INFLUENCE OF PRINCIPALS' INSTRUCTIONAL SUPERVISION PRACTICES ON KENYA CERTIFICATE OF SECONDARY EDUCATION PERFORMANCE IN PUBLIC SCHOOLS, LOITOKITOK SUB COUNTY – KENYA

Denge James Obunga

A Research Project Submitted in Partial Fulfilment of the Requirements for the Award of Degree of Master of Education in Educational Administration University of Nairobi

DECLARATION

This research project is my original work and has not been presented for
award of a degree in any other university.
Denge James Obunga
Delige James Counga
This research project has been submitted with our approval as university
supervisors
Jeremiah M. Kalai, PhD
Associate Professor
Department of Educational Administration and Planning
University of Nairobi
Mr. Edward Kanori
Lecturer
Department of Educational Administration and Planning
University of Nairobi.

DEDICATION

I dedicate this project to my dear wife Monicah Obunga and my loving children Sandra and Ian. Their great concern, love and encouragement enabled successful completion of this study.

ACKNOWLEDGEMENT

I would like to thank God for his care and protection throughout the period of study. Special gratitude to my supervisors Prof. Jeremiah Kalai and Mr. Edward Kanori for their scholarly guidance and encouragement which has been of great value to this study. Special thanks to my wife Monicah Qbunga and my dear children Sandra and Ian for their love and patience throughout the study period. Appreciation is also expressed to the principal of Kuku Secondary school Dr. Patrick Wambua for his support and encouragement throughout the study period. Finally, all the respondents for their contribution to the study. To those not mentioned here, may God bless you so much.

TABLE OF CONTENTS

Content Page
Title pagei
Declarationii
Dedication iii
Acknowledgementiv
List of tablesviii
List of figuresx
List of abbreviations and acronymsxi
Abstract xii
CHAPTER ONE
INTRODUCTION
1.1 Background to the study1
1.2 Statement of the problem4
1.3. Purpose of the study5
1.4 Research objectives
1.5 Research questions6
1.6 Significance of the study6
1.7. Limitations of the study7
1.8. Delimitation of the study7
1.9. Basic assumptions of the study
1.10. Definition of significant terms
1.11. Organization of the study8
CHAPTER TWO
LITERATURE REVIEW
2.1 Introduction
2.2 Concept of instructional supervision and the role of principals10
2.3. Checking of professional documents and students' academic
performance13
2.4. Principals' participation in target setting on students and students'
academic performance

2.5. Time of syllabus coverage and pupils' academic performance16
2.6. Principals classrooms visitations and student academic performance17
2.7. Summary of review of related literature
2.8. Theoretical framework
2.9. Conceptual framework
CHAPTER THREE
RESEARCH METHODOLOGY
3.1. Introduction 23
3.2 Research design
3.3 Target population
3.4 Sample size and sampling procedures
3.5 Research instruments
3.6 Validity of the research instruments
3.7 Reliability of instruments
3.8 Data collection procedures
3.9 Data analysis and techniques
3.10 Ethical considerations
CHAPTER FOUR
DATA ANALYSIS, INTERPRETATION AND PRESENTATION
4.1 Introduction
4.2 Return rate of the instruments
4.3 Demographic characteristics of the head teacher and teachers29
4.4 Extent to which checking of professional documents by principals
influence students' performance
4.5 Influence of principals' academic target setting on students'
performance4
4.6 Extent to which principals' monitoring syllabus coverage influence
students' performance 47
4.7 Principals' class visitation influence students' performance
A & School performance

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction	64
5.2 Summary of the study	64
5.3 Conclusions	69
5.4 Recommendations	70
5.5 Recommendations for further research	71
REFERENCES	
APPENDICES	
Appendix I: Letter of introduction	77
Appendix II: Principal's questionnaire	78
Appendix III: Questionnaire for heads of departments	82
Appendix IV: Questionnaire for students	85
Appendix V: List of schools in the loitokitok sub-county	86
Appendix VI: Research authorization from nacosti	88
Appendix VII: Research permit	89

LIST OF TABLES

Table Page
Table 1.1: KCSE mean scores of divisions in kajiado county from 2015 –
20183
Table 1.2: Loitokitok sub county KCSE mean grade analysis data 20194
Table 3.1. Sampling frame
Table 4.1: Return rate of the research instruments
Table 4.2: Demographic characteristics of principals' respondents30
Table 4.3: Distribution of principals by their training
Table 4.4: Training agency having been attended by the principals32
Table 4.5: Demographic characteristics of teachers
Table 4.6: Demographic characteristics of students
Table 4.7: Instructional supervision activities done by the principals36
Table 4.8: Instructional supervision activities carried out by the principal38
Table 4.9: Extent to which setting targets improve students' academic
performance
Table 4.10: Frequency of supervision of teaching/ learning activities in the
classrooms
Table 4.11: Principals response on person that sets the target43
Table 4.12: Principals previous year target
Table 4.13: Principals current target
Table 4.14: Strategies principal can use to enhance students' academic
performance46
Table 4.15: Frequency of checking of syllabus coverage in various classes by
the principal49
Table 4.16: Activities related to the role of the principals in students'
academic performance51
Table 4.17: Frequency of principal visitation of classes as teachers teach54
Table 4.18: Principals response on classroom observation
Table 4.19: Activities related to the role of the principal in students' academic
performance58

Table 4.20: Other duties carried out by principals duties	60
Table 4.21: Duties and responsibilities that take most of principals time	61
Table 4.22: Principals teaching load in a week	62
Table 4.23: School performance in KCSE for the last five years	63

LIST OF FIGURES

Figure	Page
Figure 2.1. Conceptual framework on principals' instructional supervision	on21
Figure 4.1: Principals school setting targets	42
Figure 4.2: Principals checking of syllabus coverage in various classes	48
Figure 4.3: Existence of cases of uncovered syllabus	50
Figure 4.4: Principal visiting classes as teachers teach	53
Figure 4.5: Principals organisation for post class visitation	55
Figure 4.6: Class post class visitation being friendly	56

LIST OF ABBREVIATIONS AND ACRONYMS

BOM Board of Management

KCSE Kenya Certificate of Secondary Education

KEMI Kenya Education Management Institute

KNEC Kenya National Examinations Council

KSG Kenya School of Government

NACOSTI National Commission for Science, Technology and Innovations

QASO Quality Assurance and Standards Officer

SPSS Statistical Package for Social Sciences

TSC Teachers Service Commission

USA United States of America

ABSTRACT

The study investigated the influence of principals' instructional supervision practices on Kenya Certificate of Secondary Education performance in public schools, Loitokitok Sub County, Kenya. The specific objectives were to establish the influence of checking of professional documents by principals, principals' academic target setting, principals' monitoring syllabus coverage and principals' class visitation on students' performance. The study employed descriptive survey design. The sample size consisted of 14 Principals, 135 Teachers and 540 Students. Questionnaires were used to collect data from teachers and students while interview schedules were used to gather data from principals. Reliability analysis was done through test-retest method. Quantitative data was analysed using descriptive statistics and presented in tables and graphs. Secondary data was obtained from journals and schools data base. Data collected was coded and entered using Statistical Package for Social Sciences (SPSS). The findings of the study found out that checking of professional documents by principals positively influences students' performance in Kenya Certificate Of Secondary Education. Some of the principals were found to be checking the teachers' schemes of work once a term. They also checked their records of work once and lesson plans fortnightly. They do not provide enough study tours and trips. It was found out that principals' academic target setting influence on the students' performance in Kenya Certificate of Secondary Education. The principals usually set targets for their schools but some do not involve the teachers in setting of the targets. Principal provide in-service for teachers and provide students with guidance and counselling. It was concluded that principals' monitoring syllabus coverage has an influence on students' performance in Kenya Certificate of Secondary Education. The teachers do not cover the syllabus on time and the principals and not so much keen to monitor the syllabus coverage. This has a negative impact on the student's academic performance. In conclusion, principals' class visitation influences students' performance in Kenya Certificate of Secondary Education. Principals do not mostly visit classes as the teachers teach. Principals do not organise for post class visitation and do not visit the students in classrooms most often. The principals should attend seminars and workshops that teach the influence of principals' instructional supervision on students' performance.

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

The need for instructional supervision started in the in the 1960s in the United States of America. It later spread to the other parts of the world in the two decades that followed (Burns 2008). (Martin & Holt, 2010), indicated that instructional supervision in the United States of America is viewed differently by teachers, administrators and even lawmakers. Without a strong well-established system of instructional supervision good results in a school cannot be achieved. Burns (2008) indicates that in the United Kingdom all head teachers are appointed based on enough experience and skills, all must meet professional qualifications for leadership up to the national standards. Turkey and Barber (2010) in their study of factors influencing administrative tasks of principals in schools, found out that quality learning resources, professional processes, teachers' capacity development, effective and quality outcome were regarded as the means and standards of excellence in education.

Education, according to UNESCO (2008) and Namunga (2017), is a sound investment that is essential for the development of the society, and it is a basic human right which should be made accessible to all as stipulated in Article 26 of the Universal Declaration of Human Rights. Students acquire the knowledge, skills and attitudes which enable them to be effective in the provision of social mobility. Appeal for the use of more outcomes-based measures that require principals to be instruction-oriented demands closer

supervision. This means that principals need to be supervisors of the teaching and learning process.

Donkoh and Dwamena (2014) in their study on principals' supervision of public schools in Ghana, indicated the Ministry of Education to take responsibility for carrying out supervision in schools. Such instructional supervision will help to identify the needs of teachers and offer professional development activities as it highlights the strengths of teachers' performance and encourage them to reflect on their challenges hence improved students' performance.

In Nigeria, instructional supervision has been traced to the 1982 Education ordinance which provided for the establishment of a general board of education which appointed school inspectors (Eroegbu & Eyo, 2016). The education policy of Federal Republic of Nigeria stipulates that principals' function is to ensure that the quality of education is controlled through regular and continuous instructional supervision (Okendu, 2012). Dangara (2015) whose research in Nigeria showed that regular supervision strategies like checking students note books, classroom visitation, checking teachers' lesson plans and students' record keeping have a significant correlation with good performance by students.

In Kenya, principals are leaders and managers of all that take place in school. They are charged with ensuring that educational strategies are put in place to support effective teaching and learning in schools (Ministry of Education, 2005; Naomi, Ronoh & Tanui, 2016). Namunga (2017) points out that academic performance could be improved if instructional performance is

heightened with good teacher- student observation, frequent checking of teachers' professional documents, induction of new teachers and having instructional conferences to improve teaching and learning. This is corroborated by (Mutinda 2016; Reche, Bundi, Riungu & Mbugua, 2012) who found that if principals conduct their role effectively in instructional management, there is inevitable influence on improved students' academic achievement in KCSE. A research done in Kenya by Ndaita (2013) indicates that, for schools to perform well, principals' instructional quality assurance role should be prominent.

In Kenya, we have had cases of poor performance in KCSE. In Loitokitok Sub-County for instance, performance in KCSE has been going down consistently since 2014 up to date. The mean score for KCSE results since 2015 for Secondary schools in Loitokitok Sub-County are shown in the Table 1.1.

Table 1.1: KCSE mean scores of divisions in Kajiado county from 2015 – 2018.

Division	2015	2016	2017	2018		
Ngong	4.02	4.59	4.02	4.66		
Central	4.111	4.000	4.29	4.012		
Isinya	4.000	3.921	3.88	3.995		
Loitokitok	3.012	3.11	3.62	3.101		

Source: Sub-County Education office Kajiado, 2019

From the Table 1.1, it can be observed that for the last five years, there has been a decrease in the mean score indicating declining performance. The

County Educational Office has raised concern as on a continuous drop in KCSE. This table provided a platform for further investigation of students' outcome academically from the perspective of principal's instructional leadership.

Table 1.2 Loitokitok sub county KCSE mean grade analysis data 2019

(private)		
42		
47		
24		
24		

Source: Loitokitok Sub County Office KCSE Mean Grade Analysis 2019

Table 1.2 shows that from 2015, there is a significant drop in the minimum entries to university. This calls to establish if there is a link in the principals' instructional supervision and dismal performance. There is no study that has been carried out in Loitokitok Sub-County on the influence of the principals' instructional supervision on KCSE Performance. The study therefore investigated the influence of principals' instructional supervision on students' academic performance in KCSE in Loitokitok Sub-County, Kenya.

1.2 Statement of the problem

Academic performance has raised concern due to doubt that many principals give little attention to supervision of instructional activities hence a steady decline in teachers' instructional task performance and students' academic results. Studies focusing on principals' professional roles (Mutua

2011), teachers' perception of QASO on quality education (Wafula 2007) and the role of head teachers in instructional supervision on KCSE performance (Muoka, 2007). Apparently, there is scanty literature available on principals' instructional supervision practices conducted in the current area. It is for this reason that the researcher investigated the influence of principals' instructional supervision practices on students' performance in public secondary schools in Loitokitok Sub-County, Kenya.

1.3. Purpose of the study

The purpose of the study was to investigate the influence of principals' instructional supervision on Kenya Certificate of secondary education performance in public schools, Loitokitok Sub- County, Kenya.

1.4 Research objectives

The specific objectives of the study were:

- To determine the extent to which checking of professional documents by principals influence students' performance in Kenya Certificate 0f Secondary Education in Loitokitok Sub-County, Kenya.
- To assess the influence of principals' academic target setting on students' performance in Kenya Certificate of Secondary Education in Loitokitok Sub-County, Kenya.
- iii) To establish the extent to which principals' monitoring syllabus coverage influence students' performance in Kenya Certificate of Secondary Education in Loitokitok Sub-County, Kenya.

iv) To assess the extent to which principals' class visitation influence students' performance in Kenya Certificate of Secondary Education in Loitokitok Sub- County, Kenya.

1.5 Research questions

The research answered the following questions

- i) To what extent does checking of teachers' professional records by principals have on students' performance in Kenya Certificate of Secondary Education in Loitokitok Sub-County, Kenya?
- ii) To what extent does the principals' target setting have on students' performance in Kenya Certificate of Secondary Education in Loitokitok Sub-County, Kenya?
- iii) What is the influence of principals' involvement in the monitoring of the syllabus coverage in Kenya Certificate of Secondary Education performance in Loitokitok Sub-County, Kenya?
- iv) To what extent does the principals' visitation to classes while teachers teach have an influence on students' performance in Kenya Certificate of Secondary Education?

1.6 Significance of the study

The findings from this study may help principals in devising ways and means on improving their instructional supervisory practices to improve students' academic performance. Kenya Education Management Institute (KEMI) and Quality Assurance Officers may use the findings to formulate teacher education management programmes and in-service training for

principals and teachers hence improving teaching and learning. The findings may also be useful to teachers seeking leadership positions in future to acquire knowledge and skills in instructional supervision. Finally, it will help academia in undertaking related studies to acquire knowledge in the field of instructional supervision in public schools.

1.7. Limitations of the study

Limitations are conditions beyond the control of the researcher (Best & Kahn, 2008). The respondents especially teachers, feared giving true responses to the questionnaire items against their principal for fear of being victimized but assurance of confidentiality before filling the questionnaires was done.

1.8. Delimitation of the study

Delimitations are boundaries of the study. This study was limited to public secondary schools in Loitokitok Sub-County, Kenya. Private schools were left out because their supervision depends on the directors.

1.9. Basic assumptions of the study

The basic assumptions to the study were as follows.

- The principals will value their instructional supervision roles in the enhancement of KCSE grades in their schools.
- ii) The principals will willingly support their teachers to achieve quality grades in their subjects.
- iii) The principals will understand their academic role in motivation to do better and set standards.

1.10. Definition of significant terms

Checking professional records refers to ascertaining of the progress made by teachers and students in the teaching and learning process by perusing through official documents that a teacher must have to carry out teaching.

Classroom visitation is a process where a principal observes teaching and learning in a classroom and provides feedback to the teacher on possible areas of improvement

Instructional supervision practices refer to an internal mechanism adopted by principals for school's self-evaluation geared towards helping teachers improve their teaching/learning.

Monitoring syllabus is a process of gathering information for evaluation of curriculum to achieve the set goals.

Target setting refers to the act of setting specific academic goals to be achieved by teachers and students in secondary schools.

1.11. Organization of the study

The study was organized into five chapters. The first chapter focuses on the background of the study, statement of the problem, purpose of the study, the objectives, the research questions, significance of the study, limitations, delimitations of the study and basic assumptions. The second chapter is on literature review related to the study. This was done based on the objectives of the study as principals' checking of teachers' professional records, principals' participation in setting goals and targets on students performance, principals participate in the monitoring of syllabus coverage and principals' participation in class visitation. Chapter three is on research

methodology which included the research design, target population, sample and sampling techniques, research instruments and their validity and reliability, techniques of data collection and analysis. The fourth chapter dealt with data analysis and findings while chapter five focuses on summary of the findings, discussion, conclusions and recommendations as well as suggestions for further research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the influence of head teachers' instructional practices on students' performance in public secondary schools in Loitokitok sub-county, Kajiado. It focuses on head teachers' checks on professional records, classroom visits, syllabus coverage and target setting. The section also covers the summary of the literature review, the theoretical framework, and conceptual framework.

2.2 Concept of instructional supervision and the role of principals

Teachers use instruction that reaches various levels of learners (Deal & Celoti 2000; Duke & Tucker, 2000). Principals in 16 schools in Virginia stated that teachers were making more attempts to use different instructional techniques to reach various levels of learners. Principal should not detach himself completely from teaching as it is quite necessary for him to show example and keep abreast with cognitive levels and demand of his students (Duke & Tucker, 2003). Instructional supervision is aimed at improving instructions for providing better education to assist supervisors in becoming successful in performing their supervisory tasks. Effective learning may not take place if adequate supervision is not provided (Sergiovani & Starrat, 2007).

Schools principals anchor their administrative work on issues pertaining to teaching and learning. The quality of education depends on the nature of leadership provided by the principals (Kiptum, 2018). The study

revealed that schools which performed highly viewed instructional supervision as a friendly process and teachers in these schools would ask for a classroom observation session, while those in low performing schools viewed it as a witch hunt.

These findings concur with (Kieti, Maithya & Mulwa, 2017) who avers that teachers do not present their professional documents for scrutiny to principals. This implies that effective instructional supervision by the principals is crucial so as to improve academic performance. According to (Reche, Bundi & Riungu2012), principals as supervisors are responsible and expected to initiate activities that make teaching and learning process friendly. Principals as instructional supervisors of all what is taking place in school need to make modifications as mandated by Basic Education Act (2013). (Archibong's, 2013; Alimi, 2012) argues that Principals responsibilities are to ensure that teaching is carried out well and the teachers and students are performing their roles in learning which is reflected in good students' performance in KCSE.

Kirui and Osman, (2012) and Namunga (2017), indicates that supervision is aimed at improving classroom learning and the principal should be well versed with supervisory knowledge and skills to carry out this process so as to motivate the teachers to influence their mode of teaching. When teaching is reinforced, instructional programmes are developed and this improves instructions by the teachers (Malunda, Onen & Oonyu, 2016). Principals are central agents for change; recognise teachers as equal partners

in the process of instructional supervision. Principals should acknowledge their professionalism for this enhances the quality of teaching.

For instructional supervision to be effective, the principals should invest in teachers the required resources and instructional support because students' performance improves with the availability of instructional materials (Glickman, 2010; Dangara, 2015; Mugambi, 2017). Resources should be well rationed such that each student is in a position to access them for better performance (Namunga, 2007). A study carried out by Mavindu (2013) and Glickman (2010) indicates that principals have responsibility of facilitating teachers' development. Wenzare (2012) argues that principals' interacting with teachers in matters of class visitation enables them to know teachers' strengths and identify their weaknesses so as to improve on the teaching. Developed teachers will be able to discover different talents in different students such that they can use the appropriate methodology in teaching (Wanjiku, 2012).

Principals' instructional administrative roles include frequent checking of teachers' schemes of work, the lesson notes, visiting the classes and observing the actual teaching, noting their strengths and weaknesses (Reche et al 2012; Okumbe, 2013). This leads to teacher development to enhance teachers' skills and professionalism, ensuring all teachers have students records which shows students' academic progress, setting goals and targets for student and seek ways and means of achieving them (Lempira, 2014; Mwangi, 2014).

2.3. Checking of professional documents and students' academic performance

The experiences of teachers and pupils in the classroom are very important in the teaching and learning process (Fischer, 2011). Checking of professional documents gives teachers a central role in understanding and through critical appraisal improves their teaching methodologies, perceptions, beliefs and attitudes towards work.

Classroom observation appraisal has been considered to take three main focus professional development, reward, and promotion. Classroom observation is a key component of teacher professional development as any effort for improving teaching quality must revolve around the teaching and learning processes taking place in the classroom. Schools as formal organizations keep records as a trace map of what is taking place. These records are schemes of work, students class notes, lesson plan, academic progress records, lesson notes, records of work covered and students' register (Mugambi, 2017; Okumbe, 2013).

Kimeu (2010), maintains that overall high performance would be realized in schools if principals look at what the teacher is utilising to teach, checking of learners' books to ascertain that lesson notes are taken, assignment given are marked and corrected and attendance by the teacher is evident. Principals should regularly interact with students and call for their exercise books to see whether they are given tasks by their subject teachers and their books are checked, marked and corrected and as such these records should be clear and available when the principals demand them.

Irungu (2015) study findings indicate that checking the progress of learners is an assurance that students are carrying out all their assigned work in the manner accorded to it. This process helps students to be focused on the targets set. Thus, helps teachers to be diligent and hardworking as their work is being evaluated and the progress of their class activities monitored. Ndungu, Allan and Emily, 2015) agrees with Dangara (2015) by postulating that it is in checking these documents principals are able to know whether teachers are teaching and whether students are adhering to the objectives noted at the end of schemes of work. Such plans make teachers to be focused when teaching and even master the content when delivering it to the students.

Mugambi (2017) conducted a study on the influence of instructional supervision on the academic achievement of students in National Examinations in Public secondary schools in Tinderet Sub County, Kenya. The analysis indicated that 54.3 per cent of the principals visited classrooms, 86.7 per cent of principals observed teachers as they carry out instruction, 80 per cent of principals frequently check teachers records of work. The findings showed that instructional supervision strategies such as checking of the lesson plan, lesson notes and marked assignments were the least practised in secondary schools in comparison to classroom visits, checking of schemes of work and record of work covered. This study seeks to establish if principals in Loitokitok Sub County checks on the teachers' records in preparation and dissemination of knowledge to their students against the continual drop in performance in schools. It seeks to establish the completion of syllabus,

content delivery, teachers' record keeping, student notes giving and effects on performance.

2.4. Principals' participation in target setting on students and students' academic performance

In a school which emphasise effectiveness, student progress on the essential objectives is monitored frequently and the results of those assessments are used to improve the individual behaviours and performances (Ngunjiri, 2012). A paradigm shift is taking root in learning from teachercentered to student-centered instruction and requires students to think about their own learning (Dotson, 2016). Goal setting and self-regulated learning are crucial and affect academic achievement. When goals and targets are set, they improve student performance and heightens their achievement by allocating attention, activating their effort, increasing their persistence in learning and motivating them which in turn leads to the development of self-regulation skills. Nyogosia, Waweru and Njuguna (2013) in their study avers that decline in candidates' performance in Kenya national examinations is as a result of lack of monitoring of learning processes that could provide a basis for provision of intervention strategies. These calls for principals to help the students to set targets and motivate them in their various examinations which can keep them focused in their academic performance (Nyogosia et al, 2013).

According to Cheng and Chiou (2010) set goals to students helps to have a unity of purpose in the school between the teachers and the students. Higher results are achieved if goals are specific, measurable, and challenging. When students set their own targets and accept targets set by principals and

teachers as their own, they are responsible for positive attitude and motivation strategies which become an impetus for them to work harder to achieve them. The students utilize all the available opportunities and resources to ensure that they achieve their goals and targets. Dotson (2016) postulates that the difference between high and low achievers is the extent to which students are self- regulated as high achievers participate in the process of goal setting, planning for learning, self-monitoring and reflection meaning that when students set their own targets, they create their own routes for achieving them.

Nyogosia et al., (2013) in the study on factors influencing academic achievement in public secondary schools in central Kenya holds that, setting targets influence academic performance. This current research will collect data from 45 public secondary schools in Loitokitok Sub-County which can give a greater picture on how setting targets influence students' performance. In this research, the researcher will use Pearson's Product Co-relation Coefficient to establish the correlation. Having established that there is a link of setting targets and performance, this study wants to establish if there exists a link between setting of targets and performance in Loitokitok Sub-County. The Sub-County has experienced a continuous drop in performance of KCSE for the last four years and this is to find out if the schools are setting targets for their students.

2.5. Time of syllabus coverage and pupils' academic performance

It is the head teacher's role to regularly inspect on the students' exercise book/lesson notes to ensure that the school syllabus is covered appropriately and assignments are marked. In a study conducted by Alimi and

Akinfolarin (2012) on the impact of instructional supervision on student academic performance in senior secondary schools in Ondo State, Nigeria. They found out that there is significant impact on checking pupils' notes on academic performance in English language.

Pansri (2008) affirmed the importance and usefulness of providing extra coaching to pupils who are preparing for major national examination. Frequent exposure of students to test can improve examination performance, promptness in giving and making homework assist in identifying areas of weakness to be improved. Kosgei (2012) asserts in his study that there are three means of monitoring progress in curriculum implementation namely; continuous assessment, mid-term examination and checking learners' notebooks.

2.6. Principals classrooms visitations and student academic performance

Principals should foster a conducive school environment that teachers and students can carry out their teaching and learning well (Wachira, Gitumu & Mbugua, 2017). Kimeu (2010) observes that principals' presence in school and management by walking around helps to make programmes run smoothly. Ngunjiri (2012) attributes poor performance of students in public schools to 'arm chair' principals who do not know what goes on in the classroom. Mutunga (2011) holds that principals need to observe their teachers formally on a regular basis and discuss classroom performance to help teachers to improve on their teaching. Classroom visitations and observations are geared towards improving teachers' pedagogical skills.

Fischer (2011) indicates that class visitation and observation includes principals' getting into class and observing how teaching and learning is taking place. Principals' efficient use of administrative leadership skills in instructional supervision help teachers utilizes their professional techniques and skills in classroom teaching (Mugambi, 2017). The principal should check on how the teachers are teaching, the way students are responding to questions, checking on student notes and support them in solving issues that might arise when learning is taking place to improve students' performance (Alimi & Akinfolarin, 2012). Kieti (2017) stipulates that, class observation and visitation centres on the improvement of the teaching – learning situation which benefits the teachers and learners, the identification of areas of strengths and weaknesses of teachers, follow up activities that should be directed at the improvement of the identified areas of teachers' weaknesses. This guidance helps teachers to be committed to teaching in line with curriculum, conscious of students' needs and capacities which in turn help them to improve their performance (Memduhoglu & Zengin, 2012, Archibong, 2013).

In Caribbean the findings confirmed that teachers' commitment is a multidimensional construct which depend largely on the principals and his leadership style helps teachers to have an affective and collaborative dimension in classrooms such as planning, decision making, communicating, organising, supporting, evaluating and delegating.

2.7. Summary of review of related literature

Literature review looked at the studies as conducted by other scholars in as far as principals' instructional supervision practices are concerned. Not much has been done on the influence of principals' instructional supervision practices on students' KCSE performance in Loitokitok Sub-County. From the literature review, the study established that several scholars had reviewed the factors influencing principals' instructional supervisory activities. For example, Dangara (2015); Mugambi (2017) have shown that regular supervision checking of teachers' lesson plans/ notes, inspecting teachers' records of work, checking students' notes, observing the methodologies teachers are using in class and supporting both teachers and students improves students' performance. Abdi (2017) in his study findings has indicated that unavailability of resources is a major cause of poor performance hence adequacy of teaching and learning resources affects performance. Principals should ensure teaching and learning resources are adequate to diminish the effect of socioeconomic factors on academic achievement and create equal opportunities for students

Marshall (2015) and Mugambi (2017) employed both qualitative and quantitative research methods in their studies but this study will employ quantitative research design. Wachira (2017) looked at role of principals styles in instructional supervision. The locale for (Cheng & Chiou 2010, Mwangi 2014, & Dotson 2016) is different with the current study which will be carried out in Loitokitok Sub-County, Kenya. There is no known study that has specifically studied the influence of principals' instructional supervision

practices on students' performance in KCSE. The current study therefore intends to fill the gaps.

2.8. Theoretical framework

The study is based on the systems theory whose proponent is biologist Ludwig Von Bertanlanffy (1972). The theory postulates that a school as a system is composed of various parts which work together interrelated for accomplishment of stated goals. A school exists in a form of an open system because it receives its inputs from the society and also empties its out puts back to the society.

According to this theory education has various parts; these include head teachers, teachers, pupils and parents. If one fails in his/her role then the system fails. A school receives teachers, pupils and parents from the society. The head teacher coordinates the activities as he performs his instructional supervision tasks: checking of the records of work, pupils' notes/exercise books, classroom observation/visitation, provision of learning and teaching resources play a major role in the realization of institutional objectives.

The head teacher, teachers, pupils and parents as representative of environment influence the functioning of a school as a system. In addition, the institution as a processing unit in turn shapes the environment. Therefore, effective instructional supervision by head teachers plays a major role in the success of pupils, the school and the community all of which forms an integral part of a larger whole.

2.9. Conceptual framework

The conceptual framework focuses on principals' instructional supervision which is the independent variable. Students' academic performance in KCSE depends on the principals' instructional supervision practises.

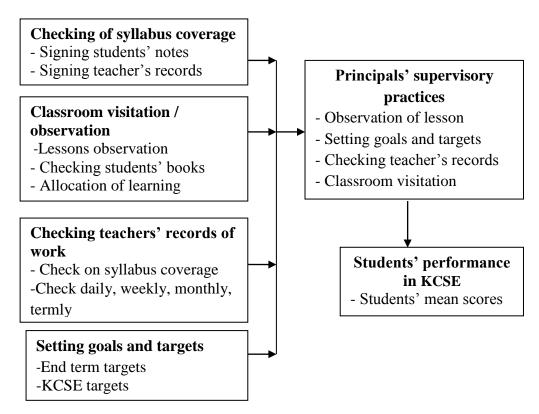


Figure 2.1. Conceptual framework on principals' instructional supervision

This conceptual frame work is based on the influence of principals' instructional supervision on students' performance. Principally, performance is correlated with effective principals' instructional supervision. In this study, the principal instructional supervision practices form the independent variables. The principals deal with students directly and indirectly through teachers who are involved in the teaching and learning processes. Process of instructional supervision advises, guides, refreshes, encourages, stimulates,

improves, motivates and oversees teachers with collaboration to ensure that there is successful teaching in classroom. Principals' checks teachers' schemes of work, lesson plans, records of work and students' performance records to ensure they are up to date, frequently carry out of class visitation and lesson observation to ascertain proper teaching methodologies.

Principals have to provide the recommended teaching and learning resources to both teachers and students to guarantee learning. Motivating teachers and students helps them to achieve their set goals and targets making them drivers of their own achievements. Where principals are affective in their supervisory roles, good results are attained by the students. Performance forms the dependent variable in this study as their performance depends on principals' instructional supervision.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Introduction

In this chapter, the researcher presents methods and procedures that were used to obtain data. The chapter focuses on the research design, target population sample size and sampling procedures, research instruments, validity and reliability, data analysis and presentation, ethical considerations and conclusion.

3.2 Research design

The descriptive research survey design was used. According to Best and Khan (2004), descriptive survey involves a clearly defined problem and defined problem and definite objectives, questions, development and generalization of principles or theories that have universal validity. In this research a particular population is identified and then subjected to particular research questions through questionnaires to the selected respondents. To get to know the influence of principals' instructional supervision practices on KCSE performance in Loitokitok Sub-County, the researcher preferred the descriptive research survey as it describes most of the social issues, education process being a key issue.

3.3 Target population

Target population refers to the entire population to which a researcher wants to generalise or infer the results of the study (Mugenda & Mugenda, 2010). The population for this study was the 45 public secondary school

principals, 450 teachers and 1800 students from boys, girls and mixed secondary schools in Loitokitok Sub-County.

3.4 Sample size and sampling procedures

Sampling refers to the process of selecting subjects from the study population accurately with the intention of equal representation of the entire population (Best & Kahn, 2014, Cresswell & Clark, 2007). A sample size is a section of a population or part of the population that took part in the study.

The researcher employed stratified sampling to group categories of schools and simple random sampling to obtain 30% sample of the target population. The researcher used census method to select school principals since they was homogenous while simple random sampling was used to select sample teachers and students from the various categories of schools selected.

Table 3.1. Sampling frame

Target respondents	Target population				Sample size			
	Boys	Girls	Mixed	Total	Boys	Girls	Mixed	Total
Principals	10	10	25	45	3	3	8	14
Teachers	150	150	150	450	45	45	45	135
Students	600	600	600	1800	180	180	180	540
	760	760	775	2295	228	228	233	689

Source: Education county office, Loitokitok, 2019

3.5 Research instruments

Questionnaire and interview schedules was used to collect the data required. Questionnaires was used to collect data from teachers and students while interview schedules was used to gather data from principals. A questionnaire is a document that consists of a number of questions that is written or typed in a definite order or a form or set of forms (Mugenda & Mugenda, 2010). The researcher used closed questionnaires to collect data from a large population of students and teachers. Questionnaires were used because they are easier to administer and analyse. They are self-report tool that is confidential in the sense that teachers and students can express themselves freely without fear of anyone (Kothari, 2004).

3.6 Validity of the research instruments

Validity of an instrument is the extent to which research instruments measure what they are intended to measure (Kothari, 2004). Validity therefore is the accuracy, meaningfulness and technical soundness of the research instrument (Mugenda and Mugenda, 2010). Specifically, this study used content validity since the main aim of the study was to establish the situation as it exists. To establish the content validity of research instruments, expert review was sought as proposed by (Cohen, 2011). The instruments' content was scrutinized by two university supervisors attached to the researcher. The views, comments and suggestions were taken into consideration and the instruments revised. Additionally, content validity was enhanced through piloting of instruments.

3.7 Reliability of instruments

Reliability is a measure of the extent to which a research instrument will consistently yield the same result after being administered several times to the same respondents (Kothari, 2004). In order to test the reliability of the questionnaires, the researcher will use the test-retest method. This was done by administering the same questionnaire twice to the pilot schools within duration of two weeks. Reliability co-efficient was computed in order to establish the extent to which the contents of the questionnaire consistently elicited the same responses every time they are administered. Pearson correlation coefficient (r) was computed using the following formula.

$$\frac{\sum xy - (\sum x) (\sum y)}{\sqrt{(\sum x2 (\sum x2) - (\sum y - (\sum y) 2)}}$$

$$\frac{N}{N}$$

Where: r - Pearson product-moment correlation coefficient

X- Results from the first test

Y- Results from the second test

N- Number of observations

A correlation coefficient of above 0.7 shows acceptance of internal consistency. A correlation coefficient of 0.75 was found appropriate.

3.8 Data collection procedures

The researcher will obtain a letter from the University of Nairobi to enable the researcher to seek a research permit from the National Commission for Science, Technology and Innovation (NACOSTI). The researcher will then visit Director Kajiado County Education Office to obtain permission to carry

out research in the County. The researcher will personally visit the sampled schools, introduce himself to the principals and explain the purpose of the study. The researcher will advise on how the questionnaires will be completed independently by the principals, teachers and the students. This will create a rapport between the researcher and the respondents.

3.9 Data analysis and techniques

Analysis involved editing the questionnaires, tabulating and coding the responses. The researcher used the statistical package for social sciences (SPSS) version 23 to analyse data. Research questions one, two, three and four will analysed using Descriptive statistics and results were presented in tables, pie chart and bar graphs. Qualitative data was analysed through content analysis which in turn was analysed by organizing data into themes, patterns, and sub-topics, according to themes in the research objectives and presented in continuous prose.

3.10 Ethical considerations

Ethical considerations in research are usually put in place to control the relationship between the researchers and participants and between the researchers and the fields they wish to study (Cresswell & Clark, 2007). The researcher observed and adhere to research ethics to ensure that informed consent and freedom allowed the participants to choose to participate voluntarily or not in the study (Mugenda & Mugenda, 2010). Participants were told about the nature and procedures of the study.

CHAPTER FOUR

DATA ANALYSIS, INTERPRETATION AND PRESENTATION

4.1 Introduction

This chapter deals with data analysis, presentation and interpretation of the study on the influence of principals' instructional supervision practices on Kenya Certificate of Secondary Education performance in public schools, Loitokitok Sub County – Kenya. The information presented comprise of the questionnaire return rate, demographic characteristics of the respondents followed by presentation, interpretation and discussion of research findings based on the research questions. To what extent does checking of teachers' professional records by principals have on students' performance in Kenya Certificate of Secondary Education in Loitokitok Sub-County, Kenya? To what extent does the principals' target setting have on students' performance in Kenya Certificate of Secondary Education in Loitokitok Sub-County, Kenya? What is the influence of principals' involvement in the monitoring of the syllabus coverage in Kenya Certificate of Secondary Education performance in Loitokitok Sub-County, Kenya? To what extent does the principals' visitation to classes while teachers teach have an influence on students' performance in Kenya Certificate of Secondary Education?

4.2 Return rate of the instruments

Table 4.1 shows the return rate of research instruments used in the study.

Table 4.1: Return rate of the research instruments

Respondents	Sample size	Response
Principals	14	14
Teachers	135	130
Students	540	435
Total	689	579

A total of 579 questionnaires were filled and returned; that is 84.03 percent (14 principals which is 100 percent, 130 teachers which is 96.29 percent and 435 students which is 80.55 percent). According to Mugenda and Mugenda (1999), a response rate of 50 percent is adequate for data analysis and reporting, a rate of 60 percent is good and a response rate of 70 percent and over is excellent. This means that the response rate for this study was excellent and therefore enough for data analysis and interpretation.

4.3 Demographic characteristics of the head teacher and teachers

The demographic section evaluated the general information of the respondents in terms of gender, professional qualifications, experience in the position and in-service training. Each of these aspects was important for the study. For instance, information on gender sought to determine if there is gender balance in the positions indicated. Information on the level of education and in service training was to establish if the respondents had knowledge and skills to undertake their instructional duties while information

on years in service was to establish if the respondents were experienced enough to handle matters related to instructional processes in the schools. The findings were as indicated in subsections that follow.

4.3.1 Demographic characteristics of principals

The demographic characteristics of students' respondents were studied.

The findings are shown in Table 4.2.

Table 4.2: Demographic characteristics of principals' respondents

Demographic factors	Variable	Frequency	%
Gender	Female	6	43
	Male	8	57
Highest education level	PhD	1	7
	MEd	2	14
	B.Ed	11	79
	Diploma	0	0
Duration served as principal	1 year and below	1	7
	2 - 5years		
	6-10 years	2	14
	11-15 years	4	29
	Over 15 years	7	50

The findings indicate that majority of the principals have university degrees that is Bachelor of Education 79 percent and Masters in Education 14 percent. This implies that most of the principals have adequate education to

execute their duties pertaining to instructional supervision. Okumbe (1998) associated the education level of principals and teachers with schools students' success with findings that, those with higher levels of education are more likely to be successful because higher education provides them with knowledge and modern managerial skills. Hence making them more conscious of the reality of the education sector and thus in a position to use their learning capabilities to manage instructional supervision. The current study established that majority of teachers who had higher levels of professional qualification achieved higher grades in their classes This indicated that they had vast experience that enabled them understand the influence of principals' instructional supervision practices on Kenya Certificate of Secondary Education performance in public schools, Loitokitok Sub County.

The study investigated whether the principals had attended any training in education. This was to ascertain if they were well equipped with the training skills and knowledge on how to handle instructional duties in the schools. The findings are shown in Table 4.3.

Table 4.3: Distribution of principals by their training

Yes	
11 (78%)	3 (22%)
12 (86%)	2 (14%)
12 (86%)	2 (14%)
	11 (78%) 12 (86%)

The majority 11 (78%) of the principals respondents indicated that they had attended a seminar before for training while 12 (86%) revealed that they

had attended a workshop on training. A large number 12 (86%) indicated that they had attended an in-service training before. The main reason for this finding could be that the Teachers Service Commission requires teachers to attend such training programs.

Table 4.4: Training agency having been attended by the principals

Training agency	Frequency	Percentage
KEMI	13	93
TSC	10	71
KNEC	9	64
KSG	10	71

The results in Table 4.4 indicate that majority of the principals had been trained in educational management by KEMI. This implies that KEMI is the leading in-service training agency on educational management. The principals therefore had the required educational management knowledge and skills to handle instructional supervisory practices in enhancing students' academic performance in their schools. All the interviewed principals agreed that the in-service training was beneficial to them and led students' academic performance.

4.3.2 Demographic characteristics of teachers

The demographic characteristics of students' respondents were studied.

The findings are shown in Table 4.5.

Table 4.5: Demographic characteristics of teachers

Demographic factors	Variable	Frequency	Percentage
Gender	Female	62	48
	Male	68	52
Age bracket	25 to 30 yrs	10	8
	31 to 35 yrs	66	51
	36 to 40 yrs	36	28
	46 and above	18	13
Education qualification	Dip.Ed	8	6
	B.Ed	114	88
	M.Ed	8	6
	Phd	0	0
Period of teaching	Below 3 years	10	8
	3-6 years	56	43
	7-10 years	34	26
	10 years and above	30	23
Category of school	Boys	27	21
	Girls	27	21
	Mixed	76	58

According to the analysis males were slightly more (52 percent) than females (48 percent) hence disparity is very small. This implied that secondary schools in in Loitokitok Sub-County attract both gender and therefore academic performance does not depend on gender. According to Nakpodia (2011), schools with gender balance present a wider range of ideas for

decision making and in doing so: teachers generate ideas to achieve schools' performance targets. The current study established that gender does not influence students' academic performance in KCSE.51 percent of the teachers are between an age bracket of 31 to 35 years, which implies that there is availability of an energetic work force to enhance academic performance The findings indicate that 88 percent of the teachers are Bachelor of Education degree holders, 6 percent are Diploma certificate holders while 6 percent are Masters degree holders. This implies that most of the teachers in Loitokitok Sub County are professionally qualified to undertake their instructional duties.

Majority 56 (43%) had an experience of 3-6 years while 34 (26%) had an experience of between 7-10 years. This means that the teachers are capable to understand the influence of principals' instructional supervision practices on Kenya Certificate of Secondary Education performance in public schools, Loitokitok Sub County.

4.3.3 Demographic characteristics of students

The demographic characteristics of students' respondents were studied.

The findings are shown in Table 4.6.

Table 4.6: Demographic characteristics of students

Demographic factors	Variable	Frequency	Percentage
Gender	Female	209	48
	Male	226	52
Age bracket	12 to 15 yrs	222	51
	16 to 19 yrs	152	35
	20 yrs over	61	14
Category of school	Boys	91	21
	Girls	91	21
	Mixed	253	58

This study involved 226 (52%) of male students and 209 (48%) were female students respondents. Majority 222 (51%) of the students respondents were of age bracket between 12-15 years while 152 (35%) were of between 16-19 years. Meaning that both boys and girls were having almost equal opportunity in school. A large number 253 (58%) were from mixed school category while 91 (21%) were from boys school and another 91 (21%) from girls schools category. This means that the students were from various schools and could understand the influence of principals' instructional supervision practices on Kenya Certificate of Secondary Education performance in public schools, Loitokitok Sub County.

4.4 Extent to which checking of professional documents by principals influence students' performance

This study examined the extent to which checking of professional documents by principals influence students' performance. This was done by investigating the tasks which are supposed to be performed by principals in instructional supervision. Teachers' views on the instructional supervision activities carried out by the principal and their rating of the extent to which setting targets improve students' academic performance. The study also probed the supervision of teaching/learning activities in the classrooms.

Table 4.7: Instructional supervision activities done by the principals

Checking of professional	Weekly	Fortn	Monthly	Once a	Never
documents		ightly		term	
Schemes of work	1	2	1	9	1
	(7%)	(14%)	(7%)	(65%)	(7%)
Records of work	2	1	2	8	1
	(14%)	(7%)	14%	(58%)	(7%)
Lesson plans	2	8	2	1	1
	(14%)	(58%)	(14%)	(7%)	(7%)
Progress records	3	1	8	2	0
	(21%)	(7%)	(58%)	(14%)	(0%)
Students' attendance registers	8	2	3	1	0
	(58%)	(14%)	(21%)	(7%)	(0%)
Teachers' adherence to					
timetable.	1	2	3	2	6
	(7%)	(14%)	(21%)	(14%)	(44%)

A large number of the principals 9 (65%) indicated that they checked the teachers' schemes of work on a termly basis while 8 (58%) checked records of work once in a term. Majority 8 (58%) checked the teachers' lesson plans fortnightly while 8 (58%) checked their progress records monthly. A large number 8 (58%) checked students' attendance registers weekly while 6 (44%) never checked teachers' adherence to timetable. Mugambi (2017) study on the influence of instructional supervision on the academic achievement of students indicated that 54.3 per cent of the principals visited classrooms, 86.7 per cent of principals observed teachers as they carry out instruction, 80 per cent of principals frequently check teachers records of work. From the findings it is evident that the principals ha to increase the frequency of checking teachers' professional records in order to realize improved students' academic performance. Continuous improvement in K.C.S.E performance was always marked by frequent checking of teachers' professional documents.

Table 4.8: Instructional supervision activities carried out by the principal

Professional Documents	Always	Frequ	Occasi	Rarely	Never
		ently	onally		
Checking on the schemes of	10	18	75	26	0
work	(8%)	(14%)	(58%)	(20%)	(0%)
Checking coverage of syllabus	13	10	26	78	3
	(10%)	(8%)	(20%)	(60%)	(2%)
Checking teacher's lesson plans	15	7	67	26	15
	(12%)	(6%)	(52%)	(18%)	(12%)
Checking students notes	4	10	15	92	9
	(3%)	(8%)	(12%)	(70%)	(7%)
Give appropriate guidance to					
teachers on performance	5	18	12	88	7
	(4%)	(14%)	(8%)	(68%)	(6%)
Provide study tours and trips	10	15	95	10	0
	(8%)	(12%)	(72%)	(8%)	(0%)
Recommend teachers for					
promotion	78	18	13	6	15
	(60%)	(14%)	(10%)	(4%)	(12%)
Hold meeting with students on	7	5	106	12	0
academic performance	(6%)	(4%)	(82%)	(8%)	(0%)

Majority 75 (58%) of the teachers' respondents indicated that the principals checked on the schemes of work occasionally while 78 (60%) indicated that that they checked coverage of syllabus rarely. A large number 67 (52%) indicated principals checked teacher's lesson plans occasionally while 92 (70%) revealed that they rarely checked student's notes. Majority 88 (68%) revealed that principals rarely gave appropriate guidance to teachers on performance while 95 (72%) indicated that they provided study tours and trips

occasionally. A large number 78 (60%) of teachers revealed that principals frequently recommend teachers for promotion while 106 (82%) indicated they occasionally hold meetings with students on academic performance.

Kimeu (2010), maintains that overall high performance would be realized in schools if principals look at what the teacher is utilising to teach, checking of learners' books to ascertain that lesson notes are taken, assignment given are marked and corrected and attendance by the teacher is evident. Principals should regularly interact with students and call for their exercise books to see whether they are given tasks by their subject teachers and their books are checked, marked and corrected and as such these records should be clear and available when the principals demand them.

Table 4.9: Extent to which setting targets improve students' academic performance

Response	Frequency	Percentage
Very Greatly	23	18
Greatly	80	62
Low	10	8
Very Low	17	12
Total	130	100

A large number 80 (62%) of teachers' respondents rated the extent to which setting targets improves students' academic performance to be to a great extent while 23 (18%) rated it to be to a very great extent. Irungu (2015)

study findings indicate that checking the progress of learners is an assurance that students are carrying out all their assigned work in the manner accorded to it. This process helps students to be focused on the targets set. Thus, helps teachers to be diligent and hardworking as their work is being evaluated and the progress of their class activities monitored. Ndungu, Allan and Emily, 2015) agrees with Dangara (2015) by postulating that it is in checking these documents principals are able to know whether teachers are teaching and whether students are adhering to the objectives noted at the end of schemes of work. Such plans make teachers to be focused when teaching and even master the content when delivering it to the students.

Table 4.10: Frequency of supervision of teaching/learning activities in the classrooms

Response	Frequency	Percentage
Always	8	6
Occasionally	10	8
Rarely	91	70
Never	21	16
Total	130	100

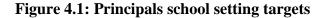
Majority 91 (70%) of the teachers respondents indicated that there was rarely supervision of teaching/ learning activities done in their classrooms while a few 21 (18%) indicated that there was never any supervision. The experiences of teachers and pupils in the classroom are very important in the teaching and learning process (Fischer, 2011). Checking of professional

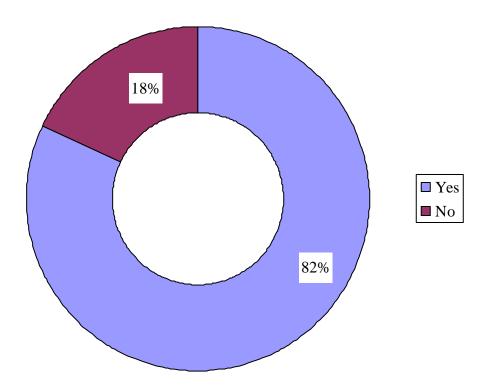
documents gives teachers a central role in understanding and through critical appraisal improves their teaching methodologies, perceptions, beliefs and attitudes towards work.

Classroom observation appraisal has been considered to take three main focus professional development, reward, and promotion. Classroom observation is a key component of teacher professional development as any effort for improving teaching quality must revolve around the teaching and learning processes taking place in the classroom. Schools as formal organizations keep records as a trace map of what is taking place. These records are schemes of work, students class notes, lesson plan, academic progress records, lesson notes, records of work covered and students' register (Mugambi, 2017; Okumbe, 2013).

4.5 Influence of principals' academic target setting on students' performance

This study examined the influence of principals' academic target setting on students' performance. This was done by investigating if the principals set targets and the persons who are involved in setting the targets. The researcher compared the achievement of the previous year target with the current year target. The study also examined the strategies principal can use to enhance students' academic performance.





A large number 11 (82%) of the principal respondents indicated that they usually set targets for their schools while a few 3 (18%) disagreed to the statement. According to Cheng and Chiou (2010) set goals to students helps to have a unity of purpose in the school between the teachers and the students. Higher results are achieved if goals are specific, measurable, and challenging. When students set their own targets and accept targets set by principals and teachers as their own, they are responsible for positive attitude and motivation strategies which become an impetus for them to work harder to achieve them. The students utilize all the available opportunities and resources to ensure that they achieve their goals and targets.

Table 4.11: Principals response on person that sets the target

Persons who set targets	Frequency	Percentage
Teachers	4	28
Principals	8	58
Teachers and Principals	2	14
Total	14	100

A large number 8 (58%) of the principal respondents indicated that they are the ones that set the targets while 4 (28%) indicated that its teachers who set targets. A few 2 (14%) involve both teachers and principals in setting of the targets. Dotson (2016) postulates that the difference between high and low achievers is the extent to which students are self- regulated as high achievers participate in the process of goal setting, planning for learning, self-monitoring and reflection meaning that when students set their own targets, they create their own routes for achieving them.

Table 4.12: Principals previous year target

Previous target	Frequency	Percentage
2-4	0	0
5-7	2	14
8-10	7	50
11-12	5	36
Total	14	100

A large number 7 (50%) of the principal respondents indicated that they had a previous year target of between 8 and 10 while 5 (36%) had a target of 11-12. A few 2 (14%) had a target of 5-7. Goal setting and self-regulated learning are crucial and affect academic achievement. When goals and targets are set, they improve student performance and heightens their achievement by allocating attention, activating their effort, increasing their persistence in learning and motivating them which in turn leads to the development of self-regulation skills. According to Cheng and Chiou (2010) set goals to students helps to have a unity of purpose in the school between the teachers and the students. Higher results are achieved if goals are specific, measurable, and challenging. When students set their own targets and accept targets set by principals and teachers as their own, they are responsible for positive attitude and motivation strategies which become an impetus for them to work harder to achieve them.

Table 4.13: Principals current target

Current target	Frequency	Percentage
2-4	1	7
5-7	1	7
8-10	8	58
11-12	4	28
Total	14	100

A large number 8 (58%) of the principal respondents indicated that they had a current target of between 8-10, while 4 (28%) had a target of 11-12. A few 1 (7%) had a target of 5-7. Nyogosia, Waweru and Njuguna (2013) in their study avers that decline in candidates' performance in Kenya national examinations is as a result of lack of monitoring of learning processes that could provide a basis for provision of intervention strategies. These calls for principals to help the students to set targets and motivate them in their various examinations which can keep them focused in their academic performance (Nyogosia et al, 2013).

Table 4.14: Strategies principal can use to enhance students' academic performance

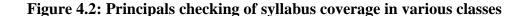
Principals strategies	Strongly	Agree	Undec	Disag	Strongly
	agree		ided	ree	disagree
Provide in-service for teachers	15	26	6	75	6
	(12%)	(20%)	(5%)	(58%)	(5%)
Provide students with guidance and	84	26	0	15	10
counselling	(60%)	(20%)	(0%)	(12%)	(8%)
Set school mean score	91	0	15	13	10
	(70%)	(0%)	(12%)	(10%)	(8%)
Involve teachers on decision making	80	23	5	10	12
on students' academic performance	(60%)	(18%)	(4%)	(8%)	(10%)
Initiate self-generating projects to	37	8	10	67	8
subsidize fees	(28%)	(6%)	(8%)	(52%)	(6%)
Encourage teachers to use varied	33	70	12	10	5
teaching methods	(24%)	(54%)	(10%)	(8%)	(4%)
Involve parents in students'	81	26	0	14	9
academic performance	(62%)	(20%)	(0%)	(11%)	(7%)
Delegate some administrative	40	67	10	8	5
functions to have time for	(30%)	(52%)	(8%)	(6%)	(4%)
instructional supervision					

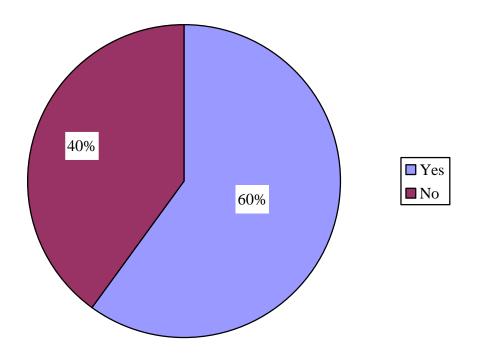
A large number 75 (58%) of the teachers' respondents disagreed that the principal provide in-service for teachers while 84 (60%) agreed that they provide students with guidance and counselling. Majority 91 (70%) strongly

agreed that the principals set school mean score while 80 (60%) agreed that they involve teachers on decision making on students' academic performance. A large number 67 (52%) agreed that the principals initiate self-generating projects to subsidize fees while 70 (54%) agreed that they encourage teachers to use varied teaching methods. Majority 81 (62%) strongly agreed that they involve parents in students' academic performance while 67 (52%) agreed that principals delegate some administrative functions to have time for instructional supervision. In a school which emphasise effectiveness, student progress on the essential objectives is monitored frequently and the results of those assessments are used to improve the individual behaviours and performances (Ngunjiri, 2012).

4.6 Extent to which principals' monitoring syllabus coverage influence students' performance

This study examined the extent to which principals' monitoring syllabus coverage influence students' performance. This was done by probing the principals checking of syllabus coverage in various classes and the frequency of checking of syllabus coverage. The researcher investigated if there were cases of uncovered syllabus and the possible reason. The study probed students response on activities related to the role of the principal in students' academic performance.



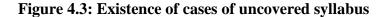


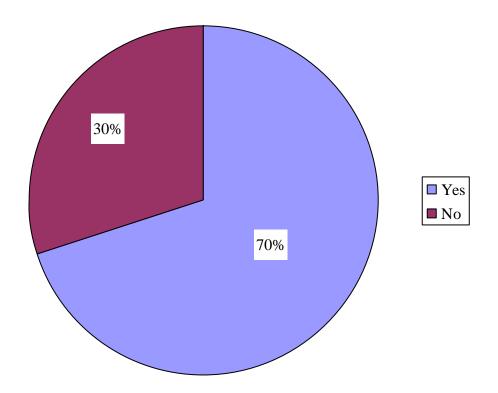
A large number 8 (60%) of the principal respondents indicated that they checked the syllabus coverage in various classes while 6 (40%) disagreed to the statement. It is the head teacher's role to regularly inspect on the students' exercise book/lesson notes to ensure that the school syllabus is covered appropriately and assignments are marked. In a study conducted by Alimi and Akinfolarin (2012) on the impact of instructional supervision on student academic performance in senior secondary schools in Ondo State, Nigeria. They found out that there is significant impact on checking pupils' notes on academic performance in English language.

Table 4.15: Frequency of checking of syllabus coverage in various classes by the principal

Duration	Frequency	Percentage
Weekly	1	7
Fortnightly	5	36
Monthly	8	57
Yearly	0	0
Total	14	100

A large number 8 (57%) of the principal respondents indicated that they check the syllabus coverage in various classes on monthly basis while 5 (36%) check the syllabus coverage in various classes fortnightly. Pansri (2008) affirmed the importance and usefulness of providing extra coaching to pupils who are preparing for major national examination. Frequent exposure of students to test can improve examination performance, promptness in giving and making homework assist in identifying areas of weakness to be improved.





Majority (70%) of the principal respondents indicated that there exists cases of uncovered syllabus while (30%) disagreed to the statement. The principals explained that some teachers tend to rush into covering the syllabus which negatively affects the academic performance of the students. In a study, 'Effect of syllabus coverage on student performance in mathematics' (Shikuku 2009), it was established that these factors do not directly contribute to poor performance in mathematics. Instead, late or non-coverage of the mathematics syllabus contributes to poor performance.

Table 4.16: Activities related to the role of the principals in students' academic performance

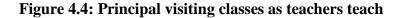
Activities	High	Moderate	Low
Provide enough teaching/learning resources	35	52	348
	(8%)	(12%)	(80%)
Provide enough teachers for all subjects	78	304	53
	(18%)	(70%)	12%
Visit my class and observe teacher teaching	87	78	270
	(20%)	(18%)	(62%)
Checks my notebooks	35	9	391
	(8%)	(2%)	(90%)
Rewards students who perform well in exams	96	252	87
	(22%)	(58%)	(20%)
Teachers miss some classes	78	296	61
	(18%)	(68%)	(14%)
Most teacher's complete syllabus in time	96	304	35
	(22%)	(70%)	(8%)
Holds clinic on academic performance	52	26	357
	(12%)	(6%)	(82%)
Set mean score for the school	348	52	35
	(80%)	(12%)	(8%)
We experience strikes in school	261	96	78
	(60%)	(22%)	(18%)
There are indiscipline cases in school	313	79	43
	(72%)	(18%)	(10%)

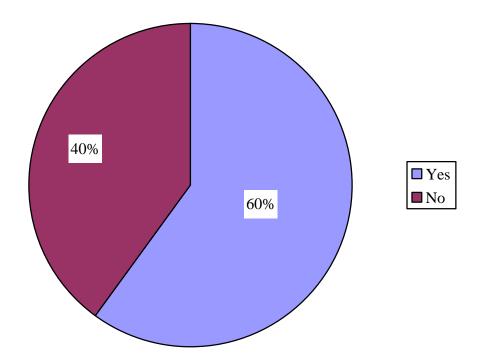
Majority 348 (80%) of students' respondents indicated that the principal provided enough teaching/learning resources to a low extent while 304 (70%) revealed that the principals provided enough teachers for all subjects to a moderate extent. A large number 270 (62%) revealed that the

principals visited their class and observe teacher teaching to a low extent while 391 (90%) indicated that the principals checks their notebooks to a low extent. Majority 252 (58%) indicated that the principals rewards students who perform well in exams to a low extent while 296 (68%) revealed that the teachers miss some classes to a moderate extent. A large number 304 (70%) indicated that most teacher's complete syllabus in time to a moderate extent while 357 (82%) revealed that they held clinic on academic performance to a low extent. A large number 348 (80%) of students indicated that they set mean score for the school to a moderate extent while 261 (60%) revealed that they experienced strikes in school to a high extent. Majority 313 (72%) indicated that there were indiscipline cases in school to a high extent. Kosgei (2012) asserts in his study that there are three means of monitoring progress in curriculum implementation namely; continuous assessment, mid-term examination and checking learners' notebooks.

4.7 Principals' class visitation influence students' performance

The study investigated the principals' class visitation influence students' performance. This was done by investigating the principals class visitation and if they visit classes as teachers teach and the frequency of visitation. Principals organisation for post class visitation and if the class post class visitation are friendly and teachers' response on activities related to the role of the principal in students' academic performance.



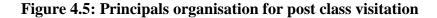


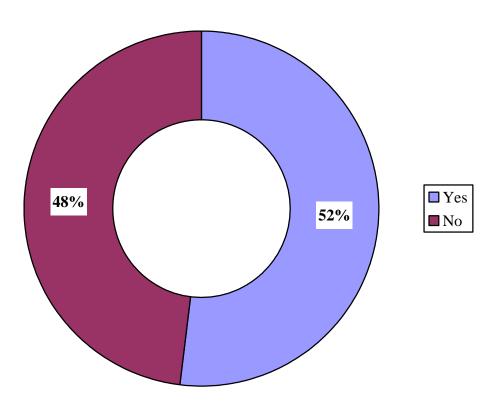
A large number (60%) of the principal respondents indicated that they visited classes as the teachers teach while (40%) disagreed to the statement. Principals should foster a conducive school environment that teachers and students can carry out their teaching and learning well (Wachira, Gitumu & Mbugua, 2017). Kimeu (2010) observes that principals' presence in school and management by walking around helps to make programmes run smoothly. Ngunjiri (2012) attributes poor performance of students in public schools to 'arm chair' principals who do not know what goes on in the classroom.

Table 4.17: Frequency of principal visitation of classes as teachers teach

Frequency	Frequency	Percentage
Weekly	1	7
Fortnightly	3	21
Monthly	8	58
Termly	2	14
Total	14	100

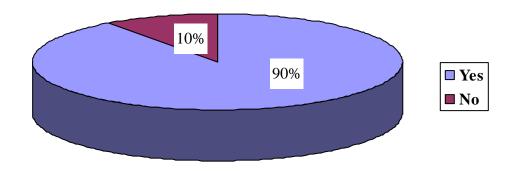
From the findings, majority 8 (58%) of the principals indicated that the visited the classes as teachers teach in a monthly frequency while 3 (21%) visited the class in fortnightly. Mutunga (2011) holds that principals need to observe their teachers formally on a regular basis and discuss classroom performance to help teachers to improve on their teaching. Classroom visitations and observations are geared towards improving teachers' pedagogical skills.





A large number 8 (52%) of the principals indicated that there was principals' organisation for post class visitation while 6 (48%) disagreed to the allegation. Supervision, as a field of educational practice with clearly delineated roles and responsibilities, did not fall from the sky fully formed. Rather, supervision emerged slowly as a distinct practice, always in relation to the institutional, academic, cultural, and professional dynamics that have historically generated the complex agenda of schooling (Sergiovanni & Starrat 2002).

Figure 4.6: Class post class visitation being friendly



A large number 12 (90%) of the principals indicated that the visitation of class was friendly while 2 (10%) disagreed to the allegation. In Caribbean the findings confirmed that teachers' commitment is a multidimensional construct which depend largely on the principals and his leadership style helps teachers to have an affective and collaborative dimension in classrooms such as planning, decision making, communicating, organising, supporting, evaluating and delegating. According to Dipaola and Hoy (2008), the most important role a school principal can assume is that of the 'teacher of teachers'. The principal must be a model collaborator and a reflector of his or her own practice. He/she should encourage teachers to observe him /her in instructional process and ask them to offer constructive criticism.

Table 4.18: Principals response on classroom observation

Classroom observation	Weekly	Fortn	Mon	Once	Never
		ightly	thly	a term	
Visiting students in classrooms	2	1	9	1	1
	(14%)	(7%)	(64%)	(7%)	(7%)
Observing teaching and	2	2	1	9	0
learning activities	(14%)	(14%)	(7%)	(64%)	0%
Checking students' notebooks	2	3	8	1	0
	(14%)	(21%)	(57%)	(7%)	(0%)
Checking lesson attendance	9	4	0	1	0
registers	(65%)	(28%)	(0%)	(7%)	(0%)

The findings indicated that majority 9 (64%) of the principals respondents revealed that they visited students in classrooms on a monthly basis while 9 (64%) indicated that they observed teaching and learning activities on a monthly basis. A large number 8 (57%) revealed that they checked students' notebooks on a weekly basis while 9 (65%) checked lesson attendance registers on a weekly basis. Fischer (2011) indicates that class visitation and observation includes principals' getting into class and observing how teaching and learning is taking place. Principals' efficient use of administrative leadership skills in instructional supervision help teachers utilizes their professional techniques and skills in classroom teaching (Mugambi, 2017).

Table 4.19: Activities related to the role of the principal in students' academic performance

Activities	High	Moderate	Low
Provide enough teaching/learning resources	23	78	29
	(18%)	(60%)	(22%)
Provide enough teachers for all subjects	13	91	26
	(10%)	(70%)	(20%)
Visit my class and observe teacher teaching	26	26	78
	(20%)	(20%)	(60%)
Checks my notebooks	10	91	29
	(8%)	(70%)	(22%)
Rewards students who perform well in exams	36	76	18
	(28%)	(58%)	(14%)
Teachers miss some classes	65	41	24
	(50%	(32%)	(18%)
Most teacher's complete syllabus in time	31	86	13
	(24%)	(66%)	(10%)
Holds clinic on academic performance	36	78	16
	(28%)	(60%)	(12%)
Set mean score for the school	81	39	10
	(62%)	(30%)	(8%)
We experience strikes in school	68	52	10
	(52%)	(40%)	(8%)
There are indiscipline cases in school	76	39	15
	(58%)	(30%)	(12%)

Majority (60%) of the teachers' respondents revealed that the role of the principals involved providing enough teaching/learning resources to a moderate extent while (70%) indicated providing enough teachers for all subjects to a moderate extent. Majority (60%) indicated that principals visit their class and observe teacher teaching to a low extent while (70%) revealed that principals checked their notebooks to a moderate extent. A large number (58%) revealed that the principals rewards students who perform well in exams to a moderate extent while (50%) revealed that teachers miss some classes to a high extent. Majority (66%) of the teachers indicated that most teacher's complete syllabus in time to a moderate extent while a large number (60%) indicated that they held clinics on academic performance to a moderate extent. A large number (62%) indicated that principals set mean score for the school to a high extent while majority (52%) indicated that they experienced strikes in school to a high extent. A large number (58%) revealed that there were indiscipline cases in school to a high extent. The principal should check on how the teachers are teaching, the way students are responding to questions, checking on student notes and support them in solving issues that might arise when learning is taking place to improve students' performance (Alimi & Akinfolarin, 2012). Kieti (2017) stipulates that, class observation and visitation centres on the improvement of the teaching – learning situation which benefits the teachers and learners, the identification of areas of strengths and weaknesses of teachers, follow up activities that should be directed at the improvement of the identified areas of teachers' weaknesses. This guidance helps teachers to be committed to teaching in line with curriculum, conscious

of students' needs and capacities which in turn help them to improve their performance (Memduhoglu & Zengin, 2012, Archibong, 2013).

Table 4.20: Other duties carried out by principals duties

Other Duties	Frequency	Percentage
School development	10	72
Attending to stakeholders	2	14
Accounting	2	14
Total	14	100

The findings indicate that instructional supervision time is limited by the other duties shouldered on to principals. Majority 10 (72%) of the principals indicated that school development was another duty they undertook. This is in line with Ogunu (2005) who cited lack of time as a challenge to school supervision. Secondary school principals are weighed down by routine administrative burden which limits time for classrooms visit to observe how the teachers are teaching. According to a study by Issa (2012), teaching load of the principal influences the effectiveness of the principals" instructional supervision. In addition, Buckley et al., (2004) revealed that teaching load significantly influenced supervision especially on the principals' ability to observe teachers in class, give feedback after classroom observation and checking the teaching aids. Bays (20001), states that principals whose enrolment is high have a lot of issues to address and big workload compared to principals who have lower enrolment. It should however be noted that reducing the number of students alone does not improve the quality of

instructional supervision or lead to improved teaching and learning. Thus, focus should be shifted from concern on high workload to investigating what kind of teaching actually makes a difference.

Table 4.21: Duties and responsibilities that take most of principals time

Duties and responsibilities	Frequency	Percentage
Attending to stakeholders	9	64
Teaching	4	28
Administrative duties	1	8
Total	14	100

Most of the principals (64%) indicated that administrative duties that entailed attending to stakeholders take up most of their time in secondary schools. This was an indication that administration duties of principals consume most of their time thus weighting their responsibilities. A study by Abdille (2012) shows that workload affected principals: instructional supervision. Most of the principals indicated that workload affects their position to a greater extend since their performance in the schools is judged depending on how well they are able to control and coordinate the schools in one direction. Ogunuand Emmanuel (2015) cited lack of time as a challenge to school supervision. He asserted that secondary school principals are so weighed down by routine administrative burden that they hardly find time to visit the classrooms and observe how the teachers are teaching.

4.8 School performance

This study investigated school performance by examining the principals teaching load in a week and the school performance in KCSE for the last five years.

Table 4.22: Principals teaching load in a week

Frequency	Percentage		
9	64		
4	28		
1	8		
0	0		
0	0		
14	100		
	9 4 1 0		

The findings indicated that majority 9 (64%) of the principals respondents had between 1-5 lessons in a week while 4 (28%) had between 6 - 10 lessons. This shows that the principals have time to concentrate in their managerial work that involves instruction supervision.

Table 4.23: School performance in KCSE for the last five years

Year	KCSE mean score	Comments
2014	4.248	
2015	5.213	
2016	3.659	
2017	4.253	
2018	3.952	

The findings indicated that there was a decline in K.C.S.E performance between 2014–2018.In schools like Oloitokitok High School and Enkii Secondary with a mean score of 6/0422 and 5.8221 respectively, target setting, monitoring of syllabus coverage, high frequency of class visitation and constant checking of teachers' professional records were highly done by the principals compared to some schools like Collins Davies secondary school and Ilkisonko Secondary with a mean score of 2.634 and 3.032 respectively, which had low grades due to low instructional supervision practises like checking of teachers' professional records, low levels of target setting and low frequency of class visitation by the principals. The study findings further indicate that other factors that could have led to low KCSE mean scores in Loitokitok Sub¬County included: shortage of the teaching personnel, inadequate teaching and learning materials and financial constrains

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the study in a summary and makes conclusions based on the results. The recommendations from the findings and areas for further research are also presented.

5.2 Summary of the study

The KCSE results analysis of 2014 indicates poor grades in Loitokitok Sub- County. The purpose of the study was to establish the influence of principals' instructional supervision practices on Kenya Certificate of Secondary Education such checking of professional documents by principals, academic target setting on students' performance, monitoring syllabus coverage by principals and class visitation by principals. The study sought information to answer the following research questions: to what extent does checking of teachers' professional records by principals have on students' performance in Kenya Certificate of Secondary Education in Loitokitok Sub-County, to what extent does the principals' target setting have on students' performance in Kenya Certificate of Secondary Education, what is the influence of principals' involvement in the monitoring of syllabus coverage in Kenya Certificate of Secondary Education and to what extent does the principals' visitation to classes while teachers teach have an influence on students' performance in Kenya Certificate of Secondary Education.

The study used descriptive survey design in which it targeted 45 public secondary school principals, 450 teachers and 1800 students from boys, girls

and mixed secondary schools in Loitokitok Sub-County. The data was collected by use of questionnaires and interview guide. The questionnaires comprised of three sections: Section A was based on collection of personal data, section B based on instructional supervision practices, and section c was based on school performance.to establish the reliability of the research instruments the test-retest method was used whereby the pilot study respondents were issued with questionnaires to fill and the same questionnaires subjected to a retest to establish the response. The reliability coefficient was computed using Pearson's Product Co-relation Co-efficient. Data was analysed both qualitatively and quantitatively by use of descriptive statistics and content analysis.

A large number of the principals 9 (65%) indicated that they checked the teachers' schemes of work on a termly basis while 8 (58%) checked records of work once in a term. Majority 8 (58%) checked the teachers' lesson plans fortnightly while 8 (58%) checked their progress records monthly. A large number 8 (58%) checked students' attendance registers weekly while 6 (44%) never checked teachers' adherence to timetable. Majority 75 (58%) of the teachers' respondents indicated that the principals checked on the schemes of work occasionally while 78 (60%) indicated that that they checked coverage of syllabus rarely. A large number 67 (52%) indicated principals checked teacher's lesson plans occasionally while 92 (70%) revealed that they rarely checked student's notes. Majority 88 (68%) revealed that principals rarely gave appropriate guidance to teachers on performance while 95 (72%) indicated that they provided study tours and trips occasionally. A large number

78 (60%) of teachers revealed that principals frequently recommend teachers for promotion while 106 (82%) indicated they occasionally hold meetings with students on academic performance. A large number 80 (62%) of teachers' respondents rated the extent to which setting targets improves students' academic performance to be to a great extent while 23 (18%) rated it to be to a very great extent. Majority 91 (70%) of the teachers respondents indicated that there was rarely supervision of teaching/ learning activities done in their classrooms while a few 21 (18%) indicated that there was never any supervision.

The results on the influence of principals' academic target setting on students' performance showed that a large number 11 (82%) of the principal respondents indicated that they usually set targets for their schools while a few 3 (18%) disagreed to the statement. A large number 8 (58%) of the principal respondents indicated that they are the ones that set the targets while 4 (28%) indicated that its teachers who set targets. A few 2 (14%) involve both teachers and principals in setting of the targets. A large number 7 (50%) of the principal respondents indicated that they had a previous year target of between 8-10 while 5 (36%) had a target of 11-12. A few 2 (14%) had a target of 5-7. A large number 8 (58%) of the principal respondents indicated that they had a current target of between 8-10, while 4 (28%) had a target of 11-12. A few 1 (7%) had a target of 5-7. A large number 75 (58%) of the teachers' respondents disagreed that the principal provide in-service for teachers while 84 (60%) agreed that they provide students with guidance and counselling. Majority 91 (70%) strongly agreed that the principals set school mean score

while 80 (60%) agreed that they involve teachers on decision making on students' academic performance. A large number 67 (52%) agreed that the principals initiate self-generating projects to subsidize fees while 70 (54%) agreed that they encourage teachers to use varied teaching methods. Majority 81 (62%) strongly agreed that they involve parents in students' academic performance while 67 (52%) agreed that principals delegate some administrative functions to have time for instructional supervision.

The findings on the extent to which principals' monitoring syllabus coverage influence students' performance revealed that a large number 8 (60%) of the principal respondents indicated that they checked the syllabus coverage in various classes while 6 (40%) disagreed to the statement. A large number 8 (57%) of the principal respondents indicated that they check the syllabus coverage in various classes on monthly basis while 5 (36%) check the syllabus coverage in various classes fortnightly. Majority (70%) of the principal respondents indicated that there exists cases of uncovered syllabus while (30%) disagreed to the statement. Majority 348 (80%) of students' respondents indicated that the principal provided enough teaching/learning resources to a low extent while 304 (70%) revealed that the principals provided enough teachers for all subjects to a moderate extent. A large number 270 (62%) revealed that the principals visited their class and observe teacher teaching to a low extent while 391 (90%) indicated that the principals checks their notebooks to a low extent. Majority 252 (58%) indicated that the principals rewards students who perform well in exams to a low extent while 296 (68%) revealed that the teachers miss some classes to a moderate extent.

A large number 304 (70%) indicated that most teacher's complete syllabus in time to a moderate extent while 357 (82%) revealed that they held clinic on academic performance to a low extent. A large number 348 (80%) of students indicated that they set mean score for the school to a moderate extent while 261 (60%) revealed that they experienced strikes in school to a high extent.

The findings on principals' class visitation influence students' performance indicated that a large number (60%) of the principal respondents indicated that they visited classes as the teachers teach while (40%) disagreed to the statement. From the findings, majority 8 (58%) of the principals indicated that the visited the classes as teachers teach in a monthly frequency while 3 (21%) visited the class in fortnightly. A large number 8 (52%) of the principals indicated that there was principals' organisation for post class visitation while 6 (48%) disagreed to the allegation. A large number 12 (90%) of the principals indicated that the visitation of class was friendly while 2 (10%) disagreed to the allegation. The findings indicated that majority 9 (64%) of the principals respondents revealed that they visited students in classrooms on a monthly basis while 9 (64%) indicated that they observed teaching and learning activities on a monthly basis. A large number 8 (57%) revealed that they checked students' notebooks on a weekly basis while 9 (65%) checked lesson attendance registers on a weekly basis. Majority (60%) of the teachers' respondents revealed that the role of the principals involved providing enough teaching/learning resources to a moderate extent while (70%) indicated providing enough teachers for all subjects to a moderate extent. Majority (60%) indicated that principals visit their class and observe teacher teaching to a low extent while (70%) revealed that principals checked their notebooks to a moderate extent. A large number (58%) revealed that the principals rewards students who perform well in exams to a moderate extent while (50%) revealed that teachers miss some classes to a high extent. Majority (66%) of the teachers indicated that most teachers complete syllabus in time to a moderate extent while a large number (60%) indicated that they held clinics on academic performance to a moderate extent. A large number (62%) indicated that principals set mean score for the school to a high extent while majority (52%) indicated that they experienced strikes in school to a high extent. A large number (58%) revealed that there were indiscipline cases in school to a high extent.

5.3 Conclusions

The following conclusions were drawn from the research questions and the findings of the study;

It can be concluded that checking of professional documents by principals positively influences students' performance in Kenya Certificate 0f Secondary Education. Some of the principals were found to be checking the teachers' schemes of work on a termly. They also checked their records of work once and lesson plans fortnightly. They do not provide enough study tours and trips.

It can be concluded that principals' academic target setting influence on the students' performance in Kenya Certificate of Secondary Education. The principals usually set targets for their schools but some do not involve the teachers in setting of the targets. Principal provide in-service for teachers and provide students with guidance and counselling.

It was concluded that principals' monitoring syllabus coverage has an influence on students' performance in Kenya Certificate of Secondary Education. The teachers do not cover the syllabus on time and the principals and not so much keen to monitor the syllabus coverage. This has a negative impact on the student's academic performance.

In conclusion, principals' class visitation influences students' performance in Kenya Certificate of Secondary Education. The principal do not mostly visit classes as the teachers teach. Principals do not organise for post class visitation and do not visit the students in classrooms most often.

5.4 Recommendations

The researcher makes the following recommendation;

- The Ministry of Education and KEMI should develop policies where principals and teachers attend training on instructional supervision and certificates be awarded to them upon completion of such courses.
- ii. The Ministry of Education through the assessment officers should ensure that at least all schools are assessed twice a term and reports availed. This shall ensure that principals implement instructional supervision practises in public secondary schools.
- iii. The principals and the Board of Management must also get involved in target setting. Targets can only get realised when all stakeholders come together and provide the necessary resources for intuitional supervision.

iv. The number of teachers need to be increased to ensure that instructional supervision is fully done in public secondary schools.TSC should fully empower HODs to assist the principals in instructional supervision.

5.5 Recommendations for further research

The recommendations for further studies include the following:

- Further study should be done on the influence of principals' instructional supervision on the students participation since this study only focused on the student's academic performance.
- ii. Research should be done on the influence of principals' instructional supervision on students' academic performance in private secondary schools, since this focused on public secondary schools.

REFERENCES

- Abdi, M. K. (2017). Institutional factors and student performance: A survey on public secondary schools in Hargeisa City, Somaliland. *International Journal of Education and research*, 5 (3), 45-54.
- Abdile, Y. A (2012). Instructional factors influencing headteachers' supervision practices in secondary schools in Mandera east district, Kenya. Unpublished master's thesis, University of Nairobi, Kenya.
- Alimi, O. S., & Akinfolarin, C. A. (2012). Impact of selected modes of instructional supervision activities on students' academic performance in senior secondary schools in Ondo state, Nigeria. Education Research Journal 2 (1), 1-6.
- Archibongs, F. I. (2013). Strengthening internal quality assurance for improved education delivery in Nigerian public Universities. *Research on Humanities and Social Sciences Journal*, 13 (1)
- Barley, J. S. & Shang, Y. (2004). *Organizing for effective early childhood programs and practices critical issues*. Cambridge: Havard Family Research.
- Bays, D.A. (2001). Supervision of special education instruction in rural public schools districts: A grounded theory: Doctoral dissertation faculty of Virginia Polytechnic institute and State university.
- Bays, D.A. (2001). Supervision of special education. Instruction in rural public school districts: A grounded theory, Doctoral Dissertation. Faculty of the Virginia Polytechnic Institute and State University.
- Best, J.W & Kahn, J.V (2006). *Research in Education 10th Edition*. Delhi, Darling Kiners Lay (India) private
- Buckley, J., Schneider, M., & Shang, Y. (2004). The Effects of School Facility Quality on Teacher Retentionin Urban School Districts. *National Clearing house for Educational Facilities*. Retrieved from http://www.edfacilities.org/pubs/teacherretention.pdf.
- Burns, R.B. (2008). *Introduction to research method*. Sidney: Sage publication.
- Cheng, P., & Chiou, W. (2010). Achievement, attributes, self-efficacy, and goal setting by accounting undergraduates. Psychological Reports, 106 (1), 54-64.
- Cohen, L.L., Manion, & Morrison, K. (2011). *Research methods in Education*. British journal educational Technology, London, Amazon.com.Books.
- Creswell, J.W., & Clark, V.L (2012) Designing and Conducting mixed methods Research. Thousand oaks. Sage.

- Dangara, U. Y. (2015). The Impact of Instructional Supervision on Academic Performance of Secondary School Students in Nasarawa State, Nigeria. *Journal of Education and Practice*, 6(10), 160-167.
- Deal, T., & Celoti, L. (2000). How much influence do(and can) educational administrators have on classrooms? London, England.
- Donkoh, E. K., & Dwamena, O. E. (2014). Effects of Educational Supervision on Professional Development: Perception of Public Basic School TechersAt Winneba, Ghana. *British Journal of Education*, 2(6), 63-83.
- Dotson, R. (2016). Goal setting to increase student academic performance. Journal of School Administration Research and development, 44-46.
- Duke, M., & Tucker, L. (2003). Educational Leadership in an age of accountability. Albany, NY: SUNNY Press.
- Fischer, R. (2011). *Qualitative Research methods. Sage publications*. New York: Sage Publications.
- Glickman, C.D. (2010). Supervision and instructional leadership & Development Approach (5th edition) Needhan Heeights, M.A: Allyn and Bacon.
- Irungu, R.W. (2015). Head teachers factors influencing instructional supervision in public Primary school. University of Nairobi. Reposition.
- Issa, Y. A. (2012). Instructional factors influencing headteachers' instructional supervision practices in secondary schools in Mandera east district. Unpublished project: Unversity of Durham, United Kingdom.
- Issa, Y.A. (2012). Instructional factors influencing head teachers" instructional supervision practices in secondary schools in Mandera East District. Unpublished Project: University of Nairobi, Nairobi, Kenya.
- Kieti, J. M., Maithya, R., & Mulwa, D. M. (2017). *Influence of Administrative Practices on Students' Academic Performance in Public Secondary Schools in Matungulu Sub- County, Kenya*. International Journal of Education and Research. 5 (1), 11-22.
- Kimeu, J. M. (2010). Influence of secondary school principals instructed supervision practices on Kenya certificate of secondary education performance in Kasikeu Division, Nairobi (Unpublised M.Ed Project). Nairobi: Univeristy of Nairobi.
- Kimeu, R. M., Tanui, E., & Ronoh, A. (2015). *Influence of instructional resources on secondary school students' academic performance in Makueni County, Kenya*. International Journal of Scientific research and Innovative Technology, 70-81.

- Kiptum, C. (2018). Correlation between instructional leadership and students' academic achievement in public secondary schools in Baringo County, Kenya. British Journal of Education, 6 (1), 92-102.
- Kirui, K., & Osman, A. (2012). Head teachers' Perception of their roles in secondary schools in Kenya: A case study of Kericho Day Secondary School in Kericho County. International Journal of Humanities and Social Science. 2 (23), 267-272.
- Kosgei, S. (2010). A study on constraints affecting the implementation of FPE in public primary schools in Nairobi County. Unpublished MEd project, university of Nairobi.
- Kothari, C.R. (2004). Research methodology. Methods and Techniques. Amazon Cory. Books
- Lempira, P. S. (2014). *Influence of head teachers' instructional supervision practices on students' performance*. University of Nairobi. M.Ed project. *Ludwing Von Batanlanffy*(1974). Perspective of general systems theory. George Brazzilar: New York
- Malunda, P., Onen, D., Musaazi, J. C., & Oonyu, J. (2016). *Instructional supervision and the pedagogical practices of secondary school teachers in Uganda*. Journal of Education and Practice, 7 (30), 177-187.
- Martin, J., & Holt, R. (2010). *Understanding school leadership*. New York: McGraw Hill Book Company.
- Mavindu, M. (2013). *Influence of principals' instructional supervision practices on Students' performance*. U.O.N Repository University of Nairobi.
- Memduhoglu, H. B., Aydin, I., Yilmaz, K., Gungor, S., & Oguz, E. (2007). The Process of Supervision in the Turkish Educational System: Purpose, Structure, Operation. Asia Pacific Education Review, 8 (1), 56-70.
- Mugambi, P. (2017). Influence of instuctional supervision on the academi achievement of students in national examination in public secondary schools in Tinderet Sub County, Kenya. Journal of Advanced Research in Education & Social Sciences, 1 (2), 1-6.
- Mugenda, O.M., & Mugenda A.G (2003) Research methods Quantitative and Qualitative approaches, Nairobi Acts press.
- Muoka, V.M. (2007). The role of head teachers in instructional supervision in *Public secondary schools Mwala division*, Unpublished M.Ed project, University of Nairobi.

- Mutua, S.M. (2011). Head teachers Professional Roles and Educational Attainment in Machakos District, Unpublished M.Ed. Thesis, Maseno University.
- Mutunga, M. (2011). Transforming the courts judicial sector reforms in Kenya. Innovations for successful society prince ton university. Princeton.
- Namunga, N.W. (2017). Effects os supervision of Instructional Practices on Teaching and Learning in Secondary Schools in Kenya. *International Journal of Scientific and Research Publications*, 7 (2), 418-427.
- Naomi, N. M., Ronoh, A., & Tanui, E. (2016). Relationship between principals instructional supervision and students academic achievement in sciences in secondary schools. *International Journal of Scientific and Engineering Research*, 7 (9), 1585-1607.
- Ndaita, H. (2013). Principals instructional Quality Assurance Role. C.U.E.A Nairobi.
- Ndungu, B. W., Allan, G., & Emily, B. (2015). *Influence of monitoring and evaluation by principals on effective teaching and learning in public secondary schools in Githunguri District*. Journal of Education and Practice, 10-17.
- Ngunjiri, J. (2012). Developing Evolutionary leadership thoughts, Beliefs and Actions. Left coast press.
- Nyagosia, O.P., Waweru, N.S., & Njuguna, W. F. (2013). Factors Influencing academic achievements in public schools in Central Keny: An effective schools' perspective. Educational Research International, 2 (2), 174-184.
- Ogunu, M.A. (2005). Introduction to educational management. Benin City: Mabago publishers.
- Okendu, J. N. (2012). The influence of instructional process ans supervision on academic performance of secondary school students of River State, Nigeria. *Academic Research International Journal*, 3 (1), 147-151.
- Okumbe, J. A. (2013). *Educational Management Theory and Practice*. Nairobi: Nairobi University Press.
- Pansiri, N.O. (2008). *Instructional leadership for quality learning*. An assessment of the impact of the primary school management development project in Botswana. Education and Technology.
- Reche, N. G., Bundi, K. T., & Riungu, N. J. (2012). Factors contributing to poor performance in Kenya Certificate of Primary Education in Public Day Primary Schools in Mwingi Division, Kenya. International Journal of Humanities and Social Science, 2(5), 127-133.

- Sergiovanni, T. J., & Starrat R. J. (2002). Supervision a redefinition (7th Ed.) New York: McGraw-Hill.
- UNESCO. (2008). EFA Global monitoring report. Paris: UNESCO.
- Wachira, F. M., Gitumu, M., & Mbugua, Z. (2017). Effects of Principals' leadership styles on teachers' job performance in public secondary schools in Kieni West Sub County, Kenya. International Journal of Humanities and Social Science Invention, 72-86.
- Wafula,C.(2013). *Utilization of open and distance learning in addressing Educational challenges. Case of the flagship projects initiatives of University of Nairobi*. A paper presented to the academic conference for the school of continuing and distance education on 18th April.
- Wanjiku, G.G. (2012). The role of head teachers in curriculum and instructional management: A case of secondary school in Gatundu District, Kiambu County, Kenya, Unpublished Master of Arts thesis; Nairobi: Kenyatta university.
- Wawira, M.G. (2012). Headteachers' characteristics influencing instructional supervision in public primary schools in Kasarani District, Kenya. Unpublished M.Ed Project. University of Nairobi, Nairobi, Kenya.
- Webb, D. L., Metha, A., & Jordan, K.F. (2010). *Foundations of American Education*. Upper Saddle River, NJ: Merrill, Publishers.
- Wenzare, Z. (2012). *Instructional supervision in public secondary schools in Kenya*. Educational Management, administrative and leadership.

APPENDIX I

LETTER OF INTRODUCTION

University of Nairobi

Department of Educational

Administration and Planning

P.O. Box 30197, Nairobi.

The Principal

..... Secondary School

Dear Sir/ Madam,

REF: QUESTIONNAIRE FOR STUDY REASONS.

I am a masters' student from the University of Nairobi conducting a study on "The influence of principals' instructional supervision on Kenya Certificate of secondary education performance in public schools, Loitokitok Sub County – Kenya". This is to request you to allow me to carry the study in your school. The information gathered is for academic work only and the respondents will be treated in confident.

Yours faithfully,

James Obunga Denge

APPENDIX II

PRINCIPAL'S QUESTIONNAIRE

This questionnaire will be used to obtain information from the principals about how they conduct instructional supervision roles in their respective schools.**DO NOT** indicate your name or that of your school.

Section A: Demographic information

1	Please indicate your gender	r.	
	Male [] Fe	male []	
2	What is your highest profes	ssional qualification?	
	PhD [] M.Ed. [] B.E	d. [] Diploma in Educ	cation []
	Any other (specify)		
3	Please indicate years served	d as principal.	
	1year and below [] 2-5	5 years [] 6-10 years [] 11-15 years []
O	ver 15 years []		
4	a) Please indicate whether	you have attended any of	the following:
		Yes	No
	i. Seminar		
	ii. Workshop		
	iii. In-service training		
	b) If yes which was the tra	ining agency?	
	KEMI[] TSC[]	KNEC [] KSG [1
	Any other specify		

SECTION B: Instructional supervision activities

5 The following tasks are supposed to be performed by principals in instructional supervision. Please indicate by ticking $(\sqrt{})$ the frequency of performing the following:

Tick (W) if weekly, (F) If fortnightly, (M) if monthly (O) if once a term and (N) if never

6	Checking of professional documents	W	F	M	0	N
a)	Schemes of work					
b)	Records of work					
c)	Lesson plans					
d)	Progress records					
e)	Students' attendance registers					
f)	Teachers' adherence to timetable.					

7	Classroom observation	W	F	M	O	N
a)	Visiting students in classrooms					
b)	Observing teaching and learning activities					
c)	Checking students' notebooks					
d)	Checking lesson attendance registers					

8.	Targ	ret s	settii	nσ
υ.	I al è	sci i		4

i.	Does your school set targets?	Yes []	No []	
ii.	Who sets the targets?					
	a) Teachers [] (b) Princip	als [] (c) To	eachers a	nd Principals [1

111. What was your previous year target?
a) 2-4 [] (b) 5-7[] (c) 8-10 [] (d) 11-12 []
Iv. What is your current target?
a) 2-4 [] (b) 5-7 [] (c) 8-10 [] (d) 11-12 []
9. Monitoring of syllabus coverage
a) i) Do you check syllabus coverage in various classes? Yes [] No[]
ii) If Yes. How often? Weekly [] (b) fortnightly [] (c) monthly []
(d)Yearly []
b) i) Do you have cases of uncovered syllabus Yes[] No[]
ii) If Yes give a possible reason
10. Class visitation
a) i) Do you visit classes as teachers teach? Yes [] No []
ii) How often (a) Weekly [] (b) Fortnightly [] (c)Monthly[] (d) Termly[]
b) i) Do you organise for post class visitation Yes [] No []
c) ii) Are class post class visitation friendly Yes[] No []
SECTION C: School performance
11. Please indicate your teaching load in a week
1 - 5 Lessons [] 6 - 10 Lessons [] 11 - 15 Lessons []
16 – 20 Lessons [] Over 20 Lessons []

12. Kindly indicate and comment on your school performance in KCSE for the last five years.

	Year	KCSE mean score	Comments
2014			
2015			
2016			
2017			
2018			

Thank you for participation

APPENDIX III

QUESTIONNAIRE FOR HEADS OF DEPARTMENTS

This questionnaire is aimed to gather information about influence of principals' instructional supervision on students' performance in Loitokitok Sub-County. The information provided will only be used for the purpose of this study. The response will be accorded great confidentiality. Do not indicate your name or the name of your school.

Part 1: Background information

Kindly, tick ($$) the appropriate response. Please respond to all items
1. Please indicate your gender: Male [] Female []
2. Please indicate your age category: 25-30 years [] 31- 35 years []
36-40 years [] 46 and above []
3. Please indicate your highest academic qualification: DIP. Ed []
B.Ed [] M.Ed [] PHD []
4. For how long have you been teaching: Below 3 years [] 3-6 years []
7-10 years [] 10 years and above []
5. What is the category of your school: Boys [] Girls [] Mixed []

Section 2: Principals instructional supervision activities

6. The following are instructional supervision activities carried by the principal. Please tick ($\sqrt{}$) your appropriate response as to how often the principal carries them in your school.

Always = 1, Frequently = 2, Occasionally = 3, Rarely = 4, Never = 5

Professional documents	1	2	3	4	5
a). Checking on the schemes of work					
b). Checking coverage of syllabus					
c). Checking teacher's lesson plans					
d). Checking students notes					
e). Give appropriate guidance to teachers on					
performance					
f). Provide study tours and trips					
g). Recommend teachers for promotion					
H). Hold meeting with students on academic					
performance					

7. I	n your view, what is the influence of checking of professional documents
on	students' academic performance?
8.	Kindly rate the extent to which setting targets improve students' academic
	performance. Very Greatly [] Greatly [] Low [] Very Low []
9.	How often do you supervise teaching/ learning activities in your
	classrooms? Always [] Occasionally [] Rarely [] Never []

Section 3: Strategies principal can use to improve students' academic performance

10. The following are some strategies principal can use to enhance students' academic performance. To what extent do you agree that their application by the principal can improve students' academic performance? Kindly, tick $(\sqrt{})$ the appropriate response as given in the table below.

Strongly Agree = 1, Agree = 2, Undecided = 3, Disagree = 4,
Strongly Disagree = 5

Principals strategies	1	2	3	4	5
a). Provide in-service for teachers					
b). Provide students with guidance and					
counselling					
c). Set school mean score					
d). Involve teachers on decision making on					
students' academic performance					
e). Initiate self-generating projects to					
subsidize fees.					
f). Encourage teachers to use varied teaching					
methods.					
g). Involve parents in students' academic					
performance.					
h). Delegate some administrative functions					
to have time for instructional supervision.					
Thank was fan na					

Thank you for participation

APPENDIX IV

QUESTIONNAIRE FOR STUDENTS

This questionnaire is aimed to gather information about influence of principals' instructional supervision on students' performance in Loitokitok Sub-County. Do not indicate your name or the name of your school.

Please, tick ($\sqrt{ }$) the appropriate response.

Section I: Demographic information

1.	Please indicate your gender:	Male []	I	Femal	le []	
2.	Please indicate your age bracket:	12-15 yrs [] 16-19 y	rs [] 20 yrs over []
3.	What is the category of your scho	ool: Boys [] Girls	[]	Mixed []	
Sec	tion II: Principal instructional s	upervision a	ctivities			
4.	The following table has some act	tivities relate	d to the ro	le of	the principal	
	in students' academic performance	ce. Indicate	the extent	to w	hich you rate	

High - 1	Moderate = 2	$I_{OW} - 3$

them as they apply to your principal and your school.

Statements		2	3
a). Provide enough teaching/learning resources			
b). provide enough teachers for all subjects			
c). visit my class and observe teacher teaching			
d). Checks my notebooks			
e). Rewards students who perform well in exams			
f). Teachers miss some classes			
g). Most teacher's complete syllabus in time			
h). Holds clinic on academic performance			
i). Set mean score for the school			
j). We experience strikes in school			
k). There are indiscipline cases in school			

APPENDIX V

LIST OF SCHOOLS IN THE LOITOKITOK SUB-COUNTY

School	Category
1. Amboseli Secondary	Public
2. Elerai Secondary	Public
3. Enkorika Secondary	Public
4. Thomas Fish Secondary	Public
5. Olturoto Secondary	Public
6. Kaputei Secondary	Public
7. Lenkisem Secondary	Public
8. Barakaoontoyie Secondary	Public
9. Maparasha Secondary	Public
10. Ngatataek Secondary	Public
11. Meto Secondary	Public
12. Namanga Secondary	Public
13. Ilbisil Secondary	Public
14. Kiluani Secondary	Public
15. Nkoile Secondary	Public
16. Iloodokilani Secondary	Public
17. Sajiloni Secondary	Public
18. Olmapitet Secondary	Public
19. Oloiyankalani Secondary	Public
20. Kaputei Secondary	Public
21. Ereteti Secondary	Public
22. Oloosirikon Secondary	Public

23. Oloitokitok Boys Secondary	Public
24. Ilkisonko Boys Secondary	Public
25. Olchorro Secondary	Public
26. Entonet Secondary	Public
27. Oloirien Secondary	Public
28. Rombo Girls Secondary	Public
29. Collin Davis Secondary	Public
30. Entarara Secondary	Public
31. Illasit Secondary	Public
32. Iltilal Secondary	Public
33. Kuku Secondary	Public
34. Kimana Girls Secondary	Public
35. Kimana Mixed Secondary	Public
36. Enkii Boys Secondary	Public
37. Namelok Secondary	Public
38. Merueshi School	Public
39. Entaretoi Secondary	Public
40. Erankau Secondary	Public
41. Mashuuru Secondary	Public
42. Olkejuado High	Public
43. Kikelelwa Secondary	Public
44. Chief Risa Secondary	Public
45. Isinya Boys Secondary	Public

APPENDIX VI

RESEARCH AUTHORIZATION FROM NACOSTI



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/19/08111/30723

Date: 26th July, 2019

James Obunga Denge University of Nairobi P.O. Box 30197-00100 NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on "Influence of principals' instructional supervision practices on Kenya Certificate of Secondary Education performance in Public Schools, Loitokitok Sub County – Kenya" I am pleased to inform you that you have been authorized to undertake research in Kajiado County for the period ending 25th July, 2020.

You are advised to report to the County Commissioner and the County Director of Education, Kajiado 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.

GODFREY P. KALERWA MSc., MBA, MKIM FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner Kajiado County.

The County Directors of Education Kajiado County.

APPENDIX VII

RESEARCH PERMIT

THIS IS TO CERTIFY THAT: MR. JAMES OBUNGA DENGE	National Commission	Date Of	Issue : 2	OSTI/P/19/ 6th July,2	019	Commissi
of UNIVERSITY OF NAIROBI,	29-209 ommission	Fee Rec	eved :Ks	hn1000/atio	n National	Commissi
LOITOKITOK has been perm	itted to ommission	for Science,	Technology	and Innovatio	n National	Commissi
conduct research in Kajiado	Naconal Commission	for Science	Technology	and Innovation	n National	Commissi
or Science, Technology and Innovation	National Commission	for Science,	Technology	a di Innovatio	n National	Commissi
or Science, Technology and Innovation						
or Science, Technology and Innovation	National Commission	for Science	Technology	andingovaire	ninational	Commissi
on the topic: INFLUENCE OF	National Commission	for Science,	Technology	STEER IT EVESTO	n National	Commissi
PRINCIPALS' INSTRUCTIONA	Mational Commission	for Science,	Technology	The state of the s	n National	Commissi
PRINCIPALS' INSTRUCTIONA SUPERVISION PRACTICES OF	N KENYA	for Science,	Technology	artovallo	n Mational	Commissi
CERTIFICATE OF SECONDAR	Matienal Commission	for Science,	Technology	arrangovatio	n National	Commissi
EDUCATION PERFORMANCE	National Commission	for Science	Technology		n Mational	Commissi
EDUCATION PERFORMANCE	National Commission	for Science	Technology	and anavatio	Mational	Commissi
SCHOOLS, LOITOKITOK SUB	COUNTY -	for Science	Technology	and longvatio	n National	Commissi
KENYAe, Technology and Innovation	National Commission	for Science	Technology	and Innovatio	n National	Commissi
or Science, Technology and Innovation	National Commission	for Science	Technology	and Innovatio	n National	Commissi
or Science, Technology and Innovation						
or Science, Technology and Innovation	National Commission	for Science.	Technology	and Innovatio	n National	Commissi
for the period ending: ovalion	National Commission	for Science,	Technology	and Innovatio	n National	Commissi
25th July, 2020 y and Innovation	National Commission	for Science,	Technology	and Innovatio	n National	Commissi
or Science, Technology and Innovation	National Commission	for Science.	Technology	and Innovatio	n National	Commissi
or Science, Technology and Innovation						
or Science, Technology and Innovation						
or Science, Technology and Innovation or Science, Technology and Innovation	National Commission	for Science,	Technology	(2021 C	National	Commissi
or Science. Technology and Innovation	National Commission	for Science,	Technology	HOW ON THE	i Nautiral	Commissi
Applicant's hology and Innovation	National Commission	for Science	Technology	Director G	eneral	Commissi
Signature chnology and Innovation	National Commission	for Science	National	Commissi	on for S	Cience
or Science, rechnology and Innovation	National Commission	for Science	Technology	and initiovatio	n Ivalionai	Commissi
or Science, Technology and Innovation	National Commission	for Science	rechnibec;	illology &	minovat	Olimnissi
or Science, Technology and Innovation or Science, Technology and Innovation						
or Science, Technology and Innovation						
or Science, Technology and Innovation						
or Science. Technology and Innovation						