SD=0.52), implying that it has a high influence. For examples, students' interest in learning, ambition, positive attitudes towards education and competition among the students, propel learners to work hard towards good academic performance as shown by the findings of the study. This is supported by Ali, Munira and Nobaya (2017) who indicated further that only attitude and interaction could significantly predict academic performance of students. The researcher of this current study was of the opinion that when students are psyched and motivated, they owned the process and strive to perform well. The element of positive competition among them spews from the need to be at the top. This can only occur if the school environment provides such a situation. Their models become the teachers, the administrators and the general manner in which learning and teaching is conducted in the school.

On the other hand, a school environment that breeds students who lack discipline, who lack motivation, indulge in drug use, exhibit poor study habits which the end result is poor academic performance. The environment dictates the behaviour of the students and has negative impact on academic performance of students. This is in line with the findings of Moses, Augustina and Rahama (2018) who established that drug abuse influence students' academic performance negatively. The findings further revealed that gender has a significant predictor of reported drug abuse and males have been reported to have a greater degree of drug abuse that greatly affects academic performance of students in secondary schools. This

is also further supported by Muusya and Kariuki (2015) who discovered in their study that abuse of drugs by students leads to low academic performance and increase in indiscipline cases among students. From the above arguments, it is clear that students in secondary schools who have a negative attitude towards their principals in terms of leadership skills and have problems in communicating their concerns will disobey school rules and regulations and if not closely monitored and counselled properly, may turn violent in expressing their dissatisfaction. The study carried out in Migori indicates similar findings as can be seen below:

During the focus group discussion, it was noted from the students that school based factors is of paramount importance in promoting learning process. The students argued that climate prevailing in the school is a perpetual inspiration for them to learn more and more. This they stated can be created by providing them with good classrooms for the study, providing books and other learning materials. These were reiterated by group FG 4 as:

> Some of the positive factors in our school that affects our academic achievements include; presence of teachers who are always dedicated and ready to help us at all cost. The school has been well managed and the environment secured and strict school rules and regulations. The school leadership has been of democratic nature, one that provides more sense of freedom and large degree of permissiveness to foster healthy teacher student relationship and where students are allowed to work independently (FG 4).

From the responses from this one group, it can be seen that school environment remains an important factor affecting academic achievement that should be well managed by the principals to improve academic performance of students. The issue of poor academic performance of students in Migori County has been of much concern to the government,

parents, teachers and even students themselves. The quality of education not only depends on the teacher as reflected in the performance of their duties but also in the leadership skills of the principals that develop effective coordination of the team players in the school: teachers, support staff, learners and the general teaching and learning atmosphere.

When the respondents were asked to rate the influence of various constructs of student's factors on their academic performance, it emerged that students' discipline was chosen as the factor with the highest influence on academic performance among public secondary school students. This was reflected by a mean of 4.23 (SD=0.81) as rated by the principals. This was confirmed by Kambuga and Abich (2017) who established that good students' discipline, confidence and academic competence were the main qualities that aided most students in their academic performance. This was further confirmed by Rebecca (2012) who equally indicated that strikes in schools lead to poor academic performance. The study further observed that the schools that had not been engaged in unrests on average had more counsellors than the schools that had unrests. Equally, learners' competitive spirit was rated as of high influence [principals (Mean=4.15) with a significant majority of principals asserting that student personal competitive spirit is vital for student academic performance. This was in line with Akinyemi (2009) who established that cooperative learning strategy was the best effective in students' attitude facilitation. The study carried out in Migori concurs with the above findings. Some measure of discipline, competitive spirit and democratic leadership that allows for effective communication channels encourage learners to focus on the goals and aims of their being in an educational setting.

Likewise, the results of the survey point out that personal effort and commitment of students is of great influence on the students' academic performance. For example, the principals rated the influence of students' ambition, learners' individual efforts and learners' attitude on the subjects at 4.09 (SD=0.91), 4.03 (SD=0.79) and 4.14 (SD=0.88), respectively. This was supported by Peter, Bantu and Martin (2016) who established that poor attitude of students, students' lack of ambition; poor career choice, peer influence, lack of competitive spirit and no desire to set targets affect academic performance. Closely related to personal commitment, was target setting. It emerged from the results of the study that learners who are able to set their own targets usually post high self-academic performance. This supports the findings of Omotade, Funke and Oyewumi (2016) who showed that there exist a significant relationship in the students' attitude and academic performance of students. Gilman (2016) also echoed the same in his study which confirmed that students differed in terms of their mastery based on the attitude formed by the students on the subject.

On the other hand, FG 3 in their response noted that positive conduct and commitment by students include attending class, responding to directions given by the school authority, avoiding disruptive behaviors and following classroom rules set by the school. These were indicated by the response below.

> In my own opinion, engagement in learning includes concentrating in class chores, making an effort to be fully involved in class activities, being persistent in your academic duties, contributing to class discussion, inquiring and also answering questions in class, completing homework in time, and spending extra time class-related activities of learning (FG 3).

The calibers of FG 3 believed that there exists a positive relationship between behavioral involvement and academic performance which seems to be more evident among academically resistant students with greater engagement in academic activities at class level. This characteristic is shared by majority of the students who were deemed to be academically resilient, according to the discussion. These were in tandem with Lee (2014) who stated that student engagement on academic performance varies depending on the components of engagement and those positive emotional reactions to tasks or people can lead to students having a sense of belonging at school, hence improving on academic performance.

The results of the survey also show that, although other student factors equally influence academic performance, their perceived influence is high. For instance, the principals rated career choice and substance abuse as of high influence on academic performance. Students' unrest and absenteeism from school were also established to have high influence [principals (mean=3.63). This was in concurrence with Okwakpam (2012) findings on students' unrest among secondary school students who indicated that there exists a significant close link between student's unrest and discipline on learner's academic performance. He further established that the student's indiscipline contributes greatly to the student's level of performance and achievements. It can be concluded therefore, that effective school discipline should be encouraged by the school administration and teachers to enhance control of students' behaviour thus students' general academic performance will be realised.

It also arose that participation in co-curricular activities has some influence on academic performance of students. This is in agreement with the findings of Waseka and Simatwa (2016) who equally established that co-curricular activities influence students' academic

performance. This was confirmed by a mean rating of 3.67 (SD=1.19) on the influence scale by the principals.

It was noted through the focus group discussion that absenteeism and students' indiscipline have a positive correlation with academic performance. These were advanced by FG 6 and FG 1 during the discussion as below:

> In this school, there exist a relationship between performance and school attendance. Students who are consistently absent themselves from school have been noted to perform dismally in their academics, unlike the students who are always in attendance. Some parenting styles equally contribute to students' indiscipline (FG 6).

> Some students in this school are over protected by their parents making it hard for the teachers to control and discipline such students. Learners' performance in this school has been low because of drug abuse by some students. There is a significant link between cannabis use by students in this school and performance including lower grade point, average and poorer school academic performance (FG 1).

From the above point of view held by the two groups of students, it can be observed that the abuse of drugs and student's absenteeism is directly associated with the students' academic performance. A good academic qualification obtained by the learner without a concrete base of discipline of the student in school is of no meaning to the students, their families and even to the society. In the absence of discipline, the learning and teaching process are hindered and performance is compromised. The students waste their time and the teachers and parents misdirect their energy in dealing with issues emanating from unrest and indiscipline other than on academic performance of students.

To establish the actual influence of student factors on students' academic performance, the null hypothesis; Ho_2: Student factors do not influence students' academic performance was used. In this respect, the data in Tables 4.2 and Appendix E (ii) were used to compute regression analysis. The results were as shown in Tables; 4.11, 4.12 and 4.13.

Table 4.11

Model Summary of Regression Analysis of the influence of Student Factors on Academic Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.316[a]	.100	.092	1.58853	.100	12.666	1	114	.001

Predictors: (Constant), Students' Factors

Dependent Variable: Students' Academic Performance

The null hypothesis: Student Factors have no significant influence on students' academic performance was rejected because r=. 316, N=116, and p<.05. This means that Student Factors Influence Students' Academic Performance. This was an indication of a fairly slight amount of effect of a predictor on the dependent variable. However, to establish whether student factor was really a significant predictor of academic performance, Analysis of Variance (ANOVA) was computed as indicated in Table 4.12.

Table 4.12

ANOVA-- Influence of Student Factors on Students' Academic Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	31.961	1	31.961	12.666	.001[b]
	Residual	287.671	114	2.523		
	Total	319.632	115			

a. Dependent Variable: Students' Academic Performance

b. Predictors: (Constant), Student Factors

From Table 4.12, which is ANOVA results output-ratio, tests whether the whole regression model indicated is a good fit for the data. It is evident that, despite the small effect, student factors significantly predict students' academic performance, F (1, 114) = 12.666, $p<.05$. This means that the regression model as indicated is a good fit of the data, implying that information about student factors could be used to predict academic performance of students in public secondary schools. To determine the actual influence of student factors, analysis of multiple linear regression was computed and the results were as indicated in Table 4.13.

Table 4.13

Multiple Regression Analysis of Influence of Student Factors on Students' academic Performance

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.421	1.196		.352	.725
X_1	.274	.167	.149	1.636	.105
X_2	-.276	.238	-.132	-1.160	.249
X_3	-.273	.214	-.145	-1.277	.205
X_4	-.026	.166	-.016	-.158	.874
X_5	.606	.235	.289	2.582	.011
X_6	.310	.193	.160	1.605	.014
X_7	-.158	.155	-.138	-1.021	.310
X_8	.564	.209	.276	2.692	.008
X_9	.236	.169	.194	1.400	.165
X_{10}	-.148	.123	-.106	-1.198	.234

a. **Dependent Variable**: Students' Academic Performance

Regression Equation: $Y=\beta 0+\beta 1X1+\beta 2X2+\beta 3X3----------\sum$

KEY: X1-Students' ambition

X_2-Learners individual efforts

X_3-Learners' attitude on subjects

X_4-Career choice and lack of learners' ambition

X_5-Learners' competitive spirit

X_6-Learners own set targets

X_7-Substance abuse

X_8-Students' discipline in schools

X_9-Students' unrest and absenteeism from school

X_{10}-Participation in co-curriculum activities

From Table 4.13, it can be observed that 3 student factors out of 10 were established to be predictors of students' academic performance. This implies that they significantly influence students' academic performance. These factors were; Learners' competitive spirit, Learners own set targets and Students' discipline in schools. The prediction model therefore, is as follows; Student Academic Performance=.421+.606X_5+.310X_6+.564X_8 were significant predictors of students' academic performance. This means that they can be relied on to predict students' academic performance. This also implied that if schools have to improve on performance, then the focus should be on Learners' competitive spirit, Learners own set targets and Students' discipline in schools.

This means that for every one-unit increase in learners' competitive spirit, students' academic performance improves by .606 units as signified by coefficient of .606. This implies that learners' competitive spirit is effective in improving students' academic performance. Therefore, principals should provide a good atmosphere for competition among students by organizing internal tests in schools through the staff members to improve students' academic performance. It also emerged that for every one-unit increase in students' discipline in schools, students' academic improves by .564 units as signified by a coefficient of .564. This outlined the fact that discipline is key to students' academic performance. Principals should therefore, make sure that there is discipline in schools in order to create a conducive learning atmosphere in secondary schools. Without students' discipline, it is very difficult to achieve the school goals in students' academic performance as most of them will not do the right thing towards their academic requirements. Learners' own set targets also when increased by every one-unit in students' academic performance, the improvement is

realised by .310 as signified by a coefficient of .310. This implies that, principals should encourage teachers to make sure that students set their own target in class. This improves students' academic performance as they struggle to achieve their own set goals.

All other items showing negative values and p-values should not be relied on to predict students' academic performance as they are induced automatically when the other three (Learners' competitive spirit, Learners own set targets and students' discipline in schools) factors are well managed by principals in improving students' academic performance. These negative factors include: students' ambition, learners' individual efforts, learners' attitude on subjects, students' unrest and absenteeism from school and Participation in co-curricular activities. Principals should therefore, focus on the three to predict students' academic factors than the others that do not add value on students' academic work.

4.6 Influence of School Environmental Factors on Students' Academic Performance

The third objective of the study was; to investigate the influence of school environmental factors on academic performance of students in public secondary schools. The indicators of environmental factors were: peer influence, school security, presence of internets and other electronics, teaching-learning facilities, trained and experienced teachers, teachers' financial motivation, use of library, use of laboratory, instructional materials and residential facilities for teachers. Both descriptive and inferential statistics were used in this study to establish the influence of school environmental factors on academic performance of students.

Principals were asked to rate the school environmental factors that influence academic performance of students. The respondents were presented with items whose constructs

measured school environment and they were to do rating on the scale of 1 to 5, based on their influence on academic performance of students. The respondents rated school environmental factors using the indicators mentioned above. The summary of the responses are shown in Table 4.14.

Table 4.14

Influence of School Environmental Factors on students' academic performance (n=116)

Item	Principals Ratings	
	Mean	**Std Dev.**
X_1 Peer influence	3.75	1.22
X_2 School security	3.71	1.03
X_3 Presence of internets and other electronics	3.41	1.24
X_4 Teaching-learning facilities	4.12	0.93
X_5 Trained and experienced teachers	4.27	0.84
X_6 Teachers financial motivation	3.75	1.07
X_7Use of Library	3.94	0.98
X_8Use of laboratory	3.98	0.93
X_9 Instructional materials	3.47	1.15
X_{10} Residential facilities for teachers	4.27	0.84
Overall Ratings on School Environmental Factors	3.87	0.57

Source: Survey data (2018)

Interpretation of mean rating:

1.00-1.44 Very low

1.45-2.44 Low

2.45-3.44 Moderate

3.45-4.44 High

4.45-5.00 Very High

From Table 4.14, responses were summarized in percentage frequencies as indicated in Appendix E (iii). The survey results of this study indicated that school environmental factors have a lot of influence on academic performance and are, therefore, essential factors on academic performance among secondary school students. This study rates its overall influence at above average on the scale of 1 to 5, with the principals putting it at 3.87 (SD=0.57), with a good number of 49 (42.2%) principals rating school environmental factors as of high influence on student academic performance as shown in appendix E(iii).

Students with appropriate access to pertinent instructional materials such as library and laboratory facilities have better opportunity to achieve good academic performance. Hence, it is apparent that the students from public secondary schools with adequate facilities, good teachers and favorable environment for learning are likely to perform better than those from public secondary schools with fewer facilities and unqualified or untrained teachers. This was confirmed by Mudasir and Norsuhaily (2015) who equally established that students from schools with adequate facilities, good teachers and favorable environment perform better than those from public secondary schools with fewer facilities, unqualified or untrained teachers and less enabling environment.

This assertion was supported by more than three quarters, 89 (76.7%) of the principals who were sampled for the study who were in agreement that teaching and learning facilities have high influence on academic performance of students. This current study was in agreement with the study of Ilomo and Mlavi (2016) who discovered that factors such as lack of infrastructure in schools, dormitories, laboratories, equipped library, staff houses and

classrooms, among others, lead to poor performance that in turn affect or lead to poor academic performance of students. However, it emerged that availability of trained and experienced teachers contribute to very high academic performance (mean > 4.0). However, the findings of the study established that availability of trained and experienced teachers is not adequate as a factor that wholly influences academic performance. There are other factors that this study of Migori County came across. Namely, it is not just the facilities in teaching and learning that contribute to the academic performance, qualifications of teachers also boosts academic performance. There must be interplay of a variety of factors. This was supported by the study of Mudassir and Norsuhaily (2015) who found that students from a school equipped with adequate facilities, good teachers and favorable environment perform better than those from schools with fewer facilities, unqualified teachers and less enabling environment.

Besides adequacy of trained and experienced teachers, the study discovered that teacher's financial motivation has direct but high influence on students' academic performance, as has been rated by the study participants [principals (3.75). On the same note, availability of residential facilities for the teachers has direct but high influence on students' academic performance, as appraised by the principals (mean=3.47). This is in line with the findings of Osei, Kate and Fentim (2014) who established that availability of adequate residential facilities in schools and instructional materials have a positive influence on the level of academic performance of students. Abraham Maslow (1943) in his discussion of hierarchy of needs, indicates that once basic needs are met, an individual can aspire for attainment of higher needs. This current study underlies the fact that if teachers' basic need in terms of

settlement in an area where residential accommodation is guaranteed, they will concentrate on other tasks. These tasks would necessarily hinge on their profession. It is, therefore, the belief of this researcher that there is a high influence between academic performance of students and teachers who have residential assurances.

It was noted from the interview that some of the principals' responses were similar in response to the challenges the students face within the school environments that affect their academic performance in the final exams. The respondents stated factors apart from teaching quality that may affect student satisfaction, including motivation of students, learners' entry behavior, and target expectations by the teachers, teachers' turnover, and extra workload, making it difficult for teachers to provide personal attention to the learners. This was in agreement with McGlynn (2008) who argued that it is very essential for the teachers to reinforce students in whatever assignment or responsibility given for them to perform adequately. The researcher further acknowledged that some of the necessary elements that motivate learners to do well academically include; trust between them and their teachers, being close and open to the learners, treating students with a lot of respect all the time, being in charge and always leading them to achievement of their academic work, working together, and indicating that you can listen and accept what the student says.

Similarly, the results of the survey indicate that availability of relevant instructional materials rates quite highly (mean=4.27) on influencing students' academic performance, with students who are exposed to adequate instructional materials being likely to exhibit higher academic performance than their counterparts whose schools lack relevant instructional materials. This supports the findings of the study conducted by Sephania, Too and Kirui (2017) who

established that availability of instructional materials and physical facilities influence academic performance of students. The survey results of this current study also established that availability of libraries and laboratories have all significant influence on students' academic performance among students of secondary school. From the two scenarios, principals, teachers and all stakeholders of education concerned with academic performance, it is important to note that teaching and learning facilities enhance academic performance. The principals should try their best in equipping their schools with these facilities.

It emerged that, apart from physical facilities, there are other environmental factors in schools that have influence on academic performance among the students in secondary schools. For instance, peer influence and school security have been rated as having high influence on academic performance, as reflected by rating of 3.71 (SD=1.03) by the principals. This is in concurrence with the findings of Sophie, Reynolds, Lee, Emina, and Bromhead (2017) who established that perceptions of students on school climate significantly clarify writing and numeracy achievement in academic work and these effects are mediated by psychological identification of students within the schools. Ojuku (2017) also confirmed that insecurity of school environment significantly affects students' academic performance. In indicating clearly that for any improvement in academic performance, principals of secondary schools should ensure guaranteed security of school environment because this will have significant influence on academic performance of the secondary school students.

In this respect, two principals, principal 7 and 12 reiterated:

> In my school, the physical environment of the school presents an educative atmosphere to both the teachers, students and parents. The modern school site, buildings and well equipped library and laboratory are adequate and attractive to motivate and support the learning process. (Principal 7)

> At our school, we ensure that there is constant lighting in the classrooms to support the learning programs at night and dawn. This is done because defective lighting, poor ventilation, arrangements and crowded environment lead to overheated conditions which reduce working capacity and encourage low concentration, resulting into poor academic performance. (Principal 12)

From the above responses it is evident that students perform better in classrooms that have appropriate items that enable them perform the activities that enhance learning. They cited cases of disorder of the classes, un-conducive learning environments, and the untidy school environment, bookshelves, classrooms and pupil's desks with shabby rooms, dilapidated structures that have a negative impact on students' performance. Inadequate facilities are equivalent to incomplete learning and this becomes a pointer towards disgruntled teachers and principals. We realize from discussions elsewhere in this study that when teachers and principals are disgruntled, facing numerous challenges, then it is difficult for them to attain objectives.

However, the results of the survey show that presence of internet and technological devices accounted for the least influence on academic performance of students. This was reflected by the lowest principals' rating of 3.41 (SD=1.24). This finding agrees with the generally held belief that the use of internet makes students lazy in their academic work and sometimes distracts students' concentration. When the student is distracted from focusing on aspects of

study, there is a ripple effect on academic performance. This was supported by the study of Simuforosa (2013) who revealed that modern technology impacts learning both positively and negatively. This was echoed by the findings of Wolfson (2017) who showed that information communication technology plays a central role in the schooling of students, not in terms of "state-of-the-art" technology, but rather as "state-of-the-actual", by, for example, supporting the writing process and for peer support in schools, digital documentation and storage of document. From the above findings, it is also clear that school leadership that is transformative in its leadership embraces the promotion of new technology in teaching and learning in schools and influences academic performance of students positively. This implies that principals should monitor the use of new technologies to ensure that they serve the right purpose.

To establish the actual influence of School Environmental Factors on Academic Performance of students, the null hypothesis; Ho_3: School Environmental factors do not influence students' academic performance, was used. In this respect, the data in Tables 4.2 and Appendix E (iii) were used to compute regression analysis. The results were as shown in Tables; 4.15, 4.16 and 4.17.

Table 4.15

Model Summary of Regression Analysis of the Influence of School Environmental Factors on Students' Academic Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.416[a]	.173	.166	1.52245	.173	23.901	1	114	.000

a. **Predictors:** (Constant), School Environmental Factors

b. **Dependent Variable**: Academic Performance of Students.

From the model, it is evident that 16.6% (Adjusted R^2=.166) of the variation in academic Performance of students in public secondary schools in Migori County was accounted for by the secondary school environmental factors. 83.4% of variation in academic performance of students was due to some other factors which are not subject of this predictor. The null hypothesis: School Environmental Factors have no significant influence on students' academic performance was rejected because r=.416, N=116, and p<.05. This means that School Environmental Factors had a bearing on Students' Academic Performance. This was a fairly reasonably strong effect as a predictor on the dependent variable. On the other hand, for the establishment of whether school environmental factors were also significant predictors to academic performance of students, analysis of Variance (ANOVA) was computed as shown in Table 4.16**.**

Table 4.16

ANOVA-- Influence of School Environmental Factors on Students' Academic Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	55.398	1	55.398	23.901	.000[b]
	Residual	264.234	114	2.318		
	Total	319.632	115			

a. Dependent Variable: Academic Performance of students

b. Predictors: (Constant), School Environmental Factors

F-ratio in the ANOVA results, which tests whether the general regression model is a good fit for the data, reveals that, school environmental factor is a significantly predictor of Students' Academic Performance, $F(1, 114) = 23.901$, $p < .05$. This indicates that knowledge of School Environmental Factors could reliably be used to predict Students' Academic Performance in secondary schools. To determine the actual influence of school environmental factors, multiple linear regression analysis was computed and the results were presented as shown in Table 4.17.

Table 4.17

Multiple Regression Analysis of Influence of Environmental Factors on Students' Academic Performance

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.484	1.087		.445	.657
X_1	.317	.127	.232	2.502	.014
X_2	.212	.157	.131	1.347	.181
X_3	.117	.141	.087	.830	.409
X_4	.078	.209	.044	.372	.711
X_5	.079	.239	.040	.329	.743
X_6	-.194	.174	-.126	-1.114	.268
X_7	.028	.217	.017	.130	.897
X_8	.382	.230	.214	1.660	.010
X_9	.168	.170	.116	.985	.327
X_{10}	.031	.187	.016	.164	.870

a. **Dependent Variable**: Students' Academic Performance

Regression Equation: $Y=\beta 0+ \beta 1X1+ \beta 2X2----------\sum$

Key

X_1-Peer influence

X_2-School security

X_3-Presence of internets and other electronics

X_4-Teaching-learning facilities

X_5-Trained and experienced teachers

X_6-Teachers financial motivation

X_7-Use of Library

X_8-Use of laboratory

X_9-Instructional materials

X_{10}-Residential facilities for teachers

From Table 4.17, it can be observed that two environmental factors out of ten were established to be predictors of academic performance of students. This means that they significantly influence academic performance of students. These factors were; peer influence and use of Laboratory. The prediction model therefore is as follows;

Student Academic Performance=.484+.317X_1+.382X_8

This also implies that for every one-unit increase in peer influence, academic performance of students improves by .317 units as signified by the coefficient .317. This clearly indicates that students themselves can influence each other towards negative or positive direction. It is therefore, upon the principals to monitor and control the behavior of all students in order to reduce negative influence in students' academic performance. Similarly, for every single unit increase in the use of the laboratory, students' academic performance improves by .382 units as signified by coefficient .382. Academic work should be made practical for learners to be creative in their academic work. Principals therefore, need to ensure the use of Laboratories and their availability to improve students' academic performance. The other factors namely; school security, presence of internet and other electronics, teaching-learning facilities, training and experienced teachers, teacher financial motivation, use of library, instructional materials and residential facilities for teachers were not significant predictors of students' academic performance. Therefore, this implies that they cannot be relied on to predict

students' academic performance. This also means that if schools have to improve on students' academic performance, then the focus should be on peer influence and use of laboratory as an instructional agenda. Peer influence and laboratory use seem to have a strong indication of enhancing performance and therefore, tend to override other factors found not to be significant and perform better and vice versa. For instance, if peer influence through group work is directed to effective use of teaching and learning resources and teacher teaching experience, then students' academic performance will improve. Sharing of insufficient resources, mentoring one another and other benefits of group learning will make it easier for students to help each other and hence improve their performance as a unit or class. Similarly, if use of laboratory is directed to effective use of teaching –learning facilities and teacher teaching experience, then academic performance of students will improve. This means that laboratory predicts students' academic performance in practical subjects.

By comparing the literatures, new knowledge is that among other environmental factors, only two (peer influence and use of laboratory) can predict academic performance of students. This knowledge gap was not specified by all the literature reviewed. The study conducted by this researcher reported similar situations. It is important to note that despite geographical distances, the experience of many countries seem to indicate that academic performance of students in secondary schools all over the world is dictated or influenced by varied environmental factors. Chief among these factors is peer influence and use of Laboratory.

4.7 Influence of Parental factors on Students' Academic Performance

This last objective was: to investigate the influence of parental factors on students' academic performance. The study used both descriptive and inferential statistics to establish the

influence of parental factors on students' academic performance of students. The researcher would like to re-emphasize that parental factors were obtained via interviews for principals and document analysis. No parent was a respondent in this research. Their views and opinions were teased out of the documents which they fill in while in school and the kind of communication between themselves as key persons in the life of their children and the school personnel: teachers and principals. A reminder to the reader on some of the documents are school diary, where a lot of communication takes place between the teachers and the parents, the admission form where parents provide vital data about themselves, state of fee payments which show interest if the parent is fulfilling the basic requirement of admission of a student, number of visits made in the school either via invitation or on the parent's own initiative. Some other indicators are parents willing participation in events in the school such as taking part in school projects, attending most functions in the school. Such activities from parents give a heavy presence of the parent and provide a sense of ownership which enhances the students' confidence in the school. It is believed that such participation is likely to promote a reciprocal effort in the student. Working smart in the academics and hence yield better performance.

Principals were asked to rate the influence of parental factors on academic performance of students. The respondents were presented with items whose constructs measured parental factors and they were to rate them on the scale of 1 to 5, based on their influence on academic performance. The parental factors were rated by the respondents using the indicators of education level of parents, communication between parents and teachers, regular checks by parents on academic performance, attitude of parents towards their children, parental homework support, parental financial resources investment in the

education of their children and Parental academic socialization. Their responses were summarized in mean and standard deviation presented as shown in Table 4.18.

Table 4.18

Influence of Parental factors on students' academic performance (n=116)

Item	Principals Ratings	
	Mean	Std Dev.
X_1-Education level of parents	3.25	1.26
X_2-Communication between parents and teachers	3.69	1.01
X_3-Regular checks by parents on academic performance	3.74	1.00
X_4-Attitude of parents towards their children	3.85	0.98
X_5-Parental homework support	3.50	1.06
X_6-Parental investment of financial resources in their children's education	3.73	1.14
X_7-Parental academic socialization	3.55	0.98
Overall ratings on parental factors	3.63	0.76

Source: Survey data (2018)

Interpretation of Mean Rating:

1.00-1.44 (Very low)

1.45-2.44 (Low)

2.45-3.44 (Moderate)

3.45-4.44 (High) and

4.45-5.00 (Very high)

From Table 4.18, responses were summarized in percentage frequencies as indicated in appendix E (iv). It is evident that the overall influence of parental factors was high. This was reflected by showing a mean rating of 3.63 (SD=0.76) in the rating scale of 1 to 5 in the level

of influence on academic performance of students, with all the items in the subscale rated below 4.0. The rating of parental factors, is clear that although many 58 (50.0%) of the respondents held the belief that parental involvement was generally high (3.45-4.44), many principals rated parental involvement higher.

Similarly, the influence of parental homework support on secondary academic performance of students was only rated at 3.50 (SD=1.06) by the principals. This was not in line with the findings of Tyson (2009) who established that parental involvement was positively associated with achievement of students' academic work, with the exception of the help of parent with homework. This implies that not all parents can assist their children in homework because some are not educated or may not understand since they are not specialists. However, in this study, principals believe that parents can assist their children in doing homework by monitoring or giving advice on areas of their weaknesses. On the contrary, parental academic socialization attracted mean rating influence rate of 3.55 (SD=0.98), as rated by the principals. This is also supported by Tyson (2009) who established that academic socialization had the strongest positive link with performance of academic work of students. Based on the arguments above, it can be concluded that parental involvement and close monitoring has a positive impact on students' academic performance. It is therefore proposed that as the schools deal with nurturing of the learners, home environment should work mutually in providing successful trainings and counseling to the learners.

The respondents described a number of ways through which they involve themselves in students' academic performance. They mentioned their contributions to schools through material donations and financial outputs as indicated by the excerpt, thus:

> It is important to have close partnership between school and parents in order to improve the students' academic development. Sometimes we do request the parents to buy or donate textbooks and other learning materials. Personally, I have seen some parents closely monitoring the set targets for their children and constantly cautioning their sons in areas of weaknesses (Principal 1)

The experiences and responses narrated from the interviews and verbatim quotation was derived from the principals who were the conduits of the parental factors influencing academic performance. However, there was a general agreement by the principals (mean=3.69) that regular communication between parents and teachers is an important factor towards students' academic performance. This is supported by Mathew and Shaun (2012) who established that frequent teacher-family communication affect students' academic performance. The item, "regular checks by parents on academic performance," was rated to be of high influence by principals (mean=3.74) on students' academic performance. Attitude of parents towards their children education was also established to be an important factor in enhancing academic performance of students, as shown by a mean of 3.85 (SD=0.98) by the principals. It is evident that students favored in a situation where their parents talked in a motivating manner to them. They felt that parents should use motivating and encouraging words to their children in connection with academic achievements. The communication between parents and their students should be free and frequent as this will always encourage the students as they learn in schools.

The other item on objective four was: what are some of the roles performed by parents at school level to promote learners' academic achievement? On this test item response indicated:

> Parents play very crucial role in promoting the learner's academic achievements in this school. To comply with the system of integrated support for their children's achievement, schools need to build stable partnership with parents and develop mutual responsibility for the success of their children in the educational system. In this way, many parents do support quite a number of ongoing projects which make a positive impact to a successful system of education (Principal 8).

> Parental factors in the education of students begin at home with the parents providing a safe and healthy environment, appropriate learning experiences, support and a positive attitude toward school. They equally participate in the schools' decision making which enhance learners' academic performance (Principal 5).

This is in tandem with Epstein (2001, 2009) who found out that there are many reasons for developing and establishing a partnership among school, family and community. The main reason for such a partnership is to aid students in succeeding in their academic work at school. Other reasons include the working, teaching and learning atmosphere in the school. A school that depicts activities that are done per schedule, an organized school helps to make the players in the school responsible. Hence improving school climate and school programs, developing parental skills and leadership, assisting families in connecting with others in the school and the community, and assisting teachers with their work influences how much students respond to academic work.

To establish the actual influence of parental factors on students' academic performance, the null hypothesis 'Ho_4: Parental Factors do not influence Students' Academic Performance was used. In this respect, the data in Tables 4.2 and Appendix E (iv) were used to compute regression analysis. The results were as shown in Tables; 4.19, 4.20 and 4.21

Table 4.19

Model Summary of Regression Analysis of the influence of parental factors on Students' Academic Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df 1	df2	Sig. F Change
1	.341[a]	.117	.109	1.57388	.117	15.035	1	114	.000

Predictors: (Constant), Parental Factors
Dependent Variable: Academic Performance of students

The model shows that Parental Factors accounted only for 10.9%, as signified by Adjusted R^2=.109, of the variation in academic Performance of students in public secondary schools in Migori County. 89.1% of variation in academic performance. The null hypothesis; parental factors have no significant influence on students' academic performance was rejected because r=.341, N=116, and p<.05. This equally implies that parental factors influenced academic Performance of students. This was a reasonable amount of influence. However, for the determination of whether parental factors was a significant predictor of secondary school academic performance of students, Analysis of Variance (ANOVA) was computed and presented as shown in Table 4.20.

Table 4.20

ANOVA-- Influence of Parental factors on Students' Academic Performance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	37.243	1	37.243	15.035	.000[b]
	Residual	282.389	114	2.477		
	Total	319.632	115			

a. **Dependent Variable**: Students' Academic Performance

b. **Predictors:** (Constant), Parental factors

From the ANOVA results, it is evident that parental factors significantly predict the students' academic performance, F (1, 114) = 15.035, p< .05, revealing that the regression model is a good fit for the data in this study. This implies that parental factors are useful information in predicting the public secondary school academic performance of students. To determine the actual influence of parental factors, multiple linear regression analysis was computed and the results were as indicated in Table 4.21

Table 4.21

Multiple Regression Analysis of Influence of Parental Factors on Students' Academic Performance

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.197	.682		1.756	.082
X_1	.013	.129	.010	.102	.919
X_2	.199	.179	.121	1.109	.270
X_3	.280	.204	.169	1.372	.013
X_4	.135	.207	.079	.652	.516
X_5	.138	.190	.088	.726	.470
X_6	-.046	.173	-.032	-.267	.790
X_7	.361	.188	.212	1.921	.037

a. **Dependent Variable**: Students' Academic Performance

Regression Equation: $Y= \beta 0+\beta 1X1+\beta 2x2----------\sum$

KEY

X_1-Education level of parents

X_2-Communication between parents and teachers

X_3-Regular checks by parents on academic performance

X_4-Attitude of parents towards their children

X_5-Parental homework support

X_6-Parental investment of financial resources in their children's education

X_7-Parental academic socialization

From Table 4.21, it can be observed that two parental factors out of seven were established to be predictors of students' academic performance. This means that they significantly influence students' academic performance. These factors were; regular checks by parents on academic performance and parental academic socialization. The prediction model therefore, is as follows; Student Academic Performance=1.197+.013X_3+.037X_7.This means that for every one-unit increase in regular checks by parents on students' academic performance, students' academic performance improves by .169 units as signified by the coefficient .169. This therefore means that principals should involve parents in academic progress of their children in school in order to work as a team with parents towards students' academic performance. He should put signing of progress reports as a school requirement. Similarly, for every one-unit increase in parental academic socialization, students' academic performance improves by .212 units as signified by coefficient .212. This therefore, implies that parents should have good relationship with teachers in order to know more about their children's performance. Principals should therefore allow parents to visit schools to know more about their children and even organize for education days to allow parents familiarize with education matters. As a researcher, it appears that parents' involvement in what students do should be strengthened so that students feel the sense of responsibility to even reciprocate their parents' involvement. The outcome of such commitment is likely to bring out good academic performance. The other factors namely; education level of parents, communication between parents and teachers, attitude of parents towards their children, parental homework support and parental investment of financial resources in their children education, were found not to be significant predictors of students' academic performance. This means that they cannot be relied on to predict students' academic performance. This also means that if schools have to improve on

performance, then the focus should be on regular checks by parents on academic performance and parental academic socialization and other factors will automatically be induced.

Regular checks by parents on academic performance and parental academic socialization are strong and therefore tend to override other factors found not to be significant and perform better and vice versa. For instance, if regular checks by parents on their students' academic performance and parental academic socialization are directed to effective promotion on their children's performance then performance will improve. Other factors like; communication between parents and teachers, education level of parents, positive attitude, and proper investment of financial resources in their children's education, are equally influential on the students' academic performance but cannot be relied on to predict academic performance as per the study outcome. New knowledge is that among other parental factors, only two (regular checks by parents on academic performance and parental academic socialization) can predict students' academic performance. This means that other parental factors also influence students' academic performance but cannot be relied on to predict students' academic performance. This knowledge gap was not specified by all the literatures reviewed.

4.8 Multiple Regression Analysis

The current study sought to establish a linear model that could be used to define the optimal level of academic performance of students in discussing school related factors. This was conducted by use of standard multiple regression analysis, where all the independent variables which had statistical significant contribution to the model were factored in the

regression at once in this case. The multiple regressions helped to investigate how well the set of the independent variables in this study were able to predict the degree of academic performance of students and it provided information about the relative contribution of individual variables that make up the model. Equally, evaluation of each independent variable was in terms of its predictive power.

Table 4.22

Model Summary of Regression Analysis of the influence of School Based Factors on Students' Academic Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.580[a]	.336	.318	1.37633	.336	18.912	3	113	.000

Predictors: (Constant), Parental factors, Principals' Leadership Skills, School Environmental Factors, Student Factors.

The findings of this study show that there is fairly good measure of value of prediction of the dependent variable – academic performance of students as signified by Adjusted R=.318. The value of Adjusted R Square .318 translated to percentage show that school based factors alone accounted for 31.8% of the variance in secondary school academic performance of students. This refers to the proportion of variance in the students' academic performance explained by the school based factors. In other words, it refers to the proportion of variation accounted for by the regression model above and beyond the mean model. Other variation not accounted for may be as a result of; home based factors, health factors, religion factors, geographical factors and gender factors which were not part of this study. It was therefore

necessary to analyze the outcomes from ANOVA. However, for the assessment of the statistical significance of the result, it was necessary to look at the ANOVA results shown in Table 4.23.

Table 4.23

ANOVA—Influence of School Based Factors on Students' Academic Performance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	107.474	4	35.825	18.912	.000[b]
	Residual	212.158	112	1.894		
	Total	319.632	116			

a. **Dependent Variable**: Students' Academic Performance

b. **Predictors:** (Constant), Parental Factors, Principals' Leadership Skills, School Environmental Factors, Student factors

It is a clear evidence from the ANOVA results that the model reached statistical significance [F (3, 112) =18.912, Adjusted R^2=.318, sig. <.05].This implies that the model was significant and adequate enough to define the variance in academic performance of students among public secondary schools in Migori County. In other words, the results show that the school based factors significantly predict academic performance of students, implying that the regression model is a good fit for the data in this study.

Evaluating Contribution of each of the Predictor

The study sought to investigate the contribution level of the individual school based factors factored in the model in the prediction of the students' academic performance. This was shown by coefficient values shown in Table 4.24.

Table 4.24

Multiple Regression Analysis of Influence of School Based Factors on Students' Academic Performance

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-2.621	1.153		-2.273	.025
	Student Factors	593	.248	.197	2.512	.026
	Principals' Leadership Skills	.782	.179	.363	4.363	.000
	School Environmental Factors	.662	.250	.226	2.648	.009
	Parental factors	.581	.245	.193	2.367	.020

a. Dependent Variable: Students' Academic Performance

$Y = \boldsymbol{\beta}_o + \boldsymbol{\beta}_1 x_1 + \boldsymbol{\beta}_2 x_2 + \boldsymbol{\beta}_3 x_3 + \boldsymbol{\beta}_4 x_4 + \varepsilon.$

$-2.621 + .593x_1 + .782x_2 + .662 x_3 + .581x_4 +$ error term

From the model it is clear evidence that all the four aspects of school based factors contributed differently in influencing academic performance among the secondary schools in Migori County. For instance, out of the four predictors factored in the regression equation, Principals' Leadership Skills had the highest impact on improving students' academic performance, while parental factors made the lowest contribution in describing the variability

of the model. The variable “Principals' Leadership Skills” had the largest beta coefficient of .363 ($p<.05$). This implies that it made the unique contribution which is the strongest to describe the dependent variable. This implies that improvement of a one standard deviation in Principals' Leadership Skills leads to an increase of .363 standard deviation in predicted students’ academic performance, with the other variables remaining constant. This therefore, shows that principals are the key drivers of school matters and they should apply appropriate leadership skills to manage academic matters in secondary schools.

On the contrary, value of the beta for parental factors was the least at .193, showing that it made the smallest contribution to the model as compared to others .A one standard deviation increase in parental factors would only lead to a .193 standard deviation increase in academic performance of students, with the other variables in the model remaining constant. However, this impact was significant [$p=.020$]. This is because of their remote control from outside the school. Their effect is indirect not direct.

It is evident that all the variables made a statistically significant ($p<.05$) unique contribution to the regression model.

It was further observed that the total Adjusted R squared value for the model (31.8 described variance) did not equal to the sum of the Adjusted R Squared for individual variable. This was because the part of correlation values represented only the unique contribution of each variable, with any overlap or shared variance removed. The total Adjusted R squared value, however, included the unique variance described by each of the school based factors and also that shared. There were positive correlation of predictors (indicated by zero-order

correlations) hence there was a lot of shared variance in this that was statistically removed when they were all involved in the model.

The Regression model

A regression model for the relationship between these independent variables and dependent variable is as shown.

In this model: $Y = \beta_o + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \varepsilon$.

Where: Y is Students' Academic Performance

X_1 Student Factors

X_2 Principal's Leadership Skills

X_3 School Environmental Factors

X_4 Parental factors

Optimum level of students' academic performance was presented by:

$-2.621 + .593X_1 + .782X_2 + .662X_3 + .581X_4$ error term

From the model, the coefficients show how much students' academic performance varies with an independent variable when the other two independent variables remain constant. For example, the unstandardized coefficient, X_2, for principal's leadership skills which is equal to .782 implying that for each one unit improvement in the leadership skills, there is a corresponding improvement in student's academic performance in public secondary school by.782 units.

All the predicators in the model had unique significant contribution in the model. Therefore, it is concluded that the model was suitable to predict student academic performance. The model was statistically significant [F (3, 112) =18.912, Adjusted R^2=.318, sig. <.05],

implying that it was adequate to predict academic performance of students. About 32% of the variability in student academic performance is explained by the school based factors. However, other factors may be as a result of home based factors, health factors, religion factors, geographical factors and gender factors which were not part of this study, are responsible for about 68% of the regression model.

CHAPTER FIVE

5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The summary of findings, conclusions and recommendations of this study are presented in this chapter. It gives suggestions for further research at the end.

5.2 Summary of the Findings of the Study

This summary of findings of the study were based on the four objectives of the study and presented as follows:

5.2.1 Influence of Principals' Leadership Skills on Students' Academic Performance

The first objective of this study was to establish the influence of principals' leadership skills on students' academic performance in Migori County. The study established from Table 4.7 that there was positive correlation ($n=116$; $r=.486$; $p<.05$) between principals' leadership skills and academic performance of students. It was statistically significant. Due to the fact that the p-value was less than .05, the null hypothesis which stated that "principals' leadership skills have no significant influence on academic performance of students" was rejected.

The study established that 23% of the variation in academic performance of students in public secondary schools was explained by principals' leadership skills, as signified by Adjusted R Square coefficient .230. This was fairly considerable amount of effect by only one predictor on the dependent variable in this study. The ANOVA results output-ratio tests whether the whole regression model is a good fit for the data. It is evident that principals' leadership skills statistically predict students' academic performance, F (1, 114) =35.273,

p<.05. This means that the regression model is a good fit of the data, meaning that information on principals' leadership skills could be used to predict academic performance of students in public secondary schools. The researcher concluded that principals' leadership skills which have a stake in academic performance are related to issues such as students and teachers monitoring, execution of students' assessment, delegation of duties and responsibilities, incorporating guidance and counseling programs in schools, uniting teaching and non-teaching staff, monitoring students' discipline, quality improvement measures, communication and listening skills and training on managerial skills. Although, we know from human growth and development and also from our studies in other content areas that personality differences among us may alter behavior and breed deviants among a school system. All in all, the study concludes that for a majority of cases, principal leadership skills play an important part in students' academic performance.

5.2.2 Influence of Student Factors on their Academic Performance

The second objective of this study was to establish the influence of student factors on their academic performance in Migori County. The study established that there was a low positive significant correlation (n=116; r =.316; p<.05) between student factors and academic performance of students as the p-value was less than .05. Thus the null hypothesis which stated that "student factors have no significant influence on academic performance of students" was rejected.

The study established that 9.2% of the variation in academic performance of students in public secondary schools was explained by student factors, as signified by Adjusted R Square coefficient .092. This was fairly slight amount of effect of a predictor on the

dependent variable in this study. The ANOVA results output-ratio tests whether the whole regression model is a good fit for the data. It is evident that, despite the small effect, student factors statistically predict students' academic performance, F (1, 114) = 12.666, $p<.05$. This means that the regression model is a good fit of the data, meaning that information on student factors could be used to predict academic performance of students in public secondary schools. The researcher concluded that if students have to improve on their academic performance, then the focus should be on learners' competitive spirit, learners' discipline and learners' own set targets. It is also concluded in this study that other student factors like students' ambition, learners' individual effort, learners' attitude on subjects, career choice and lack of learners' ambition and participation in co-curricular activities will automatically be induced by the learners' competitive spirit, learners' discipline and learners' own set targets to improve students' academic performance.

5.2.3 Influence of School Environmental Factors on Students' Academic Performance

The third objective of this study was to establish the influence of school environmental factors on students' academic performance in Migori County. The study established from Table 4.15 that there was positive correlation (n=116; r =.416; $p<.05$) between school environmental factors and academic performance of students, it was statistically significant. Due to the fact that the p-value was less than .05, the null hypothesis which stated that "school environmental factors have no significant influence on academic performance of students" was rejected.

The study established that 16.6% of the variation in academic performance of students in public secondary schools was explained by school environmental factors, as signified by

Adjusted R Square coefficient .166. This was fairly considerable amount of effect of a predictor on the dependent variable in this study. The ANOVA results output-ratio tests whether the whole regression model is a good fit for the data. It is evident that school environmental factors statistically predict students' academic performance, F (1, 114) = 23.901, $p<.05$. This means that the regression model is a good fit of the data, meaning that information on school environmental factors could be employed to predict academic performance of students in public secondary schools. The researcher concluded that if principals have to improve on academic performance of students, then the focus should be on peer influence and use of laboratory. The two indicators will automatically induce other indicators like school security, presence of internet and other electronics, teaching learning facilities, trained and experience teachers, teachers financial motivation, use of library and instructional materials to improve students' academic performance.

5.2.4 Influence of Parental factors on Students' Academic Performance

The fourth objective of this study was to establish the influence of parental factors on academic performance of students in Migori County. The study established from Table 4.19 that there was positive correlation ($n=116$; $r =.341$; $p<.05$) between parental factors and academic performance of students, it was statistically significant. Due to the fact that the p-value was less than .05, the null hypothesis which stated that "parental factors have no significant influence on academic performance of students" was rejected.

The study established that 10.9% of the variation in academic performance of students in public secondary schools was explained by parental factors, as signified by Adjusted R Square coefficient .109. This was fairly considerable amount of effect of a predictor on the

dependent variable in this study. The ANOVA results output-ratio tests whether the whole regression model is a good fit for the data. It is evident that parental factors statistically predict students' academic performance, F (1, 114) = 15.035, $p<.05$. This means that the regression model is a good fit of the data, meaning that information on parental factors could be used to predict academic performance of students in public secondary schools. The researcher concluded that parental factors though inferred from documents and interviews from principals play a key role in students' academic performance. When it is evident that parents are involved in all sorts of communication: physically, through visits, or even by written communication and responding to participation in events in the school through financial or others by providing a helping hand, students realize the need to be responsible. In being responsible, students put in effort in the major task they have as students: engagement in learning activities. The outcome of competitive and commensurate hard work is almost always good academic performance. This is akin to saying that parents who identify with the school give their children no alternative other than to try their level best and attain their goals.

5.3 Conclusion

The following conclusions were made on the basis of the study findings:

i. It is evident that principals' leadership skills have significant amount of influence on students' academic performance. The study hence concluded that if principals have to improve on academic performance of students , then the focus should be on students and teachers monitoring, execution of students' assessment, delegation of duties and responsibilities, incorporating guidance and counseling programs in schools, uniting teaching and non-teaching staff, monitoring students' discipline,

quality improvement measures, communication and listening skills and training on managerial skills should be enhanced by the school leadership.

ii. It is evident that student factors have significant amount of influence on students' academic performance. The study hence concluded that if students have to improve on their academic performance, then the focus should be on learners' competitive spirit, learners' discipline and learners' own set targets. It is also concluded in this study that other student factors like students' ambition, learners' individual effort, learners' attitude on subjects, career choice and lack of learners' ambition and participation in co-curricular activities will automatically be induced by the learners' competitive spirit, learners' discipline and learners' own set targets to improve students' academic performance.

iii. It is evident that school environmental factors have significant amount of influence on students' academic performance. The study hence concluded that if principals have to improve on academic performance of students, then the focus should be on peer influence and use of laboratory. The two indicators will automatically induce other indicators like school security, presence of internets and other electronics, teaching learning facilities, trained and experience teachers, teachers financial motivation, use of library and instructional materials to improve students' academic performance.

iv. It is evident that parental factors have significant amount of influence on academic performance of students in public secondary schools. The study therefore concluded that if schools have to improve on performance, then the focus should be on regular checks by parents on their students' academic performance and parental academic

socialization. If these two parental factors are directed to effective use of communication between parents and teachers, education level of parents, positive attitude and proper investment of financial resources in their children's education, then students' academic performance will improve.

5.4 Recommendations

Based on the foregoing findings and conclusions made, the study made the following recommendations:

i. Principals should focus on students and teachers monitoring, execution of students' assessment, delegation of duties and responsibilities, incorporating guidance and counseling programs in schools, uniting teaching and non-teaching staff, monitoring students' discipline, quality improvement measures, communication and listening skills and attending to training on managerial skills in order to improve on students' academic performance.

ii. Principals have to focus on learners' competitive spirit, learners' discipline and learners own set targets in order to improve on academic performance of students. Other student factors like students' ambition, learners' individual effort, learners' attitude on subjects, career choice and lack of learners' ambition and participation in co-curricular activities will automatically be induced by the other three student factors which can be relied on by the principals for the improvement of students' academic performance. It is recommended that communication between the school principal, teachers, and parents and among students should be enhanced to improve academic performance.

iii. Principals need to focus on peer influence and use of laboratory work among themselves and among the neighboring schools in order to improve on students' academic performance. Peer influence is strong and indicates spirit of positive competition among students. If the two are used effectively then others will be automatically induced.

iv. Principals need to motivate parents to strengthen their factors of regular checks and academic socialization in order to improve on their children's academic performance. Principals should be aware that if these two parental factors are effectively used then other factors like communication between parents and teachers, education level of parents, positive attitude and proper investment of financial resources in their children education will be automatically induced to improve students' academic performance.

5.5 Suggestions for Further Research

The study recommends further research to be conducted in the following areas:-

i. To determine the role of B.O.M on students' academic performance in secondary schools in Kenya.

ii. Assessment of teachers' factors on students' academic performance in secondary schools in Kenya.

iii. To establish home environmental factors on students' academic performance in secondary schools in Kenya.

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APPENDICES

APPENDIX A: QUESTIONNAIRE FOR PRINCIPALS

Dear Respondent,

My name is Hezekiah Otieno Omolo undertaking a PhD course at Rongo University, and currently doing a study on the influence of school based factors on Students' Academic Performance in public Secondary institutions in Migori County. Because of your being the principal of the school, you are offered first priority to take part in this study. Be confident that the information you shall provide will be highly treated with a lot of confidentiality and shall never be taken for any other use other than the use of academic that it is meant for. Kindly provide the researcher with honest information as required.

Thank you in advance,

Otieno H Omolo

SECTION A - DEMOGRAPHIC INFORMATION

(Please tick where appropriate)

No	Items	Responses							
1	In which of the following sub-counties does your school fall?	Nyatike	Uriri	Kuria E	Awendo	Rongo	Kuria W	Suna E	Suna W
2	Which of the following settings best describe the nature of your school?	Rural	urban						

SECTION B:

Influence of Principals' leadership skills on students' academic Performance in public secondary schools.

Principals' leadership skills usually influence students' academic performance. Based on your knowledge and experience, rate the leadership skills (using a tick on a 5-point scale) used by principals in enhancing students' academic performance whereby: 1=very low influence = 2=Low influence, 3 = Moderate influence, 4 = High influence, 5 = Very high influence

	Principals' skills	1	2	3	4	5
X_1	Students and teachers monitoring					
X_2	Execution of students' assessment					
X_3	Delegation of duties and responsibilities					
X_4	Incorporating guidance and counseling programs in schools					
X_5	Uniting teaching and non-teaching staff					
X_6	Initiating teamwork among the teaching staff					
X_7	Monitoring students' discipline					
X_8	Quality improvement measures					
X_9	Communication and listening skills					
X_{10}	Mobilizing of adequate staffing.					
X_{11}	Coordination and supervisory					
X_{12}	Training on managerial skills					

Section C:

Influence of Student Factors on Students' Academic Performance in Public Secondary Schools

Student factors usually influence academic performance of students. Based on your knowledge and experience, rate the student factors (using a tick on a 5-point scale) used by students in enhancing their academic performance whereby: 1=very low influence = 2=Low influence, 3 = Moderate influence, 4 = High influence, 5 = Very high influence

	Student factors	**1**	**2**	**3**	**4**	**5**
X_1	Students' ambition					
X_2	Learners' individual efforts					
X_3	Learners' attitude on subjects					
X_4	Career choice and lack of learners' ambition					
X_5	Learners' competitive spirit					
X_6	Learners' own set targets					
X_7	Substance abuse					
X_8	Students' discipline in schools					
X_9	Students' unrest and absenteeism from school					
X_{10}	Participation in co-curriculum activities					

Section D:

Influence of School environmental factors on students' academic performance in public secondary schools

School environmental factors usually influence academic performance. Based on your knowledge and experience, rate the school environmental factors (using a tick on a 5-point scale) in your school that influence students' academic performance whereby: 1=very low influence = 2=Low influence, 3 = Moderate influence, 4 = High influence, 5 = Very high influence

	School environmental factors	**1**	**2**	**3**	**4**	**5**
X_1	Peer influence					
X_2	School security					
X_3	Presence of internets and other electronics					
X_4	Teaching-learning facilities					
X_5	Trained and experienced teachers					
X_6	Teachers financial motivation					
X_7	Library					
X_8	laboratory					
X_9	Residential facilities for teachers					
X_{10}	Instructional materials					

Part E: Influence of Parental factors on students' academic performance

Parental factors usually influence academic performance .Based on your knowledge and experience, rate the parental factors (using a tick on a 5-point scale) used by parents in enhancing students' academic performance whereby: 1=very low influence = 2=Low influence, 3 = Moderate influence, 4 = High influence, 5 = Very high influence

	Parental Factors	**1**	**2**	**3**	**4**	**5**
X_1	Education level of parents					
X_2	Communication between parents and teachers					
X_3	Regular checks by parents on academic performance					
X_4	Attitude of parents towards their children					
X_5	Parental homework support					
X_6	Parental investment of financial resources in their children's education					
X_7	Parental academic socialization					

Part F: Students' Academic Performance

Kindly indicate the school overall mean for your school in KCSE in the years indicated (Round up your mean to the nearest 2 decimal places).

Year	2010	2011	2012	2013	2014	2015	2016	2017
Mean								

APPENDIX B

INTERNAL CONSISTENCE: CRONBACH'S ALPHA RESULTS FOR THE QUESTIONNAIRE

1. Principal's Leadership Skills Questionnaire

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.858	.859	12

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
X_1	44.77	37.711	.516	.387	.849
X_2	44.78	38.484	.416	.387	.856
X_3	44.77	36.458	.609	.467	.842
X_4	44.89	35.631	.683	.531	.837
X_5	44.80	37.447	.500	.391	.850
X_6	44.55	38.302	.517	.357	.849
X_7	44.57	38.039	.549	.467	.847
X_8	44.80	37.517	.506	.386	.850
X_9	44.80	36.421	.611	.549	.842
X_{10}	44.80	37.865	.538	.497	.847
X_{11}	44.78	38.223	.536	.442	.848
X_{12}	44.78	38.571	.438	.346	.854

2. Students' Based Factors Questionnaire

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.676	.710	10

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
X_1	35.16	25.228	.138	.157	.685
X_2	35.22	23.353	.432	.455	.640
X_3	35.10	22.894	.431	.452	.638
X_4	35.53	22.321	.425	.288	.636
X_5	35.09	23.043	.478	.438	.634
X_6	35.16	23.158	.413	.293	.641
X_7	35.72	19.697	.427	.614	.635
X_8	35.01	23.000	.466	.332	.635
X_9	35.61	20.118	.434	.632	.632
X_{10}	35.57	26.404	-.043	.105	.731

3. School Environmental Factors Questionnaire

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.743	.756	10

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
X_1	34.91	29.088	.137	.163	.768
X_2	34.96	27.207	.383	.239	.725
X_3	35.26	24.976	.471	.353	.711
X_4	34.54	27.016	.463	.477	.714
X_5	34.40	27.824	.429	.513	.720
X_6	34.91	27.106	.366	.435	.728
X_7	34.72	25.454	.603	.560	.693
X_8	34.68	25.889	.593	.565	.696
X_9	35.19	26.625	.372	.481	.728
X_{10}	34.40	28.607	.337	.204	.731

4. Parental Factors Questionnaire

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.845	.852	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
X_1	22.07	22.830	.383	.292	.863
X_2	21.63	22.392	.585	.428	.826
X_3	21.58	21.585	.691	.550	.811
X_4	21.47	22.373	.617	.538	.822
X_5	21.82	20.950	.713	.539	.806
X_6	21.59	21.027	.640	.519	.817
X_7	21.77	22.128	.646	.441	.818

APPENDIX C

INTERVIEW SCHEDULE FOR PRINCIPALS

Dear Respondent,

My name is Hezekiah Otieno Omolo undertaking a PhD course at Rongo University, and currently doing a study on the influence of school based factors on students' academic performance in public secondary schools in Migori County. Being the principal of the school, you are offered first priority to take part in this study. Be confident that the information you shall provide will be confidential and shall never be taken for any other use other than this study. Kindly provide the researcher with honest information as required.

Thank you in advance,

Otieno H Omolo

Section one-Demographic information

(Please tick where appropriate)

No	Items	Responses							
		Nyatike	Uriri	Kuria E	Awendo	Rongo	Kuria W	Suna E	Suna W
1	In which of the following sub-counties does your school fall?								
2	Which of the following settings best describe the nature of your school?	Rural	urban						

Section Two –General opinion

1. How does frequent communication between parents and teachers promote students' academic performance in your school?

---

2. In your own opinion, how do parents involve in your school towards the achievement of their children's performance?

---

3. How do your leadership skills as a school principal affect students' academic performance in final exams?

---

4. What are some of the challenges that students face within the school environment that affect their academic performance in the final examinations? ----------

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5. What are some of the indicators of dedicated and hardworking students in your school?----------

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6. How does school environment affect learners' academic performance in your school?

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7. What are some of the roles performed by parents at school level to promote learners' academic achievement?

APPENDIX D: FOCUS GROUP DISCUSSION

1. What are some of the factors in school that affect your academic performance (positive/negative)?
2. What are some of the individual initiatives you put as a student to excel in academics?
3. (i). Do students' own subject interest affect academic achievement?

   (ii). If yes, explain.

4. How do you choose your career? Do you get guidance from teachers?
5. How does the spirit of competition enable you to excel academically?
6. (i). Do you set your own target as a student?

   (ii) Of what importance does the target setting assist in your academic achievement?

7. (i) Is there a relationship between students' discipline and academic performance?

   (ii) If yes, explain.

8. Explain how absenteeism and unrest affect students' academic achievement.

APPENDIX E: SUMMARY OF MEAN RATINGS

(i)Influence of Principals' Leadership Skills rating on students' academic performance

Principals Ratings	Interpretation	Frequencies of Schools	Percentage frequency
1.00-1.44	Very low influence	0	0.0
1.45-2.44	Low influence	2	1.7
2.45-3.44	Moderate influence	16	13.8
3.45-4.44	High influence	68	58.6
4.45-5.00	Very high influence	30	25.9
Total		116	100.0

Source: Survey data (2018)

Interpretation of mean rating:

1.00-1.44 (Very low)

1.45-2.44 (Low)

2.45-3.44 (Moderate)

3.45-4.44 (High)

4.45-5.00 (Very high)

From the table, it is evident that most of the principals' leadership skills were rated highly. For instance, in the scale of 1 to 5, more than a quarter 68 (58.6%) of the principals rated leadership skills as highly influential (3.45-4.44) by principals themselves .It is evident that there were no principals who rated their leadership skills as very low influence according to the data collected. Only two principals rated leadership skills as of low influence, while 30 (25.9%) rated the skills as of very high influence.

(ii)Influence of Student Factors Rating on students' academic performance

Student factor Ratings	Interpretation	Frequencies of Schools	Percentage frequency
1.00-1.44	Very low influence	0	0.0
1.45-2.44	Low influence	1	0.8
2.45-3.44	Moderate influence	22	19.0
3.45-4.44	High influence	57	49.2
4.45-5.00	Very high influence	36	31.0
Total		116	100.0

Source: Survey data (2018)

Interpretation of mean rating:

1.00-1.44 (Very low)

1.45-2.44 (Low)

2.45-3.44 (Moderate)

3.45-4.44 (High)

4.45-5.00 (Very high)

From the table it is evident that 57 (49.2%) of principals rated student factors as of high influence on students' academic achievement.

(iii) Influence of the School Environmental Factors Rating on students' academic performance

Environmental factor Ratings	Interpretation	Frequencies of Schools	Percentage frequency
1.00-1.44	Very low influence	7	6.0
1.45-2.44	Low influence	5	4.4
2.45-3.44	Moderate influence	16	13.8
3.45-4.44	High influence	49	42.2
4.45-5.00	Very high influence	39	33.6
Total		116	100.0

Source: Survey data (2018)

Interpretation of mean rating:

1.00-1.44 (Very low)

1.45-2.44 (Low)

2.45-3.44 (Moderate)

3.45-4.44 (High)

4.45-5.00 (Very high)

(iv) Influence of Parental Factors on students' rating on academic performance

Rating	Level of Influence	Frequency	Percentage Frequency
1.00-1.44	Very Low	1	0.6
1.45-2.44	Low	1	0.6
2.45-3.44	Moderate	16	13.8
3.45-4.44	High	58	50.5
4.45-5.00	Very High	40	34.5
Total		116	100.0

Source: Survey data (2018)

Interpretation of mean rating:

1.00-1.44 (Very low), 1.45-2.44 (Low), 2.45-3.44 (Moderate), 3.45-4.44 (High) and 4.45-5.00 (Very high)

APPENDIX F: KREJCIE AND MORGAN TABLE OF SAMPLE SIZE

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	256	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	100000	384

Source: Adapted from R.V. Krejcie &D.W.Morgan (1970). Determining Sample Size for Research activities. Educational and Psychological Measurement, 30, 608.

APPENDIX G: MAP OF MIGORI COUNTY

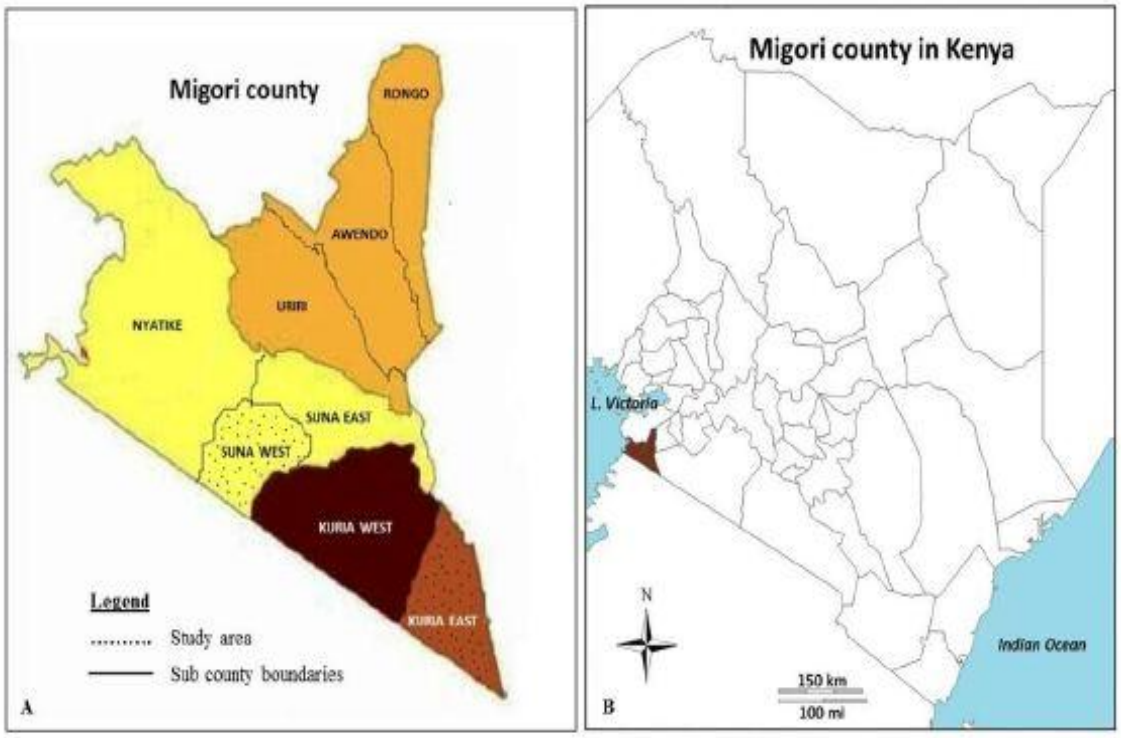


Figure 1. (A) Sub counties of Migori County; (B): Location of Migori County in Kenya.

APPENDIX H: LETTER OF INTRODUCTION

Otieno H. Omolo
Rongo University
Department of Foundations and Management
P.O Box 103
Rongo

The County Director of Education

Migori County

RE: REQUEST FOR PERMISION TO CARRY OUT RESEARCH IN SCHOOLS WITHIN YOUR COUNTY

I hereby apply for the permission as mentioned above. I am a student pursuing PhD in Philosophy of Management and Policy in the department of Foundations and Management, Rongo University as part of the requirement for fulfillment of the degree award. I kindly request you to give me permission to gather the required information from your institutions. The information gathered will be treated with strict confidentiality.

Thank you in advance

Yours sincerely,

Otieno H. Omolo

APPENDIX I: RESPONDENT'S CONSENT FORM

Department of Educational
Management & Foundations,
P.O Box 103-40404,
RONGO.

My name is Hezekiah Otieno Omolo, a postgraduate student in the Department of Educational Management and Foundations, School of Education Rongo University. I intend to carry out a study on influence of school based factors on academic performance of students in public secondary schools in Migori County. You have been selected to participate in this study because of your responsibility and experience in the provision of school leadership while in school as a principal of the school. Your participation in this study is at your will, and you are free to withdraw your participation in this study at any point where you feel uncomfortable to give information. The information you will provide in this study is confidential and will be utilized only for the purpose of this study, and your identity will remain protected. You may contact the researcher about the findings of this study any time after this research.

Thank you.

Otieno H. Omolo (Researcher)

I consent to participate as respondent in this study Yes [ ]; No [ ]

Signature of participant: _____ Date: _____

APPENDIX J: INSTITUTION RESEARCH PERMIT

RONGO UNIVERSITY

OFFICE OF THE DEAN

SCHOOL OF GRADUATE STUDIES

Tel. 0771349741 P.O. Box 103 - 40404
RONGO

Our Ref: **PEA/7512/2014** **Date:** Tuesday, July 3, 2018

The Chief Executive Officer,
National Commission for Science, Technology & Innovation,
off Waiyaki Way, Upper Kabete,
P.O Box 30623-00100,
Nairobi-KENYA.

Dear Sir,

RE: RESEARCH PERMIT FOR MR. HEZEKIAH OTIENO OMOLO
PEA/7512/2014

We wish to inform you that the above person is a bona fide graduate student of Rongo University in the School of Education pursuing a PhD degree in Educational Administration. He has been authorized by the University to undertake research titled; ***"Influence of School Based Factors on Students' Academic Performance in Public Secondary Schools in Migori County, Kenya"***

This is, therefore, to request the commission to issue him with a research permit to enable him proceed for field work.

Your assistance to him shall be highly appreciated.

RONGO UNIVERSITY
THE DEAN
0 3 JUL 2018
SCHOOL OF GRADUATE STUDIES
P. O. BOX 103 - 40404, RONGO

Thank you.

Prof. Ernest S. Mohochi
Ag. DEAN, SCHOOL OF GRADUATE STUDIES

Copy to: Vice Chancellor
Deputy Vice Chancellor (Academic and Student Affairs).
Dean, School of Education
HoD, Educational Management & Foundation

APPENDIX K: NACOSTI RESEARCH AUTHORIZATION

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone:+254-20-2213471,
2241349,3310571,2219420
Fax:+254-20-318245,318249
Email: dg@nacosti.go.ke
Website : www.nacosti.go.ke
When replying please quote

NACOSTI, Upper Kabete
Off Waiyaki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref: No. **NACOSTI/P/18/20057/23946**

Date: **26th July, 2018**

Hezekiah Otieno Omolo
Rongo University
P.O. Box 103-40404
RONGO

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Influence of school based factors on students academic performance in public secondary schools in Migori County Kenya"*** I am pleased to inform you that you have been authorized to undertake research in **Migori County** for the period ending **25th July, 2019.**

You are advised to report to **the County Commissioner and the County Director of Education, Migori County** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

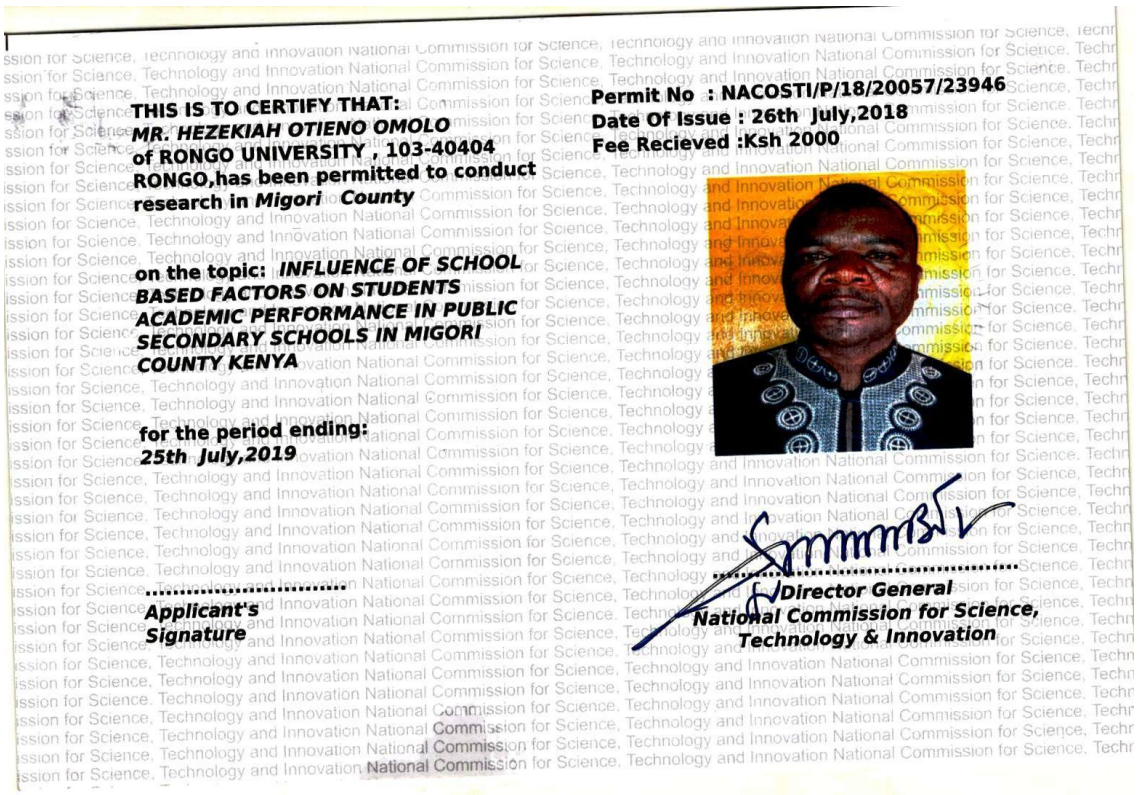
BONIFACE WANYAMA
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Migori County.

The County Director of Education
Migori County.

APPENDIX L: NACOSTI RESEARCH PERMIT



Permit No : NACOSTI/P/18/20057/23946
Date Of Issue : 26th July,2018
Fee Recieved :Ksh 2000

THIS IS TO CERTIFY THAT:
MR. HEZEKIAH OTIENO OMOLO
of RONGO UNIVERSITY , 103-40404
RONGO,has been permitted to conduct
research in *Migori County*
on the topic: *INFLUENCE OF SCHOOL BASED FACTORS ON STUDENTS ACADEMIC PERFORMANCE IN PUBLIC SECONDARY SCHOOLS IN MIGORI COUNTY KENYA*
for the period ending:
25th July,2019

.....
Applicant's Signature

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

CONDITIONS

1. The License is valid for the proposed research, research site specified period.
2. Both the Licence and any rights thereunder are non-transferable.
3. Upon request of the Commission, the Licensee shall submit a progress report.
4. The Licensee shall report to the County Director of Education and County Governor in the area of research before commencement of the research.
5. Excavation, filming and collection of specimens are subject to further permissions from relevant Government agencies.
6. This Licence does not give authority to transfer research materials.
7. The Licensee shall submit two (2) hard copies and upload a soft copy of their final report.
8. The Commission reserves the right to modify the conditions of this Licence including its cancellation without prior notice.

REPUBLIC OF KENYA

NACOSTI

National Commission for Science, Technology and Innovation

RESEARCH CLEARANCE PERMIT

Serial No.A 19734

CONDITIONS: see back page