

**RELATIONSHIP BETWEEN PROVISION OF SELECTED RESOURCES  
AND EFFECTIVE PERFORMANCE OF INSTRUCTIONAL ROLES IN  
SECONDARY SCHOOLS IN NANDI EAST SUB- COUNTY, KENYA**

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**A Thesis Submitted to the Institute of Postgraduate Studies of Kabarak  
University in Partial Fulfilment of the Requirements for the Award of Master of  
Education (Management and Leadership) Degree**

**KABARAK UNIVERSITY**

**OCTOBER, 2021**

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## RECOMMENDATION

To the Institute of Post Graduate Studies:

The research Thesis entitled “**Relationship Between Provision of Selected Resources and Effective Performance of Instructional Roles in Secondary Schools in Nandi East Sub- County, Kenya**” and written by **Kosgei Kipruto Pius**, is presented to the Institute of Postgraduate Studies of Kabarak University. We have reviewed the research Thesis and recommend it be accepted in partial fulfillment of the requirement for the award of the Master of Education (Management and Leadership) degree.

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## **DEDICATION**

This work is dedicated to my beloved wife, Margaret J. Kosgei, daughter Joy Kosgei and son Kiplagat Ruto.

## ABSTRACT

Provision of teaching resources in educational institutions is central to achievement of the goals of education. It could facilitate effective performance of teachers' instructional roles. This study sought to investigate relationship between provision of selected resources and effective performance of instructional roles in secondary schools in Nandi East Sub-County, Kenya. Numerous complaints by various education stakeholders on performance of instructional roles by teachers as shown in the background of this study were reported. These complains indicated that teachers had not been effective in performing roles related to class room instruction, students' evaluation and academic advising in Nandi East Sub-County. The problem of the ineffective performance of instructional roles by teachers in Nandi East Sub-County was investigated. Significance of this study was that recommendations could aid in improvement of performance of instructional roles. Frederick Taylor's Scientific Management and System theory guided the study. Correlational research design was adopted. Data collection tool was teachers' and deputy principal's questionnaire. The data collection instruments were validated. Reliability of the instruments was tested using test re-test method returning correlation coefficient of 0.711. The target population was secondary school teachers and deputy principals. The accessible population was the 192 teachers in the 30 secondary schools and 30 deputy principal's. Proportionate sampling was used to categorize teacher respondents into female and male, teachers in boarding and day schools. Simple random sampling was used to get actual teacher respondents. The teacher sample size was 127 teachers determined using Krejcie and Morgan table of Sample size and all the 30 deputy principals were a surveyed in the study to facilitate data triangulation. Data analysis was done using SPSS version 24. Descriptive and inferential statistics were presented in tables. Inferential statistics were used to determine significant differences at 95 per cent confidence level. The study established that: there was a positive and a statistically significant relationship between provision of classroom teaching resources and effective performance of classroom instructional roles by teachers in Nandi East Sub- County, Kenya; that there was a positive and a statistically significant relationship between provision of learning resources and effective performance of classroom instructional roles by teachers in Nandi East Sub- County, Kenya; that there was a positive and a statistically significant relationship between provision of students' evaluation resources and effective performance of students evaluation roles by teachers in Nandi East Sub- County, Kenya and that there was a positive and a statistically significant relationship between provision of academic advising resources and effective performance of academic advising roles by teachers in Nandi East Sub- County, Kenya. The study recommended that teachers be provided with necessary, relevant and adequate teaching resources for their use in performance of instructional roles.

**Key words:** Provision of Teaching Resources, Effective Performance of Instructional Roles, Instructional Roles by Teachers.

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## LIST OF ABBREVIATIONS AND ACRONYMS

<b>ANOVA</b>	Analysis of Variance
<b>ASTI</b>	Association of Secondary Teachers in Ireland
<b>BOG</b>	Board of Governors
<b>BOM</b>	Board of management
<b>CATs</b>	Continuous Assessment Tests
<b>CDE</b>	County Director of Education
<b>CEB</b>	County Education Board
<b>FDSE</b>	Free Day Secondary school
<b>FSE</b>	Free Secondary Education
<b>KCSE</b>	Kenya Certificate of Secondary Education
<b>KEMI</b>	Kenya Education Management Institute
<b>KESSHA</b>	Kenya Secondary Schools Heads Association
<b>KICD</b>	Kenya Institute of Curriculum Development
<b>KNEC</b>	Kenya National Examinations Council
<b>KNUT</b>	Kenya National Union of Teachers
<b>KUPPET</b>	Kenya Union of Post Primary Education Teachers
<b>MOE</b>	Ministry of Education
<b>MoEST</b>	Ministry of Education, Science and Technology
<b>PA</b>	Parents Association
<b>PPMCC</b>	Pearson Product Moment Correlation Coefficient
<b>SGB</b>	School Governing Bodies
<b>SPSS</b>	Statistical Package for Social Scientist.
<b>TSC</b>	Teachers Service Commission
<b>UNESCO</b>	United Nations Educational Scientific and Cultural Organization
<b>SACMEQ</b>	Southern And Eastern African Consortium For Monitoring Achievement In Education Quality.
<b>ICT</b>	Information Communication Technology.
<b>NG-CDF</b>	National Government- Constituency Development Fund
<b>STEM</b>	Science, Technology, Engineering and Mathematics
<b>TPD</b>	Teacher Professional Development
<b>CPG</b>	Career Progression Guidelines

## OPERATIONAL DEFINITION OF KEY TERMS

**Selected Resources:** Physical materials and electronic devices used by teachers to facilitate teaching and learning in Nandi East Sub-County, Kenya that include classroom teaching resources, learning resources, students evaluation resources and academic advising resources.

**Provision of Teaching Resources:** Availing teaching resources to teachers in Nandi East Sub-County, Kenya.

**Effective Performance of Instructional Roles by Teachers:** How timely and regular teachers Execute various assigned tasks to enable them to improve learning outcomes in Nandi East Sub-County, Kenya.

**Classroom Teaching:** The actual instructional tasks performed by teachers while they are in class in Nandi East Sub-County, Kenya. These include preparing curriculum support materials, providing reference material to students, giving notes, and assignments, supervising and explaining concepts in class and using audiovisual equipment during lesson delivery.

**Students' Evaluation Activities:** Actual learner assessment tasks performed by teachers in Nandi East Sub-County, Kenya. These include, examination setting, invigilation and marking. It also include marking class exercises, setting and marking of CATs, analysis of results and giving feedback to parents on student's achievement.

**Academic Advising Activities:** How teachers provide information to learners to improve learning outcomes in Nandi East Sub-County, Kenya. These include providing students with academic recreational games, audio-video and career guidance resources. It also include organizing school wide academic advisory services, counseling students with academic advising needs and providing academic advice to students.

**Instruction:** Performance of classroom Teaching, student evaluation and academic advising roles by teachers in Nandi East Sub-County, Kenya

**Classroom Teaching Resources:** All physical materials and electronic devices used



by teachers in actual performance of classroom instructional tasks while they are in class in Nandi East Sub-County, Kenya. These include audio-video instructional equipment, reference materials, notebooks, desks, projectors, laptops, textbooks and models for teaching.

**Learning Resources:** Physical materials and electronic devices used by students to facilitate acquisition of skills and knowledge in Nandi East Sub-County, Kenya. These include educational games, academic electronic files and computer laboratories. It also consists of multimedia learning resources, internet facilities, academic projects resources and academic journals.

**Students' Evaluation Resources:** All physical materials and electronic devices used in assessment of students in Nandi East Sub-County, Kenya. These include examination analysis software, printers, photocopying papers, photocopiers, writing materials, rooms and adequate time for evaluation.

**Academic Advising Resources:** All physical materials and electronic devices used in academic advising/counseling of students in Nandi East Sub-county, Kenya. These include computers, office space, time and lockable file cabinets. It also consists of career resource materials, relevant pamphlets and fliers, multimedia items and appropriate chairs.

**Deputy Principal:** Assistant to the school principal who helps in the organization and supervision of instructional activities, in prudent management of instructional resources and in supervision of teaching and non-teaching staff in the school.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.0 Introduction**

This chapter deals with the background of the study, statement of the problem and purpose of the study. It also outlines the research objectives; research hypothesis and significance of the study. This section further presents the scope of the study; limitations and assumptions of the study.

#### **1.1 Background to the Study**

Performance of instructional roles by teachers is important in achievement of academic goals in any educational institution. This includes classroom teaching, students' evaluation and academic advising. Provision of teaching resources to enable teachers perform instructional roles is an important management function used in running successful educational institutions (Usman, 2016). It involves drawing up an annual plan for all teaching resources required for effective performance of instructional roles in the school. The plan is then presented to and adopted by parents and Board of Management (BoM). Ogola (2017) argues that this is targeted at provision of teaching and learning resources to be used for actual classroom teaching, evaluation, remedial instruction and academic counselling activities. Teachers' performance of instructional roles could be influenced by provision of instructional resources (Lubanga, 2011).

The Management Boards of educational institutions in Germany and other jurisdictions play a critical role in provision of teaching resources which could be required for teaching and learning (Zuljan & Zuljan, 2012). Moreover, Van (2014), argues that school managements in USA formulate and implement policies which ensure that teachers perform their instructional roles uninterrupted by insufficient provision of teaching resources. In China, Arijit (2014) reports that Boards of Management of schools account for how they provide teachers with teaching resources and how this affects performance of instructional roles in the schools under which they have been appointed. Such roles among others include: classroom teaching, student evaluation, and academic advising.

Adesivia (2011) argues that provision of teaching resources, a critical school management role in Sub-Saharan Africa has largely been ignored and that teachers were not comprehensively involved in identification and provision of teaching resources in their institutions. Taylor (2011) opines that most Boards of Management tend to leave provision of teaching resources and monitoring teacher's performance of instructional roles to school principals and deputy principals.

Teachers' performance of instructional roles has not been impressive in many secondary schools (Adesivia, 2011). In South Africa, Kyahurwa (2013) posits that school governing bodies, principals and deputy principals faced challenges in monitoring of teachers performance of instructional roles. This suggested that some school management boards could have lacked capacity to effectively and efficiently monitor teachers in performance of instructional roles. Previous studies in East African countries revealed that teachers' performance of instructional roles had not been impressive and there had been scarcity in provision of teaching materials in schools (Wangui, 2012; Mberia, 2012).

Boards of Management provide teaching resources in their schools for use by teachers in performance of instructional roles. Provision of teaching resources by Boards of Management has faced myriad challenges ranging from non-involvement of teachers in selection of these resources to inadequate financing (Omariba, 2012). This view is supported by (Amin, 2016) who advance that educational institutions, like other organizations, require financial resources to provide teaching resources in order to survive and achieve their academic goals.

Mungai (2016) argues that a school is an organization of its own. Therefore, human, financial, time and material resources should be harnessed for the purpose of enabling teachers to perform instructional roles (MoEST, 2006). Secondary schools in Kenya rely on limited sources of funds to provide teaching resources (Kitunga, 2009). It implies that government sources of funds alone, through free day secondary school funds (FDSE), cannot meet all school's educational teaching requirements.

Deputy Principals in Kenya play a crucial role in instructional supervision of curriculum implementation and in ensuring teacher effectiveness in performance of

instructional roles. These roles include guiding new teachers and inducting teacher trainees on their role, rules involved and institutional culture. They further ensure efficient and optimal use of instructional resources allocated to teaching and learning, organize preparation and production of teaching and learning materials for use during curriculum provision; direct and offer guidance and counselling services to teachers, none teaching staff and learners so as impart values for harmonious coexistence and to inculcate norms. Deputy Principal's roles also include supervision of interpretation and implementation of curriculum. They further ensure teachers make schemes of work, prepare lesson plans, and other professional documents (TSC, 2017). Their duties include assisting in scheduling internal examination and assessment and making sure they are carried out and implemented as scheduled.

Concerns have been raised by several education stakeholders that despite the Kenya Government allocating and giving out Ksh 4,792 for teaching and learning materials under tuition vote per year to each secondary school student since the year 2008, there was still inadequate teaching and learning resources which could have affected teachers' performance of instructional roles in the schools KICD, (2018). Principals of secondary schools have been accused of misappropriating funds meant for provision of teaching resources. The Ministry of Education resolved to provide textbooks in five subjects directly to secondary schools, namely English, Kiswahili, Mathematics, Chemistry and Biology KICD, (2018). This was to address the issue of shortages but the other subjects had not been addressed. Shortages in the uncovered subjects persisted and there was lack of variety in the already covered subjects (CEB, 2018). Other scholars agreed that teacher's performance may be influenced by inadequate teaching resources in schools (Okongo et al., 2015).

The Basic Education Act (2013) specifies that all basic education institutions shall be managed by Boards of Management (BoM) whose roles include providing curriculum leadership, monitoring of teachers performance of instructional roles, provision of proper and adequate physical facilities and teaching resources. This was corroborated by Wanyama (2010) who suggested for any educational organization to succeed, it must efficiently and effectively utilise the scarce resources. The level of academic achievement of any basic education institution largely depends on how management is focused on efficient and effective provision of resources for teaching and learning

(MoEST, 2006). While all public secondary schools had been receiving Free Day Secondary School Funds (FDSE) since 2008 and some had been receiving infrastructure grants and laboratory equipment funding, teaching resources were still inadequate in schools (Wango & Gatere, 2016). They further report that performance of instructional roles had deteriorated during this period. It was reported that some principals were not consulting relevant teachers while procuring teaching resources for use in performance of instructional roles (Orawo, 2016). Inadequate provision of teaching resources could have impacted negatively on performance of instructional roles related to classroom teaching, students' evaluation and academic advising.

A study by KICD (2014) showed that there were inadequate teaching resources in many secondary schools and locally available resources were used by few teachers. In addition, Nalusiba (2010) in his study observed that most teachers were not performing their instructional roles effectively and efficiently and were not using as many essential teaching resources as expected because most schools were missing them. He further found out that where those teaching resources were provided, they were inadequately provided, were of poor quality and lacked variety. Mwanamukubi (2013) established that one of the challenges that teachers faced in performance of instructional roles was inadequate teaching resources. Other studies showed in Kenya that several schools were ineffective in teacher's performance of instructional roles (Omariba et al., 2016).

Teachers' Service Commission (TSC, 2018), established that performance of instructional roles in public secondary schools had deteriorated, a view supported by a report of the Ministry of Education (MoEST, 2017). This Report noted that the government, stakeholders and individuals were not satisfied with teachers' performance of instructional roles.

A World Bank survey done in Kenya in 2017 as quoted by Oduor (2017), noted that performance of instructional roles in secondary schools was not impressive. A study by Kenyan National Examinations Council (KNEC) found out that performance of instructional roles could have been affected by inadequate instructional resources among other factors (KNEC, 2017). This view is also advanced by a SACMEQ IV (2017) report. CEB, (2018) reports indicated that most schools lacked essential teaching resources including ICT resources, laboratory equipment and teaching aids for teaching

and learning. The report further established that other necessary facilities for teaching were reported to be inadequate as was evident in congested classrooms, inadequate libraries and laboratories, chairs and desks. The problem of teachers' ineffectiveness in performance of instructional roles was wide spread across all counties in Kenya (Wekesa & Nyar Roos, 2018).

Stakeholders in education in Nandi East Sub-County had complained about performance of instructional roles by teachers (CEB, 2018). The level of compliance with regulations related to acquisition of teaching resources by many Boards of Management and principals was reported to be unsatisfactory (Mulatya, 2014). An audit report by Directorate of Schools Audit (CEB, 2018) points out that many schools in Nandi East Sub-County, Kenya continued to lack science equipment and chemicals for practical subjects. Necessary teaching facilities and equipment were reported to be inadequate as was evident in inadequate classrooms, libraries and laboratories. Limited studies had been focused on the relationship between provision of teaching resources and effective performance of instructional roles by teachers in secondary schools. This study therefore seeks to fill this gap in.

MoEST (2015) observed that instructional roles performed by teachers could be measured through academic performance of learners in standardized examinations such as KCSE examinations, mock evaluations, Continuous Assessment Tests (CAT) and regular class and homework exercises given. Conversely; performance of classroom instructional roles by teachers had not been satisfactory, a view supported by Teachers' service commission (TSC 2018) report as well as MoEST (2017) and Oduor (2017). An assessment report by Quality Assurance and Standards Officers in Nandi East Sub-County, Kenya showed that the quality of students' evaluation by teachers was deficient. The quality of the set examinations and evaluations tests was found to be sub-standard (CEB, 2018). The Report showed that students' evaluations were not programmed in most of the secondary schools

As reported by Okoth (2015), many teachers in secondary schools in Kenya were found to experience challenges in offering academic advisory services. Okoth (2015) further notes that student advisors had not been effective in discharging their functions.

Most of them had a higher teaching load, lacked reference materials and had not undergone continued teacher professional development (TPD), (CEB, 2018).

Wambu and Fisher (2015) advance that some principals of secondary schools had negative attitude towards student advisory services. They had not supported such teachers in their quest to provide quality and effective academic counselling services. This made teachers' performance of such roles ineffective. The Basic Education Act (2013) requires schools Boards of Management to plan, organise, coordinate and control advisory services. It is also required to monitor how teachers perform these roles. The Boards of Management need to support teachers' performance of this role.

Inadequate provision of teaching resources could have contributed to ineffective performance of instructional roles by teachers in Nandi East Sub-County, Kenya. No study had been conducted to establish relationship between provision of the selected resources and effective performance of instructional roles by teachers in secondary schools in Nandi East Sub-County, Kenya. The existing gap could be filled by the current study.

## **1.2 Statement of the Problem**

There has been numerous complaints by various education stakeholders on performance of instructional roles by teachers as shown in the background of this study. These indicate that teachers have not been effective in performing roles related to class room instruction, students' evaluation and academic advising in Nandi East Sub-County. Ineffective performance of instructional roles by teachers could have affected learning outcomes. There were limited studies done on establishing the relationship between provision of the selected resources and effective performance of instructional roles by teachers in Nandi East Sub-County, Kenya.

If the problem of ineffective performance of instructional roles by teachers in classroom instruction, students' evaluation and academic advising continues unabated then learning outcomes in Nandi East Sub-County, Kenya could continue to deteriorate. This study sought to establish the relationship between provision of selected resources and effective performance of instructional roles by teachers in Nandi East Sub-County, Kenya.

### **1.3 Research Objectives**

#### **1.3.1 Specific Objectives of the Study**

The following were the specific research objectives of the study:-

1. To determine relationship between provision of classroom teaching resources and effective performance of classroom instructional roles by teachers in secondary schools in Nandi East Sub-County, Kenya.
2. To find out relationship between provision of learning resources and effective performance of classroom instructional roles by teachers in secondary schools in Nandi East Sub-County, Kenya
3. To assess the relationship between provision of students' evaluation resources and effective performance of students' evaluation roles by teachers in secondary schools in Nandi East Sub-County, Kenya.
4. To establish the relationship between provision of academic advising resources and effective performance of academic advising roles by teachers in secondary schools in Nandi East Sub-County, Kenya.

#### **1.4 Research Hypotheses**

The following were the research hypotheses:-

**H<sub>01</sub>:** There is no statistically significant relationship between provision of classroom teaching resources and effective performance of classroom instructional roles by teachers in secondary schools in Nandi East Sub-County, Kenya.

**H<sub>02</sub>:** There is no statistically significant relationship between provision of learning resources and effective performance of classroom instructional roles by teachers in secondary schools in Nandi East Sub-County, Kenya.

**H<sub>03</sub>:** There is no statistically significant relationship between provision of students' evaluation resources and effective performance of students' evaluation roles by teachers in secondary schools in Nandi East Sub-County, Kenya.

**H<sub>04</sub>:** There is no statistically significant relationship between provision of academic advising resources and effective performance of academic advising roles by teachers in secondary schools in Nandi East Sub-County, Kenya.



### **1.5 Justification of the Study**

This study sought to establish relationship between provision of selected resources and effective performance of instructional roles in secondary schools in Nandi East Sub-County, Kenya.

### **1.6 Significance of the Study**

Through its recommendations, it could enable Boards of Management and school principals, deputy principals and head of departments to effectively perform instructional roles and teaching resource management functions in Nandi East Sub-County, Kenya. This could include helping teachers improve on performance of instructional roles. Recommendations made by this study could be used by teachers to become more effective in discharging instructional roles. Public secondary school principals could gain insight on how to improve efficiency and effectiveness in provision of classroom teaching, learning, students' evaluation and academic advising resources in their institutions.

Data collected could add information on teacher efficacy in performance of instructional roles and provision of teaching resources. A study on effective performance of instructional roles and provision of teaching resources could become particularly important to address some of the complaints by several education stakeholders on performance of instructional roles by teachers. The schools in Nandi East Sub-County could benefit by implementing recommendations on teaching resource provision and performance of instructional management. Education officers and TSC staff could benefit immensely in identifying instructional skills gaps that could enable them plan for Teacher Professional Development (TPD), and capacity building of principals and BoM on teaching resource management and teacher performance management. This study could assist in recommending better formulation of policies on how to improve teacher effectiveness in performance of instructional tasks which could further impact positively on learner achievements in Nandi East Sub-County, Kenya.

### **1.7 Scope of the Study**

This study confined itself to finding out relationship between provision of the selected resources and effective performance of instructional roles by teachers in secondary schools in Nandi East Sub-County, Kenya. The study was carried out in the month of September 2018. Specifically, the study explored how provision of teaching resources

like desks, notebooks, reference materials and audio video equipment's; Textbooks, laptops, projectors and models for teaching, affects performance of classroom instructional roles by teachers. It also investigated how learning resources like library, journals, online learning resources, multi-media resources, computer laboratory, electronic files and educational games, students evaluation and academic advising resources affected performance of classroom instructional roles.

It also sought to find out how students evaluation resources including examination analysis software, printers, photocopying papers, photocopiers, writing materials, rooms and adequate time for evaluation affected performance of students evaluation roles by teachers. It further examined how provision of academic advising resources such as computers, office space, time and lockable file cabinets; career resource materials, relevant pamphlets and fliers, multimedia items and appropriate chairs affected performance of academic advising roles by teachers as observed by teachers and deputy principals in Nandi East Sub-County, Kenya

### **1.8 Limitations of the Study**

The limitation of correlation research study is that it uses the non-experimental method where it does not provide for manipulation of variables making controlling of extraneous variables difficult. In order to address the stated limitation in this study, survey was used to collect data from deputy principals to facilitate data triangulation. Other factors such as teacher commitments, attitudes to work and their level of competence that could affect their effectiveness were not covered by this study. In order to address this limitation in the study, the two data collection instruments were made to be as detailed as possible to cover key areas of the variables under study. The use of simple random sampling in selection of teacher respondents ensured equal chances of participation in the study, which could support wider generalization of the findings.

### **1.9 Assumptions of the Study**

This study assumed that respondents would provide honest responses to the items in the data collection instrument. Other factors such as teacher commitments, attitudes to work and their level of competence that could affect the effectiveness and were not covered by this study could not significantly affect teacher effectiveness in performance of instructional roles.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Introduction

This chapter reviewed empirical studies on relationship between provision of the selected resources and effective performance of instructional roles by teachers in secondary schools. This was done through rigorous analysis and critique of documents. The chapter is organized into provision of classroom teaching, learning, students' evaluation and academic advising resources. It further reviews performance of classroom teaching, students' evaluation and academic advising roles. This chapter also presents theoretical and conceptual framework.

#### 2.2 Provision of Classroom Teaching Resources

Kotirde et al. (2014) advance that the ultimate responsibility for provision of teaching resources is the school principal. Even if the principals do not have the task of physically providing them, they influence its funding and prioritization. Management of school instructional resources is however, a primary function of the school governing body. According to Clarke (2013), these overlapping responsibilities need to be minimized. The lines of authority need to be clearly drawn so that it is clear who is accountable when there are inadequate teaching resources. Additionally, Barasa (2009) proposes three areas of responsibility for the Management: Firstly, management of provision of teaching resources which is essentially an operational role and which is delegated to the school procurement committee. Secondly, provision of teaching resources, books, chalks and charts, which is normally the responsibility of the BoM. And thirdly, oversight functions geared toward making sure that there are policies and procedures to ensure there's relevant and adequate resources for use in performance of instructional roles. It can be argued that Studies by Kotirde et al. (2014), Clarke (2008) and Barasa (2009) never analyzed the relationship between provision of teaching resources and effective performance of instructional roles by teachers in secondary schools, a gap which this study sought to fill.

Xaba (2011), Tsosekedi et al. (2014) all advanced that inadequate education management skills among School Governing Body (SGB) members weakens their effectiveness to provide teaching resources. Such weaknesses by the governing body

impacts negatively on teachers' performance of instructional roles because financial resources are not focused on teaching resource provision in their schools. According to Schleicher (2012) and Mestry (2014), the public school management must ensure that there are proper systems put in place for effective and efficient management of teaching resources. The school management must put structures in place for monitoring and evaluation for provision of teaching resources for the success of educational programs. It is clear that Studies by Xaba (2011); Tsosekedi, et al. (2014); Schleicher (2012) and Mestry (2014) did not examine relationship between provision of teaching resources and effective performance of instructional roles by teachers in secondary schools, which the study investigated.

Adelodun and Asiru (2015) indicated that teaching resources play fundamental role in in achievement of education objectives and goals by enhancing effective teaching and learning. Equally, Adeogun and Osifila, (2013) assert that educational resources that include classrooms, libraries, and workshops and a host of other infrastructure like dormitories are very important. Necessary material resources include textbooks, charts and maps among others. According to Owoeye and Yara (2011), textbooks may be the only source of additional academic information for students as well as the course of study.

Adelodun and Asiru, (2015) indicated that selection of textbooks and other teaching resources has been judged to be important to academic achievement. Relevant books seem not available for instructional purposes. An equipped library makes books, journals and periodicals to be available to teachers and students which could lead to better access to teaching resources.

Owoeye and Yara (2011), further argues that the effects of using laboratories in science instruction are immense as students could comprehend and recollect what they see or hear. Laboratories are essential to teaching of sciences and the success in any of the science subject could be dependent on provision of laboratory and laboratory equipment. It can be construed that research by Adelodun et al. (2015); Adeogun et al. (2013) and Owoeye and Yara (2011), did not study the relationship between provision of teaching resources and effective performance of instructional roles by teachers in secondary schools which this study investigated.

### **2.2.1 Adequacy and Relevance of Classroom Teaching Resources**

A wide range of studies have established that physical and classroom teaching resources in secondary schools are inadequate. For example, World Bank (2017) in a study on provision of textbooks and school libraries in sub-Saharan Africa indicated that not only are textbooks and libraries inadequate but are also unevenly distributed among rural and urban schools in the area under review. Similarly, Asiabakala (2016) on a study on effective management of schools in Nigeria noted that the government's failure to institute a policy on minimum standards of school facilities led to huge inequalities in provision of academic facilities and equipping of schools. This view is supported by Mucai (2013) who noted that effectiveness in performance of instructional roles could depend on the availability of appropriate and sufficient resources such as library materials, books, laboratories, and a list of other audio-video teaching aids; which augment good performance in National examinations. It is apparent that World Bank (2017); Asiabakala (2016) and Mucai (2013) did not focus on the relationship between provision of teaching resources and effective performance of instructional roles by teachers in secondary schools which this study scrutinized.

Nevertheless, Owate and Okpa (2013) concluded that the quality and quantity of teaching resources in most African countries was still inadequate and compared poorly with developed countries school libraries. The American Library Association suggests a minimum base collection of 20,000 items for a school of 500 students but African libraries were far below the recommended number of volumes. Past studies by Lemphane and Prinsloo (2013) and Schleicher, (2012) established that provision of teaching resources was uneven for different population groups with others having nothing in South Africa in Ghana, a research by Elibariki (2014) observed that most schools faced the challenge of irrelevant and inadequate teaching resources that could have affected performance of teachers' instructional roles. It is clear that research by Owate and Okpa (2013); Lemphane and Prinsloo (2013) and Elibariki (2014) never investigated the relationship between provision of teaching resources and effective performance of instructional roles by teachers in secondary schools which this study investigated.

In many developing countries, Kenya included, production of teaching materials is found to be a stressful, frustrating and an arduous task to teachers (Eya, 2011).

Furthermore, Azikwe (2014) established that challenges included high cost of procuring needed teaching materials, limited raw materials and tools for production of teaching resources, low production skills by teachers, problems of maintenance and storage costs among others. As argued by Eya (2011), improvisation of teaching materials by teachers was recognized as an important skill by every school instructor in Nigeria. He further notes that many developing countries teachers must acquire and use teaching resources if they are to function effectively in their instructional roles in the classroom. According to the scholar, most schools in developing countries are poorly funded and poorly equipped in terms of availability and adequacy of instructional materials.

Onsongo (2015) reports that education stakeholders demand accountability of financial resources collected or received either from parents or from the government and spent by the school management on provision of teaching resources. Further, an accounting guideline has been provided to head teachers. This manual is called Financial Accounting Instructions and Guidelines for Basic Educational Institutions. It elaborates how schools could implement Public Procurement and Asset Disposal provisions and regulations in public schools and colleges. To guide basic education institutions on provision of teaching resources, the Ministry of Education (MoE) has provided the “Orange Book” that give guidance on recommended instructional materials which schools can procure (Kimando, 2011). Procurement of teaching materials covers reference materials, textbooks, laboratory equipment, chemicals, chalks and charts, among others.

Effective provision of teaching resources could affect performance of teachers’ instructional roles (MoE, 2006). To that effect, teachers are required to participate in instructional resource needs identification for the school. Teachers should make requisition for teaching resources needed. They prepare departmental budgets for all teaching resources required during the year. Such budgets and requisitions are then submitted to the BoM for scrutiny and adoption (Republic of Kenya, 2014).

Provision of teaching resources involves all measures related to efficient procurement and deployment of both short term and long term financial resources to acquire goods and services (CIMA, 2015). Onsongo (2015) avers that the aim of providing of teaching resources is to increase teacher effectiveness and efficiency. Provision of teaching

resources may facilitate achievement of planned academic and non-academic undertakings in the school. Republic of Kenya, (2013) states that it is the duty of the school management and principal to facilitate teaching resource provision. They also ensure it is budgeted for and prioritized according to the basic needs of an institution.

Some school principals and BoM members are reported by Mberia (2012) to experience difficulties directing financial resources to the core curriculum activities. Some members of BoM and principals have been accused of directing limited financial resources to activities with little or no impact on instructional achievement; (Price Water House Cooper, 2017). Several complaints have been raised on financial probity in public secondary schools. The sessional paper no 1 of 2005 (Republic of Kenya, 2005) reported inability within the public education system and institutions to deal with financial management issues including provision of teaching resources.

Accordingly, principals are expected to conduct feasibility studies on what teachers require, cost them and advice the BoM to allocate funds. They should consider costs and benefits of alternative teaching resources. Such contributions include making decisions on what teaching resources to be acquired, its adequacy, urgency and relevance (Republic of Kenya, 2005). It is evident that Mberia (2012), Onsongo (2015) and other studies reviewed did not investigate the relationship between provision of teaching resources and effective performance of instructional by teachers in secondary schools which this study investigated.

Disbursement and utilization of funds meant for provision of teaching resources for Free Day Secondary Education (FDSE) activities is subject to the requirements of Public Financial Management Act, 2004. Wangui (2012) established that though several public secondary schools in Kenya have tried to reform provision of teaching resources they were still inefficient and were not consulting teachers. Kimando (2011) advanced that despite the government of Kenya investing heavily in providing financial resources through FDSE for acquisition of teaching resources, instructional resources were still inadequately provided in most public secondary schools. The Kenyan government has attempted to deliver textbooks directly to public secondary schools in the core subjects of English, Kiswahili, Mathematics, Biology, Chemistry and Physics. KICD (2018) reported that there was still a challenge in variety in the covered subjects

and adequacy in the uncovered subjects. According to UNESCO (2015), in many countries, the tasks, roles, and responsibilities of school governing bodies and teachers had become extensive and complex. These require certain competencies and abilities in order to ensure that educational institutions and teachers in particular, were provided with adequate and sufficient teaching resources. Kaguti et al. (2014) argued that majority of teachers and Board of Management lacked appropriate capabilities to effectively discharge various duties including teaching and resource mobilization respectively.

The Kenyan Government has instituted a legal framework such as Public Procurement and Asset Disposal Act 2015 (Republic of Kenya, 2015) and the Public Procurement Regulations, 2016. This Act establishes procedures for efficient public procurement and for the disposal of unserviceable, obsolete or surplus stores, assets and equipment by public entities. It aims at achieving the following objectives: to maximize on economy; to promote integrity and fairness in resource acquisition; to increase transparency and accountability in acquisition of resources and to increase public confidence in those procedures (Republic of Kenya, 2015).

It has been observed that provision of teaching resources in public secondary schools has worsened so much so that teaching and learning resources have received poor attention. This is despite the financial contribution of the national government through FDSE and other institutions (Kimando, 2011). However, according to Agaro (2014), most teachers in public secondary schools offer poor instructional services as a result of ineffective management of instructional resources by the BoM and public school principals. These include inappropriate, inadequate and late provision of teaching resources. Teaching and learning resource management challenges seem to be widespread across Kenya (UNESCO, 2015). Agaro (2014) further opines that the poor state of some public secondary schools' learning environment and inadequate provision of teaching resources could be attributed to financial challenges such as mismanagement, fraud, misallocation and non-prioritization of public school's needs. Kimando (2011) argues that huge amounts of resources may have been wasted by principals. This is against the policy given by MoEST (2006) to the effect that an educational institution should provide teaching resources using procedures that assure transparency and, value for money. Magaro (2016) indicates that there were underlying



factors in provision of teaching resources that could still make it possible for teaching resource suppliers to aid the School Management to perpetrate the vice of corruption.

Provision of relevant teaching materials to realize the objectives of universal basic education in public secondary schools cannot be over emphasized (KICD, 2014). These include provision of visual aids, audio visuals and audio aids (Ndirangu, 2013). Mege (2014), notes that the absence or limited use of teaching materials by teachers in secondary schools can be detrimental to achievement of the institutions objectives. He further asserts that learners understand and recall more of what they are taught when suitable and applicable instructional media and resources are used. Such media requires funds in order to be acquired. Software materials that include printed materials, slides, graphic materials, films, and strips and hardware materials such as projectors, tape recorders and smart boards may be provided by the management to improve teachers' efficacy.

Naisujaki et al. (2017) similarly observed that inadequate funding for acquisition of teaching materials was acute in most developing countries leading to inefficiency and ineffectiveness by teachers in performance of instructional roles. Globally, effort is being made in academia towards making teaching- learning processes more effective and permanent in the mind of learners through the use of instructional materials (Ghulam et al., 2015). Kaguti et al. (2014) argue that the school management could ensure that there is appropriate selection and procurement of instructional resources to facilitate successful achievement of instructional activities in the school.

Inadequate and inappropriate teaching resources could have an impact on teaching and learning since it could make learning abstract leading to inefficiency by teachers in performance of their instructional roles. Okwara (2013) suggests that Curriculum could not be effectively implemented by teachers without adequate teaching resources. He avers that while teaching resources in a school are insufficient, it could generate massive challenges to teachers' performance of their instructional roles. Nalusiba (2010) also concluded that inadequate teaching resources could inhibit teachers' efficiency in performance of their instructional functions. Tanui (2012) further observed that some instructional materials like text books, lab equipment's, games equipment's and teaching reference materials, suggested by ministry of education were

inadequately available for use by teachers in public secondary schools in Nandi north district and where available were not effectively used by teachers.

It is evident that studies by Agaro (2014), Mege (2014), Naisujaki et al. (2017) did not investigate relationship between provision of classroom teaching resources and effective performance of instructional roles by teachers in secondary schools which this study investigated.

### **2.3 Provision of Learning Resources.**

Learning resources are used by students in their own study time to reinforce that which is learnt in class through personal study. These resources could be designed to engage students and teachers and focus on students' interaction to further learn new concepts. Such resources could be formal or informal. Azikwe (2014) avers that formal learning resources must be objective driven, evidence based, precise and designed to engage learners and teachers. Informal learning resources must still be of high quality content and be designed to standards to provide a meaningful educational experience. Learners can't acquire much effectively from a single type of learning material. Educationist, parents and education managers can determine what content is effective for students. As advanced by Otieno (2013) supplemental learning resources could help teachers have differentiated instruction and involvement of students who for whatever reason need enhancement beyond the essential classroom materials.

Learning resources could be software, texts, videos, Projects supplies and other learning resources that are used in assisting students meet the expectations for learning as defined by KICD. Learning resources used in the classroom in Kenya must be evaluated and be approved by KICD (KICD, 2014) before its use. The criteria used during evaluation include verifying social considerations, curriculum fit, developmental and age appropriateness among others.

A library, another learning resource, contains various learning resources including books, periodicals and journals that could help students learn. Otieno (2013) observed that concepts presented in class by teachers could be reinforced by students' access to reading and learning resources which could include posters, magazines, and novels. Learning resources such as academic games, charts and maps are important. Internet

access, computer games, audio video aids, educational software, library and other instructional materials are examples of learning resources that could be availed to students to enhance learning. Wangui (2012) argues that learning resources may include e-portfolios which are an assortment of electronic resources collected and managed by the learner.

They could comprise multimedia blogs, texts, electronic files, images and links. Online resources could accord the user an opportunity to update and maintain them periodically. Illustrations and graphics that include models, visual concepts, and or processes (that are not photographic images) that visually presents concepts, processes and models that could facilitate learners to acquire more knowledge and skills. Otieno (2013) avers that this could be in the form of diagrams, illustrations, graphics or info graphics in any file format that may include Photoshop, illustrator and other similar file types.

Online resources could be available on the internet and whose search results could display an ordered list of items for use in learning. Other learning resources may include open online journals or articles that are free of cost for the end user. Mwanamukubi (2013) established that open online textbooks could allow students access and use at no additional costs. This could be provided to enhance learning and enable the student to have a wider scope of the learning resource.

Reference materials are learning resources meant for general learning similar to those found in reference area of a library. Such learning resources are important since teachers could direct students to them to further improve learning process. Students can be guided to subject specific directories to other academic sites, texts or general information by teachers in order to enhance learning. Agaro (2014) posits that instructional videos, a recording of moving visual images that show teachers delivering lessons, places and things could enable teachers pass knowledge and skills to students in order to enhance learning. As such, learning could continue after the teacher leave class.

It is clear from literature reviewed that studies by Azikwe (2014); Agaro (2014); Mwanamukubi (2013) and Wangui (2012) never investigated the relationship between

provision of learning resources and effective performance of instructional roles by teachers in secondary schools which this study investigated.

#### **2.4 Provision of Students' Evaluation Resources**

According to Nturibi (2015), performance of students in examination could be greatly impacted by accessibility of evaluation resources and school amenities such as laboratories, laboratory equipment and libraries. Koros (2014) further opines that the quality and adequacy of evaluation materials could influence the quality of education as it used in assessment of effectiveness of curriculum implementation. Ayoo (2016) asserts that even highly experienced and skilled educators could find it challenging to offer effective evaluation with insufficient instructional equipment and resources or if they are lacking essential evaluation resources.

Instructional processes could be measured through results in performance of students in examinations such as KCSE, Mock, KCSE evaluations, continuous assessment tests (CATs) and regular assignments given (MoEST, 2015). (Owate & Okpa, 2013) argue that provision of evaluation resources by BoM could have an influence on how teachers perform their instructional roles. While, Nturibi (2015) affirms that schools that had a sign of good performance had tried to be prudent and efficient on provision of evaluation resources.

Ndirangu (2013) argues that acquisition of printers, copiers, printing papers, revision and reference materials, past paper examination materials and examination analysis software, among other resources could affect the quality of evaluation and academic achievement. The BoM could gather all possible evaluation resources from the Ministry of Education, the community and other organizations and ensure their full and effective use. Nturibi (2015) concludes that among factors that could be contributing to poor performance of instructional roles by teachers could include inadequate evaluation resources, heavy teaching loads and inadequate teacher and school assessments. Inadequacy of evaluation resources could affect performance of evaluation roles by teachers. The School Management could ensure proper selection and provision of students' evaluation resources (Kathini, 2011).

From the background it appears that inadequate provision of students' evaluation resources seem to influence performance of teachers' instructional roles. It is evident

that studies by Nturibi (2015); Kathini (2011); Ndirangu (2013) and Ayoo (2016) did not investigate relationship between provision of students' evaluation resources and effective performance of instructional roles by teachers in secondary schools which this study investigated.

## **2.5 Provision of Academic Advising Resources**

According to Okoth (2015), some schools were found to experience challenges in offering academic advisory resources. The scholar further notes that limited funds are allocated by the school management to academic advisory activities. These limitations could impede student advisors from being effective in discharging their functions. Moloko et al. (2014) opine that some principals of secondary schools had negative attitude towards student advisory services and could not support such programs. The Basic Education Act (2013) requires the schools' BoM to plan, organize, coordinate and control advisory services through allocation of financial, human and time resource.

According to Azikwe (2014), the role of school management includes identifying programs and activities that address prioritized advisory needs of the school. It could also look into the best ways of funding activities that could enable teachers to provide advisory services in a better working environment. The school management could establish resources needed in academic counselling, do condition survey on existing facilities, and, apportion realistic costs to needs. Additionally, they can establish standards and ensure that financing is secured to carry out advisory resource acquisition.

Academic advisors in public secondary schools are critical in making sure that there is full utilization and economical use of the institutions' advisory resources. According to Mutiso and Ndombi (2014), acquisition of instructional resources for advisory services could be well thought out to ensure that there are relevant and adequate resources for use by the teachers and students. Provision of academic guidance and counselling resources by schools include securing services for guidance and counselling, provision of more appropriate rooms for counselling services, creation of more time for student counsellors and training of responsible teachers.

Nyaega (2011) avers that provision of counselling and advisory resources like videos, films and other support items could have an effect on how teachers perform academic advising roles. From the forgoing literature, limited research has been done to establish the relationship between provision of academic advisory resources and effective performance of instructional roles by teachers. It is apparent from the reviewed literature that more studies need to be done to establish the relationship between provision of academic advising resources and effective performance of instructional roles by teachers in secondary schools; which this study investigated.

## **2.6 Instructional Roles of Teachers**

Teachers play a significant role in determining academic achievement of students. For them to perform this role effectively and efficiently, they need to be provided with necessary teaching resources. This section covers instructional roles performed by teachers such as Performance of classroom teaching, student's evaluation and academic advising.

### **2.6.1 Performance of Classroom Instructional Roles**

Teachers play important roles in the classroom (Blase & Blasé, 2013). They perform the role of teaching students placed under their care. They mentor and nurture students, create a warm environment, are role models, listen to learners and ensure students are disciplined. Kayondo (2015) argues that they ensure that the state curriculum is followed. Many teachers across the world are involved in planning for teaching and learning processes for their students (Blase & Blasé, 2013). They also attend professional development courses to learn best practices and strategies for effective teaching. Eya (2011) opine that many teachers collaborate in sharing new ideas for instruction to enhance learning experience. They guide their colleagues on instruction, curriculum development, procedure, practices and classroom management. Larner (2014) argues that teachers help their colleagues implement effective strategies by sharing classroom teaching resources. This could include websites, classroom teaching materials, reading, or other teaching and learning resources.

Teachers could help learners in the learning process by giving explanations and clarifications during class discussions. Teachers could play the role of a trainer, a motivator, and a facilitator in learning process Ajayi (2015). A teacher as a moderator can guide learners by creating the required conditions for them to analyze, reflect and

conceive the up-to-date information in a cooperative manner and further generate interactive learning sessions. Teachers could predict the future needs of the student and develop and communicate activities that could address these needs. Teachers are influential in generating a positive and supportive learning classroom environment. Learning could be effective in a safe and secure environment.

Teachers are involved in Selection of textbooks, ICT resources and other teaching and learning resources that have been judged to be important for academic achievement. Teachers could also be involved in identification and use of suitable instructional resources such as laboratories, textbooks, library materials and visual and audio visual aids. This could improve teaching and learning processes.

Kayondo (2015) opines that teachers could initiate exploration of new materials and content by learners, demonstrate novel concepts; provide instruction and ready-made responses by listening, watching videos and interpretation of texts. They could also be involved in ensuring that a library has relevant and adequate books, journals and periodicals for their use and for students use. Usman (2016) argue that the effects of teachers using available teaching resources such as laboratories in science instruction are immense as learners tend to comprehend and recollect what they see, hear or were said. Additionally, teachers are important in ensuring that they do adequate and relevant requisitioning of laboratory chemicals and equipment's for teaching and learning. Teachers are vital in teaching of sciences and the success of any science course is much reliant on teachers' creativity and planning and utilization of the teaching resources.

However, many studies have established that teachers performance of instructional roles has been ineffective in most African countries, Nandi East Sub-County, Kenya included. World Bank (2008) in a study on textbooks and school libraries provision in sub-Saharan Africa show that teachers' performance was not only ineffective but was also different between rural and urban schools. Similarly Asiabakala (2016) on effectiveness in teacher management in Nigeria noted that the government's inability to create an elaborate policy on teacher performance management and evaluation has led to disparities in performance of classroom instructional roles. This view is supported by Elibariki (2014) who noted that effective instruction depends on the effective teacher management, performance monitoring and evaluation.

Further, Ajayi (2015) concludes that teacher's performance of instructional roles in most African countries was still inefficient and compared poorly with the developed countries. According to Usman (2017), Kiveu and Maiyo (2012) among other studies, teachers' performance of instructional role have been ineffective. Studies by Blase and Blasé (2013); Kiveu and Maiyo (2012) and Usman (2016) did not investigate relationship between provision of teaching resources and effective performance of instructional roles by teachers in secondary schools which this study investigated.

### **2.6.2 Performance of Students' Evaluation Roles**

Muchiri (2014) asserts that students' evaluation is a key component of a teacher's instructional role. He further argues that teachers play this role by coordinating and implementing assessment and evaluation procedures such as scheduling of tests, progress monitoring and record keeping. They also regularly evaluate learners' abilities through formal and informal assessments, providing suggestions for improvement and allocating grades in internal exams. In a school system all teachers are involved in evaluation activities. Teachers engage in planning for students' evaluation, and ensure students are prepared for those activities at the school.

Teachers are engaged in performing various students' evaluation roles (Ayoo, 2016). Firstly, they will be responsible for arranging, coordinating and organizing internal and external evaluations and assessments activities in the school. They participate in setting up of objectives, goals, direction and strategies for implementation of students' evaluation activities. Secondly, teachers in charge of students' evaluation are responsible for drawing up an annual evaluation activities plan for the school. Thirdly, they give proposals to the school management regarding provision of students' evaluation resources and equipment needed for carrying out students' evaluations within the school. Fourthly, they must pay particular attention to security and integrity of examinations and evaluations and remind their colleagues to abide by the set security measures. Finally, as argued by (Kassa, 2016), they plan an evaluation and appraisal system for suitable assessment of various evaluation and examination undertakings both for teachers and learner performance. This is aimed at improving planning and management of future examination and evaluation activities (Ayoo, 2016).



Musau (2015) argues that students' evaluation activities could be aimed at achieving the following objectives; strengthen classroom learning and facilitate students to put their knowledge and skills into practice, enable teaching of certain skills and inculcation of certain values. Since students' evaluation is section of the curriculum that promote lifelong learning, then it can be understood as a means of achieving the goals of education (Kassa, 2016).

Murithi (2015) and Muchiri (2014) concur that during students' evaluation, teachers carry out analysis of test results and other related data. This aid them decide the course of their instruction and make necessary variations in the classroom in addition to assessing and evaluating the outcomes of alternate programs, courses and curriculum. It is evident from literature reviewed that there's a gap on studies on relationship between provision of students' evaluation resources and effective performance of instructional roles in secondary schools which this study sought to investigate.

### **2.6.3 Performance of Academic Advising Roles**

Teachers offer academic advisory services to students; they help learners implement new ideas by observing and giving feedback (Blase & Blasé 2013). This enhances students' efficacy by helping them to believe in their ability to effectively solve their academic and non-academic challenges (Kayondo, 2015). Teachers engage in academic advisory services and develop programs aimed at enabling students to grow academically and socially. Such initiatives include guidance and counseling programs, career fairs and individualized academic advisory services where they act as catalyst for change (Larner, 2014). Studies have not been done to establish relationship between performance of academic advising role and provision of teaching resources.

Despite the Government of Kenya recognizing the importance of guidance and counseling in our educational institutions, it has not provided adequate resources necessary to create an enabling environment for offering such advisory services. Okoth (2015) advance that school principals should provide financial resources which could allow teacher advisors to have necessary equipment and materials. These resources could enable teacher advisors to get regular supply of books, journals, magazines and visual aid materials, which in turn, could equip them with the current and accurate information for students' advice.

According to Nyaega (2011), a teacher counselor could occasionally invite a professional speaker to talk to students or to take them out for tours based on relevant issues. He further reports that, many educational institutions do not set aside time and finances for such activities. Okoth (2015) notes that, Kenyan counselors have inadequate academic advising resources; this makes it difficult for effective implementation of academic advisory programs.

There could be appropriate area for teachers to offer student advisory services. Chairs should be comfortable, preferably with arm rests and the room should have enough lighting. Nderitu (2007) indicates that an ideal guidance and counselling center could be a large room with display racks, bulletin boards and tables where materials could be maintained and displayed. The rooms could be used for holding discussions, showing films or holding parent-teacher meetings. Group counselling could also be done here and part of it could be partitioned for individualized academic counselling. Okoth, (2015) established that some schools did not have an office for the teacher counsellor. Besides that, guidance and counselling was not time tabled and lacked enough staff to offer advisory services. (Nyaega, 2011) opine that most teacher counsellors had no specialized training in guidance and counselling yet were expected to give academic advisory services.

Studies by Kayondo (2015); Nyaega (2011); Okoth (2015) and Nderitu (2007) did not investigate relationship between provision academic advising resources and effective performance of instructional roles by teachers in secondary schools. This study sought to fill this gap.

## **2.7 Theoretical Framework**

In seeking to establish relationship between provision of the selected resources and effective performance of instructional roles by teachers in Nandi East Sub-County, Kenya, the study was anchored on Frederick Taylor's scientific management theory. Taylor studied tasks and incentives to develop fixed procedures to maximize productivity and efficiency. Taylor used motion studies to determine how long it should take a person to complete a task when correct movements were made. Taylor further looked for ways to standardize tools so that each worker had right tools for the job.

Taylor concluded in his experiments that when the correct tools, movements, and procedures are used they could increase productivity (Cole & Kelly, 2011). The result was unsurpassed as productivity drastically increased.

Taylor was then able to provide managers with a set of systematic guiding principles so that they no longer had to make uninformed decisions. Taylor's approach to management can be summed up into his four principles. Firstly, Management should get rid of general guidelines on how to complete tasks; instead, they should be replaced with a precise, scientific approach for each task of a workers job. Secondly, management should use those same principles of scientific methodology to carefully recruit, train, and develop each worker according to the job they will hold for the company. Thirdly there should be a level of cooperation between staff and management, to be sure that jobs match plans and principles of the developed methods Kitunga (2009). Lastly, managers could also provide appropriate division of labour and responsibility between managers and a worker; that is; the managers are responsible for planning the work and the workers are responsible for following that plan as they completed the work.

The strength of scientific management theory in relation to the study on relationship between provision of teaching resources and effective performance of instructional roles by teachers in secondary schools in Nandi East Sub-County, Kenya was that teachers could replace rule-of thumb work methods with methods based on scientific tasks. Classroom teaching, student's evaluation and academic advising, tasks to be performed by teachers could be carefully planned as advanced by Taylor to enable them become more efficient. Planning ahead of time, a hallmark of Taylor's theory could enable BoM and school principals to make prompt decisions regarding provision and use of teaching resources. This could be done by ensuring that teaching and learning is planned carefully to ensure that requisite resources for achievement of instructional tasks are provided. These, as Lubanga (2011) argues, could enable teachers to be more efficient in performance of instructional roles. Teachers could be provided with ICT infrastructure, models for teaching, and curriculum support materials to improve their performance of instructional roles.

The other strength of scientific management theory in relation to this study was that the Board of Management could enhance efficient and effective performance of its teachers, as they concentrate on steady improvements in provision of teaching resources in their schools. They could do this by providing the right instructional tools and equipment's, developing and providing a good working environment to teachers, as is advanced by Kimando (2011) and Mucai (2013). By adopting this theory, teachers could be able to use ICT resources, and other physical and electronic teaching resources to make performance of instructional roles more efficient and effective. This could save time and energy during performance of such tasks.

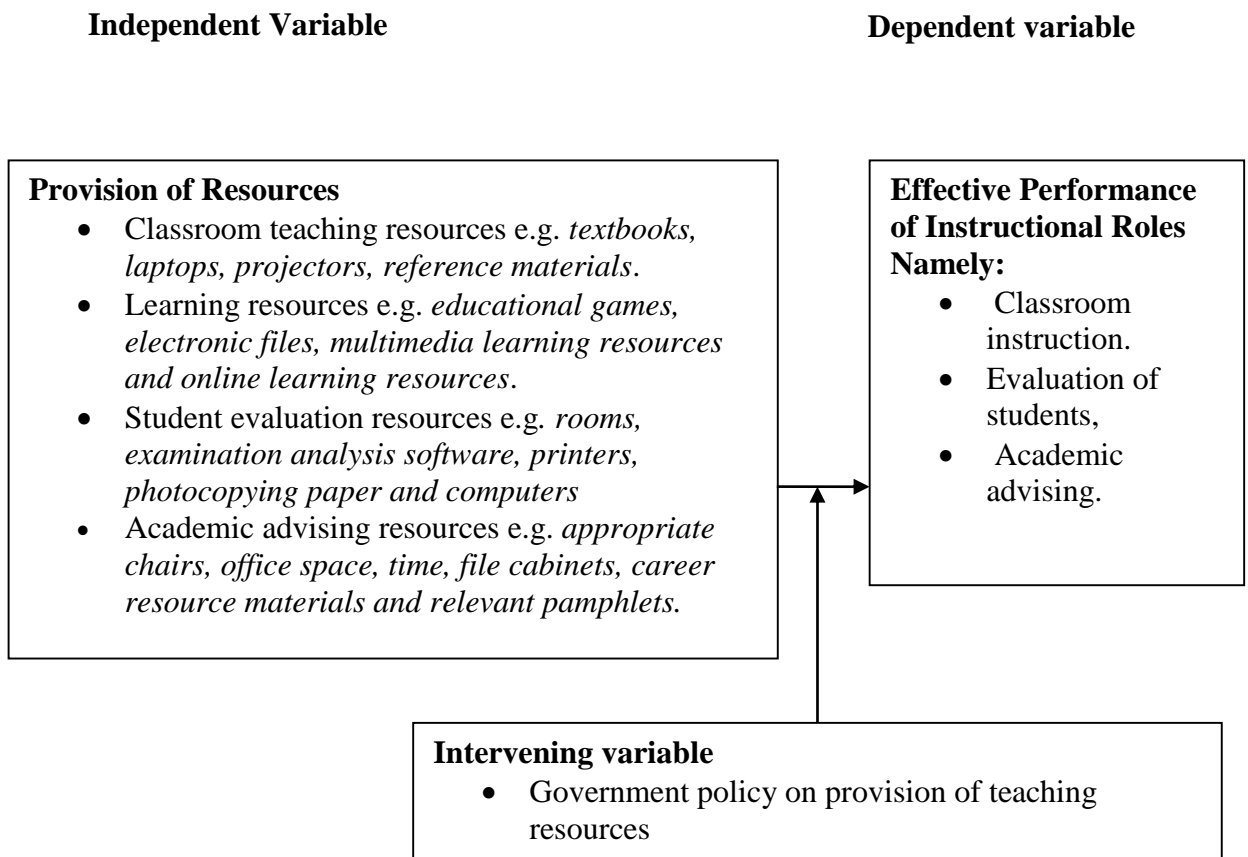
Application of scientific management theory could enhance Board of Management control over teachers' performance of instructional roles. This could be achieved by scientifically selecting, training and developing each teacher rather than passively leaving them to train themselves. Teachers could be trained on identification, selection, development, maintenance and use of teaching resources at the school level. They could be further trained on setting and marking, use of examination software analysis software, availing adequate rooms and guided to give evaluation feedback to parents. The BoM could strive to mentor, coach, train, and develop each teacher according to their responsibility in classroom instruction, students' evaluation and in academic advising roles. This could be done by the BoM allocating and providing resources for teaching and for staff professional development in order to improve them on performance of instructional roles.

Cooperation, the third principle in scientific management theory could be encouraged by the school management in order to enhance teachers' performance of instructional roles, a view supported by Oduor (2017). There could be synergy between BoM and teachers to ensure that teaching resources provided address teacher's instructional needs. Through cooperation, teachers could be able to participate in identification, development and efficient use of teaching and learning resources provided. The BOM could provide learners with internet facilities, library resources, computer laboratory, educational games and multimedia learning resources. These could enable teachers to improve on their instructional performance.

Using the fourth principle in the theory, division of work between the BoM and teachers, and among teachers could encourage improved teacher's productivity in performance of instructional roles. This could be done by the BoM providing necessary teaching resources to be used in teaching and learning, evaluation of students and academic advising. A weakness of scientific management theory in relation to this study is that it could only be successfully implemented with the cooperation of teachers and the Board of Management. If they failed to respond favourably, the system could fail to bring the desired results. Systems theory as propounded by Ludwig Von Bertalanfy in 1956 and advanced by Mele et al. (2010) was used to address the noted weakness of scientific management theory in this study. One of the main principals of systems theory is the distinction between open, closed and isolated systems. In an open system there are exchanges of energy, matter, people and information with the external environment.

The strength of systems theory in relation to establishing the relationship between provision of teaching resources and effective performance of instructional roles by teachers in secondary schools in Nandi East Sub-County, Kenya is that the school is seen as an open system built by energetic input-output where energy coming from the input reactivates the system. Schools are seen as open systems due to their material exchanges with the external environment with technical components (teaching resources) and social components (teachers). The school receives teaching resources and teachers as human resource; these are the systems inputs which are transformed to throughputs (teaching and learning) and yield outputs which is performance achieved. It is envisaged that when all the inputs in the system are coordinated well by the BoM, teacher's performance of instructional roles is enhanced.

## 2.8 Conceptual Framework



**Figure 1: Conceptual Framework**

The conceptual framework in figure 1 shows relationship between provision of selected resources and effective performance of instructional roles by teachers in Nandi East Sub-County Kenya. It was envisaged that provision of teaching resources by the school management could have relationship with effective performance of instructional roles by teachers. Such roles include classroom instruction, students' evaluation and academic advising. The dependent variable is performance of instructional roles while the independent variable is provision of selected teaching resources.

Firstly, the study envisaged that provision of classroom teaching resources could have a relationship with effective performance of classroom instruction, students' evaluation and academic advising roles by teachers in Nandi East Sub-County Kenya. Secondly, it is also expected that provision of learning resources could have a relationship with effective performance of classroom instruction, students' evaluation and academic advising roles by teachers in Nandi East Sub-County Kenya. Thirdly, provision of students' evaluation resources could affect classroom instruction, students' evaluation

and academic advising. Lastly, provision of academic advising resources could have a relationship with how teachers perform classroom instruction, students' evaluation and academic advising roles in Nandi East Sub-County Kenya.

This study envisioned that intervening variables like principals leadership could have relationship with provision of the selected resources. This could happen through insufficient allocation of financial resources for provision of teaching materials. Poor coordination by principals, and teachers could lead to late requisitioning of required teaching resources that could hamper performance of instructional roles. Principals' leadership could affect teachers' performance of instructional roles if they don't create an enabling environment that is cooperative, motivating and peaceful for effective performance of instructional roles.

Ineffective implementation of government policies and guidelines on provision of teaching resources as an intervening variable could affect performance of instructional roles. Teachers are expected to identify teaching and learning resources from the "Orange Book" developed by KICD as a matter of policy. Ineffective implementation of such Government policy on instructional leadership by principals could also affect how teachers perform instructional tasks. However, intervening variables were not focused by this study.

## CHAPTER THREE

### RESEARCH DESIGN AND METHODOLOGY

#### 3.1 Introduction

This chapter describes research design and methodology adopted by this study. It is organized into research design, location of the study, and population of the study, sampling procedure and sample size. It contains research instruments, validity and reliability of research instruments and data collection procedure. It also contains data analysis, and ethical considerations.

#### 3.2 Research Design

Research design is considered as a plan of action for collecting, organizing and analysing data with the objective of combining relevance of research with efficiency in procedures (Kothari & Gaurav, 2014). Orodho (2013) observes that selection of a research design is dependent on how the problem is understood and approached. This study adopted correlational research design. The study involved measurement of provision of selected resources and effective performance of instructional roles by teachers and an assessment of the relationship between them.

According to Wallen and Fraenkel (2011), the goal of correlational research is to establish whether there's a systematic relationship among the variables. Correlation research design allows researchers to establish the strength and direction of a particular relationship. Kothari and Gaurav (2014) further argue that it involves measuring two variables and assessing the relationship between them without manipulation of the variables. The study was carried out in a setting that required direct responses from respondents.

Correlation design was used to establish the strength and direction of the relationship between provision of the selected resources and effective performance of instructional roles by teachers in Nandi East Sub-County, Kenya. This design was adopted because it could be used to assess performance of instructional roles as it was done in the respective schools.



### **3.3 Location of the Study**

This study sought to find out the relationship between provision of selected resources and effective performance of instructional roles by teachers in secondary schools in Nandi East Sub-county, Kenya. Sanjari (2014) advances the view that an ideal location for any study should be accessible to the researcher and should enable immediate rapport with informants. Nandi East Sub-County was chosen because performance of instructional roles by teachers was not satisfactory as was shown in the background of the study and was accessible to the researcher. Time available, cost involved, proximity and accessibility to the researcher were factors that were considered in choosing the location. The location also had the appropriate population to enrol for the study.

Nandi East Sub-County is located within a Latitude of 0° 10' 0.00"N and Longitude of 35° 08' 60.00" E. It comprises of Nandi Hills and Lessos Divisions. The Sub-County borders Wareng to the East, Tinderet Sub-County to the South, Nandi South to the west and Nandi Central to the North; refer to appendix X, for the map of Nandi County. The Sub-County is situated in a hilly geographical area.

The economic activity in the Sub-County is tea farming with several multinational tea estates like Eastern Produce, Nandi Tea Estates, Kibwari Tea Estate, Kakuzi Estates, and DL Koisagat Estates. Majority of residents engage in dairy, maize and some horticultural farming. The area receives heavy rainfall between the months of March to November with light rainfall in the month of December.

### **3.4 Population of the Study**

Target population refers to the total number of individuals to whom the researcher intends to generalize the results of the study (Mugenda & Mugenda, 2013). They are subjects with related characteristics in respect to a given study. It is a group of participants with specific attributes of interests and relevance. In order to establish relationship between provision of selected resources and effective performance of instructional roles by teachers in secondary schools in Nandi east sub-county, Kenya, the study targeted all trained secondary school teachers involved in the actual classroom teaching, evaluation of students and academic advising roles and deputy principals.

Teachers were targeted in this study because they were involved in performance of classroom instruction, evaluation of students and academic advising; all of which could be affected by provision of the selected resources. Deputy Principals were targeted because they were engaged in supervision of performance of instructional roles by teachers as one of their roles in Nandi East Sub-County, Kenya. They were further targeted in order to facilitate data triangulation. The accessible population for this study were all 192 teachers' and 30 deputy principals in public secondary schools (TSC Records, July, 2018) in Nandi East Sub-County, Kenya, who were on duty, could be accessed, willing and available to participate during the study period. There was no private secondary school in Nandi East Sub- County.

### **3.5 Sampling Procedure and Sample Size**

#### **3.5.1 Sampling Procedure**

Mugenda and Mugenda, (2013) says that Sampling is a process of selecting a small group of individuals to represent a target group in a study. The study used census to identify deputy principals who were performing the role of supervising teachers as they perform instructional roles in Nandi East Sub-County, Kenya. Purposive sampling was adopted to select Nandi East Sub-County from amongst other five Sub-Counties in Nandi County. This was because performance of instructional roles in the whole county was homogeneous and not effective as was shown in the background of the study. Further, it was cost-effective and time-effective sampling method.

The study used multi stage sampling technique where different sampling techniques were used in different stages for teacher respondents. Teachers and deputy principals were stratified into male and female. In addition, Schools were stratified as boarding and day schools. Proportionate sampling was used to allocate proportionate samples of teachers to each data stratum into female and male, boarding and day schools. Deputy Principals were placed on data stratum as male or female; and their schools as either day or boarding schools.

Kothari and Gaurav (2014) defines a simple random sample as a sample obtained from the population such that a statistic of the same size has an equivalent chance of being selected. Simple random sampling was used to identify teacher respondents from the proportionate samples. The study had an accessible population of 192 teachers and 30

deputy principals. From Krejcie and Morgan table (Appendix III), 127 teachers were sampled from a population of 192 teachers spread in 30 secondary schools in Nandi East Sub-County, Kenya. Table 1 shows how sample size and sampling frame was determined for respective data strata.

**Table 1: Sample size determination formulas and sampling frame for teachers**

Population	Sample size formula	Sample size
2 Male teachers	$N_M = \frac{M}{N} \times K$	$\frac{77}{192} \times 127 = 51$
3 Female teachers	$N_F = \frac{F}{N} \times K$	$\frac{115}{192} \times 127 = 76$
4 Teachers Teaching in boarding schools	$N_B = \frac{b}{N} \times K$	$\frac{111}{192} \times 127 = 73$
5 Teachers Teaching in day schools	$N_D = \frac{d}{N} \times K$	$\frac{81}{192} \times 127 = 54$

**Source: Researcher (2018)**

Where:  $N_M$  = Sample size of male teachers in Nandi East Sub-County, Kenya  
 $M$  = Total male teachers

$N_F$  = Sample size of female teachers

$F$  = Total Female teachers

$N$  = Total population of teachers

$K$  = Krejcie and Morgan table Figure obtained from table for accessible population of 192 teachers

$N_B$  = Sample size of teachers teaching in Boarding schools

$N_D$  = Sample size of teachers teaching in day schools

$b$  = Teachers teaching in boarding schools

$d$  = Teachers teaching in day schools

### 3.5.2 Sample Size

Mugenda and Mugenda (2013) defines sampling as a process of selecting a small group of individuals to represent a target group in a study. All the 30 deputy principals were

surveyed. The deputy principals were 13 male and 17 female. These deputy principals were from 8 boarding and 22 day schools in Nandi East Sub- County.

To determine teachers sample size with a confidence level of 95 per cent and a sampling error of 5 per cent, the Krejcie and Morgan (1970) cited by Cohen et al. (2016) table of sample size (Appendix III) was used to arrive at a sample of 127 teachers from 30 secondary schools to participate in the study. Teacher respondents were identified proportionately according to the data strata; that is male or female teachers, teachers teaching in boarding or day schools.

The total male teachers in the sub-county were 77 and therefore 51 of them were sampled proportionately (see Table 1). To arrive at this, a proportion of male (77) in all schools to total population of teachers in the sub county (192) was computed. This ratio was then multiplied by 127, which is a figure derived from Krejcie and Morgan table of sample size determination. Total female teachers in the sub county were 115 and therefore 76 were sampled. To arrive at this, a proportion of female teachers (115) in all schools to total population of teachers in the sub county (192) were computed. This ratio was then multiplied by 127. A total of 127 male and female teachers' were sampled for the study.

A total of 73 teachers were proportionately sampled as respondents from boarding schools from a population of 111 teachers teaching in these schools. To achieve this, a proportion of teachers teaching in boarding schools (111) to total teachers in the sub county (192) were computed and the ratio multiplied by 127, while 54 teacher respondents were proportionately sampled from the 81 teachers teaching in day schools as is shown in Table 1. Formulas used to compute sample size per school per strata are shown in Table 2.

**Table 2: Samples size determination formulas per school per strata**

Population	Sample size formula
Proportionate Sample size of female teachers per school ( $P_{FT}$ )	$P_{FT} = \frac{F_s}{F_{SS}} \times N_F$
Proportionate Sample size of male teachers per school ( $P_{MT}$ )	$P_{MT} = \frac{M_s}{M_{SS}} \times N_M$

**Source: Researcher (2018)**

Where  $P_{FT}$  = Proportionate sample size for Female teachers in the school

$F_s$  = Total Female teachers at the school

$F_{ss}$  = Total Female teachers in Nandi East Sub-County, Kenya

$N_F$  = Sample size of Female Teachers in Nandi East Sub-County, Kenya

$P_{MT}$  = Proportionate sample size of male teachers in the school

$N_M$  = Sample size of male teachers in Nandi East Sub-County, Kenya

$M_s$  = Total male teachers in the school

$M_{ss}$  = Total male teachers in Nandi East Sub-County, Kenya

Once proportionate sample for each data strata was established, proportionate sample for each school was identified using the formulas shown in Table 2 for teacher respondents. The sample size per school for each sample strata is presented in Table 3. Simple random sampling was used to identify the specific teacher respondents at the school level.

**Table 3: Table of Sample Size for Teachers**

School	Nature of the school	Male teachers	Female teachers	Total	Proportionate Sample per school (Male)	Proportionate Sample per school (female)
1	Boarding	14	12	26	9	7
2	Boarding	5	8	13	3	4
3	Boarding	5	6	11	3	4
4	Boarding	6	10	16	4	6
5	Boarding	4	7	11	3	5
5	Boarding	3	7	10	2	5
7	Boarding	4	6	10	3	4
8	Boarding	4	3	7	3	2
9	Day	3	3	6	2	2
10	Day	1	2	3	1	1
11	Day	0	1	1	0	1
12	Day	1	3	4	1	2
13	Day	0	1	1	0	1
14	Day	2	1	3	1	1
15	Day	2	3	5	1	2
16	Day	0	2	2	0	1
17	Day	0	1	1	0	1
18	Day	0	3	3	0	2
19	Day	1	2	3	1	1
20	Day	2	3	5	1	2
21	Day	3	4	7	2	3
22	Day	0	2	2	0	1
23	Day	1	1	2	1	1
24	Day	2	4	6	1	3
25	Day	2	3	5	1	2
26	Day	3	3	6	2	2
27	Day	2	4	6	1	3
28	Day	1	1	2	1	1
29	Day	2	4	6	1	3
30	Day	4	5	9	3	3
		<b>77</b>	<b>115</b>	<b>192</b>	<b>51</b>	<b>76</b>

**Source: Researcher (2018)**

### **3.6 Research Instruments**

A research instrument is used to collect data for a research study. The kind of data to be collected determine the type of instrument to be used (Kothari & Gaurav, 2014). This study used questionnaires developed by the researcher to collect data from teachers' and deputy principals. Orodho (2013) argues that a questionnaire is an instrument used

to gather data, which allows measurement of a particular view point. The research questionnaire was based on literature reviewed. It was made of closed ended items with ordered answer choices. The items were developed to address research objectives. The two questionnaires contained similar items on the independent and dependent variables in order to facilitate data triangulation. Ranking of responses was done on a scale of “strongly agree” as a score of 4 to “strongly disagree” as a score of 1 for provision of the selected resources. Similarly ranking of responses on performance of instructional roles was on a scale of “very effective” as 4 and “not effective” as 1. The ranking would facilitate inferential data analysis.

The questionnaires were of Likert type with a 4-point scale which was consistently used with the same order to increase respondents’ comprehension. Questionnaires which were on A 4-point Likert scale was used because elimination of the mid-point provided more solid responses, encouraged respondents to carefully read statements to avoid nonsensical choices, and provided a clearer differentiation of responses. Bird (2015) advance that A 4-point Likert scale is ideal in recording opinions of respondents on services which the user has used or experienced. De Vellis (2016) argues that questionnaires could also be used to extract a specific response from respondents and can also be used for recording opinion on services which the user has used or experienced. The statements employed active rather than passive voice. The researcher avoided using lengthy questions, generalizations, and ambiguous expressions as advised by Lietz (2013).

Bird (2015) explains that questionnaires are used in descriptive research because they obtain facts about current conditions and are useful in making inquiries concerning perceptions, attitudes, and opinions. Questionnaires were used in this study because it saves time and is economical. It is also convenient, since respondents could respond based on contents. It also enables the investigator to collect information from a huge number of respondents De Vellis (2016). According to Mugenda and Mugenda, (2013), a questionnaire can easily be analyzed, anonymity is made possible and it is easier to administer.

Questionnaires were used in this study to gather information about relationship between provision of selected resources and effective performance of instructional roles by

teachers in secondary schools in Nandi East Sub-County, Kenya. See appendix I for teachers' questionnaire and appendix II for deputy principals' questionnaire. The questionnaires designed were developed from a review of literature on provision of teaching resources and its relationship on effective performance of instructional roles by teachers.

Section A of the questionnaires contained demographic information which was used to obtain background information on each respondent. The questionnaires were further divided into subsections dealing with provision of the selected resources and its relationship on effective performance of Instructional roles by teachers. Section B, C, D and E of the questionnaires dealt with the independent variable, that is, provision of teaching resources used in actual classroom teaching, students learning, evaluation of students and academic advising respectively. Section F, G and H covered the dependent variable which was effective performance of Instructional roles by teachers, which specifically included actual classroom instruction, evaluation of students and academic advising respectively.

### **3.6.1 Validity of the Research Instrument**

Validity assesses the measurement ability of the instrument (De Vellis, 2016). Validity is the suitability of an instrument in measuring what it intends to measure. Validity happens when careful attempt has been made to ensure that an instrument adopted achieve the desired results (Wetzel, 2011). The researcher was concerned with establishing external validity, internal validity and content validity of the instrument.

In order to establish construct validity, provision of the selected resources and performance of instructional roles which were the variables of interest were operationalized. In order to establish external validity, careful attempt was made to ensure that the sample was as representative of the target population as possible.

In order to achieve external validity, target population of the study was clearly defined. Random selection of respondents to ensure they are representative of the target population was used to address internal validity. In order to address content validity, the questionnaires were submitted to two supervisors who are senior academics with wide



and combined experience in research who provided critical assessment of content validity of each item.

The experts also checked whether the instruments measures what it is meant to measure, checked on phrasing, working of the statements, and coverage of the content area. They further established the extent to which the questions on the instruments and scores from the questions represent all possible questions that could be asked about provision of the selected resources and its relationship with effective performance of instructional roles by teachers in secondary schools in Nandi East Sub-County, Kenya.

Data triangulation was done where the questionnaires with the same items was issued to both teacher and deputy principals respondents. The aim of data triangulation was to check on bias of self-rating by teacher respondents. Data triangulation is the use of multiple data sources in qualitative research to develop comprehensive understanding of a phenomenon (Wetzel, 2011). It is seen as qualitative research strategy to test validity through convergence of information from the two different data sources (Sanjari, 2014).

### **3.6.2 Pilot Study**

A pilot study is a minor study which is carried out prior to the main study. Participants of pilot study are not supposed to be included in the ultimate study. The pilot study for teacher questionnaire was done in one public secondary school in Nandi East Sub-County, Kenya. This was a school which did not participate in the study and had the same demographic characteristics as the participating schools. The teacher questionnaire pilot school was randomly identified. Three secondary schools in Nandi Central Sub-County with similar demographic characteristics with schools in Nandi East Sub-County were randomly selected for piloting of deputy principals' data collection instrument. The primary objective of carrying out a pilot study is to identify any probable weaknesses in the research instrument (Wetzel, 2011) and establish whether the instrument facilitate collection of correct data for relevant objectives. Piloting enabled the researcher to detect ambiguous and irrelevant items in the instrument. After that, such items were corrected. The findings of the pilot study are presented in Table 5 and 6.

### **3.6.3 Reliability of the Instruments**

Reliability is the degree of consistency with which a research instrument measures a concept. It is a measure of the proportion of variance of the score (De Vellis, 2016). Dikko (2016) further explains that it determines whether the instrument is able to return the same data when administered on similar respondents in a similar situation.

To achieve this, questionnaires were pre-tested through a pilot study by administering it to a sample of respondents made up of secondary school teachers and deputy principals whose responses and general reactions were sought and examined. Suggestions for refinement and clarification of items in the instrument were made by respondents. This was in regard to meaning and clarity of each statement, relevance and adequacy of items and any problems or uncertainties they had in completing the questionnaire. Test-retest technique was used to assess' external reliability. The instrument was piloted and two weeks later, the same instruments were administered to the respondents in the schools selected for Piloting to test whether similar responses would emerge. Reliability test results of instruments are presented in Table 5 and 6.

### **3.7 Data Collection Procedure**

To facilitate data collection, the researcher sought permission from the Institute of Postgraduate Studies of Kabarak University (see appendix V) and thereafter from National Council for Science, Technology and Innovation (See appendix VI and appendix VII). The researcher then visited the office of the Nandi County Director of Education and County Commissioner, (see appendix VIII and IX respectively), to get permission to collect data from public secondary schools in Nandi East Sub-County. Permission from school principals to collect data was orally sought at school level. The researcher visited participating schools and explained to the respondents the procedure and purpose of the study after which a letter requesting them to participate was issued (see appendix IV). Finally, questionnaires were administered to them.

### **3.8 Data Analysis.**

Data analysis involves drawing inferences from raw data (Boeije, 2010). According to Ader et al. (2012), data analysis is carried out in order to inspect, clean, transform and model data with the intention of identifying and highlighting valuable information that can be used to support decision making process.

Data collected from the questionnaire was coded, keyed in and edited accordingly. Editing of the qualitative data was done to ensure completeness, coded and code book developed. Coding included assigning numerical values to responses from respondents in order to facilitate inferential statistics analysis. Coding system enables categorization of occurrences of particular themes thereby converting raw qualitative data into quantitative data and further enabling inferential statistics analysis (Sekaran & Bougie, 2011).

This study processed data using Statistical Package for Social Sciences (SPSS) version 24 analytical tool. Data analysis yielded descriptive statistics such as percentages and means. Data was entered into Statistical Package for Social Sciences (SPSS) for inferential statistics analysis. Inferential statistics such as correlation co-efficient and regression coefficients were derived. A correlation coefficient was computed which was an objective way to describe the strength and direction of the relationship between the two variables. According to Wallen and Fraenkel (2011), expressing the coefficient as a precise number makes it clear and easy to understand. Results of the study were presented in tables for ease of understanding. Table 4 gives a summary of statistical tools used in this study.

**Table 4: Statistical Analyses of Variables**

<b>Objective</b>	<b>Independent Variable</b>	<b>Dependent Variable</b>	<b>Statistical Tools</b>	<b>Statistics</b>
<b>1</b>	Provision of Classroom Teaching Resources	Effective Performance of classroom instructional roles	PPMCC	Means, percentages, correlation coefficients and Regression coefficients
<b>2</b>	Provision of Learning Resources	Effective Performance of Classroom Instructional Roles	PPMCC	Means, percentages, correlation coefficients and Regression coefficients
<b>3</b>	Provision of Evaluation Resources	Effective Performance of Student Evaluation Roles	PPMCC	Means, percentages, correlation coefficients and Regression coefficients
<b>4</b>	Provision of Academic Advising Resources	Effective Performance of Academic Advising Roles	PPMCC	Means, percentages, correlation coefficients and Regression coefficients

**Source: Researcher (2018).**

**Key: PPMCC- Pearson Product Moment Correlation Coefficient**

### **3.9 Ethical Consideration**

Ethics are important to all parties associated with research as they affect the merits of individuals and ultimately the quality of data obtained (Masic et al., 2014). Ethical procedures are applied to research activities primarily to protect the rights of

participants from harmful or adverse consequences. Several strategies to address ethical matters were applied in this study. Informed consent and permission to participate was sought from respondents. Boieje (2010) advances that informed consent involves getting information about the research which is related to the respondents by allowing them to make a decision about whether or not to participate. This was achieved through a letter to respondents requesting them to participate in the study. They were also informed that they can opt out of the study (refer to appendix IV for a letter to respondents).

Anonymity of the school to which respondents belonged was maintained. A research participant is considered anonymous when the researcher or another person cannot identify the participant or subject from the provided information (Cohen et al., 2010). This was done by advising respondents not to write their name or name of their school anywhere on the questionnaire. Further, the name of the school was not included when developing table of sample size in Table 3, instead a number was allocated to each school. This enabled non-traceability of respondents from the data provided. The researcher furthered assured respondents of confidentiality.

## **CHAPTER FOUR**

### **DATA ANALYSIS, PRESENTATION AND DISCUSSION**

#### **4.1 Introduction**

This chapter presents and discusses the results of the study. It analyses response rate, reliability of instruments results, analysis and interpretation of data related to the study on relationship between provision of selected resources and effective performance of instructional roles by teachers in secondary schools in Nandi East Sub-County, Kenya. It presents background information of the respondents, descriptive and inferential analysis. Further, relevant hypotheses were tested and decision made accordingly in relation to research objectives.

##### **4.1.1 Return Rate**

The study had identified sample size of 127 teacher respondents and 30 deputy principal respondents. However, 124 teacher respondents returned the tool representing a response rate of 97.6 per cent. All the 30 deputy principals (100%) returned the tool. This was a high response rate. A high response rate enabled the researcher to obtain an unbiased estimate of a phenomenon under study (Sekaran & Bougie, 2013). The high response rate enables the findings of the study on relationship between provision of selected resources and effective performance of instructional roles by teachers in secondary schools in Nandi East Sub-County, Kenya to be generalizable to the target population.

##### **4.1.2 Reliability of Instruments**

The two scores of each respondent from the pilot study were examined to check for consistency of responses for the teacher and deputy principal questionnaires. Pearson Product Moment correlation co-efficient ( $r$ ) was computed to establish the degree of consistency in producing similar responses whenever the instruments were administered. Scores of the first test was correlated with the final test scores. This reliability test assumes that there is no change in the quality or construct being measured during the test-re-test period (Mugenda & Mugenda, 2013). Lietz (2013) adds that reliability is primarily concerned with concerns of consistency and stability of measures. External reliability assesses the consistency of results across items within a test. External reliability was established by use of Test- re- test method. The test results are presented in Table 5 and 6.

**Table 5: Reliability of Teachers Instrument**

<b>Variable</b>	<b>N</b>	<b>Pearson Moment Correlation Coefficient</b>	<b>Decision</b>
Provision of classroom teaching resources	12	0.88	Reliable
Provision of learning resources	12	0.733	Reliable
Provision of students' evaluation Resources	12	0.711	Reliable
Provision of academic advising resources	12	0.791	Reliable
Performance of classroom teaching roles	12	0.760	Reliable
Performance of students' evaluation roles	12	0.784	Reliable
Performance of academic advising roles	12	0.787	Reliable

**Table 6: Reliability of Deputy Principal Instrument**

<b>Variable</b>	<b>N</b>	<b>Pearson Moment Correlation Coefficient</b>	<b>Decision</b>
Provision of classroom teaching resources	3	0.76	Reliable
Provision of learning resources	3	0.711	Reliable
Provision of students' evaluation Resources	3	0.743	Reliable
Provision of academic advising resources	3	0.822	Reliable
Performance of classroom teaching roles	3	0.830	Reliable
Performance of students' evaluation roles	3	0.769	Reliable
Performance of academic advising roles	3	0.717	Reliable

These tests established a correlation coefficient of above 0.711 for all variables in both instruments as shown in Table 5 and 6. These imply that the instruments were good enough to be adopted for data collection. Most items appeared to be worthy of retention. Mugenda and Mugenda, (2013) avers that a reliability coefficient of above 0.7 is an acceptable level of internal reliability.

## 4.2 Respondents Background Information

### 4.2.1 Gender of the Respondents

An analysis of gender of respondents in this study was done. Table 7 presents the data analysis.

**Table 7: Gender of the Respondents**

Characteristic	Teachers n=124		Deputy Principals n=30	
	Frequency	Percent %	Frequency	Percent %
Male	51	41.1	13	43.3
Female	73	58.9	17	56.7
Total	124	124	30	100.0

The data presented in Table 7 show that there were 41.1 per cent. Male teacher respondents while the female respondents were 58.9 per cent. There were 56.7 per cent. Female deputy principals while the rest were male. These showed that there were more female respondents than male who were engaged in performance of instructional role in Nandi East Sub-County. This finding was in concurrence with Mutetei et al. (2011) findings who argued that female teachers form a majority in teaching profession. This finding means that more female teachers were engaged in performance of instructional roles in secondary schools in Nandi East Sub-County, Kenya than their male counterparts.

### 4.2.2 Level of Education of Respondents

An analysis of the level of education of respondents teaching in secondary schools in Nandi East Sub County, Kenya was done to determine the highest level of education attained. The results are presented in Table 8.

**Table 8: Highest Level of Education of Respondents**

Characteristic	Teachers n=124		Deputy Principals n=30	
	Frequency	Percent %	Frequency	Percent %
Diploma	6	4.8	6	20.0
Bachelors'	109	87.9	17	56.7
Masters	9	7.3	7	23.3
PhD	0	0	0	0
Total	124	100.0	30	100



The findings in Table 8 shows that majority (87.9%) of teacher respondents performing instructional roles in Nandi East Sub-County, Kenya had Bachelor’s Degree qualification with a small proportion of 7.3 per cent and 4.8 per cent of respondents holding Masters and Diploma qualifications respectively. Similarly, majority (56.7%) of the deputy principals had Bachelor’s degree while a few (23%) had acquired Master’s Degree. According to TSC Act 2013, the minimum qualification required for teachers to perform instructional roles in secondary schools in Kenya is Diploma in Education, Secondary option. This infers that all respondents were qualified and competent to perform instructional roles in the secondary schools studied.

#### 4.2.3 Cross Tabulation Showing Association between Gender and Work experience

A cross tabulation of respondent’s gender and work experience was done. The results are displayed in Table 9.

**Table 9: Gender and Work Experience Cross Tabulation**

		Work experience					
		1-3	4-6	7-9	10-12		
		years	years	years	years		
<b>Teachers n=124</b>	<b>Male</b>	% of Total	18.5%	16.1%	5.6%	0.8%	41.1%
	<b>Female</b>	% of Total	25.0%	20.2%	12.1%	1.6%	58.9%
	<b>Total</b>		<b>43.5%</b>	<b>36.3%</b>	<b>17.7%</b>	<b>2.4%</b>	<b>100.0%</b>
<b>Deputy Principals n=30</b>	<b>Male</b>		3.3%	6.7%	20.0%	13.3%	43.3%
	<b>Female</b>		6.7%	16.7%	20.0%	13.3%	56.7%
	<b>Total</b>		10.0%	23.3%	40.0%	26.7%	100.0%

The findings indicate that a total of 74.8 per cent of teacher respondents had teaching experience of between 1-6 years while majority (a total of 66.7 %) of deputy principals had a teaching experience of between 7 to 12 years. This indicates that Nandi East Sub-County, Kenya had relatively less experienced teachers performing instructional roles in secondary schools. The findings further show that there were more female teachers with a teaching experience of between 1-3 years (25%) than male (18.5%) in this

category, meaning that more female than male teachers had been recruited in secondary schools in Nandi East Sub-County, Kenya to perform instructional roles in the last twelve years. It could also imply that more female than male teachers were attracted to perform instructional roles in Nandi East Sub-County, Kenya.

#### 4.2.4 School Category

Respondents were asked to state category of their schools. The results are presented in Table 10.

**Table 10: School Category**

<b>Characteristic</b>	<b>Teachers n=124</b>		<b>Deputy Principals n=30</b>	
	<b>Frequency</b>	<b>Percent %</b>	<b>Frequency</b>	<b>Percent %</b>
Boarding	70	56.5	8	26.7
Day	54	43.5	22	73.3
Total	124	100.0	30	100.0

The findings show that 56.5 per cent of teacher respondents were performing instructional roles in Boarding schools with another 43.5 per cent were teaching in day schools. Majority of the teacher respondents were teaching in boarding secondary schools. The findings indicate that there were more (73%) deputy principals working in day schools than in boarding schools. This finding suggests that there were more teachers performing instructional roles in boarding schools than in day schools in Nandi East Sub-county, Kenya. This finding is corroborated by Ng'ang'a et al. (2011) who averred that most of the boarding schools tend to be well enrolled in terms of students population hence had more teachers.

#### 4.3.1 Provision of Classroom Teaching Resources for Performance of Instructional Roles

This section presents data analysis to address the first objective of the study. The objective was to determine relationship between provision of classroom teaching resources and effective performance of classroom instructional roles by teachers in secondary schools in Nandi East Sub-County, Kenya. Descriptive analysis of relationship between provision of classroom teaching resources and effective performance of classroom instructional roles was done. Percentages, means and t-tests were computed. Analysis of variance (ANOVA) was done and Pearson Product Moment Correlation Coefficient was computed, analysed and interpretations done.

### 4.3.2 Descriptive Analysis of Provision of Classroom Teaching Resources

A Descriptive analysis of provision of classroom teaching resources in secondary schools in Nandi East Sub-County, Kenya was done as observed by teachers and deputy principals. The findings are presented in Table 11 and 12.

**Table 11: Provision of Classroom Teaching Resources (According to Teachers)**

Statement	Teachers n=124			
	SD (%)	D (%)	A (%)	SA (%)
My school provides teachers with audio-video instructional equipment.	20.2	37.9	29.8	12.1
My school provides teachers with reference materials.	51.6	39.5	0.8	8.1
My school provides teachers with note books.	42.7	47.6	5.6	4.0
My school provides adequate Desks.	54.0	35.5	4.0	6.5
My school provides teachers with models for teaching	57.3	30.6	4.8	7.3
My school provides teachers with Projectors for teaching	11.3	46.8	31.5	10.5
My school provides teachers with laptops for teaching	51.6	23.4	0.0	25.0
My school provides teachers with adequate text Books	26.6	46.8	23.4	3.2

**Key: SD = Strongly Disagree; D=Disagree; A = Agree; SA =Strongly Agree; %=Percentages**

**Table 12: Provision of Classroom Teaching Resources (According to Deputy Principals)**

Statement	Deputy Principals n=30			
	SD (%)	D (%)	A (%)	SA (%)
My school provides teachers with audio-video instructional equipment.	13.3	56.7	23.3	6.7
My school provides teachers with reference materials.	26.7	33.3	20.0	20.0
My school provides teachers with note books.	20.0	46.7	13.3	20.0
My school provides adequate Desks.	36.7	36.7	20.0	6.7
My school provides teachers with models for teaching	36.7.0	23.3	20.0	20.0
My school provides teachers with Projectors for teaching	13.3	53.3	30.0	3.3
My school provides teachers with laptops for teaching	36.7	40.0	6.7	16.7
My school provides teachers with adequate text Books	44.7	22.0	30.3	3.0

**Key: SD = Strongly Disagree; D=Disagree; A = Agree; SA =Strongly Agree; %=Percentages**

The findings from Table 11 show that majority, a total of 68.1 per cent of teacher respondents either strongly disagreed or disagreed that their schools provided teachers with audio-visual instructional equipment. This finding affirms that of Tanui (2012) who avers that ICT can stimulate student’s critical thinking, give students a long-lasting experience and can allow teachers to collaborate with one another, yet schools had been unable to provide it. This was an indication that majority of the schools had not provided audio visual resources for use by teachers in performance of instructional roles.

Similarly, from Table 12, a total of 70 per cent of the deputy principals either strongly disagreed or disagreed that their school provide teachers with audio-video instructional equipment. The finding suggests that most schools had not fully embraced the use of audio visual resources to enable teachers to improve performance of their instructional roles. ICT integration in form of audio visual resources in teaching can provide teachers with access to information sources and enable communication within and among them.

The findings on Table 11 further shows that a significant proportion (51.6%) and (39.5%) of teacher respondents strongly disagree and disagree respectively that their schools had provided teachers with teaching reference materials. The findings from table 12 indicate that 26.7 per cent and 33.3 per cent of the deputy principals strongly disagree and disagree respectively that their school provided teachers with reference materials. A total of 90.3 per cent of teacher respondents from table 11 indicated that their schools did not provide teachers with notebooks; Moreover, a total of 66.7 per cent of the deputy principals from table 12 disagreed that their school provided teachers with note books.

A total of 73.4 per cent of teacher respondents report that text books were inadequately provided in their schools. In addition, the findings from table 12 indicate that 66.7 per cent of the deputy principals either strongly disagreed or disagreed that their school provided teachers with adequate text Books. This is despite Kenya's governments' effort to supply text books directly to schools. The implication of this finding is that teachers with inadequate textbooks, note books and reference materials would face challenges in lesson preparation, delivery and teaching in general would be negatively affected. The finding concurs with Adeogun and Osifila (2008) who established that textbooks had not been adequately provided to teachers for their effective lesson preparation and could have affected teaching and learning.

Despite models for teaching being important components in teaching of abstracts concepts, a high proportion (total of 87.9%) of the teacher respondents reported that it was inadequately provided in their schools. In addition, a total of 60.0 per cent of the deputy principals disagreed that their school provided teachers with adequate models for teaching. As argued by Ajayi (2015) teachers' guidance of learners through models for teaching enables students to develop their investigative, interpretive, communication and problem solving skills. This finding implies that Teachers performance of instructional roles in abstract topics and subjects in Nandi East Sub-County, Kenya could have been adversely affected. Inadequate models for teaching can limit variation of teaching tools deployed by teachers. This suggests that most schools could not have been supporting teachers in their quest to provide more varied lessons to their students. This view is shared by Muchiri (2014) who found out that availability of

models for teaching can translate to greater ease in explaining abstracts concepts yet schools had inadequately provided it.

Desks were also reported to be inadequately provided with a further 89.5 per cent of teacher respondents indicating that it was inadequately provided in secondary schools in Nandi East sub-county, Kenya. Moreover, a total of 73.4% of the deputy principals affirmed that desks were not adequately provided in their schools. This finding corroborates Otieno (2013) who established that the poor nature, state of the classroom and facilities therein could significantly negatively affect the nature and quality of the outcome of teachers work and student learning. The finding suggests that students with inadequate desks cannot be comfortable during the lesson. This could have negatively affected instructional processes in secondary schools in Nandi East Sub-County, Kenya.

### 4.3.3 Provision of Classroom Teaching Resources

Mean of provision of classroom teaching resources in secondary schools in Nandi East Sub-County, Kenya was computed. The purpose of this statistical analysis was to further examine the independent variable. The results are presented in Table 13 and 14.

**Table 13: Provision of Classroom Teaching Resources (Mean According to Teachers)**

<b>Statement</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>
My school provides teachers with adequate text Books	124	2.03	0.80
My school provides teachers with laptops for teaching	124	1.98	1.24
My school provides teachers with Projectors for teaching	124	2.41	0.83
My school provides teachers with adequate models for teaching.	124	1.62	0.88
My school provides adequate Desks.	124	1.63	0.84
My school provide teachers with note books	124	1.71	0.75
My school provides teachers with teaching reference materials.	124	1.65	0.86
My school provides teachers with audio-video instructional equipment.	124	2.34	0.94
<b>Provision of classroom teaching resources Overall Index</b>	124	1.92	0.53
Valid N (list wise)	124		

**Key: mean 1.0 to 2.4 =Insufficient, Mean 2.5 to 4.0 = Sufficient.**

**Table 14: Provision of Classroom Teaching Resources (Mean According to Deputy Principals)**

Statement	N	Mean	SD
My school provides teachers with adequate text Books	30	2.4	0.61
My school provides teachers with laptops for teaching	30	1.06	1.34
My school provides teachers with Projectors for teaching	30	2.31	0.87
My school provides teachers with adequate models for teaching.	30	1.67	0.84
My school provides adequate Desks.	30	1.44	0.80
My school provide teachers with note books	30	1.92	0.86
My school provides teachers with teaching reference materials.	30	1.69	0.79
My school provides teachers with audio-video instructional equipment.	30	2.33	0.88
Provision of classroom teaching resources Overall Index	30	1.77	0.75
Valid N (list wise)	30		

**Key: mean 1.0 to 2.4 =Insufficient, Mean 2.5 to 4.0 = Sufficient.**

Computation of a mean for each item and interpretation in an appropriate Likert mean range allowed the researcher to rate responses from teachers (Table 13) and deputy principals (Table 14) on provision of the classroom teaching resource to be either sufficient or insufficient.

The findings shown in Table 13 indicate that respondent's schools provided teachers with insufficient books (Mean 2.03, SD 0.80) according to teachers and deputy principals (Mean 2.4, SD 0.61), notebooks (Mean 1.71, SD 0.75) for and reference materials (Mean 1.65, SD 0.86). Similarly, deputy principals indicated that teachers' were provided with insufficient notebooks (Mean 1.92, SD 0.86) and reference materials (Mean 1.69, SD 0.79) The findings indicate that schools under study generally had not provided adequate text books, note books and reference materials for teachers' performance of instructional roles as shown by the overall mean index (Mean 1.92, SD 0.53) according to teachers and (Mean 1.77, SD 0.75) according to deputy principals. This finding is in agreement with Elibariki (2014) who established that there

were inadequate reference materials and textbooks. He further argued that the absence of reference and inadequate textbooks means teachers could miss out on providing students with reading material that would enhance learning after they leave class.

The teacher respondents further reported that their schools provided teachers with insufficient laptops for teaching (Mean 1.98, SD 1.24), projectors (Mean 2.41, SD 0.83), and audio-video instructional equipment (Mean 2.34, SD 0.94). Furthermore, the deputy principals indicated that teachers were provided with insufficient laptops for teaching (Mean 1.06, SD 1.34), projectors (Mean 2.31, SD 0.87), and audio-video instructional equipment (Mean 2.33, SD 0.88). The finding agrees with Mucai (2013) who established that the use of audio video through video presentations and films may enable teachers to effectively perform their teaching roles but most schools had not embraced their use. Inadequate provision of laptops, projectors and audio-video instructional materials suggested limited use of the specific ICT resources by teachers in performance of instructional roles in Nandi East Sub County, Kenya. The use of these ICT resources can accord the teacher an opportunity to informally or formally tape and watch their own lesson delivery. It can help the teacher identify specific things done well, what can be improved, establish what kept students engaged or loose interests among others.

Furthermore, the findings also showed that there was insufficient provision of models for teaching to teachers use in teaching of abstract topics (Mean 1.62) from teachers and (Mean 1.67, SD 0.84 ) from deputy principals. Inadequate models for teaching in use during lesson delivery implied that most schools in Nandi East Sub-County, Kenya were not adequately supporting teaching of abstract topics and related subjects. This can negatively affect teacher's performance of instructional roles in those subjects. As found out by Ayoo (2016), adequate and timely provision of models for teaching can significantly increase teacher performance and ultimately student achievement by supporting student learning. This can allow students to explore knowledge independently as well as provide room for error correction.



#### 4.3.5 Differences in Provision of Classroom Teaching Resources by School

##### Category.

T-test was done to establish whether there exists a significant mean difference in Provision of classroom teaching resources between boarding and day secondary schools in Nandi East Sub-County, Kenya. The findings are presented in Table 15 and 16.

**Table 15: Differences in Provision of Classroom Teaching Resources by School**  
Category

Gender	N	Mean	SD	Df	t-value	ρ-value
Boarding	70	1.84	0.51	122	-2.001	0.048*
Day	54	2.03	0.55			

**\*Significant at 0.05 level**

**Table 16: Differences in Provision of Classroom Teaching Resources by School**  
Category

Gender	N	Mean	SD	Df	t-value	ρ-value
Boarding	30	1.99	0.32	28	-1.033	0.631*
Day	30	2.00	0.36			

**\*Significant at 0.05 level**

T-test results show that provision of classroom teaching resources was significantly different between boarding and day schools at 0.05,  $t(122) = -2.001$ ,  $\rho = 0.048^*$  according to teachers and  $t(28) = -1.001$ ,  $\rho = 0.631^*$  according to deputy principals. This finding implies that the manner in which classroom teaching resources were provided for teaching varied from boarding to day schools. The findings further show that in Nandi East Sub-County, Kenya, day schools were better (mean 2.03) in provision of teaching resources for use in performance of instructional roles than boarding schools (mean 1.84). This finding contradicts that of Ng'ang'a et al. (2011) who established that boarding schools had better infrastructure, teaching and learning resources than day schools.

#### 4.3.6 Performance of Classroom Instructional Roles

This section presents data analysis on effective performance of classroom instructional roles by teachers in secondary schools in Nandi East Sub County, Kenya as observed

by teachers and deputy principals. Respondents were asked to rate their responses using a 4 point Likert rating scale of; not effective, less effective, effective and very effective. Table 17 and 18 presents the results.

**Table 17: Performance of Classroom Instructional Roles (According to Teachers)**

Statement	Teachers(n=124)			
	NE (%)	LE (%)	E (%)	VE (%)
Regularly Preparing curriculum support materials.	21.0	66.1	8.1	4.8
Giving timely feedback on student achievement to parents/guardians.	25.8	56.5	12.9	4.8
Regularly providing reference materials to students.	30.6	52.4	12.1	4.8
Regularly giving notes to students.	11.3	30.6	41.1	16.9
Regularly giving assignments to students	25.8	29.8	28.2	16.1
Regularly supervising students as they study	44.4	49.2	4.0	2.4
Regularly using audio-visual equipment during lesson delivery.	53.2	40.3	5.6	0.8
Regularly explaining concepts in class.	55.6	32.3	7.3	4.8

**Key: NE=Not Effective, LE=Less Effective, E=Effective, VE=Very effective  
%=Percentages**

**Table 18: Performance of Classroom Instructional Roles (According to Deputy Principals)**

	<b>Deputy Principals(n=30)</b>			
Regularly Preparing curriculum support materials.	36.7	16.7	23.3	23.3
Giving timely feedback on student achievement to parents/guardians.	16.7	53.3	30.0	0.0
Regularly providing reference materials to students.	30.0	43.3	6.7	20.0
Regularly giving notes to students.	20.0	36.7	16.7	26.7
Regularly giving assignments to students	16.7	40.0	26.7	16.7
Regularly supervising students as they study	26.7	53.3	13.3	6.7
Regularly using audio-visual equipment during lesson delivery.	43.3	46.7	6.7	3.3
Regularly explaining concepts in class.	33.3	26.7	23.3	16.7

**Key: NE=Not Effective, LE=Less Effective, E=Effective, VE=Very effective  
%=Percentages**

The findings in Table 17 indicate that an overwhelming majority (a total of 87.1%) of teacher respondents were not effective in regularly preparing curriculum support materials. Furthermore, as indicated on Table 18, a total of 53.4% of deputy principals observed that their teachers were not effective in regularly preparing curriculum support materials. These findings are similar to Eya (2011) who established that teacher's production of instructional materials was wanting as most teachers found its development as stressful, frustrating and an arduous task. The findings construe that few teachers regularly prepared curriculum support materials in secondary schools in Nandi East Sub- County, Kenya. Subsequently, teachers' performance could have been impeded by irregular preparation of teaching and learning aids. Every teaching and learning material developed can be an asset to the teacher since they can use it for a longer period of time to teach similar concepts.

A significant percentage of 83 per cent of teacher respondents indicated that they were either not effective or less effective in regularly providing reference materials to their students. Similarly, a total of 73.3 per cent of the deputy principals reiterated that their

teachers were not effective in regularly providing reference materials to students. The finding suggests that few teachers were regularly providing reference materials to students in Nandi East Sub-County's schools. This further indicates that teachers' performance of classroom instructional role could have been affected by insufficient reference materials. Provision of Reference materials can accord students an opportunity for further reading to get different approaches about a concept. Owate and Okpa (2013) opine that teachers and students access to reference materials creates further curiosity for search of knowledge and widen their scope in the subject matter, a view also shared by the researcher.

A significant proportion (41.9%) of teacher respondents indicated that they were either not effective or were less effective in regularly giving notes to students. Besides, 56.7 per cent of the deputy principals also affirmed that their teachers were either not effective or less effective in regularly giving notes to students. Teachers who are unable to regularly provide notes to their students could also be ineffective in teaching their students. This is supported by Omina (2016), who avers that preparation and presentation of notes to the students forms a key component in teaching process and general success of learning though some teachers were not preparing them.

On regular supervision of students as they study, a total of 93.6 per cent of teacher respondents indicated that they were either not effective or less effective. This finding was supported by 80 per cent of the deputy principals who observed that teachers' regular supervision of students as they study was either not effective or less effective. The finding infers that teachers did not effectively supervise students during studies in the secondary schools in Nandi East sub-county, Kenya. These imply that teachers did not guide students on private studies. As argued by Mungai (2016), supervision of students as they study can accord teachers an opportunity to become familiar with students preparation, knowledge, abilities and adjust their teaching methods to improve on the classroom teaching.

Table 17 further shows that 53.2 per cent and another 40.3 per cent of teacher respondents were not effective and less effective respectively in using audio-visual equipment during lesson delivery. It was also observed from Table 18 that a total of 90 per cent of the deputy principals affirmed that teachers' regular use of audio-visual

equipment during lesson delivery was either less effective or not effective. This finding is consistent with Tanui (2012) who established that most teachers had previously not used audio video resources in teaching. Audio visual resources could be used by teachers to show slides and pictures. This could enable students develop positive attitude towards learning thereby according students an opportunity to proceed at their own pace. It can further increase interactivity between teachers and students. This finding further concurs with that of Mege (2014) who found out that, projectors, audio video and computer resources were hardly available for use in Secondary schools.

The findings further indicate that a total of 87.9 per cent of teacher respondents were either not effective or less effective in regularly explaining concepts in class. The findings also suggest that 26.7 per cent of the deputy principals affirmed that teachers were less effective in regularly explaining concepts in class with another 33.3 per cent indicating that they were not effective. This shows that some considerable number of teachers were ineffective in performance of instructional roles in secondary schools Nandi East Sub-County, Kenya. Bulimo et al. (2011) advocated that teachers who are unable to effectively deliver instructional content should be subjected to refresher courses. Such courses can be organized by Teachers Service Commission and Ministry of Education through continuous Teacher Professional Development (TPD).

#### **4.3.7 Performance of Classroom Instructional Roles (Mean)**

Mean of Teachers effective Performance of Classroom instructional roles in secondary schools in Nandi East Sub-County, Kenya was calculated. This statistical analysis was to further elucidate the dependent variable. These results are shown in Table 19 and 20.

**Table 19 : Performance of Classroom Instructional Roles (Mean According to Teachers)**

<b>Statement</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>
Regularly explaining concepts in class.	124	1.61	.82
Regularly using audio-visual equipment during the lesson delivery.	124	1.54	.64
Regularly supervising students as they study.	124	1.65	.68
Regularly giving assignments.	124	2.35	1.03
Regularly giving notes to students.	124	2.64	.90
Regularly providing reference materials.	124	1.91	.77
Timely giving feedback on student achievement to parents/guardians.	124	1.97	.76
Regularly preparing curriculum support materials.	124	1.97	.70
Performance of Classroom Instructional Roles overall index	124	1.96	.44
Valid N (list wise)	124		

**Key: Mean 1 to 2.4 =Ineffective, Mean 2.5 to 4 = Effective**

**Table 20 : Performance of Classroom Instructional Roles (Mean According to Deputy Principals)**

<b>Statement</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>
Regularly explaining concepts in class.	30	1.92	.71
Regularly using audio-visual equipment during the lesson delivery.	30	1.74	.69
Regularly supervising students as they study.	30	1.77	.57
Regularly giving assignments.	30	2.28	1.12
Regularly giving notes to students.	30	2.70	.81
Regularly providing reference materials.	30	1.92	.72
Timely giving feedback on student achievement to parents/guardians.	30	1.85	.66
Regularly preparing curriculum support materials.	30	1.99	.80
Performance of Classroom Instructional Roles overall index	30	1.76	.45
Valid N (list wise)	30		

**Key: Mean 1 to 2.4 =Ineffective, Mean 2.5 to 4 = Effective**

Computation of a mean for each item and its interpretation in an appropriate Likert mean range as shown in the key on Table 18 and Table 19 was to allow the researcher to rate teachers and deputy principals' responses on performance of classroom teaching roles by teachers to be either effective or ineffective.

The findings in Table 18 and in Table 19 suggest that teachers were ineffective in regularly explaining concepts in class (Mean = 1.61; SD = 0.82) and (Mean = 1.92; SD = 0.71) as reported by teachers and deputy principals respectively. This finding implies that teachers' performance of this role was ineffective in Nandi East Sub-County. Additionally, teachers were ineffective in regularly using audio-visual equipment during lesson delivery (Mean = 1.54; SD = 0.64, Mean = 1.74; SD = 0.69) and regularly supervising students as they study (Mean = 1.64; SD = 0.68, Mean = 1.77; SD = 0.57) as reported by teachers and deputy principals respectively. The findings further show that teachers were ineffective in regularly providing reference materials to students (Mean = 1.91; SD = 0.79). Similarly, deputy principals also reported that teachers were ineffective in regularly providing reference materials to students yet as established by Omina (2016) availability and use of instructional materials and teaching aids can improve classroom teaching and learning processes.

The findings in Table 18 show that teachers were ineffective in giving timely feedback on student achievements to parents or guardians and in regularly preparing curriculum support materials (Mean = 1.97; SD = 0.76 and Mean = 1.97; SD = 0.70). In addition to that; Table 19 show that teachers were ineffective in giving timely feedback on student achievements to parents or guardians and in regularly preparing curriculum support materials (Mean = 1.85; SD = 0.66 and Mean = 1.99; SD = 0.80). This finding shows that giving timely feedback to parents was ineffectively done in Nandi East Sub-County. In general, performance of classroom teaching roles were rated as ineffective with a mean index of 1.97; SD 0.44 and 1.76; SD 0.45 by teacher respondents and deputy principals. Teachers' performance in regularly explaining concepts, using audio-visual equipment during lesson delivery and supervising students as they study was also rated as ineffective. They were also not effective in giving timely feedback on student achievements and in regularly providing reference materials to students. This finding suggests that teachers had not sufficiently performed their classroom teaching roles in Nandi East Sub-County.

#### 4.3.8 Differences in Effective Performance of Instructional Roles by Respondents' Category

T-test was run to investigate whether there was a statistically significant difference in teachers' effectiveness in performance of instructional roles as reported by Teachers and deputy-principals in Nandi East Sub-County, Kenya. The results are shown in Table 21.

**Table 21: Performance of Instructional Roles**

School Category	N	Mean	SD	Df	t-value	$\rho$ -value
Teachers	124	2.17	0.32	152	0.820	0.413
Deputy Principals	30	2.11	0.30			

The results of T-test in Table 21 show that effective performance of instructional roles by teacher's was not statistically significantly different as reported by teachers and as reported by deputy-principals' at  $\alpha=0.05$   $t(152) = 0.820$ ,  $\rho= 0.413$  in Nandi East sub-county, Kenya. These imply that there was no statistically significant difference on how teachers and deputy principals rated effective performance of instructional roles by teachers in Nandi East Sub-County, Kenya.

#### 4.3.9 Differences in Effective Performance of Classroom instructional Roles by Gender

T-test was conducted to establish whether there exists statistically significant difference in effective performance of classroom teaching roles by teachers between male and female respondents. The results are presented in Table 22 and 23.

**Table 22 : Differences in Effective Performance of Classroom Instructional Roles by Gender (According to Teachers)**

Gender	N	Mean	SD	Df	t-value	$\rho$ -value
Male	51	1.98	0.36	122	0.276	0.783
Female	73	1.96	0.50			



**Table 23 : Differences in Effective Performance of Classroom Instructional Roles by Gender (According to Deputy Principals)**

Gender	N	Mean	SD	Df	t-value	ρ-value
Male	30	2.01	0.43	28	0.301	0.721
Female	30	1.99	0.53			

The results of T-test in Table 22 and 23 show that teachers performance of classroom instructional roles was not significantly different between male and female respondents at  $\alpha=0.05$   $t(122) = 0.276$ ,  $p= 0.783$  and  $t(28) = 0.301$ ,  $p= 0.721$  as reported by teacher and deputy principals respondents respectively. This means that there was no significant variation in performance of classroom teaching roles between male and female teachers in Nandi East Sub-County, Kenya. Teachers' performance of classroom instructional roles was not affected by them being either male or female.

#### **4.3.10 Differences in Effective Performance of Classroom Instructional Roles by School Category**

T-test was run to investigate whether there was a statistically significant mean difference in effective performance of classroom instructional roles between respondents in boarding and day schools in Nandi East Sub-County. The results are presented in Table 24 and 25.

**Table 24: Differences in Effective Performance of Classroom Instructional Roles by School Category (According to Teachers)**

School Category	N	Mean	SD	Df	t-value	ρ-value
Boarding	70	1.95	0.46	122	-0.317	0.752
Day	54	1.98	0.42			

**Table 25: Differences in Effective Performance of Classroom Instructional Roles by School Category (According to Deputy Principals)**

School Category	N	Mean	SD	Df	t-value	ρ-value
Boarding	30	1.96	0.51	28	-0.368	0.811
Day	30	1.99	0.49			

The findings of T-test in Table 24 and 25 indicate that teachers performance of classroom instructional roles was not significantly different between respondents teaching in boarding or in day schools at  $\alpha=0.05$   $t(122) = -0.317$ ,  $\rho=0.752$  and  $t(28) = -0.369$ ,  $\rho=0.811$  as reported by teachers and deputy principals respectively. This finding implies that teachers' performance of classroom instructional roles was not statistically significantly affected by their working stations (boarding or day) schools in Nandi East Sub-County, Kenya. This infer that performance of classroom instructional roles were not influenced by teachers working stations either being boarding or day schools.

#### **4.3.11 Differences in Effective Performance of Classroom Instructional Roles by Work Experience**

Analysis of variance (ANOVA) was conducted to examine if there was a statistically significant difference in effective performance of classroom instructional roles with teachers work experience in secondary schools in Nandi East Sub-County, Kenya. The analysis is presented in Table 26 and 27.

**Table 26: Analysis of Variance of Effective Performance of Classroom Instructional Roles by Work Experience (According to Teachers)**

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	.756	3	.252	1.286	.282
Within Groups	23.512	120	.196		
Total	24.268	123			

**Table 27: Analysis of Variance of Effective Performance of Classroom Instructional Roles by Work Experience (According to Deputy Principals)**

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	.678	3	.213	1.211	.318
Within Groups	24.415	26	.199		
Total	25.093	29			

Analysis of variance shows in Table 26 and 27 that there was no significant difference between effective performance of classroom instructional roles by the five categories of work experience at 0.05 alpha level,  $F(3,120) = 1.286$ ,  $\rho=0.282$  according to teachers and  $F(3,26) = 1.211$ ,  $\rho=0.318$  for deputy principals. This indicates that working experience of teachers did not statistically significantly affect effective performance of classroom instructional roles in secondary schools in Nandi East Sub County, Kenya.

### 1.3.12 Relationship between Provision of Classroom Teaching Resources and Effective Performance of Classroom Instructional Roles

Pearson Product Moment Correlation Coefficient was computed in order to determine relationship between provision of classroom teaching resources and effective performance of classroom instructional roles by teachers in secondary schools in Nandi East Sub-County, Kenya. The strength and direction of the relationship between the variables are presented in Table 28 and 29.

**Table 28: Relationship between Provision of Classroom Teaching Resources and Effective Performance of Classroom Instructional Roles (According to Teachers)**

		Teachers	
		Provision of Classroom Teaching Resources	
Effective Classroom Instructional Roles	Performance of	Pearson Correlation	.264*
		Sig. (2-tailed)	.003
		N	124

\*. Correlation is significant at the 0.05 level (2-tailed).

**Table 29: Relationship between Provision of Classroom Teaching Resources and Effective Performance of Classroom Instructional Roles (According to Deputy Principals)**

		Deputy Principals	
		Provision of Classroom Teaching Resources	
Effective Classroom Instructional Roles	Performance of	Pearson Correlation	.421*
		Sig. (2-tailed)	.000
		N	30

\*. Correlation is significant at the 0.05 level (2-tailed).

Table 28 and 29 shows that there exist a positive and statistically significant relationship between provision of classroom teaching resources and effective performance of classroom instructional roles by teachers in secondary schools in Nandi East Sub-County, Kenya ( $r=0.264^*$ ,  $p=0.003$ ) and ( $r=0.421^*$ ,  $p=0.000$ ) at alpha 0.05 level from teachers and deputy principal respectively. This suggests that effective performance of classroom teaching roles could improve with provision of classroom teaching resources. Conversely, inadequate provision of these resources could negatively affect teachers' performance of classroom teaching roles.

#### **4.3 Relationship between Provision of Classroom Teaching Resources and Effective Performance of Students Evaluation Roles**

Pearson Product Moment Correlation Coefficient was computed to establish relationship between provision of classroom teaching resources and effective performance of students' evaluation roles by teachers in secondary schools in Nandi East Sub- County, Kenya. The strength and direction of the relationship between the variables are presented in Table 30 and 31.

**Table 30: Relationship between Provision of Classroom Teaching Resources and Effective Performance of Students' Evaluation Roles (According to Teachers)**

		Teachers	
		Effective Performance of Students' Evaluation Roles	
<b>Provision of Classroom Teaching Resources</b>	Pearson Correlation	.086	
	Sig. (2-tailed)	.342	
	N	124	

\*. Correlation is significant at the 0.05 level (2-tailed).

**Table 31: Relationship between Provision of Classroom Teaching Resources and Effective Performance of Students' Evaluation Roles (According to Deputy Principals)**

		Deputy principals	
		Effective Performance of Students' Evaluation Roles	
<b>Provision of Classroom Teaching Resources</b>	Pearson Correlation	.098	
	Sig. (2-tailed)	.678	
	N	30	

\*. Correlation is significant at the 0.05 level (2-tailed).

The findings in Table 30 and 31 shows that there exist no statistically significant relationship between provision of classroom teaching resources and effective performance of students' evaluation roles in secondary schools in Nandi East Sub-County, Kenya ( $r=0.086$ ;  $\rho=0.342$ ) and ( $r=0.098$ ;  $\rho=0.678$ ) at alpha 0.05 level. This infers that provision of classroom teaching resources had no statistically significant relationship with how teachers effectively performed students' evaluation roles in secondary schools in Nandi East Sub-County, Kenya. This finding shows that effective performance of students' evaluation roles by teachers was not significantly affected by provision of classroom teaching resources.

#### **4.3.14 Relationship between Provision of Classroom Teaching Resources and Effective Performance of Academic Advising Roles**

Computation of Pearson Product Moment Correlation Coefficient was carried out to investigate relationship between provision of classroom teaching resources and

effective performance of academic advising roles by teachers in secondary schools in Nandi East Sub- County, Kenya. The direction and strength of the relationship between the variables are presented in Table 32 and 33.

**Table 32: Relationship between Provision of Classroom Teaching Resources and Effective Performance of Academic Advising Roles (According to Teachers)**

		Teachers	
		Effective Performance of Academic Advising roles	
<b>Provision of Classroom Resources</b>	<b>Teaching</b>	Pearson Correlation	.109
		Sig. (2-tailed)	.227
		N	124

\*. Correlation is significant at the 0.05 level (2-tailed).

**Table 33: Relationship between Provision of Classroom Teaching Resources and Effective Performance of Academic Advising Roles (According to Deputy Principals)**

		Deputy Principals	
		Effective Performance of Academic Advising roles	
<b>Provision of Classroom Resources</b>	<b>Teaching</b>	Pearson Correlation	.297
		Sig. (2-tailed)	.307
		N	30

\*. Correlation is significant at the 0.05 level (2-tailed).

Table 32 and 33 shows that there is existence of no statistically significant relationship between provision of classroom teaching resources and effective performance of academic advising roles by teachers in secondary schools in Nandi East Sub-County, Kenya ( $r=0.109$ ;  $\rho=0.227$ ) and ( $r=0.297$ ;  $\rho=0.307$ ) at alpha 0.05 level respectively. This implies that effective performance of academic advising roles had no statistically significant relationship with provision of classroom teaching resources. This finding construe that teachers' performance of academic advising roles was not significantly affected by provision of classroom teaching resources.

#### 4.3.15 Relationship between Provision of Classroom Teaching Resources and effective Performance of Instructional Roles

Computation of Pearson Product Moment Correlation Coefficient was done to find out relationship between provision of classroom teaching resources and effective performance of instructional roles by teachers in secondary schools in Nandi East Sub-County, Kenya as reported by teachers and deputy principals. The direction and strength of the relationship between the variables are presented in Table 34 and 35.

**Table 34: Relationship between Provision of Classroom Teaching Resources and Effective Performance of Instructional Roles (According to Teachers)**

		Effective Performance of Instructional Roles
		Teachers
<b>Provision of Classroom Teaching Resources</b>	Pearson Correlation	.222*
	Sig. (2-tailed)	.013
	N	124

\*. Correlation is significant at the 0.05 level (2-tailed).

**Table 35: Relationship between Provision of Classroom Teaching Resources and Effective Performance of Instructional Roles (According to Deputy Principals)**

		Effective Performance of Instructional Roles
		Deputy-principal
<b>Provision of Classroom Teaching Resources</b>	Pearson Correlation	0.344
	Sig. (2-tailed)	0.030
	N	30

\*. Correlation is significant at the 0.05 level (2-tailed).

Table 34 and 35 shows that there exist a positive and statistically significant relationship between provision of classroom teaching resources and effective performance of instructional roles by teachers in secondary schools in Nandi East Sub-County, Kenya as reported by teachers ( $r=0.222^*$ ;  $p=0.013$ ) and as reported by deputy principals ( $r=0.344^*$ ;  $p=0.03$ ) at alpha 0.05 level. These suggest that effective

performance of instructional roles could improve with provision of classroom teaching resources. Conversely, inadequate provision of these resources could negatively affect teachers' performance of instructional roles in Nandi East Sub-County, Kenya. The implication of this finding is that when the BoM and principals provide instructional resources, teachers' effectiveness in performance of instructional roles could improve.

#### 4.3.16 Hypothesis Testing

The decision to either reject or fail to reject the null hypothesis was set a  $\alpha= 0.05$  alpha levels; that is reject  $H_0$ : if  $p<0.05$ , otherwise fail to reject the  $H_0$ : if  $p>0.05$

The null hypothesis being tested was:  $H_{01}$ : There is no statistically significant relationship between provision of classroom teaching resources and effective performance of classroom instructional roles by teachers in secondary schools in Nandi East Sub-County, Kenya. In order to test this hypothesis, a correlation test was done on relationship between provision of classroom teaching resources and effective performance of classroom instructional roles by teachers in secondary schools in Nandi East Sub-County, Kenya. Table 36 and 37 shows the correlation test.

**Table 36: Relationship between Provision of Classroom Teaching Resources and Effective Performance of Classroom Instructional Roles (According to Teachers)**

		Teachers	
		Provision of Classroom Teaching Resources	
Effective Performance of Classroom Instructional Roles	Pearson		.264*
	Sig. (2-tailed)		.003
	N		124

\*. Correlation is significant at the 0.05 level (2-tailed).



**Table 37: Relationship between Provision of Classroom Teaching Resources and Effective Performance of Classroom Instructional Roles (According to Deputy Principals)**

		Deputy Principals	
		Provision of Classroom Teaching Resources	
<b>Effective Performance of Classroom Instructional Roles</b>	Pearson		.421*
	of Correlation		
	Sig. (2-tailed)		.000
	N		30

\*. Correlation is significant at the 0.05 level (2-tailed).

Pearson Product Moment Correlation Coefficient test yielded a result of ( $r=0.222^*$ ;  $\rho<0.05$ ) at alpha 0.05 level as shown in Table 36 for teachers and ( $r=0.344^*$ ;  $\rho<0.05$ ) at alpha 0.05 level as shown in Table 37 for deputy principals. The null hypothesis was rejected since the  $\rho$  value (0.013) is less than 0.05 alpha levels for teachers and  $\rho$  value 0.030 for deputy principals. Consequently, a decision was made that there exist a positive and statistically significant relationship between provision of classroom teaching resources and effective performance of instructional roles by teachers in secondary schools in Nandi East Sub-County, Kenya. The finding concurs with Bizimana and Orodho (2014) who found out that there was a positive and significant correlation between availability of human and physical resources and teachers effective classroom management, content delivery and eventual enhanced school outcomes.

The finding suggest that provision of classroom teaching resources significantly and positively affected teachers' effective performance of instructional roles in secondary schools in Nandi East Sub-County, Kenya. Provision of classroom teaching resources could improve instruction since it could enhance teacher effectiveness in transmission of worthwhile concepts. A variety of instructional resources to support those which are available needs to be availed to teachers (Omariba, 2012).

#### **4.4.1 Provision of Learning Resources for Effective Performance of Instructional Roles by Teachers**

This section presents data analysis to address the second objective. The objective was to find out relationship between provision of learning resources and effective

performance of classroom instructional roles by teachers in secondary schools in Nandi East Sub-County, Kenya. Descriptive analysis of provision of learning resources and teachers Performance of classroom instructional roles in secondary schools in Nandi East Sub-County, Kenya was done. Percentages and Mean were computed. T-tests and Analysis of variance was done. Further, Pearson Product Moment Correlation Coefficient was computed, analysed and interpretations done.

#### 4.4.2 Descriptive Analysis of Provision of Learning Resources

A descriptive analysis of provision of learning resources for teachers' effective performance of classroom instructional roles in secondary schools in Nandi East Sub-County, Kenya according to teachers and deputy principals was done. The findings are presented in Table 38 and 39.

**Table 38: Provision of Learning Resources (According to Teachers)**

Statement	Teachers (n=124)			
	SD %	D %	A %	SA %
My school provides students with learning resources for academic projects.	61.6	23.9	9.5	5.0
My school provides students with educational games for learning	27.4	59.7	10.7	2.2
My school provides students with academic electronic files for learning	33.9	58.9	6.6	0.6
My school provides students with Computer laboratory for learning	30.6	53.2	8.5	7.6
My school provides students with multi-media learning resources	38.4	32.6	12.1	16.9
My school provides students access to online learning resources.	17.9	58.5	13.7	8.9
My school provides students with journals for learning	46.8	43.5	7.3	2.4
My school has a library for students learning.	53.2	41.9	4.0	0.8

**Key: SD = Strongly Disagree; D=Disagree; A = Agree; SA Strongly Agree; %=Percentages**

**Table 39: Provision of Learning Resources (According to Deputy Principals)**

<b>Statement</b>	<b>Deputy principals (n=30)</b>			
	<b>SD %</b>	<b>D %</b>	<b>A %</b>	<b>SA %</b>
My school provides students with learning resources for academic projects.	30.0	40.0	6.7	23.3
My school provides students with educational games for learning	50.0	20.0	10.0	20.0
My school provides students with academic electronic files for learning	36.7	40.0	13.3	10.0
My school provides students with Computer laboratory for learning	33.3	36.7	16.7	13.3
My school provides students with multi-media learning resources	40.0	26.7	13.3	20.0
My school provides students access to online learning resources.	26.7	36.7	23.3	13.3
My school provides students with journals for learning	33.3	30.0	20.0	16.7
My school has a library for students learning.	30.0	36.3	23.7	10.0

**Key: SD = Strongly Disagree; D=Disagree; A = Agree; SA Strongly Agree; %=Percentages**

The findings from table 38 show that a total of 85.5 per cent of respondents either strongly disagreed or disagreed that their schools provided learning resources for academic projects. Besides, from Table 39 a total of 30 per cent and 40 per cent of the deputy principals strongly disagreed and disagreed respectively that their schools provided teachers with learning resources for academic projects. This finding corroborates that of Koros (2014) who established that there was inadequate learning resource for academic projects. Project based learning could help students apply what they learn to real-life experiences and provide an all-round enriching education. It could also inspire students to obtain deep knowledge of the subjects they are studying. Students could explore real world challenges and simultaneously develop cross-curriculum skills while working in small teams, carrying out independent work and also collaborating with each other. This finding suggests that most schools in Nandi East Sub-County, Kenya had not provided learning resources for academic projects.

A total of 77.3 per cent of teacher respondents either strongly disagreed or disagreed on their schools providing online learning resources. Moreover, 50 per cent and 20 per cent of the deputy principals strongly disagreed and disagreed respectively that their schools provided teachers with online learning resources, an indication that majority of

schools in Nandi East Sub- County, Kenya had not embraced provision of online learning resources for students learning. Such ICT resources can create interactive learning environment, and can create access to varied, up to date and relevant learning materials.

A significant percentage of teacher respondents; (46.8% of them); strongly disagreed and another 43.5 per cent of them disagreed with the statement that their schools had provided journals for learning. Either, a total 63.3 per cent of the deputy principals either strongly disagreed or disagreed that their schools provided teachers with journals for learning. This finding suggests that the majority of the schools had not provided journals. This finding is similar to Okongo et al. (2015) who established that journals, periodicals and reference learning materials can raise teachers' effectiveness and efficiency and can improve learner outcomes. Poor access to journals could have denied teachers and learners in secondary schools in Nandi East Sub-County, Kenya an opportunity to get further readings and different perspectives on concepts learnt in the classroom.

A total of 71 per cent of teacher respondents indicated that their schools had not provided multi-media learning resources. Furthermore, 40 per cent and 26.7 per cent of the deputy principals strongly disagreed and disagreed respectively that their schools provided teachers with multimedia learning resources. This implies that most schools were not supporting learners in their quest to integrate multimedia learning resources in the learning processes. This view is also shared by Muchiri (2014) who found out that there were inadequate provision of multi-media learning resources which could deny learners greater ease and higher frequency of active learning. As opined by Otieno (2013), the use of charts, visual graphs, smart boards and videos can provide learners with visual simulations which provides an opportunity to access content from different vantage points. Multi-media learning resources provide multi-sensory experience in exploring the learners' world through presentation of information through texts, graphics, images, audio and video. This increase the likelihood of teachers helping students to integrate larger amounts of information.

The findings in Table 38 further shows that a total of 87.1 per cent of teacher respondents either strongly disagreed or disagreed that their schools had provided

education games for academic learning. Likewise, 50 per cent and 20 per cent of the deputy principals strongly disagreed and disagreed respectively that their schools provided teachers with educational games for academic learning. This finding concurs with Elibariki (2014) who in his study established that educational games could provide learning opportunities and make learning fun but were rarely used. The finding infers that in most schools, educational games were inadequately provided. The almost complete absence of these learning resources in secondary schools in Nandi East Sub-County, Kenya could mean that schools and teachers in particular had not fully embraced educational games in performance of instruction thereby not exploiting this new frontier to teaching and learning. Educational games can accord learners an opportunity to develop their capacity for three dimensional thinking, problem solving, collaborative skills and creativity. As advanced by Otieno (2013) educational games can bring fun to learning process, are inspiring as well as motivating to the learner to continue learning. It can also make the lesson interesting thereby engaging and therefore enhance learners' participation and concentration.

A total of 83.8 per cent of teacher respondents either strongly disagreed or disagreed that their schools provided Computer laboratories for students learning. Additionally, a total of 70 per cent of the deputy principals either strongly disagreed or disagreed that their schools provided teachers with computer laboratories for learning. Computer laboratories can provide students opportunity for Practical hands-on learning and have the ability to help learners to self-develop their knowledge. In this process students can be guided to adapt their newly found knowledge into their current knowledge. This process can help students' shape critical, analytical, innovative and creative thinking. As argued by Ng'ang'a et al. (2011), the use of computers in learning bring in simulation that increases students' interests in comprehension towards a topic being learnt.

Libraries were also said to be inadequately provided with a total of 94.1 per cent of the teacher respondents saying they were inadequately provided. In addition to that, a total of 66.0 per cent of the deputy principals either strongly disagreed or disagreed that their schools provided teachers with adequate libraries. This finding infers that most secondary schools in Nandi East Sub –County, Kenya had not provided adequate libraries for learning. Inadequacy of libraries can imply that students miss out on

reading space and access to learning resources that can enhance learning after teachers leave class. Ajayi (2015), opine that libraries have physical components such as space, equipment and storage media. They accord users sharing of expensive resources. These include books, periodicals, films and videos, specialized tools such as projectors graphic equipment and many others.

Inadequate learning materials such as Internet facilities, a library, Computer laboratories, educational games and multi-media learning resources can hamper learning. As argued by Ghulam et al (2015), learning materials could allow teachers to modify learning processes. It can activate each individual students learning style, reinforce a skill or concept and allow students to practice.

#### 4.4.3 Provision of Learning Resources (Mean)

Mean of provision of learning resource in secondary schools in Nandi East Sub-County, Kenya was conducted .The objective of this statistical analysis was to further analyze the independent variable. The results are presented in Table 40 and 41.

**Table 40: Provision of Learning Resources (Mean According to Teachers)**

<b>Statement</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>
My school has a library for students learning.	124	1.62	.52
My school provides students with journals for learning	124	1.55	.82
My school provides students with online resources for learning	124	2.33	.63
My school provides students with multi-media learning resources.	124	2.44	.80
My school provides students with Computer laboratory for learning.	124	2.01	.70
My school provides students with academic electronic files for learning.	124	1.75	.63
My school provides students with educational games for learning.	124	1.99	.60
My school provides students with learning resources for academic projects.	124	1.77	.72
<b>Provision of Learning Resources Overall Index</b>	124	1.82	.53
Valid N (list wise)	124		

**Key: Mean 1.0 to 2.4 =Insufficient, Mean 2.5 to 4.0 = Sufficient**

**Table 41: Provision of Learning Resources (Mean According to Deputy Principals)**

<b>Statement</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>
My school has a library for students learning.	30	1.52	.60
My school provides students with journals for learning	30	1.66	.84
My school provides students with online resources for learning	30	2.40	.72
My school provides students with multi-media learning resources.	30	2.33	.60
My school provides students with Computer laboratory for learning.	30	2.11	.52
My school provides students with academic electronic files for learning.	30	1.85	.63
My school provides students with educational games for learning.	30	2.09	.90
My school provides students with learning resources for academic projects.	30	1.79	.63
<b>Provision of Learning Resources Overall Index</b>	30	1.72	.69
<b>Valid N (list wise)</b>	30		

**Key: Mean 1.0 to 2.4 =Insufficient, Mean 2.5 to 4.0 = Sufficient**

Computation of a mean for each item and its interpretation in an appropriate Likert mean range was done. This was to allow the researcher to rate the responses on provision of the learning resource to be either sufficient or insufficient. From Table 40, teacher respondents reported that their schools had insufficient libraries, journals and educational games for learning (Mean = 1.62; SD = 0.52), (Mean = 1.55; SD = 0.82) and (Mean = 1.99; SD = 0.60) respectively. In addition, deputy principals reported in Table 41 that libraries, journals and educational games for learning had been insufficiently provided (Mean = 1.52; SD = 0.60), (Mean = 1.66; SD = 0.84) and (Mean = 2.09; SD = 0.90) respectively. This finding is in concurrence with Usman (2016) who established that library and reference materials were inadequately provided by most schools. Library and reference materials in general are the basic requirements for learning and its inadequacy poses a serious implication to achievement of teaching and learning outcomes. This study's findings infer that most schools were faced with inadequate libraries, journals and educational games. This suggests that meaningful learning that could go on once teachers depart from the classroom could have been

curtailed. This can compromise teachers' performance of instructional roles in secondary schools in Nandi East Sub-County, Kenya.

The teacher respondents further reported that their schools provided insufficient online learning resources for learning (Mean = 2.33; SD = 0.63). Provision of learning resources for academic projects was also inadequate (Mean = 1.77; SD = 0.72). Deputy Principals reported that provision of online learning resources and provision of learning resources for academic projects was insufficient (Mean = 2.40; SD = 0.72) and (Mean = 1.79; SD = 0.63) respectively. These findings indicate that learning resources were inadequately provided in secondary schools in Nandi East Sub County, Kenya. Provision of learning resources overall mean index was 1.82 with SD 0.53, and 1.72 with SD 0.69 for teachers and deputy principals respectively. These implies that there was insufficient provision of learning resources to be used by students in classroom, possibly compromising teachers' performance in secondary schools in Nandi East Sub-County, Kenya.

#### **4.4.5 Differences in Provision of Learning Resources by School Category**

T-test was performed to determine whether there exist statistically significant difference in provision of learning resources between boarding and day schools. The tests results are presented in Table 42 and 43.

**Table 42: Differences in Provision of Learning Resources by School Category  
(According to Teachers)**

<b>School Category</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>Df</b>	<b>t-value</b>	<b>ρ-value</b>
Boarding	70	1.90	0.45	122	0.179	0.769
Day	54	1.92	0.41			



**Table 43: Differences in Provision of Learning Resources by School Category  
(According to Deputy Principals)**

School Category	N	Mean	SD	Df	t-value	ρ-value
Boarding	8	2.05	0.49	28	0.237	0.680
Day	22	2.36	0.45			

The results of the T-test in Table 42 and 43 shows that provision of the learning resources was not statistically significantly different between day and boarding schools at  $\alpha = 0.05$ ,  $t(122)=0.179$ ,  $\rho = 0.769$  for teacher respondents and  $t(28)=0.237$ ,  $\rho = 0.680$  for deputy principals. These finding means that there was no significant variation in provision of learning resources between boarding and day schools in Nandi East Sub County, Kenya. This finding contradicts Gathuthi (2011) who established that boarding schools seemed to have provided better learning resources to their students than day schools.

#### **4.4.6 Relationship between Provision of Learning Resources and Effective Performance of Classroom Instructional Roles**

Computation of Pearson Product Moment Correlation Coefficient was carried out in order to find out relationship between provision of learning resources and effective performance of classroom instructional roles by teachers in secondary schools in Nandi East Sub- County, Kenya. Table 44 and 45 presents the strength and direction of the relationship.

**Table 44: Relationship between Provision of Learning Resources and Effective Performance of Classroom Instructional Roles (According to Teachers)**

		Provision of Learning Resources
<b>Performance of Classroom Instructional Roles</b>	Pearson Correlation	.631*
	Sig. (2-tailed)	.000
N		124

\*. Correlation is significant at the 0.05 level (2-tailed).

**Table 45: Relationship between Provision of Learning Resources and Effective Performance of Classroom Instructional Roles (According to Deputy Principals)**

		Deputy Principals
		Provision of Learning Resources
<b>Performance of Classroom Instructional Roles</b>	Pearson Correlation	.710*
	Sig. (2-tailed)	.007
	N	30

**\*. Correlation is significant at the 0.05 level (2-tailed).**

The findings in Table 44 and 45 show that there exist a positive and statistically significant relationship between provision of learning resources and effective performance of classroom instructional roles by teachers ( $r=0.631^*$ ,  $p<0.05$ ) and  $r=0.710^*$  ( $p<0.05$ ) for deputy principals in secondary schools in Nandi East Sub-county, Kenya. This finding is consistent with Mucai (2013) who established that learning resources could help teachers convey concepts which would have otherwise been abstract, adds diversity to an instructors teaching method and could help the learner in retention of information. This finding construes that teachers performance of classroom instructional roles could improve with provision of learning resources. Conversely; inadequate provision of learning resources could negatively affect teachers' performance of their roles.

#### **4.4.7 Relationship between Provision of Learning Resources and Effective Performance of Students' Evaluation Roles.**

Computation of Pearson Product Moment Correlation Coefficient was done to investigate relationship between provision of learning resources and effective performance of students' evaluation roles by teachers in secondary schools in Nandi East Sub- County, Kenya. The strength and direction of the relationship are presented in Table 46 and 47.

**Table 46: Relationship between Provision of Learning Resources and Effective Performance of Students' Evaluation Roles (According to Teachers)**

		Effective Performance of Students' Evaluation Roles
		Teachers
<b>Provision of Learning Resources</b>	Pearson Correlation	.251*
	Sig. (2-tailed)	.005
	N	124

\*. Correlation is significant at the 0.05 level (2-tailed).

**Table 47: Relationship between Provision of Learning Resources and Effective Performance of Students' Evaluation Roles (According to Deputy Principals)**

		Effective Performance of Students' Evaluation Roles
		Deputy principals
<b>Provision of Learning Resources</b>	Pearson Correlation	.433*
	Sig. (2-tailed)	.000
	N	30

\*. Correlation is significant at the 0.05 level (2-tailed).

The results in Table 46 and 47 shows that there exist a positive and statistically significant relationship between provision of learning resources and effective performance of students' evaluation roles by teachers ( $r=0.251^*$ ,  $\rho<0.05$ ) and deputy principals ( $r=0.433^*$ ,  $\rho<0.05$ ) in secondary schools in Nandi East Cub-county, Kenya. This finding corroborates Musau (2015) who established that evaluation resources can help teachers give students autonomy in learning and classroom evaluation activities. It can allow students to self-monitor and increase participation.

This finding suggests that effective performance of students evaluation roles by teachers can improve with provision of learning resources. Conversely, inadequate provision of such resources can negatively affect teachers' performance of students' evaluation roles.

#### 4.4.8 Relationship between Provision of Learning Resources and Effective Performance of Academic Advising Roles

Calculation of Pearson Product Moment Correlation Coefficient was carried out to find out relationship between provision of learning resources and effective performance of academic advising roles by teachers in secondary schools in Nandi East Sub- County, Kenya. The direction and strength of the relationship is presented in Table 48 and 49.

**Table 48: Relationship between Provision of Learning Resources and Effective Performance of Academic Advising Roles (According to Teachers)**

		Effective Performance of Academic Advising Roles
		Teachers
<b>Provision of Learning Resources</b>	Pearson Correlation	.305*
	Sig. (2-tailed)	.001
	N	124

\*. Correlation is significant at the 0.05 level (2-tailed).

**Table 49: Relationship between Provision of Learning Resources and Effective Performance of Academic Advising Roles (According to Deputy Principals)**

		Effective Performance of Academic Advising Roles
		Deputy principals
<b>Provision of Learning Resources</b>	Pearson Correlation	.511*
	Sig. (2-tailed)	.020
	N	30

\*. Correlation is significant at the 0.05 level (2-tailed).

The findings in Table 48 and 49 show that there exist a positive and statistically significant relationship between provision of learning resources and effective performance of academic advising roles by teachers ( $r=0.305^*$ ;  $p<0.05$ ) and deputy

principals ( $r=0.511^*$ ;  $\rho<0.05$ ) in secondary schools in Nandi East Sub-county, Kenya. This finding concurs with Naisujaki et al. (2017) who established that the use of learning materials accord a teacher an opportunity to offer as many mediums as possible.

These accords a teacher the use of group projects, creative presentations, and opportunity to presents lessons where students participate in tactile learning. This enables the teacher to further offer academic advisory services. This finding indicates that teachers' performance of academic advising roles can improve with provision of learning resources. In the contrary, inadequate provision of such resources can negatively affect teachers' performance of their roles.

#### **4.4.9 Relationship between Provision of Learning Resources and Effective Performance of Instructional Roles**

The Pearson Product Moment Correlation Coefficient was calculated in order to investigate relationship between provision of learning resources and effective performance of instructional roles by teachers in secondary schools in Nandi East Sub-County, Kenya. The strength and direction of the relationship are presented in Table 50 and 51.

**Table 50: Relationship between Provision of Learning Resources and Effective Performance of Instructional Roles (According to Teachers)**

		Effective Performance of Instructional Roles
		Teachers
<b>Provision of Learning Resources</b>	Pearson Correlation	.560*
	Sig. (2-tailed)	.000
	N	124

\*. Correlation is significant at the 0.05 level (2-tailed).

**Table 51: Relationship between Provision of Learning Resources and Effective Performance of Instructional Roles (According to Deputy Principals)**

		Effective Performance of Instructional Roles
		Deputy-principals
<b>Provision of Learning Resources</b>	Pearson Correlation	.520**
	Sig. (2-tailed)	0.003
	N	30

\*. Correlation is significant at the 0.05 level (2-tailed).

The findings in Table 50 and 51 shows that there exist a positive and statistically significant relationship between provision of learning resources and effective performance of instructional roles by teachers as reported by teachers ( $r=0.560^*$ ;  $\rho<0.05$ ) and deputy principals ( $r=0.520^*$ ;  $\rho<0.05$ ) in secondary schools in Nandi East Sub-Cub-county, Kenya. This finding is consistent with Nyaega (2011) who found out that learning resources enable a teacher to connect learners' with what happens in the classroom to their life. This can make learners stay interested as it can make the topic relevant to their daily lives. The content learnt through learning materials can be made challenging, accessible and relatable. This finding implies that teachers' performance of instructional roles can improve with provision of learning resources. Conversely inadequate provision of such resources can negatively affect teachers' performance of their roles.

#### **4.4.10 Hypothesis Testing**

The conclusion to either reject or fail to reject the null hypothesis was set at 0.05 alpha levels; that is reject  $H_0$ : if  $p<0.05$ , otherwise fail to reject the  $H_0$ : if  $p>0.05$  The null hypothesis being tested was  $H_{02}$ : There is no significant relationship between provision of learning resources and effective performance of classroom instructional roles by teachers in secondary schools in Nandi East sub-county, Kenya. In order to test this hypothesis, a correlation test between provision of learning resources and effective performance of classroom instructional roles by teachers was carried out. Table 52 and 53 shows the correlation test.

**Table 52: Relationship between Provision of Learning Resources and Effective Performance of Classroom Instructional Roles (According to Teachers)**

		Provision of Learning Resources
<b>Performance of Classroom Instructional Roles</b>	Pearson	.631*
	Correlation	
	Sig. (2-tailed)	.000
	N	124

\*. Correlation is significant at the 0.05 level (2-tailed).

**Table 53: Relationship between Provision of Learning Resources and Effective Performance of Classroom Instructional Roles (According to Deputy Principals)**

		Deputy Principals Provision of Learning Resources
<b>Performance of Classroom Instructional Roles</b>	Pearson	.710*
	Correlation	
	Sig. (2-tailed)	.007
	N	30

\*. Correlation is significant at the 0.05 level (2-tailed).

Pearson product moment correlation coefficient test yielded a result of ( $r=0.631^*$ ;  $\rho<0.05$ ) at alpha 0.05 level as shown in Table 52 for teachers and ( $r=0.710^*$ ;  $\rho<0.05$ ) at alpha 0.05 level and as shown in Table 53 for deputy principals. Consequently, the null hypothesis was rejected since the  $\rho$  value (0.000) is less than 0.05 alpha levels for teachers and  $\rho$  value (0.007) is less than 0.05 alpha levels for deputy principals. Therefore, a decision was made that there is a positive and statistically significant relationship between provision of learning resources and effective performance of classroom instructional roles by teachers in secondary schools in Nandi East Sub-County, Kenya.

This finding concurs with Orodho et al. (2013) who established that unavailability and/or inadequacy of learning resources was found to negatively affect teachers' lesson

delivery. Learning resources can help the teacher to focus on individual learner, hence foster academic discipline and attainment of better learning outcomes.

This finding suggests that provision of learning resources can significantly improve how teachers performed classroom instructional roles in Nandi East Sub-County, Kenya. This finding infers that teachers' performance of classroom instructional roles can improve with provision of learning resources. Contrarily inadequate provision of such resources could negatively affect teachers' performance of their roles.

Learning resources can help teachers' to supplement written or spoken words and enable them bring concepts to reality in a way that words cannot. Muchiri (2014) argues that learning resources can facilitate teachers' presentation of facts in condensed form, facilitates learning, takes care of large group of learners, and develops student motivation toward learning.

#### **4.5.1 Provision of Students' Evaluation Resources for Effective Performance of Instructional Roles**

This section presents data analysis to address the third objective of the study. The objective was to assess the relationship between provision of students' evaluation resources and effective performance of students' evaluation roles by teachers in secondary schools in Nandi East Sub-County, Kenya. Descriptive analysis of the relationship between provision of students' evaluation resources and effective performance of students' evaluation roles by teachers in secondary schools in Nandi East Sub-County, Kenya was done. Percentages, means and T-tests were computed. Analysis of variance was done and Pearson Product Moment Correlations Coefficient was computed, analyzed and interpretations done.

#### **4.5.2 Descriptive Analysis of Relationship between Provision of Student Evaluation Resources and Effective Performance of Instructional Roles**

Descriptive analysis of relationship between provision of students' evaluation resources and effective performance of students' evaluation roles by teachers in secondary schools in Nandi East Sub-County, Kenya was done according to teachers and deputy principals. The results are presented in Table 54 and 55.



**Table 54: Provision of Student Evaluation Resources (According to Teachers)**

Statement	Teachers (n=124)			
	SD %	D %	A %	SA %
My school provides teachers with adequate time for evaluation.	6.5	49.2	41.9	2.4
My school provides students with adequate rooms for examination.	45.2	42.7	11.3	0.8
My school provides teachers with Examination analysis software.	30.6	55.6	11.3	2.4
My school provides teachers with printers.	15.3	61.3	2.4	21.0
My school provides teachers with adequate photocopying papers.	40.3	45.2	10.5	4.0
My school provides teachers with computers.	42.7	46.8	8.9	1.6
My school provides teachers with photocopiers.	41.9	47.6	8.1	2.4
My school provides adequate writing evaluation materials.	50.0	41.1	5.6	3.2

**Key: SD= Strongly Disagree; D=Disagree; A= Agree; SA=Strongly, Agree; %=Percentages**

**Table 55: Provision of Student Evaluation Resources (According to Deputy Principals)**

Statement	Deputy Principals (n=30)			
	SD %	D %	A %	SA %
My school provides teachers with adequate time for evaluation.	56.7	16.7	10.3	16.3
My school provides students with adequate rooms for examination.	30.0	43.3	16.7	10.0
My school provides teachers with Examination analysis software.	46.7	26.7	23.3	3.3
My school provides teachers with printers.	26.7	26.7	20.3	26.3
My school provides teachers with adequate photocopying papers.	33.3	33.3	26.7	6.7
My school provides teachers with computers.	23.3	50.0	16.7	10.0
My school provides teachers with photocopiers.	36.7	30.0	13.3	10.0
My school provides adequate writing evaluation materials.	36.7	20.0	13.3	30.0

**Key: SD= Strongly Disagree; D=Disagree; A= Agree; SA=Strongly, Agree; %=Percentages**

The findings in Table 54 show that majority, a total of (55.7%) of teacher respondents indicated that their schools did not provide adequate time for teachers' performance of evaluation roles. Moreover a total of 73.4 per cent of deputy principals either strongly disagreed or disagreed that their schools provided adequate time for evaluation of students as shown in Table 55. A significant number, a total of (44.3%) teacher respondents indicated that their schools provided adequate time for students' evaluation. This finding is consistent to that of Otieno (2013) who established that reasonable time need to be provided for students' evaluation yet had not been provided adequately.

A total of 87.9 per cent, a significant number of teacher respondents either strongly disagreed or disagreed that there were adequate rooms for use during examination. Besides, a total of 73.3 per cent of deputy principals either strongly disagreed or disagreed that their schools provided adequate rooms to be used during evaluation of students in secondary schools in Nandi East Sub County, Kenya. Inadequate rooms for use during students' evaluation would present a challenge to teachers' performance of examination invigilation roles thereby compromising integrity of examination. This could significantly affect teachers' performance of students' evaluation roles.

A majority, total of 91.1 per cent of teacher respondents, either strongly disagreed or disagreed that there were adequate writing materials for use during evaluation. Additionally, a majority (total of 56.7%) of deputy principals either strongly disagreed or disagreed that their schools provided adequate writing materials for evaluation of students. This finding concurs with Nturibi (2015) who established that there were inadequate resources during assessment and evaluation of students which can compromise integrity of results. The finding from the study implies that there were inadequate writing materials for teacher's use in performance of student's evaluation in secondary schools in Nandi East Sub-County, Kenya. Inadequate students' evaluation resources can have a negative impact on teachers' performance of evaluation roles.

Provision of examination analysis software was also not sufficiently provided with a majority (total of 86.2%) of the teacher respondents either strongly disagreeing or disagreeing that their schools had provided it. In addition to that, 46.7 per cent and 26.7 per cent of deputy principals strongly disagreed and disagreed respectively that their

schools provided examination analysis software. Provision of printers was also indicated by a total of 76.6 per cent of the teacher respondents as not being sufficiently provided. A total of 85.5 per cent of teacher respondents either strongly disagreed or disagreed with schools providing adequate photocopying papers.

A further total of 89.5 per cent of teacher respondents either strongly disagree or disagreed that there was adequate provision of computers for evaluation. Likewise, a total of 63.3 per cent of deputy principals either strongly disagreed or disagreed that their schools provided adequate computers to be used in evaluation of students. These findings suggest that majority of the schools had not embraced use of ICT resources in students evaluation. This finding is in agreement with Tanui (2012) who avers that Computers play a critical role in evaluation of students by teachers but most schools were not adequately using it for purposes of evaluation. The implication of this finding is that most teachers had not been provided with the necessary ICT resources to effectively perform student evaluation roles in secondary schools in Nandi East Sub County, Kenya. Teachers can use computers to set, type-set, store examination and access evaluation materials. The examination analysis software can accord them a more accurate, faster and more presentable output. These findings therefore mean that this opportunity can be lost if schools inadequately provide examination analysis software.

The findings suggest that more schools had not invested in ICT resources for teachers use in evaluation of students in secondary schools in Nandi East Sub County, Kenya. According to Omariba (2012), the use of ICT resources in evaluation analysis can improve teachers processing of examination results and increase teacher- efficiency in performance of evaluation role. It can be used further in designing practical and assignments, structuring discussions and writing test items. The use of these ICT resources can enable teachers to improve performance in students' evaluation. ICT integration in examination and test development, processing and communication of results could accord teachers a new frontier of knowledge as well as automation of communication of results to parents.

### 4.5.3 Provision of Students' Evaluation Resources (Mean)

Mean of provision of evaluation resources in secondary schools in Nandi East Sub County, Kenya was calculated. This statistical analysis was to further clarify the independent variable. The results are presented in Table 56 and 57.

**Table 56: Provision of Students' Evaluation Resources (Mean According to Teachers)**

Statement	N	Mean	SD
My school provides adequate writing evaluation materials.	124	1.62	.74
My school provides teachers with photocopiers.	124	1.71	.72
My school provides teachers with computers.	124	1.70	.70
My school provides teachers with adequate photocopying papers.	124	1.78	.80
My school provides teachers with printers.	124	2.29	.97
My school provides teachers with Examination analysis software.	124	1.85	.71
My school provides students with adequate rooms for examination.	124	1.68	.70
My school provides teachers with adequate time for evaluation.	124	2.40	.65
Student Evaluation Resources	124	1.88	.43
Valid N (list wise)	124		

**Key: Mean 1 to 2.4 =Insufficient, Mean 2.5 to 4 = Sufficient**

**Table 57: Provision of Students' Evaluation Resources (Mean According to Deputy Principals)**

Statement	N	Mean	SD
My school provides adequate writing evaluation materials.	30	1.78	.77
My school provides teachers with photocopiers.	30	1.71	.81
My school provides teachers with computers.	30	1.70	.97
My school provides teachers with adequate photocopying papers.	30	1.62	.71
My school provides teachers with printers.	30	2.05	.78
My school provides teachers with Examination analysis software.	30	1.79	.69
My school provides students with adequate rooms for examination.	30	1.71	.60
My school provides teachers with adequate time for evaluation.	30	2.39	.72
Student Evaluation Resources	30	1.90	.40
Valid N (list wise)	30		

**Key: Mean 1 to 2.4 =Insufficient, Mean 2.5 to 4 = Sufficient**

Computation of a mean for each item and its interpretation in an appropriate Likert mean range allowed the researcher to rate the responses on provision of the evaluation resource to be either sufficient or insufficient as shown in Table 56 and 57.

Respondents indicated in Table 56 and Table 57 that their schools provided teachers with insufficient writing materials for evaluation (Mean = 1.62; SD =0.74) and (Mean = 1.78; SD =0.77), insufficient photocopiers (Mean 1.7; SD= 0.72) and (Mean = 1.71; SD =0.81). Insufficient computers (Mean = 1.69; SD =0.70) and (Mean = 1.70; SD =0.97), insufficient printers (Mean = 2.29; SD =0.97) and (Mean = 2.05; SD =0.78), and insufficient examination analysis software (Mean 1.85; SD = 0.70) and (Mean = 1.79; SD =0.69). The average mean for provision of students' evaluation resources stood at a Mean of 1.88 and SD of 0.43 for teachers and Mean of 1.90 and SD of 0.40 for deputy principals implying that there was insufficient provision of students' evaluation resources to be used by teachers in performance of students' evaluation roles in Nandi East Sub-County, Kenya.

Consequently, inadequate provision of writing evaluation materials, photocopying papers, photocopiers and time could have affected teacher's performance of students' evaluation roles. The findings suggests that Setting, moderating, typing and printing and even securing of evaluation papers could be compromised by the absence of these instructional resources. This could impact negatively on teachers' effectiveness in performance of students' evaluation roles. As argued by Ayoo (2016) the use of evaluation resources in assessments and evaluation of students by teachers could enable them identify topics and concepts that are difficult to students and develop responsive teaching strategies.

#### **4.5.4 Differences in Provision of Students' Evaluation Resources between Boarding and Day Schools.**

T-test was conducted to establish whether there exist statistically significant mean difference in provision of students' evaluation resources between boarding and day schools in Nandi East Sub-County, Kenya. The test results are presented in Table 58 and 59.

**Table 58: Differences in Provision of Students' Evaluation Resources by School Category (According to Teachers)**

School Category	N	Mean	SD	Df	t-value	$\rho$ -value
Boarding	70	1.88	0.39	122	-0.118	0.906
Day	54	1.88	0.48			

**Table 59: Differences in Provision of Students' Evaluation Resources by School Category (According to Deputy Principals)**

School Category	N	Mean	SD	Df	t-value	$\rho$ -value
Boarding	8	1.96	0.48	28	-0.222	0.793
Day	22	1.92	0.52			

The results of T-test in Table 58 and Table 59 shows that provision of students' evaluation resources was not statistically significantly different between Boarding and Day schools at  $\alpha = 0.05$ ,  $t(122) = -0.118$ ,  $\rho = 0.906$  and  $\alpha = 0.05$ ,  $t(28) = -0.222$ ,  $\rho = 0.793$ . These findings contradict that of Nturibi (2015), who found out that boarding schools seemed to have had better evaluation materials than day schools. This finding infers that provision of students' evaluation resources did not differ between boarding and day schools in secondary schools in Nandi East Sub County, Kenya. This finding implies that provision of students' evaluation resources was not statistically significantly affected by schools either being boarding or day in the Sub-County.

#### **4.5.5 Performance of Students Evaluation Roles**

This section presents data analysis on teachers' performance of students' evaluation roles in secondary schools in Nandi East sub-county, Kenya. The results are presented in Table 60 and 61.

**Table 60: Performance of Students' Evaluation Roles (According to Teachers)**

Statement	Teachers(n=124)			
	NE	LE	E	VE
	(%)	(%)	(%)	(%)
Giving Timely feedback to parents on students' achievement in exams.	42.7	50.8	6.5	0.0
Regular invigilation of Exams	53.2	42.7	3.2	0.8
Regular marking of class exercises	30.6	57.3	9.7	2.4
Timely analysis of results	16.9	60.5	4.0	18.5
Timely marking of exams	41.1	44.4	9.7	4.8
Timely setting of exams	68.5	28.2	2.4	0.8
Timely marking of CATs	64.5	29.8	4.0	1.6
Regularly Setting CATs	58.1	37.1	2.4	2.4

**Key: NE=Not Effective, LE=Less Effective, E=Effective, VE=Very effective  
%=Percentages;**

**Table 61: Performance of Students' Evaluation Roles (According to Deputy Principals)**

Statement	Deputy Principals(n=30)			
	NE	LE	E	VE
	(%)	(%)	(%)	(%)
Giving Timely feedback to parents on students' achievement in exams.	36.7	33.3	13.3	16.7
Regular invigilation of Exams	43.3	20.0	6.7	30.0
Regular marking of class exercises	50.0	33.3	6.7	10.0
Timely analysis of results	33.3	36.7	23.3	6.7
Timely marking of exams	33.3	36.7	13.3	16.7
Timely setting of exams	13.3	50.0	23.7	13.0
Timely marking of CATs	26.7	33.3	16.7	23.3
Regularly Setting CATs	16.7	43.3	23.3	16.7

**Key: NE=Not Effective, LE=Less Effective, E=Effective, VE=Very Effective  
%=Percentages;**

The findings in Table 60 shows that a total of 83.5 per cent of teacher respondents were either not effective or less effective in giving timely feedback to parents on students' achievement. From Table 61 a total of 70 per cent of the deputy principals indicated that teachers were either not effective or less effective in giving timely feedback to parents on student's achievement. These finding infers that teachers had been ineffective in ensuring that parents or guardians get feedback on how their children were progressing academically in Nandi East Sub-County, Kenya. As opined by Ayoo, (2016), the objective of giving feedback to parents and guardians on students' evaluation include obtaining frequent feedback on teachers' instruction. Giving feedback to parents enable parents get regular insight on student learning, solicit teachers' opinion and assess the subject at the end of the term.

The findings further indicated that a majority, (total of 95.9%) of teacher respondents were either not effective or less effective in regularly invigilating exams in schools in Nandi East Sub-County, Kenya. Beside, a total of 63.3 per cent of the deputy principals indicated that teachers were either not effective or less effective in in regularly invigilating exams in Nandi East Sub-County. Ineffectiveness in examination invigilation could suggest that students could not have been trained on how best to conduct themselves during examination. This could have exposed them to cheating in external and internal examinations.

On regularly marking of class exercises, a total of 87.9 per cent of teacher respondents were either not effective or less effective in performance of this role. Moreover, the findings show that a significant (83.3%) of the deputy principals indicated that teachers were either not effective or less effective in regularly marking of class exercises. These finding shows that the majority of teachers were ineffective in marking and assessment of students during classwork in Nandi East Sub-County, Kenya. This finding is consistent with Musau, (2015) who established that some teachers were ineffective in use of some evaluation methods. These deny teachers an opportunity to support and use a wide range of assessment methods.

The findings further shows that a total of 77.4 per cent of teacher respondents were ineffective in timely analysis of results. Additionally, 33.3 per cent and 36.7 per cent of the deputy principals indicated that teachers were not effective and less effective



respectively in timely analysis of results in secondary schools within Nandi East Sub-County, Kenya. On timely marking of exams, a total of 85.5 per cent of teacher respondents reported that they were either not effective or less effective. In addition to that, a total of 70.0 per cent of the deputy principals said that teachers were either not effective or less effective in timely marking of exams. The finding implies that teachers were ineffective in marking and analysing exams in secondary schools in Nandi East Sub-County, Kenya.

On timely Marking of CATs, 64.5 per cent and 29.8 per cent of teacher respondents reported that they were not effective and less effective respectively. Likewise, 26.7 per cent and 33 per cent of the deputy principals indicated that teachers were not effective and less effective respectively in timely marking of CATs in secondary schools in Nandi East Sub-County, Kenya. This construes that majority of teachers were ineffective in performance of this role in Nandi East Sub-County. This finding is supported by Murithi (2015) who argue that by marking CATs and Examinations, teachers could learn about students' prior knowledge to establish key concepts learnt, facts, or major ideas but was poorly done. Teacher ineffectiveness in marking of examinations and CATs could infer that the students could not have been given the rightful marks and possibly the right decisions may not have been made.

Majority of teacher respondents', a total of 96.7 per cent said they were either not effective or less effective in regularly setting of exams. Either, a total of 63.3 per cent of the deputy principals reported that teachers were either not effective or less effective in regularly setting exams. On regularly setting of CATS, a further 96.2 per cent of teacher respondents said they were either not effective or less effective. Furthermore, a total of 60 per cent of the deputy principals indicated that teachers were either not effective or less effective in on regularly setting CATs. This finding suggests that most teachers in Nandi East Sub-County, Kenya were ineffective in setting of CATs and Examinations. Consequently, the quality of examinations and CATs could have been compromised in Nandi East Sub-County, Kenya. In the contrary, this could have enabled teachers' to regularly asses what they do in the classroom and establish weather their students were learning or not.

#### 4.5.6 Performance of Students' Evaluation Roles by Teachers

Mean of effective performance of students' evaluation roles in secondary schools in Nandi East Sub County, Kenya was computed. The purpose of this statistical analysis was to further examine the dependent variable. The results are presented in Table 62 and 63.

**Table 62: Performance of Students' Evaluation Roles by Teachers (According to Teachers)**

Statement	N	Mean	SD
Regularly Setting CATs	124	1.49	.67
Timely Marking CATs	124	1.43	.65
Timely Setting of exams	124	1.35	.57
Timely Marking of exams	124	1.78	.81
Timely Analysis of results	124	2.24	.95
Regular Marking of class exercises	124	1.84	.69
Regularly invigilating exams	124	1.52	.60
Giving Timely feedback to parents on students' achievement.	124	1.64	.60
Performance of Students' Evaluation Roles Overall Index	124	1.66	.42
Valid N (list wise)	124		

**Key: Mean 1 to 2.4 =Ineffective, Mean 2.5 to 4 = Effective**

**Table 63: Performance of Students' Evaluation Roles by Teachers (According to Deputy Principals)**

Statement	N	Mean	SD
Regularly Setting CATs	30	1.66	.77
Timely Marking CATs	30	1.55	.61
Timely Setting of exams	30	1.24	.68
Timely Marking of exams	30	1.67	.92
Timely Analysis of results	30	2.13	.90
Regular Marking of class exercises	30	1.73	.69
Regularly invigilating exams	30	1.61	.63
Giving Timely feedback to parents on students' achievement.	30	1.75	.60
Performance of Students' Evaluation Roles Overall Index	30	1.77	.69
Valid N (list wise)	30		

**Key: Mean 1 to 2.4 =Ineffective, Mean 2.5 to 4 = Effective**

Computation of a mean for each item and its interpretation in an appropriate Likert mean range allowed the researcher to rank the responses on provision of the students' evaluation resource to be either effective or ineffective. The findings in Table 62 show

that respondents performance of regular setting CATS (Mean =1.49; SD = 0.67) timely marking of CATS (Mean = 1.43; SD = 0.65), timely setting of exams (Mean = 1.35; SD = 0.57) and timely marking of exams (Mean = 1.78; SD = 0.81) as ineffectively performed. These findings are also corroborated by deputy principals findings that show ineffective performance in regular setting CATS (Mean =1.24; SD = 0.68) timely marking of CATS (Mean = 1.55; SD = 0.61), timely setting of exams (Mean = 1.24; SD = 0.68) and timely marking of exams (Mean = 1.67; SD = 0.92) in Table 63. The findings in Table 62 further show that teachers were ineffective in regularly marking class exercises (Mean =1.84; SD =0.69), regular invigilation of exams (Mean = 1.52; SD = 0.60) and giving timely feedback to parents on students' academic achievements (Mean = 0.60). Timely analysis of results was also not effectively done (Mean = 2.24; SD = 0.95) as reported by teachers and Mean = 2.13; SD = 0.90 by deputy principals.

In general, performance of evaluation roles in Nandi East sub-county, Kenya was ineffective with an overall Mean of 1.66 and standard deviation of 0.42 according to teachers and Mean =1.77 , SD = 0.69 according to deputy principals. This indicates that teachers were ineffective in regularly setting, marking, and invigilation of examination and assessments in Nandi East Sub-County, Kenya. The findings further show that teachers were also ineffective in giving timely feedback to parents and analysis of exams. Teachers' effectiveness in performance of students' evaluation roles could have helped them identify which students were keeping up and which needed help. It could also help students to identify areas on which they needed to work on while giving an instructor a good indication of where to improve.

#### **4.5.7 Differences in Effective Performance of Students' Evaluation Roles by**

##### **Gender**

T-test was carried out to demonstrate whether there was a statistical significant difference between male and female respondents on effective performance of students' evaluation roles by teachers in secondary schools in Nandi East Sub County Kenya. This test was done at 0.05 alpha levels. The results of T-test are presented in Table 64 and 65.

**Table 64: Differences in Effective Performance of Students' Evaluation roles by Gender**

Gender	N	Mean	SD	Df	t-value	$\rho$ -value
Male	51	1.71	0.45	122	1.077	0.284
Female	73	1.63	0.40			

**Table 65: Differences in Effective Performance of Students' Evaluation roles by Gender (According to Deputy Principals)**

Gender	N	Mean	SD	Df	t-value	$\rho$ -value
Male	30	1.88	0.49	28	.999	0.109
Female	30	1.89	0.47			

The findings in Table 64 and 65 show that the differences in effective performance of students' evaluation roles by teachers between male and female respondents was not statistically significant at  $\alpha = 0.05$ ,  $t(122) = 1.077$ ,  $\rho > 0.05$ ) and  $t(28) = 0.999$ ,  $\rho > 0.05$ ) as reported by teachers and deputy principals respectively. This finding corroborates Koros (2014) which concluded that the way teachers perform assessment role was not significantly affected by them being male or female. The finding suggests that teachers' effectiveness in performance of students' evaluation roles was not statistically significantly different between male and female respondents in Nandi East Sub-County, Kenya. This finding signifies that teachers' performance of students' evaluation role was not influenced by the teacher being either male or female.

#### **4.5.8 Differences in Performance of Students' Evaluation Roles by School**

##### **Category**

T-test was conducted to find out whether there was a statistically significant difference between teacher respondents in boarding and day schools with respect to teachers' performance of students' evaluation roles. This was done at 0.05 alpha levels. The findings are presented in Table 66 and 67.

**Table 66: Differences in Effective Performance of Students' Evaluation Roles by School Category (According to Teachers)**

School Category	N	Mean	SD	Df	t-value	$\rho$ -value
Boarding	70	1.65	0.43	122	-0.276	0.783
Day	54	1.67	0.42			

**Table 67: Differences in Effective Performance of Students' Evaluation Roles by School Category (According to Deputy Principals)**

School Category	N	Mean	SD	Df	t-value	$\rho$ -value
Boarding	8	1.77	0.51	28	-0.431	0.227
Day	22	1.79	0.50			

The findings in table 66 and 67 by teachers and deputy principals respectively show that the difference in effective performance of students' evaluation roles by respondents teaching in boarding and day schools was not statistically significant at  $\alpha = 0.05$ ,  $t(122) = -0.276$ ,  $\rho > 0.05$  and  $t(28) = -0.431$ ,  $\rho > 0.05$ ). This finding contradicts Eya (2012) finding who established that teachers' performance of evaluation roles in boarding schools were significantly different with those in day schools. He further explained that this could have been influenced by such teachers living within the school compound and probably had more student-teacher contact hours. The findings in this study show that teachers' performance of students' evaluation roles was not statistically significantly different between teachers teaching in boarding and day schools. This means that the category of the school where teachers taught, either being boarding or day did not significantly affect teachers' performance of students' evaluation roles in Nandi East Sub-County, Kenya.

#### **4.5.9 Differences in Effective Performance of Students' Evaluation Roles by Work Experience**

Analysis of variance was conducted to determine whether there exist statistically significant differences in effective performance of students' evaluation roles with respect to respondents' work experience. The findings of this analysis are presented in Table 68 and 69.

**Table 68: Analysis of Variance of Performance of Students' Evaluation Roles by Work Experience (According to Teachers)**

	<b>Sum Squares</b>	<b>of Df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	.277	3	.092	.506	.679
Within Groups	21.859	120	.182		
<b>Total</b>	<b>22.136</b>	<b>123</b>			

**Table 69: Analysis of Variance of Performance of Students' Evaluation Roles by Work Experience (According to Deputy Principals)**

	<b>Sum Squares</b>	<b>of Df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	.333	3	.106	.499	.703
Within Groups	22.701	26	.134		
<b>Total</b>	<b>23.034</b>	<b>29</b>			

Analysis of variance of differences on effective performance of students' evaluation role by gender in Table 68 and 69 indicated that there was no statistically significant difference in regard to performance of students' evaluation roles by work experience at  $\alpha=0.05$  level  $f(3,120) = 0.506$ ,  $p=0.679$  from teachers and  $f(3,26) = 0.499$ ,  $p=0.703$  from deputy principals. This implies that teaching experience of the respondents did not significantly affect performance of students' evaluation roles in secondary schools in Nandi East Sub-County, Kenya. The finding further shows that there is no statistically significant difference in teachers' performance of students' evaluation roles between teachers with different teaching experience and among those with different teaching experience in the sub county.

#### **4.5.10 Relationship between Provision of Students' Evaluation Resources and Effective Performance of Students' Evaluation Roles**

Pearson Product Moment Correlation Coefficient was computed in order to determine relationship between provision of students' evaluation resources and effective performance of students' evaluation roles by teachers in secondary schools in Nandi East Sub- County, Kenya. The results of the relationship and direction between the variables are presented in Table 70 and 71.

**Table 70: Relationship between Provision of Students Evaluation Resources and Effective Performance of Students Evaluation Roles (According to Teachers)**

	Provision of Students Evaluation Resources
	Teachers
Performance of Pearson Correlation	.460*
Students Evaluation Sig. (2-tailed)	.000
Roles by Teachers N	124

\*. Correlation is significant at the 0.05 level (2-tailed).

**Table 71: Relationship between Provision of Students Evaluation Resources and Effective Performance of Students Evaluation Roles (According to Deputy Principals)**

	Provision of Students Evaluation Resources
	Deputy principals
Performance of Pearson Correlation	.730*
Students Evaluation Sig. (2-tailed)	.009
Roles by Teachers N	30

\*. Correlation is significant at the 0.05 level (2-tailed).

The findings from Table 70 and 71 shows that there exist a positive and statistically significant relationship between provision of students' evaluation resources and effective performance of students' evaluation roles by teachers as reported by teachers ( $r=0.460^*$ ;  $\rho<0.05$ ) and ( $r = 0.730^*$ ;  $\rho<0.05$ ) as reported by deputy principals. This finding concurs with Musau (2015) who established that teacher preparation in prudent utilization of physical resources is a pre-requisite to effective provision of effective evaluation services in schools. The finding infers that when students' evaluation resources were provided to teachers, their performance in students' evaluation could improve in Nandi East Sub-County secondary schools.

This finding suggests that provision of students' evaluation resources could improve teacher's performance of students' evaluation roles whereas inadequate students' evaluation resources could negatively affect teacher's performance of this role.

#### **4.5.11 Relationship between Provision of Students' Evaluation Resources and Effective Performance of Classroom Instructional Roles by Teachers**

Pearson Product Moment Correlation Coefficient was computed in order to establish relationship between provision of students' evaluation resources and effective performance of classroom instructional roles by teachers in secondary schools in Nandi East Sub- County, Kenya. The results of the relationship and direction between the variables are presented in Table 72 and 73.

**Table 72: Relationship between Provision of Students Evaluation Resources and Effective Performance of Classroom Instructional Roles by Teachers (According to Teachers)**

		Effective Performance of Classroom Instructional Roles
		Teachers
<b>Provision of Students' Evaluation Resources</b>	Pearson Correlation	.258*
	Sig. (2-tailed)	.004
	N	124

\*. Correlation is significant at the 0.05 level (2-tailed).

**Table 73: Relationship between Provision of Students Evaluation Resources and Effective Performance of Classroom Instructional Roles by Teachers (According to Deputy Principals)**

		Effective Performance of Classroom Teaching Roles
		Deputy principals
<b>Provision of Students' Evaluation Resources</b>	Pearson Correlation	.346*
	Sig. (2-tailed)	.030
	N	30

\*. Correlation is significant at the 0.05 level (2-tailed).



The findings in Table 72 and 73 shows that there exist a positive and statistically significant relationship between provision of students' evaluation resources and effective performance of classroom instructional roles by teachers ( $r=.258^*$ ;  $p<0.05$ ) and ( $r=.346^*$ ;  $p<0.05$ ) according to deputy principals. This finding corroborate that of Moloko and Mlauli (2014) who found out that students' evaluation materials could significantly increase student achievement by supporting student learning. They argue for instance that a worksheet may provide a student with important opportunities to practice a new skill gained in class. This process aids in the learning process by allowing students to explore knowledge independently as well as providing repetition.

The finding suggests that when students' evaluation resources were provided to teachers, their performance in classroom instruction also improved in Nandi East Sub-County secondary schools. This finding infers that provision of students' evaluation resources could improve teacher's performance of classroom instruction roles whereas inadequate resources could negatively affect teacher's performance of this role.

#### **4.5.12 Relationship between Provision of Students' Evaluation Resources and Effective Performance of Academic Advising Roles by Teachers**

Pearson Product Moment Correlation Coefficient was computed in order to find out relationship between provision of students' evaluation resources and effective performance of academic advising roles by teachers in secondary schools in Nandi East Sub- County, Kenya. The results of the relationship and direction between the variables are presented in Table 74 and 75.

**Table 74: Relationship between Provision of Students Evaluation Resources and Effective Performance of Academic Advising Roles by Teachers (According to Teachers)**

		<b>Effective Performance of Academic Advising roles</b>
		<b>Teachers</b>
<b>Provision of Students' Evaluation Resources</b>	Pearson Correlation	<b>.206*</b>
	Sig. (2-tailed)	<b>.022</b>
	N	<b>124</b>

**\*. Correlation is significant at the 0.05 level (2-tailed).**

**Table 75: Relationship between Provision of Students Evaluation Resources and Effective Performance of Academic Advising Roles by Teachers (According to Deputy Principals)**

		Effective Performance of Academic Advising roles
		Deputy principals
<b>Provision of Students' Evaluation Resources</b>	Pearson Correlation	<b>.312*</b>
	Sig. (2-tailed)	<b>.008</b>
	N	<b>30</b>

**\*. Correlation is significant at the 0.05 level (2-tailed).**

The findings from Table 74 and 75 shows that there exist a positive and statistically significant relationship between provision of students' evaluation resources and effective performance of academic advising roles by teachers ( $r= 0.206^*$ ;  $\rho<0.05$ ) and ( $r= 0.312^*$ ;  $\rho<0.05$ ) for teachers and deputy principals respectively. This finding concurs with Omariba, et al (2016) who established that evaluation resources can increase students' internal motivation for learning and help sustain learning. It can make learners have prolonged interest to study. As students revise in preparation for evaluation, teachers can use the opportunity to encourage them on best revision and learning practices.

The finding therefore implies that when students' evaluation resources were provided to teachers, their performance in academic advising could improve in Nandi East Sub-County secondary schools. This finding further suggests that provision of students' evaluation resources could improve teacher's performance of academic advising roles whereas inadequate students' evaluation resources could negatively affect teacher's performance of this role.

#### **4.5.13 Relationship between Provision of Students' Evaluation Resources and Effective Performance of Instructional Roles by Teachers**

Pearson Product Moment Correlation Coefficient was computed in order to investigate relationship between provision of students' evaluation resources and effective performance of instructional roles by teachers in secondary schools in Nandi East Sub-

County, Kenya. The strength and direction of the relationship between the variables is presented in Table 76 and 77.

**Table 76: Relationship between Provision of Students’ Evaluation Resources and Effective Performance of Instructional Roles by Teachers (According to Teachers)**

		Effective Performance of instructional Roles
		Teachers
<b>Provision of Students’ Evaluation Resources</b>	Pearson Correlation	.439*
	Sig. (2-tailed)	.000
	N	124

\*. Correlation is significant at the 0.05 level (2-tailed).

**Table 77: Relationship between Provision of Students’ Evaluation Resources and Effective Performance of Instructional Roles by Teachers (According to Deputy Principals)**

		Effective Performance of instructional Roles
		Deputy-principals
<b>Provision of Students’ Evaluation Resources</b>	Pearson Correlation	0.571**
	Sig. (2-tailed)	0.001
	N	30

\*. Correlation is significant at the 0.05 level (2-tailed).

The findings in Table 76 and 77 shows that there exist a positive and statistically significant relationship between provision of students’ evaluation resources and effective performance of instructional roles as observed by teachers ( $r= 0.439^*$ ;  $p<0.05$ ) and by deputy principals( $r= 0.571^{**}$ ;  $p<0.05$ ). This finding is in concurrence to Omariba (2012) who established that the use of varied evaluation resources can enable teachers’ improve lesson delivery in the classroom and can assists teachers in differentiation of teaching methods.

The finding implies that when students' evaluation resources were provided to teachers, their instructional performance could improve in Nandi East Sub-County secondary schools. This finding infers that provision of students' evaluation resources could improve teacher's performance of instructional roles whereas inadequate resources could negatively affect teacher's performance of this role.

#### 4.5.14 Hypothesis Testing

The decision to either reject or fail to reject the null hypothesis was set at 0.05 alpha levels; that is reject  $H_0$ : if  $p < 0.05$ , otherwise fail to reject the  $H_0$ :  $p > 0.05$

The null hypothesis being tested was **H<sub>03</sub>**: There is no significant relationship between provision of students' evaluation resources and effective performance of students' evaluation roles by teachers in secondary schools in Nandi East Sub-County, Kenya. In order to test this hypothesis, a correlation test between provision of students' evaluation resources and effective performance of instructional roles by teachers was done. The correlation test is shown on Table 78 and 79.

**Table 78: Relationship between Provision of Students Evaluation Resources and Effective Performance of Students Evaluation Roles (According to Teachers)**

		Provision of Students Evaluation Resources
		Teachers
Performance of Students Evaluation Roles by Teachers	Pearson Correlation	.460*
	Sig. (2-tailed)	.000
	N	124

\*. Correlation is significant at the 0.05 level (2-tailed).

**Table 79: Relationship between Provision of Students Evaluation Resources and Effective Performance of Students Evaluation Roles (According to Deputy Principals)**

		Provision of Students Evaluation Resources
		Deputy principals
Performance of Students Evaluation Roles by Teachers	Pearson Correlation	.730*
	Sig. (2-tailed)	.009
	N	30

\*. Correlation is significant at the 0.05 level (2-tailed).

Pearson Product Moment Correlation coefficient test yielded a result of  $r= 0.460^*$ ;  $\rho < 0.05$  at alpha 0.05 level as shown in Table 78 for teachers and  $r= 0.730^*$ ;  $\rho < 0.05$  at alpha 0.05 level as shown in Table 79 for deputy principals. The null hypothesis was rejected since the  $\rho$  value (0.000) is less than 0.05 alpha levels for teachers and  $\rho$  value (0.009) is less than 0.05 alpha levels for deputy principals. Consequently a decision was made that there is a positive and statistically significant relationship between provision of students' evaluation resources and effective performance of students' evaluation roles by teachers in secondary schools in Nandi East Sub-County, Kenya. This finding is consistent with Zuljan and Zuljan (2012) who established that provision of teaching and evaluation resources for use during teaching and evaluation had a positive effect on teachers' performance in teaching. The implication of this finding is that students' evaluation performance by teachers could have significantly improved when they were provided with the required students' evaluation resources in Nandi East Sub-County, Kenya. The use of a variety and a wide range of assessment materials and resources could enable teachers to stimulate students thinking especially in practical and project work, and support students learning. As Wambu and Fisher (2015) established, a view shared by the researcher, Provision of students' evaluation resources may further enable teachers to widen the use of formal and informal assessments and evaluation. It could also enable them monitor learner progress, diagnose learning gaps and finally determine the cause of action to take.

#### **4.6.1 Provision of Academic Advising Resources for Effective Performance of Instructional Roles by Teachers**

This section presents data analysis to address the fourth objective of the study. The objective was to establish the relationship between provision of academic advising resources and effective performance of academic advising roles by teachers in secondary schools in Nandi East Sub-County, Kenya. Descriptive analysis of relationship between provision of academic advising resources and effective performance of academic advising roles by teachers was done. Percentages, means and T-tests were computed. Analysis of variance was done and Pearson Product Moment Correlation Coefficient was computed, analyzed and interpretations done.

#### 4.6.2 Descriptive Analysis of Provision of Academic Advising Resources

An analysis of provision of academic advising resources for effective performance of academic advising roles by teachers in secondary schools in Nandi East Sub-County, Kenya was done. The findings are shown in Table 80 and 81.

**Table 80: Provision of Academic Advising Resources (According to Teachers)**

	Teachers(n=124)			
My school provides teachers with relevant pamphlets and fliers for academic advising.	21.8	30.6	23.4	24.2
My school provides teachers with career resource materials.	6.5	9.7	45.2	38.7
My school provides teachers with lockable file cabinets in academic advising rooms.	4.8	9.7	50.0	35.5
My school allocates teachers adequate time to offer academic counselling sessions.	6.5	57.3	33.1	3.2
My school provides teachers with an office space for student advisory services.	8.9	25.8	30.6	34.7
My school provides teachers with computers for use in academic advising rooms.	7.3	31.5	31.5	29.8
My school provides teachers with appropriate chairs in academic advising rooms.	1.6	4.8	33.1	60.5
My school provides teachers with multimedia items for use during academic advising sessions.	6.5	29.8	27.4	36.3

**Key: SD = Strongly Disagree; D=Disagree; A = Agree; SA =Strongly Agree; %=Percentages.**

**Table 81: Provision of Academic Advising Resources (According to Deputy Principals)**

Statement	Deputy Principals(n=30)			
	SD (%)	D (%)	A (%)	SA (%)
My school provides teachers with relevant pamphlets and fliers for academic advising.	23.3	43.3	26.7	6.7
My school provides teachers with career resource materials.	20.0	46.7	3.3	30.0
My school provides teachers with lockable file cabinets in academic advising rooms.	6.7	23.3	40.0	30.0
My school allocates teachers adequate time to offer academic counselling sessions.	10.0	70.0	13.3	6.7
My school provides teachers with an office space for student advisory services.	13.3	40.0	23.0	23.7
My school provides teachers with computers for use in academic advising rooms.	16.7	10.0	13.3	60.0
My school provides teachers with appropriate chairs in academic advising rooms.	0.0	0.0	33.3	66.7
My school provides teachers with multimedia items for use during academic advising sessions.	6.7	26.7	23.3	43.3

**Key: SD = Strongly Disagree; D=Disagree; A = Agree; SA =Strongly Agree; %=Percentages**

The findings from Table 80 show that a significant number, a total of 52.4 per cent of teacher respondents aver that their schools did not provide relevant pamphlets and fliers for academic advising of students. Additionally, from Table 81 a majority (total of 66.6%) of deputy principals either strongly disagreed or disagreed that their schools provided relevant fliers and pamphlets to teachers for academic advising of students. This finding infer that majority of the schools had not provided pamphlets and fliers for use by teachers' during student academic advising sessions in Nandi East Sub-County,

Kenya. On the issue of provision of career resource materials, some, (a total of 15.2%) of teacher respondents disagreed that such resources had been provided. In the contrary, a majority (total of 66.7%) of deputy principals either strongly disagreed or disagreed that their schools provided relevant career resource materials to teachers for academic advising of students.

Another significant percentage of teacher respondents, a total of 14.5 per cent stated that they had not been provided with lockable file cabinets to be used by academic advising counsellors for performance of instructional roles. Similarly, a total of 30.0 per cent of deputy principals either strongly disagreed or disagreed that their schools provided lockable file cabinets to academic advising counsellors. This finding infers that some school managements in Nandi East Sub-County were not taking confidentiality of documents used by academic advising department seriously. Further, a huge proportion of teacher respondents (63.8%) indicated that adequate time was not allocated to academic advising sessions. In addition, total of 80% of deputy principals either strongly disagreed or disagreed that their schools allocated time to academic counselling sessions. This view was also shared by Ndirangu (2013) who established that in order for career counselling to be more effective, it needs to be an activity which adequate time is allocated. He further advanced that academic counsellors be freed from other duties when their services are needed.

A small percentage of 34.7 per cent of teacher respondents either strongly disagreed or disagreed that office space had been provided. Furthermore, majority (total of 53.3%) of deputy principals either strongly disagreed or disagreed that their schools provided office space to be used by academic counsellors. These finding is in concurrence to Nyong'o (2015) who concluded that some schools had not provided appropriate rooms for guidance and counselling services. This finding suggests that some of the schools in Nandi East Sub-County, Kenya had not provided office space where academic advising could be carried out. This could have compromised teachers' provision of academic advising services.

Computers for use in academic advising rooms were reported to be insufficiently provided with a total of 38.8 per cent of teacher respondents either disagreeing or strongly disagreeing on its provision. Either, total of 26.7 per cent of deputy principals



either strongly disagreed or disagreed that their schools provided computers for use in academic counselling rooms.

A total 36.3 per cent of teacher respondents either disagreed or strongly disagreed that multi-media items for use during academic advising activities had been provided. Likewise, total of 33.4 per cent of deputy principals either strongly disagreed or disagreed that their schools provided multimedia items for use during academic advising in secondary schools in Nandi East Sub-County, Kenya. As Ndirangu (2013) posits, the objective of using audio-visuals in academic advising is to enable the teacher to facilitate access to relevant information to students. In addition it enables learners to make informed choices, understand decision making processes and increase ability to become independent.

#### **4.6.3 Provision of Academic Advising Resources (Mean)**

Mean of provision of academic advising resources was computed. The purpose of this statistical analysis was to further examine the independent variable. The results are presented in Table 82 and 83.

**Table 82: Provision of Academic Advising Resources (Mean According to Teachers)**

<b>Statement</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>
My school provides teachers with multimedia items for use during academic advising sessions.	124	2.94	.96
My school provides teachers with appropriate chairs in academic advising rooms.	124	3.52	.67
My school provides teachers with computers for use in academic advising rooms.	124	2.84	.94
My school provides teachers with an office space for academic advisory services.	124	2.91	.98
My school allocates time to teachers to attend academic advising sessions.	124	2.33	.65
My school provides teachers with lockable file cabinets in academic advising rooms.	124	3.16	.79
My school provides teachers with career resource materials.	124	3.16	.85
My school provides teachers with relevant pamphlets and fliers for academic advising.	124	2.50	1.09
Provision of Academic Advising Resources for Performance of Instructional Roles	124	2.92	.56
Overall Index			
Valid N (list wise)	124		

**Key: Mean 1 to 2.4 =Insufficient, Mean 2.5 to 4 = Sufficient**

**Table 83: Provision of Academic Advising Resources (Mean According to Deputy Principals)**

<b>Statement</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>
My school provides teachers with multimedia items for use during academic advising sessions.	30	2.71	.88
My school provides teachers with appropriate chairs in academic advising rooms.	30	2.36	.70
My school provides teachers with computers for use in academic advising rooms.	30	2.66	.89
My school provides teachers with an office space for academic advisory services.	30	3.32	.77
My school allocates time to teachers to attend academic advising sessions.	30	2.11	.75
My school provides teachers with lockable file cabinets in academic advising rooms.	30	3.30	.76
My school provides teachers with career resource materials.	30	3.16	.79
My school provides teachers with relevant pamphlets and fliers for academic advising.	30	2.49	1.01
Provision of Academic Advising Resources for Performance of Instructional Roles	30	2.85	.98
Overall Index			
Valid N (list wise)	30		

**Key: Mean 1 to 2.4 =Insufficient, Mean 2.5 to 4 = Sufficient**

Computation of a mean for each item and its interpretation in an appropriate Likert mean range was to allow rating of the responses of provision of the academic advising resource to be either effective or ineffective as shown on Table 82 and Table 83.

The findings show that majority of teacher respondents indicated that their schools provided appropriate chairs in academic advising rooms (Mean = 3.52; SD = 0.67) and deputy principals (Mean = 2.37; SD = 0.70), multi-media items for use during academic advising sessions were also effectively provided according to teachers (Mean = 2.94; SD = 0.96), and deputy principals (Mean = 2.71; SD = 0.88) with computers for use in

academic advising rooms being effectively provided (Mean = 2.84; SD = 0.94) and (Mean = 2.66; SD = 0.89) according to teachers and deputy principals respectively. Provision of these resources could enable academic advisers to perform their role more effectively. As found out by Okoth (2015), Multimedia resources could help teacher advisers to capture and sustain users attention, encourage exploration, access interesting content including the use of case studies and illustrative example of students/teacher experiences to enable teachers to improve on their efficacy in academic advising.

The respondents further averred that office space for performance of academic advisory services (Mean = 2.91; SD =0.98) by teachers and deputy principals (Mean = 3.32; SD = 0.77) were availed sufficiently, with lockable file cabinets also being provided sufficiently (Mean = 3.16; SD = 0.79). However respondents indicated that insufficient time was allocated to academic advising sessions (Mean = 2.33; SD = 0.65) by teachers and (Mean = 2.11; SD = 0.75) by deputy principals a view shared by Oduor (2017) who established that teachers lacked adequate time for career guidance in schools. Inadequate time allocated to academic advising could impede service provision. This is because advisers could be overwhelmed by other duties rendering them ineffective.

In general, provision of academic advising resources for teachers' performance of academic advising role was indicated by respondents to be sufficiently done at mean of 2.9 and Standard Deviation of 0.56 by teachers and (Mean = 2.85; SD = 0.98) by deputy principals. However, schools that had not provided sufficient academic advising resources could have made it difficult for their teachers to offer this essential service to their students. As argued by Azikwe (2014) adequate provision and utilization of academic advising resources by teacher advisers is a pre-requisite to effective academic advising services in schools.

#### **4.6.4 Differences in Provision of Academic Advising Resources by School**

##### **Category**

T-test was conducted to investigate whether statistically significant differences existed in provision of academic advisory resources between boarding and day schools at 0.05 alpha levels. The results are as presented in Table 84 and 85.

**Table 84: Differences in Provision of Academic Advising Resources by School Category (According to Teachers)**

School Category	N	Mean	SD	D	t-value	ρ-value
Boarding	70	2.90	0.54	122	-0.421	0.674
Day	54	2.94	0.58			

**Table 85: Differences in Provision of Academic Advising Resources by School Category (According to Deputy Principals)**

School Category	N	Mean	SD	D	t-value	ρ-value
Boarding	8	2.78	0.61	28	-0.400	0.311
Day	22	2.80	0.65			

T-tests results in Table 84 and 85 shows that differences in provision of academic advising resources between boarding and day schools was statistically significant at  $\alpha = 0.05$ ,  $t(122) = -0.421$ ,  $\rho > 0.05$  and  $t(28) = -0.400$ ,  $\rho > 0.05$  from teachers and deputy principals respectively. This finding is in contradiction with Nyaega, (2011) who established that the way teachers' organize and provide guidance and counselling services was not influenced by their schools being day or boarding. This finding implies that provision of academic advising resources was better in day schools (mean 2.94) than in boarding schools (mean 2.90) in Nandi East Sub-County, Kenya.

#### **4.6.5 Descriptive Analysis of Effective Performance of Academic Advising Roles**

This section gives descriptive analysis on effective performance of academic advising roles in Nandi East Sub-Count, Kenya. The results are presented in Table 86 and 87.

**Table 86: Performance of Academic Advising Roles (According to Teachers)**

	<b>Teachers (n=124)</b>			
Regularly providing students with audio-video materials for academic advising.	18.5	32.3	24.2	25.0
Regularly providing students with career guidance resources.	7.3	11.3	44.4	37.1
Regularly providing individualized academic advice to students.	5.6	12.1	49.2	33.1
Regularly providing career advice to students.	8.1	9.7	45.2	37.1
Regularly providing students with academic recreational games.	4.8	12.9	49.2	33.1
Regularly organizing for school wide academic advisory services	16.1	38.7	36.3	8.9
Timely counselling of students with academic advising needs	8.1	31.5	31.5	29.0
Regularly providing students with academic advising literature materials.	8.9	29.0	33.1	29.0

**Key: NE=Not Effective, LE=Less Effective, E=Effective, VE=Very Effective  
%=Percentages**

**Table 87: Performance of Academic Advising Roles (According to Deputy Principals)**

<b>Statement</b>	<b>Deputy principals (n=30)</b>			
	<b>NE (%)</b>	<b>LE (%)</b>	<b>E (%)</b>	<b>VE (%)</b>
Regularly providing students with audio-video materials for academic advising.	23.3	40.0	20.0	16.7
Regularly providing students with career guidance resources.	10.0	26.7	43.3	20.0
Regularly providing individualized academic advice to students.	6.7	10.0	50.0	33.3
Regularly providing career advice to students.	20.0	13.3	20.0	46.7
Regularly providing students with academic recreational games.	10.0	30.0	33.3	26.7
Regularly organizing for school wide academic advisory services	20.0	20.0	40.0	20.0
Timely counselling of students with academic advising needs	13.3	36.7	23.3	26.7
Regularly providing students with academic advising literature materials.	20.0	13.3	46.7	20.0

**Key: NE=Not Effective, LE=Less Effective, E=Effective, VE=Very Effective  
%=Percentages**

The findings in Table 86 show that half of teacher respondents reported that they were either not effective or less effective in regularly providing audio-video materials for academic advising. Furthermore, Table 87 shows that a majority (63.3%) of the deputy principals indicated that teachers were either not effective or less effective in regularly providing students with audio-video materials for academic counselling. This finding suggests that some teachers had not embraced the use of audio visual equipment's in performance of this role in Nandi East Sub-County, Kenya. As argued by Moloko et al (2014), the use of animations, the visual and audio ones, and usually simple cartoon illustrations hold the users' attention whilst the advisor is speaking.

A small proportion of 18.6 per cent of teacher respondents said they were less effective in regularly providing career guidance resource materials to students. Additionally, 36.7 per cent of the deputy principals said that teachers were either not effective or less effective in regularly providing students with career guidance resource materials. This finding was shared by Okoth (2015), who found out that some teacher counsellors were ineffective in providing Career guidance resources in schools. The presence of academic advising resources could help students to make informed career choices. This finding infers that some teachers were unable to provide necessary reading resources that could give students information on career choices in Nandi East Sub-County, Kenya.

A further total of 17.8 per cent of teacher respondents indicated that they were either not effective or less effective in regularly giving academic advice to students. Likewise, a total of 16.7 per cent of the deputy principals said that teachers were either not effective or less effective in regularly offering academic advice to students. This finding implies that some teachers in Nandi East Sub-County, Kenya were ineffective in giving academic advice to students. Academic advice from teachers could enable students to have productive schooling life where proper study skills and knowledge on how to make full use of the academic facilities provided in school is taught. As argued by Ndirangu (2013), teachers can use academic advising sessions to enable students make informed decisions on study habits, equip them with skills, attitudes and knowledge. This can enable them cope with their academic challenges and needs. By performing this role, teachers could facilitate smooth transition from primary to

secondary school thereby enabling them to settle in their academic work and provide them with meaningful academic experiences.

A small proportion of teacher respondents 8.1 per cent and 9.7 per cent indicated that they were not effective and less effective respectively in regularly offering career advice to students. Moreover, a total of 33.3 per cent of the deputy principals said that teachers were either not effective or less effective in regularly offering career advice to students in Nandi East Sub- County. This finding suggests that some career advisers were ineffective in performance of their roles in Nandi East Sub-County, Kenya. This finding concurs to Nyaega (2011) who established that some teachers were ineffective in offering guidance and counselling services to students in relation to academic performance and career guidance. Career advising could assist students to make informed choices from the widest possible range of possibilities in the world of academics and professions.

A total of 17.7 per cent of teacher respondents aver that they were either not effective or less effective in regularly providing students with academic recreational games. In addition to that, a total of 40 per cent of the deputy principals said that teachers were either not effective or less effective in regularly providing students with academic recreation games. This finding is in concurrence with Nturibi (2015) who found out that some teacher counsellors were not using recreational games in guidance and counselling of students. This finding indicates that some academic advisors had not embraced the use of academic recreational games in Nandi East Sub-County, Kenya. Recreational games can allow skill development, reinforce learned knowledge across the curriculum, and serves as a laboratory for application of content in sciences, math and social sciences.

On regular organization of school wide academic advisory services, 16.1 per cent of teacher respondents reported that they were not effective, with another 38.7 per cent of teacher respondents being less effective. This finding is supported by a total of 40 per cent of the deputy principals who said that teachers were either not effective or less effective in regular organization of school wide academic advisory services in Nandi East Sub-County. This finding shows that some teachers were not effective in organizing school wide academic advisory services in Nandi East Sub-County, Kenya.



This finding suggests that most teachers in Nandi East Sub-County had not fully embraced the use of school wide academic advising. This could have slowed down reaching out majority of the students. This finding is inconsistent with Musau (2015) who established that, most schools career counsellors were counselling students with academic needs, Screening those who have difficulties in learning and suggesting means and measures to rehabilitate them and had placed it as a schools priority.

On regular provision of academic advising literature materials to students, a total of 37.9 per cent of teacher respondents were ineffective in providing academic advising literature materials to students. Moreover, a total of 33.3 per cent of the deputy principals said that teachers were either not effective or less effective in regularly providing academic advising literature materials to students. The finding shows that the majority of teachers were not using relevant literature materials in pursuit of academic advising of their students in Nandi East Sub-County, Kenya. This finding is consistent to that of Mutiso and Ndombi (2014) who concluded that guidance and counselling literature was inadequately provided by majority of the schools. Provision of this resource could assist students in self-understanding in terms of their academic potentialities including both weaknesses and strengths.

#### **4.6.6 Performance of Academic Advising Roles (Mean)**

Mean of performance of academic advising roles was computed. The objective of this statistical analysis was to further examine the dependent variable. The results are presented in Table 88 and 89.

**Table 88: Performance of Academic Advising Roles (Mean According to Teachers)**

<b>Statement</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>
Regularly providing students with academic advising literature materials.	124	2.82	.95
Timely counselling of students with academic advising needs	124	2.81	.95
Regularly organizing school wide academic advisory services	124	2.38	.86
Regularly providing students with academic recreational games.	124	3.10	.80
Regularly providing career advice to students.	124	3.11	.89
Regularly providing individualized academic advice to students.	124	3.10	.82
Regularly providing career guidance resources.	124	3.11	.88
Regularly providing students with audio-video materials for academic advising.	124	2.56	1.06
Performance of Academic Advising roles Overall Index	124	2.88	.52
Valid N (list wise)	124		

**Key: Mean 1 to 2.4 =Ineffective, Mean 2.5 to 4 = Effective**

**Table 89: Performance of Academic Advising Roles (Mean According to Deputy Principals)**

<b>Statement</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>
Regularly providing students with academic advising literature materials.	30	2.70	.88
Timely counselling of students with academic advising needs	30	2.69	.79
Regularly organizing school wide academic advisory services	30	2.28	.76
Regularly providing students with academic recreational games.	30	3.40	.79
Regularly providing career advice to students.	30	2.49	.93
Regularly providing individualized academic advice to students.	30	2.56	.79
Regularly providing career guidance resources.	30	3.60	.77
Regularly providing students with audio-video materials for academic advising.	30	2.41	1.03
Performance of Academic Advising roles Overall Index	30	2.73	.61
Valid N (list wise)	30		

**Key: Mean 1 to 2.4 =Ineffective, Mean 2.5 to 4 = Effective**

Computation of a mean for each item and its interpretation in an appropriate Likert mean range allowed the rating of responses of performance of academic advising role to be either effective or ineffective. The findings in Table 88 and 89 show that respondents performance of providing academic advising literature materials was effective with a Mean = 2.82; SD =0.95 for teachers and with a Mean = 2.70; SD =0.88 for deputy principals. The findings further show that Counselling students with academic advising needs was efficient at a Mean = 2.81; SD = 0.95 for teachers and a for deputy principals with a Mean = 2.69; SD =0.79. Organizing school wide academic advising services was ineffectively performed by teachers (Mean = 2.38; SD = 0.86) while deputy principals also reported that it was ineffectively performed by teachers (Mean = 2.28; SD = 0.76). and providing academic recreational games Mean = 3.10; SD = 0.80 and Mean = 3.40; SD = 0.79 for teachers and deputy principals respectively. These findings indicate that most teachers had provided relevant literature materials to the students, counselled students with academic needs, organized school wide academic clinics and provided recreational games to their clients. All these services could; as concluded by Nderitu (2007) promote self-discipline, improves judgment, release tension and anxiety and facilitating emotional stability and resilience, improve self-confidence and self-esteem.

Further, respondents reported that they were effective in providing career advice to students (Mean = 3.11; SD = 0.89 by teachers and Mean = 2.49; SD = 0.93 by deputy principals), providing career guidance resources was rated as effective with a Mean = 3.11; SD = 0.88 by teachers and Mean = 3.60; SD = 0.77 by deputy principals. Providing audio-video materials for academic counselling was rated as effective with a Mean = 2.56; SD = 1.06 by teachers and a Mean = 2.41; SD = 1.03 by deputy principals. In general, respondents reported that they were effective in performance of academic advising roles with an overall mean index of 2.88 and standard deviation of 0.52 by teachers and a Mean = 2.73; SD = 0.61 by deputy principals. The implication of these findings is that teachers' performance of academic advising role in Nandi East Sub-County had been effective.

However, on a rating scale of 1-4, on performance of academic advising roles, the findings show that some teachers were ineffective in performance of academic advising roles. This finding corroborates that of Mutiso and Ndombi (2014) who established that

in as much as more teachers had made good attempt to improve performance of guidance and counselling, some were still ineffective and needed to be encouraged to improve. This implied that some teachers had not been effective in performing academic advising roles in secondary schools in Nandi East Sub-County, Kenya.

#### 4.6.7 Differences in Performance of Academic Advising Roles by Gender

T-test was carried out to demonstrate whether there was a statistically significant difference between male and female respondents on effective performance of academic advising roles at 0.05 alpha levels. Table 90 and 91 shows the results of T-test.

**Table 90: Differences in Performance of Academic Advising Roles by Gender  
(According to Teachers)**

Gender	N	Mean	SD	Df	t-value	ρ-value
Male	51	2.96	0.52	122	1.502	0.136
Female	73	2.82	0.51			

**Table 91: Differences in Performance of Academic Advising Roles by Gender  
(According to Deputy Principals)**

Gender	N	Mean	SD	Df	t-value	ρ-value
Male	13	2.88	0.49	28	1.22	0.391
Female	17	2.83	0.47			

It was established that the difference in effective performance of academic advising roles between male and female respondents was statistically significant at  $\alpha = 0.05$   $t(122) = 0.136$ ,  $\rho > 0.05$ , by teachers and  $t(28) = 0.391$ ,  $\rho > 0.05$  by the deputy principals. This implies that teacher's effectiveness in performance of academic advising role differs by their gender. Male teachers were better in performance of this role (Mean 2.96) than female (Mean 2.82) according to teachers. Similarly, male teachers had a better performance (Mean 2.88) than female (Mean 2.83) according to deputy principals.

#### 4.6.8 Differences in Performance of Academic Advising Roles by School Category

T-test was done to establish whether there exist a significant mean difference in effective performance of academic advising roles between respondents teaching in boarding and day schools in Nandi East Sub-County, Kenya. The results are presented in Table 92 and 93.

**Table 92: Differences in Performance of Academic Advising Roles by School Category According to Teachers)**

School Category	N	Mean	SD	Df	t-value	$\rho$ -value
Boarding	70	2.86	0.49	122	-0.304	0.762
Day	54	2.89	0.56			

**Table 93: Differences in Performance of Academic Advising Roles by School Category (According to Deputy Principals)**

School Category	N	Mean	SD	Df	t-value	$\rho$ -value
Boarding	8	2.91	0.56	28	-0.411	0.099
Day	22	2.95	0.63			

The findings in Table 92 indicate that effective performance of academic advising roles was statistically significantly different between teachers in boarding and day school at  $\alpha = 0.05$ ,  $t(122) = -0.304$ ,  $\rho = 0.762$  from teachers and  $t(28) = -0.411$ ,  $\rho = 0.099$ . The findings, according to teachers suggest that teachers' effectiveness in performance of academic advising roles was better in day (Mean 2.89) than boarding (Mean 2.86) schools. Similarly, according to deputy principals teachers teaching in day schools had a better performance of academic advising roles with a Mean of 2.91 than those in boarding schools (Mean 2.95) in secondary schools in Nandi East Sub-County, Kenya.

#### 4.6.9 Differences in Performance of Academic Advising Roles by Work Experience

Analysis of variance was run to find out whether there exist statistically significant differences in effective Performance of academic advising roles with respect to respondents' work experience. The findings of this analysis are presented in Table 94 and 95.

**Table 94: Analysis of Variance of Performance of Academic Advising roles by Work Experience (According to Teachers)**

Statement	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	.255	3	.085	.310	.818
Within Groups	32.901	120	.274		
Total	33.156	123			

**Table 95: Analysis of Variance of Performance of Academic Advising roles by Work Experience (According to Deputy Principals)**

Statement	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	.311	3	.092	.211	.097
Within Groups	23.651	26	.351		
Total	23.962	29			

Analysis of variance on differences in effective performance of academic advising roles by work experience in Table 94 and 95 indicate that there was statistically significant difference in effective performance of academic advising roles by work experience at  $\alpha = 0.05$  level  $F(3,120) = 0.310$ ,  $p = 0.818$  from teachers and  $F(3,26) = 0.211$ ,  $p = 0.097$  from deputy principals. This finding concurs with Nderitu (2007) who found out that teachers with more teaching experience were better in providing guidance and counselling services. This finding implies that more teaching experience of the respondents' could improve teachers' effective performance of academic advising roles in Nandi East Sub-County, Kenya.

#### 4.6.10 Relationship between Provision of Academic Advising Resources and Effective Performance of Academic Advising Roles by Teachers

Pearson Product Moment Correlation Coefficient was computed in order to find out relationship between provision of academic advising resources and effective performance of academic advising roles by teachers in secondary schools in Nandi East Sub- County, Kenya. The strength and direction of the relationship between the variables are presented in Table 96 and 97.

**Table 96: Relationship between Provision of Academic Advising Resources and Effective Performance of Academic Advising Roles by Teachers (According to Teachers)**

		Provision of Academic Advising Resources
		Teachers
<b>Effective Performance of Academic Advising Roles</b>	Pearson Correlation	.804*
	of Sig. (2-tailed)	.000
	N	124

\*. Correlation is significant at the 0.05 level (2-tailed).

**Table 97: Relationship between Provision of Academic Advising Resources and Effective Performance of Academic Advising Roles by Teachers (According to Deputy Principals)**

		Provision of Academic Advising Resources
		Deputy Principals
<b>Effective Performance of Academic Advising Roles</b>	Pearson Correlation	.706*
	of Sig. (2-tailed)	.001
	N	30

\*. Correlation is significant at the 0.05 level (2-tailed).

The findings from Table 96 and 97 shows that there exist a positive and statistically significant relationship between provision of academic advising resources and effective performance of academic advising roles by teachers (\* $r=0.804^*$ ;  $p<0.05$ .) and (\* $r=0.706^*$ ;  $p<0.05$ ) from deputy principals. This finding concurs with Okoth (2015) who established that teacher preparation in prudent utilization of physical guidance and counselling resources is a pre-requisite to effective performance of guidance and

counselling services in schools. This finding suggests that provision of academic advising resources could improve performance of academic advising roles whereas inadequate resources could negatively affect performance of this role. The finding implies that provision of academic advising resources to teachers could improve performance of academic advising role in Nandi East Sub-County secondary schools.

#### **4.6.11 Relationship between Provision of Academic Advising Resources and Effective Performance of Classroom Instructional Roles**

Pearson Product Moment Correlation Coefficient was computed in order to investigate relationship between provision of academic advising resources and effective performance of classroom instructional roles in secondary schools in Nandi East Sub-County, Kenya. The strength and direction of the relationship between the variables are presented in Table 98 and 99.

**Table 98: Relationship between Provision of Academic Advising Resources and Effective Performance of Classroom Instructional Roles (According to Teachers)**

		<b>Effective Performance of Classroom Instructional Roles</b>
		<b>Teachers</b>
<b>Provision of Academic Advising Resources</b>	Pearson Correlation	.293*
	Sig. (2-tailed)	.001
	N	124

\*. Correlation is significant at the 0.05 level (2-tailed).

**Table 99: Relationship between Provision of Academic Advising Resources and Effective Performance of Classroom Instructional Roles (According to Deputy Principals)**

		<b>Effective Performance of Classroom Instructional Roles</b>
		<b>Deputy principals</b>
<b>Provision of Academic Advising Resources</b>	Pearson Correlation	.512*
	Sig. (2-tailed)	.003
	N	30

\*. Correlation is significant at the 0.05 level (2-tailed).



The findings from Table 98 and 99 shows that there exist a positive and statistically significant relationship between provision of academic advising resources and effective performance of classroom Instructional Roles according to teachers (  $r= 0.293^*$ ;  $\rho<0.05$  and  $r= 0.512^*$ ;  $\rho<0.05$ ) according to deputy principals. This finding concurs with Owate and Okpa (2003) who found out that provision of guidance and counselling resources could help teachers in performance of teaching activities. It could enable them to have differentiation of instruction by tailoring lessons and instruction to different learning styles within their classroom.

This finding suggests that provision of academic advising resources could improve performance of classroom Instructional roles whereas inadequate academic advising resources could negatively affect performance of this role by teacher in Nandi East Sub-County. The finding construes that provision of academic advising resources to teachers could improve performance in classroom Instructional Roles in Nandi East Sub-County secondary schools.

#### **4.6.12 Relationship between Provision of Academic Advising Resources and Effective Performance of Students' Evaluation Roles by Teachers**

Pearson Product Moment Correlation Coefficient was computed in order to establish relationship between provision of academic advising resources and effective performance of students' evaluation roles by teachers in secondary schools in Nandi East Sub- County, Kenya. The strength and direction of the relationship between the variables are presented in Table 100 and 101.

**Table 100: Relationship between Provision of Academic Advising Resources and Effective Performance of Students Evaluation Roles by Teachers (According to Teachers)**

		<b>Effective Performance of Students Evaluation Roles</b>
		<b>Teachers</b>
<b>Provision of Academic Advising Resources</b>	Pearson Correlation	.158
	Sig. (2-tailed)	.080
	N	124

**\*. Correlation is significant at the 0.05 level (2-tailed).**

**Table 101: Relationship between Provision of Academic Advising Resources and Effective Performance of Students Evaluation Roles by Teachers (According to Deputy Principals)**

		Effective Performance of Students Evaluation Roles
		Deputy Principals
<b>Provision of Academic Advising Resources</b>	Pearson Correlation	.119
	Sig. (2-tailed)	.102
	N	30

\*. Correlation is significant at the 0.05 level (2-tailed).

The findings from Table 100 and 101 shows that there exist no statistically significant relationship between provision of academic advising resources and effective performance of students' evaluation roles by teachers ( $r= 0.158$ ;  $\rho>0.05$ ) and ( $r= 0.119$ ;  $\rho>0.05$ ) by deputy principals. This finding suggests that provision of academic advising resources had no statistically significant relationship with effective performance of students' evaluation roles by teachers. The finding infers that when academic advising resources were provided to teachers, their performance in students' evaluation was not statistically significantly affected in Nandi East Sub-County secondary schools.

#### **4.6.13 Relationship between Provision of Academic Advising Resources and Effective Performance of Instructional Roles by Teachers**

Pearson Product Moment Correlation Coefficient was computed in order to find out relationship between provision of Academic Advising resources and effective performance of instructional roles by teachers in secondary schools in Nandi East Sub- County, Kenya. The strength and direction of the relationship between the variables are presented in Table 102 and 103.

**Table 102: Relationship between Provision of Academic Advising Resources and Effective Performance of Instructional Roles by Teachers (According to Teachers)**

		Effective Performance of Instructional Roles
		Teachers
<b>Provision of Academic Advising Resources</b>	Pearson Correlation	.647*
	Sig. (2-tailed)	.000
	N	124

\*\* . Correlation is significant at the 0.05 level (2-tailed).

**Table 103: Relationship between Provision of Academic Advising Resources and Effective Performance of Instructional Roles by Teachers (According to Deputy Principals)**

		Effective Performance of Instructional Roles
		Deputy Principals
<b>Provision of Academic Advising Resources</b>	Pearson Correlation	0.708**
	Sig. (2-tailed)	0.000
	N	30

\*\* . Correlation is significant at the 0.05 level (2-tailed).

The findings from Table 102 and 103 shows that there exist a positive and statistically significant relationship between provision of academic advising resources and effective performance of instructional roles by teachers according to teachers ( $r=0.647^*$ ;  $p<0.05$ ) and deputy principals ( $r=0.708^{**}$ ;  $p<0.05$ ). This finding corroborate Tanui (2012) who established that academic advising resources can give teachers an opportunity to inculcate good learning skills, enables students to access interesting learning resources that build their capacity to overcome academic challenges and make learning fun.

This finding suggests that provision of academic advising resources could improve performance of instructional roles whereas inadequate resources could negatively affect performance of this role. The finding further suggests that provision of academic

advising resources to teachers could improve instructional performance in Nandi East Sub-County secondary schools.

#### 4.6.14 Hypothesis Testing

The decision to reject or fail to reject the null hypothesis was set at 0.05 alpha levels; that is reject  $H_0$ : if  $p < 0.05$ , otherwise fail to reject the  $H_0$ :  $p > 0.05$ . The null hypothesis being tested was **H<sub>04</sub>**: There is no significant relationship between provision of academic advising resources and effective performance of academic advising roles by teachers in secondary school in Nandi East sub-county, Kenya. In order to test this hypothesis, a correlation test between provision of academic advising resources and effective performance of academic advising roles by teachers in Nandi East Sub-County, Kenya was done. Table 104 and 105 shows correlation test results.

**Table 104: Relationship between Provision of Academic Advising Resources and Effective Performance of Academic Advising Roles by Teachers (According to Teachers)**

		Provision of Academic Advising Resources
		Teachers
<b>Effective Performance of Academic Advising Roles</b>	Pearson Correlation	.804*
	Sig. (2-tailed)	.000
	N	124

\*. Correlation is significant at the 0.05 level (2-tailed).

**Table 105: Relationship between Provision of Academic Advising Resources and Effective Performance of Academic Advising Roles by Teachers (According to Deputy Principals)**

		Provision of Academic Advising Resources
		Deputy Principals
<b>Effective Performance of Academic Advising Roles</b>	Pearson Correlation	.706*
	Sig. (2-tailed)	.000
	N	30

\*. Correlation is significant at the 0.05 level (2-tailed).

The test results in table 105 show that Pearson Product Moment Correlation coefficient yielded ( $r=0.804^*$ ;  $p<0.05$ ) at 0.05 alpha levels for teachers and ( $r=0.706^*$ ;  $p<0.05$ ) at 0.05 alpha levels for deputy principals as shown in Table 105. Consequently, the null hypothesis was rejected since the  $p$  value (0.000) is less than 0.05 alpha levels for both teachers and deputy principals. A decision was therefore made that there's a positive and statistically significant relationship between provision of academic advising resources and effective performance of academic advising roles by teachers in Nandi East sub-county, Kenya. This conclusion is consistent to Ndirangu (2013) which established that there was a close relationship between schools provision of guidance and counselling resources and how effective teachers performed their roles.

The finding infers that provision of academic advising resources affect effective performance of academic advising roles by teachers in Nandi East Sub-County, Kenya. It further imply that when schools provided the required academic advising resources, teachers' effectiveness in performance of academic advising roles could subsequently be improved and, conversely, where they were inadequately provided, performance was not impressive. As opined by Azikwe (2014) availability of academic advising resources can enable teachers to employ varied strategies in academic advising. Academic advising resources could provide teachers with information to make informed decisions facilitate teachers' access to relevant materials and provide supplementary information to both teachers and students thereby improving performance in academic advising roles.

#### **4.7 Regression Analysis**

This section gives a presentation of regression analysis, Model Summary, Analysis of Variance, Multicollinearity, and Coefficients tables. Regression analysis was conducted to investigate predictive capability of independent variable on dependent variable. The independent variable was provision of teaching resources. These were specifically classroom teaching resources, learning resources, students' evaluation resources and academic advising resources. The dependent variable was effective performance of instructional roles which specifically addressed performance of classroom teaching roles, students' evaluation roles and academic advising roles. The findings of regression analysis are given in the subsequent section.

#### 4.7.1 Model Summary

The model summary in Table 106 shows predictors including: The constant, classroom teaching resources, learning resources, students' evaluation resources and academic advising resources.

**Table 106: Model Summary**

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate
1	.774 <sup>a</sup>	.599	.586	.20389

a. **Predictors:** (*Constant*), *Academic Advising Resources*, *Classroom teaching resources*, *Students' Evaluation Resources*, *Learning Resources*

According to the findings in Table 106, the adjusted R Square value of 0.586 indicates that effective performance of instructional roles is explained by 58.6 per cent of academic advising resources, classroom teaching resources, students' evaluation resources and learning resources in Nandi East Sub-County, Kenya. This finding could also imply that other factors not focused by this study contributed 41.4 per cent of the factors that affected effective performance of instructional roles by teachers in Nandi East Sub- County, Kenya. This could be explained by other factors outside the study variables. It implies that the four independent variables contributed 58.6 per cent of the factors that determine how teachers effectively performed instructional roles in Nandi East sub-county, Kenya.

#### 4.7.2 Strength of the model

F-statistics were computed to investigate the overall significance of the model predicting the four independent variables. The results are presented in table 107

**Table 107: Strength of the Model (According to Teachers)**

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	7.395	4	1.849	44.470	.000 <sup>b</sup>
Residual	4.947	119	.042		
Total	12.342	123			

a. **Dependent Variable:** *Effective Performance of Instructional Roles*

b. **Predictors:** (*Constant*), *Academic Advising Resources*, *Classroom teaching resources*, *Students' Evaluation Resources*, *Learning Resources*

**Table 108: Strength of the Model (According to Deputy Principals)**

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	6.123	2	1.302	39.410	.011 <sup>b</sup>
Residual	5.529	27	.034		
Total	11.652	29			

a. **Dependent Variable:** *Effective Performance of Instructional Roles*

b. **Predictors:** *(Constant), Academic Advising Resources, Classroom teaching resources, Students' Evaluation Resources, Learning Resources*

The finding in Table 107 and 108 show that the model was statistically significant in predicting relationship of independent variable with dependent variable at 0.05 alpha levels,  $r^2 = 0.599$ ,  $F(4,119) = 44.47$ ;  $p < 0.05$  and  $F(2,27) = 39.410$ ;  $p < 0.05$ . A metric of predictive ability (R-square) is such that Values closer to 1 suggests higher predictive ability (Adeboye et al, 2014) and in this case (R squared value = 0.599) as shown in Table 106.

This finding indicates that the model is efficient at 0.05 alpha levels in predicting relationship between provision of the selected resources and effective performance of instructional roles by teachers in Nandi East Sub-County, Kenya

#### 4.7.3 Multicollinearity analysis

Multicollinearity analysis was done to establish if there was occurrence of high inter correlations among two or more independent variables in the multiple regression. Multicollinearity exist if there is a very high inter-correlations or inter-association among independent variables. These happen when there is an approximate linear relationship among some of the predictor variables in the data. It is therefore a type of disturbance in the data and if present, the statistical inference made about the data may not be reliable. As advanced by (Adebayo et al., 2014), variables having high Multicollinearity VIF indicators make the regression model redundant in predicting the dependent variable.

Multicollinearity was tested with the help of Tolerance and its reciprocal, the Variance Inflation Factor (VIF). The analysis is presented in Table 109.

**Table 109: Multicollinearity Analysis**

Model	Collinearity Statistics	
	Tolerance	VIF
Classroom Teaching Resources	.860	1.162
Learning Resources	.634	1.578
Students' Evaluation Resources	.809	1.237
Academic Advising Resources	.870	1.149

a. *Dependent Variable: Effective Performance of Instructional Roles*

The test results for multicollinearity in Table 109 indicate that VIF values for the four predictors were within the acceptable range of less than 10 ( $VIF < 10$ ). The simultaneous tolerance values were also within the acceptable range of above 0.2. This indicates that the coefficients and hence the variables were stable and independent of each other and that they were not collinear. The results associated with multiple regression analysis are known to be adversely affected by high levels of VIF.

These results indicate that provision of classroom teaching resources, learning resources, students' evaluation resources and academic advising resources did not influence each other in determining how teachers effectively performed instructional roles in Nandi East Sub-County, Kenya.

#### 4.7.4 Regression Coefficients

Regression analysis of coefficients obtained was done. This analysis is presented on Table 110.

**Table 110: Regression Coefficients**

Model	Unstandardized Coefficients		T	Sig.
	B	Std. Error		
(Constant)	.523	.131	3.982	.000
Classroom teaching resources	.051	.037	2.375	.042
Learning Resources	.174	.053	3.266	.001
Students' Evaluation Resources	.184	.048	3.864	.000
Academic Advising Resources	.297	.035	8.386	.000

a. *Dependent Variable: Effective Performance of Instructional Roles*



The findings indicated in Table 110 are interpreted using the following regression equation  $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$  where  $Y$ =Effective Performance of instructional roles,  $\beta_0$  = Constant,  $X_1$  = classroom teaching resources,  $X_2$ =learning resources,  $X_3$  = students evaluation resources,  $X_4$  = academic advising resources and  $\varepsilon$  = Error term,  $\beta_1, \beta_2, \beta_3, \beta_4$  are the Regression coefficients of independent variables.

The regression equation is  $Y = 0.523 + 0.051 X_1 + 0.174 X_2 + 0.184 X_3 + 0.297 X_4 + \varepsilon$ . The regression coefficients indicate that a change by 1 unit in effective performance of instructional roles could have been as a result of 0.051 unit change in provision of classroom teaching resources, 0.174 unit change in provision of learning resources, 0.184 unit change in provision of students' evaluation resource and 0.297 unit change in provision of academic advising resources holding (0.523) constant. It was established that provision of classroom teaching resources ( $t = 2.375$ ;  $p < 0.05$ ), learning resources ( $t = 3.266$ ;  $p < 0.05$ ), provision of Students' evaluation resources ( $t = 3.864$ ;  $p < 0.05$ ), and provision of academic advising resources ( $t=8.386$ ;  $p<0.05$ ) could have statistically significant relationship with effective performance of instructional roles in secondary schools in Nandi East Sub-County, Kenya. In combination, the four factors were found to have a statistically significant relationship with effective performance of instructional roles by teachers in secondary schools in Nandi East Sub-County, Kenya ( $t = 3.982$ ;  $p < 0.05$ ).

The findings presented further shows that provision of learning resources could have statistically significantly contributed 17.4 per cent to effective performance of instructional roles. Similarly, provision of students' evaluation resources and provision of academic advising resources statistically significantly contributed to effective performance of instructional roles by 18.4 per cent and 29.7 per cent respectively. On the other hand, provision of classroom teaching resources could have minimal (5.1%) contribution to effective performance of instructional roles by teachers. In this study provision of academic advising resources was the highest predictor of effective performance of instructional roles in secondary schools in Nandi East Sub- County, Kenya. The findings from the regression equation further indicated there were unexplained factors (29.4%) not focused by this study that could have contributed to

teachers' effectiveness in performance of instructional roles in Nandi East Sub-County, Kenya.

This finding suggests that provision of academic advising resources had the highest contribution, followed by provision of students' evaluation resources towards teachers' performance of instructional roles. However, provision of learning resources and provision of classroom teaching resources seemed to have contributed the least towards effective performance of instructional roles by teachers in Nandi east Sub-County, Kenya.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter presents summary of key findings, conclusions and suggested recommendations. This is with respect to the study on relationship between provision of selected resources and effective performance of instructional roles by teachers in secondary schools in Nandi East Sub- County, Kenya. The chapter is organized into summary of key findings, conclusions and recommendations.

#### **5.2 Summary of Key Findings**

This study gives summary of the main findings guided by the following four objectives; firstly, to determine relationship between provision of classroom teaching resources and effective performance of classroom instructional roles ; secondly, examine relationship between provision of learning resources and performance of classroom instructional roles; thirdly, asses relationship between provision of students' evaluation resources and effective performance of students' evaluation roles and lastly, establish relationship between provision of academic advising resources and effective performance of students' evaluation roles by teachers in secondary schools in Nandi East Sub-County, Kenya.

##### **5.2.1 Findings on Relationship between Provision of Classroom Teaching**

###### **Resources and Effective Performance of Classroom Instructional Roles by Teachers**

The first finding shows that there was a positive and a statistically significant relationship between provision of classroom teaching resources and effective performance of classroom instructional roles by teachers in secondary schools in Nandi East Sub-County, Kenya. The finding concurs with Bizimana and Orodho (2014) who established that there was a positive and significant correlation between availability of human and physical resources and teachers effective classroom management, content delivery and eventual enhanced school outcomes. This implies that provision of teaching resources affects how teachers effectively performed classroom instructional roles in secondary schools in Nandi East Sub-County, Kenya. It further infers that when teachers were provided with classroom teaching resources, their performance of

classroom instructional roles could significantly improve and the converse was also true.

It was also established that teachers were ineffective in giving timely feedback to parents or guardians on student achievements and in regularly preparing curriculum support materials. They were also ineffective in explaining concepts in class, regularly using audio-visual equipment during lesson delivery and regularly supervising students as they study. It was further established that most schools had not provided adequate teaching resources. This could have negatively affected Teachers performance of classroom instructional roles in secondary schools in Nandi East Sub -County, Kenya.

It was further found out that schools had insufficiently provided ICT resources such as laptops, projectors and audio video instructional resources for use by teachers in performance of instructional roles. This finding corroborate that of Tanui (2012) who argued that ICT resources could stimulate student's critical thinking, could give students a long-lasting experience and could allow teachers to collaborate with one another, yet some schools had been unable to provide them. The finding suggests that most schools had not fully embraced ICT integration for teachers' performance of classroom instructional roles in their schools in the sub-county.

Models for teaching were found to be insufficiently provided and consequently teachers' performance of classroom instructional roles could have been compromised. This is because abstract concepts could have been made real by use of such models. In addition, Teachers were inadequately provided with textbooks, note books and reference materials. This could have made them face challenges in lesson preparation and lesson delivery.

### **5.2.2 Findings on Relationship between Provision of Learning Resources and Effective Performance of Classroom Instructional Roles**

The second finding indicate that there was a positive and statistically significant relationship between provision of learning resources and effective performance of classroom instructional roles by teachers in secondary schools in Nandi East Sub-County, Kenya. It was established that there was insufficient provision of learning materials such as Internet facilities, library, Computer laboratories, journals, online

resources, educational games and multi-media learning resources which could hamper learning.

It was further established that multimedia learning resources and Video and audio which could have provided teachers with a composite multi-sensory experience had been insufficiently provided. These could have been used by teachers to explore learners' world by presenting information through images, texts, and graphics. This finding is consistent with Orodho et al. (2013) who established that teachers' effectiveness in the use of teaching methods was negatively affected by unavailability and inadequacy of learning resources. These findings imply that provision of learning resources for teachers' effective performance of classroom instructional roles could improve their performance. Performance of teachers in schools with inadequate learning could have been ineffective. Performance of classroom instructional roles by teachers could have been hampered by inadequate learning resources.

It was further found out that performance of classroom instructional roles in schools under study had been ineffective. This finding was in agreement with Elibariki (2014) who argued that the absence of ICT resource materials, multimedia and computer laboratories imply teachers could miss out on providing students with necessary learning material rendering them ineffective. This finding is also in concurrence with Usman (2016) who established that insufficient provision of ICT resources poses a serious implication for teaching and learning outcomes in schools

### **5.2.3 Findings on Relationship between Provision of Students' Evaluation**

#### **Resources and Effective Performance of Students' Evaluation Roles**

The third finding of the study indicates that there was a positive and a statistically significant relationship between provision of students' evaluation resources and effective performance of students' evaluation roles by teachers in secondary schools in Nandi East Sub-County, Kenya. It was established that teachers were ineffective in timely setting, marking, and regular invigilation of examination and assessments in secondary schools in Nandi East Sub-County. The study further found out that teachers were ineffective in timely examination analysis, regular use of examination analysis software and in giving timely evaluation feedback to parents. This finding was consistent with Omina (2016) finding who established that ICT integration in the conduct of examination was poor.

The findings further show that Teachers were provided with insufficient time for evaluation, inadequate evaluation rooms, photocopying papers and writing materials to be used during students' evaluation. Additionally the findings show that projectors, photocopiers, printers and examination analysis software were also inadequately provided.

#### **5.2.4 Findings on Relationship between Provision of Academic Advising Resources and Performance of Academic Advising Roles**

The fourth finding of the study shows that there was a positive and a statistically significant relationship between provision of academic advising resources and performance of academic advising by teachers in Nandi East sub-county, Kenya. This finding is consistent with Ndirangu (2013) who established that teachers' access to guidance and counselling resources could affect their effectiveness in offering guidance and counselling services. In addition, it was found out that some teachers were not effective in regularly organizing school wide academic advisory services. Some teachers in Nandi East Sub-County, Kenya were ineffective in regularly giving academic advice, providing recreational games and in providing academic advising literature to students.

Moreover it was found out that insufficient time was allocated to academic counselling sessions a view shared by Musau (2015) who established that teachers lacked adequate time for career guidance and counselling in schools. This was because more time had not been time tabled for guidance and counselling. The study finding further show that most teachers were not effective in organizing school wide academic advisory services.

This study established that there was regular provision of academic advising resources for performance of academic advising role and was sufficiently done. Consequently, their performance was rated as effective. This finding corroborates that of Okoth (2015) which found out that adequate provision and utilization of guidance and counselling resources by teacher counsellors is a pre-requisite to effective guidance and counselling services in school. These findings infer that teachers' performance of academic advising role in Nandi East Sub-County had been effective.

### **5.3 Conclusions**

Based on the summary of the findings, the following conclusions were made from the study:

The first objective of the study was to determine relationship between provision of classroom teaching resources and effective performance of classroom instructional roles by teachers in secondary schools in Nandi East Sub-county, Kenya. This study concludes that there was a positive and statistically significant relationship between provision of classroom teaching resources and effective performance of classroom instructional roles by teachers in secondary schools in Nandi East Sub-County, Kenya. It is further concluded that, teachers were ineffective in regularly preparing curriculum support materials, supervising students as they study, explaining concepts in class and in using audio visual equipment during lesson delivery. Majority of the schools had not provided ICT resources such as laptops, projectors and audio video resources for use by teachers in performance of classroom instructional roles. Provision of models for teaching was also found to be insufficiently done. Most schools had not provided adequate classroom teaching resources in Nandi East Sub-County, Kenya. Performance of classroom teaching role was ineffectively performed. Teachers' performance of classroom teaching roles in Nandi East Sub-County, Kenya was as rated as ineffective.

The second objective of the study was to examine relationship between provision of learning resources and effective performance of classroom instructional roles by teachers in secondary schools in Nandi East Sub-county, Kenya. Subsequently, this study concludes that there was a positive and statistically significant relationship between provision of learning resources and effective performance of classroom instructional roles by teachers in secondary schools in Nandi East Sub-county, Kenya. It is further concluded that there were inadequate provision of multimedia learning resources, resources for academic projects and online resources. Journals for learning, educational games, libraries and computer laboratories for students use were also not provided inadequately.

The third objective of the study was to assess relationship between provision of students' evaluation resources and effective performance of students' evaluation roles by teachers in secondary schools in Nandi East Sub-county, Kenya. The study concluded that there was a positive and statistically significant relationship between

provision of students' evaluation resources and effective performance of students' evaluation roles by teachers in secondary schools in Nandi East Sub-County, Kenya. It further concluded that teachers were ineffective in timely setting, marking, and in regularly invigilating of examination and assessments in Nandi East Sub-County, Kenya. Teachers were ineffective in timely analysis of examination, regularly using examination analysis software and in giving timely evaluation feedback to parents. It was also concluded that there were inadequate rooms for use during examination. Insufficient students' evaluation resources were provided and consequently Teachers' performance of students' evaluation roles in Nandi East sub-county was rated as not effective.

The fourth and last objective of the study was to establish relationship between provision of academic advising resources and effective performance of academic advising roles by teachers in secondary schools in Nandi East Sub-county, Kenya. This study concluded that there was a positive and statistically significant relationship between provision of academic advising resources and effective performance of academic advising roles by teachers in Nandi East sub-county, Kenya. In addition it was concluded that insufficient time was allocated to academic counselling sessions and that some teachers were not effective in regularly organizing school wide academic advisory services.

Furthermore this study concludes that some teachers were not regularly providing career guidance materials to students, not regularly giving academic advice to students, and not providing students with recreational games. Regular provision of academic advising resources for performance of instructional roles was concluded to be sufficiently done in Nandi East Sub-County, Kenya with some respondents reporting that they were not effective in performance of academic advising roles. Furthermore, this study also concludes that, teachers' performance of instructional roles was explained by 58.6 per cent (Table 106) of provision of academic advising resources, classroom teaching resources, student evaluation resources and Learning Resources.



#### **5.4 Recommendations**

In view of the research findings and taking cognizance of the need to improve effectiveness in performance of instructional roles by teachers, the following recommendations are preferred:

- i. The study determined that majority of the schools had not provided ICT resources. In view of this conclusion, it is recommended that school Boards of Management should strive to provide necessary, relevant and adequate ICT resources for use by teachers in performance of instructional roles.
- ii. Most schools had not provided sufficient classroom teaching resources in Nandi East Sub-County, Kenya. Consequently, it is recommended by this study that principals and BoM should provide adequate classroom teaching resources to be used by teachers and students to enhance teachers' performance of instructional role in Nandi East Sub-County.
- iii. It was concluded that there were inadequate learning materials such as internet facilities, library, computer laboratories, educational games and multi-media learning resources. In light of these conclusions, this study recommends the BoM and principals to provide adequate and varied learning resources for effective performance of instructional roles in Nandi East Sub-County, Kenya.
- iv. Performance of students' evaluation roles by teachers in Nandi East sub-county was not effective. Accordingly, it is recommended that Teachers Services Commission, Kenya Secondary Schools Heads Association (KSSHA) and Ministry of Education work hand in hand to urgently develop and implement in-service training programs geared towards addressing teachers' ineffectiveness in students' evaluation in Nandi East Sub-County, Kenya.
- v. This study recommends that principals of secondary schools should ensure that academic counselling sessions are programmed in the time table to address the issue of insufficient time allocated to academic counselling. Moreover, academic advisors should have reduced workload to create more time for consultations with students and be supported to plan, organize and have school wide academic advisory services.
- vi. It is further recommended that more efforts should be put by the BoM to ensure that sufficient work done by most teachers in performance of

academic advising role is sustained. Mechanisms should be put in place to ensure that the few teachers who were ineffective in performance of academic advising are supported to offer better services in Nandi East Sub-County, Kenya.

#### **5.4.1 Policy Recommendations**

- i. The government should streamline how schools provide necessary, relevant and adequate ICT resources for use by teachers in performance of instructional roles.
- ii. TSC and Ministry of Education should develop and implement in-service training programs to address teacher ineffectiveness in setting, marking, and invigilation of examination and assessments in Nandi East Sub-County, Kenya. This will be to address skill gaps in teachers who were ineffective in examination analysis, use of examination analysis software and in giving evaluation feedback to parents.
- iii. The Ministry of Education should develop a policy to compel principals of secondary schools to ensure that academic counselling sessions are programmed in the time table to address the issue of insufficient time allocated to academic counselling.
- iv. Teachers Service Commission should consider a policy on reducing the workload of academic advisors to create more time for consultations with students, planning and for organization of school wide academic advisory activities.

#### **5.4.2 Recommendations for Further Research**

- i. A study can be done to establish why most of the schools studied had provided inadequate teaching resources yet the government provided funds for tuition through FDSE.
- ii. A study can be done to establish why despite government efforts to provide texts books, teachers still claimed there were insufficient in their schools.
- iii. A study can be done to establish other factors other than classroom teaching resources, learning, students' evaluation and academic advising resources that could have influenced how teachers perform instructional roles in Nandi East Sub-County, Kenya.

## REFERENCES

- Adeboye, N.O., Fagoyinbo, I. S., & Olatayo, O.T. (2014). Estimation of the effects of multicollinearity on standard errors for regression coefficients: *IOSR Journal of Mathematics* 4(4), 16-20
- Adelodun, G. A., & Asiru, A. B. (2015). Instructional resources as determinants of english performance of secondary school high-achieving students in Ibadan, Oyo State. *Journal of education and practice*, 6(21), 195-200.
- Adeogun, A. A., & Osifila, G. (2013). Relationship between educational resources and students academic performance in Lagos State Nigeria. *International Journal of Educational Management*, 5(6), 144-153.
- Adesivia, S. (2011). *Educational Management*. Forth Dimension publishing Co. Ltd.
- Agaro, T. (2014). *Evaluation of Financial Management Practices in Secondary Schools*. World Educational Publishers.
- Ajayi, M.A. (2015). *Effects of Learning Environment on Students Academic Achievement Lagos State Secondary Schools*: [Unpublished Med Thesis]: University of Nigeria.
- Amin, K. (2016). The impact of employees training on job performance in education sector in Pakistan. *Middle East Journal of Scientific Research*, 17(9), 1273-1278.
- Ader, K., Mellenbergh. G., & Hand, J. (2012). *Advising on Research Methods*. Hampshire, Cengage Learning EMEA.
- Arijit, G. (2014). *Chinese School Education System: An overview*. British Council.
- Asiabakala, I. P. (2016). The need for effective facility management in schools in Nigeria. *New York Science Journal*, 4(3), 10-21.
- Ayoo, N. M. (2016). *Factors Affecting Students Performance in K.C.S.E. in Public Schools in Maseno Division*. [Unpublished Med Thesis]: University of Nairobi.
- Azikwe, U. (2014). *Facilitating Instruction in Guidance and Counseling*. Onitisha Uni World Educational Publishers.
- Barasa, M. N. (2009). *Educational Organization and Management*. Jomo Kenyatta Foundation.
- Bird, D. K. (2015). The use of questionnaires for acquiring information on public perception

- of natural hazards and risk mitigation a review of current knowledge and practice. *Natural Hazards And Earth System Sciences*, 9(1), 1307-1325.
- Bizimana, B., & Orodho. J. (2014). Teaching and learning resources availability and teachers' effective classroom management and content delivery in secondary Schools in Huye district, Rwanda: *Journal of Education and Practice* 5(9) 111-122.
- Blasé, J., & Blasé, N. (2013). *Teachers bringing out the Best in Teachers: A Guide to Peer Consultation for Administrators and Teachers*. Corwin Press.
- Boije, H. (2010). *Analysis of Qualitative Research Methods*. Sage Publications.
- Bulimo. W., Musasia, M., & Odebero. S. (2011). Towards enhancing socio-equity in accessing quality through the form one selection policy in Kakamega south District, Kenya. *Journal of Education Management vol 1(1)*, 113-137.
- CEB. (2018). *Quality Index Report 2017*. [Unpublished] Nandi County Education Board report.
- CEB. (2016). *Quality Index Report and Education Outlook 2016*. [Unpublished] Nandi County Education Board report.
- CIMA. (2015). *Preparing Cash Budgets*: [http://www.cima.com/documents/imported\\_documents/article\\_web.pdf](http://www.cima.com/documents/imported_documents/article_web.pdf).
- Clarke, A. (2008). *Handbook of School Financial Management*. Mc Milan.
- Cohen, L., Manion, L., & Morrison, L. (2016). *Research Methods in Education* (5<sup>th</sup> Edition). Taylor Publishers.
- Cole, G. A. & Kelly. P, (2011). *Management Theory and Practice* (7<sup>th</sup> Edition). Carnage Learning.
- De Vellis, R. (2016). *Scale Development: Theory and Applications* (4th Edition). Sage Publications
- Dikko, M. (2016). Establishing construct validity and reliability: Pilot testing of a qualitative interview for research in Takaful (Islamic Insurance). *The Qualitative Report*, 21(3), 521-528.
- Elibariki, N. (2014). *Factors Influencing Shortage of Teaching-Learning Resources in Tanzania Primary Schools: A Case of Primary Schools in Kinondoni Municipality*. [Unpublished Thesis]. Open University of Tanzania:
- Eya, P. E. (2011). *Guide to Instructional Materials Production: The Basis of Educational Technology*. J.T.C.

- Ghulam , S., Khuram , S. H., Naqvi , H., & Nadeem , I. (2015). Impact of visual aids in enhancing the learning process: District Dera Ghazi Khan. *Journal of Education and Practice*, 6(9), 226-233.
- Kaguti, N., Njagi, K. L., & Thairu, D. K. (2014). Financial management challenges facing implementation of free day secondary education in Embu north sub-county, Kenya. *Journal of Business and Management*, 17(8), 10-17.
- Kassa, Z. T. (2016). *Factors Affecting the Participation of Students in Curricular Activities in Bole Sub-County of Addis ababa region*. [Unpublished thesis]. Adis-Ababa University.
- Kathini, M. E. (2011). *Challenges Facing Board of Governors in Management of Public Secondary Schools in Kitui Central Division of Kitui district, Kenya*. [Published Master's Thesis]. University of Nairobi.
- Kayondo, P. (2015, October 27). *Teachers' Role in Classroom Control and Management*. linkedin:<https://www.linkedin.com/pulse/teachers-role-classroom-control-management-peter-kayondo>.
- KICD. (2018). *Textbook Distribution and its Adequacy: Challenges and Opportunities*. KICD.
- KICD. (2014). *Research Report on Needs Assessment for Curriculum Reform*. KICD.
- Kimando, J. (2011). *A Study on Factors Influencing BOM Competences in Financial Management of Public Secondary Schools in Nakuru North District, Kenya*. [Unpublished M.Ed Project]. Kenyatta University.
- Kitunga, S. M. (2009). *Benefits of Kenya National Union of Teachers Welfare Programs to Primary School Teachers in Mwingi District Kenya*. [Unpublished Med Dissertation]. Kenyatta University
- Kiveu, R., & Maiyo, J. (2012). Effects of Instructional Media on Learning of Computer Studies in JSS. *African Journal of Educational Research*, 11(2), 71-75.
- KNEC. (2017). The National Assessment System for Monitoring of Learner Achievement, *KNEC Report*. KNEC.
- Koros, C. S. (2014). The availability, adequacy and improvisation and use of instructional resources for teaching mathematics in secondary schools in West Pokot district, Kenya. *Journal of Education and Practice*, 5(20), 1-5.
- Kothari, C. R. & Gaurav, G. (2014). *Research Methodology: Methods and Techniques*. New Age International (P) Ltd publishers.

- Kotirde, I. Y., Yunos, J. M., & Anaf, Y. S. (2014). The role of principals in sustaining/management of quality secondary school education in Nigeria. *GSE Journal of Education*, 1(2), 1-8.
- Krejcie ,R.V.,&Morgan, D.W. (1970). *Determining sample size for research activities*.Educational & Psychological measurements.
- Kyahurwa, O. (2013). *The Challenges Faced by Primary School Principals in Curriculum Management: A Case of Region C. I. Gauteng Province*. [Unpublished Thesis].University of South Africa:
- Larner, M. (2014). *Pathways; Charting a Course for Professional Learning*. Heinermann.
- Lemphane, P., & Prinsloo, M. (2013). *Children's Digital Literacy Practices in Unequal South African Settings*. University of Capetown.
- Lietz, P. (2013). *Questionnaire Design in Attitude and Opinion Research: Current State of the Art*. Jacobs University.
- Lubanga, F. X. (2011). *Teachers Performance in Hard to Reach Areas*. New Vision.
- Magaro, P. O. (2016). *Challenges Faced by Head Teachers in Financial Management in Public Secondary Schools: A case of Kisumu West Sub-County, Kenya*. [Unpublished M.ed project]. University of Nairobi.
- Masic, I., Hodzic, A., & Mulic, M. (2014). Ethics in medical research and publication. *International Journal of Preventive Medicine*, 5(9), 1073-1082.
- Mberia, H. K. (2012). A Survey of reading in English in secondary schools of Gatundu division, Thika district. *The Reaching Matrix*, 6 (2), 305-347.
- Mege, C. A. (2014). *Influence of School Environmental Factors on Teaching-Learning Process in Public Secondary Schools in Lower Nyokal Division, Homa-Bay District, Kenya*. [ Unpublished Thesis]. University of Nairobi.
- Mele, C., Pels, J., & Polese, F. (2010). A brief review of systems theory and their managerial applications. *Service Science* 2(1) 126-135.
- Mestry, R. (2014). The Functions of School Governing Bodies. *Journal of Education*, 13(2), 12-22.
- MoE, (2006): *Handbook of Financial Management*. Ministry of Education.
- MoEST, (2015). *SACMEQ III. South African Consortium for Monitoring of Education Quality*. Government Printers.

- MoEST. (2006). *Financial Management Manual for MOEST HQ, Field Officers and Sagas*. Government Printers.
- MoEST. (2017). *Education Quality Index*. Government Printers.
- Moloko, K. Mphale, L., & Mhlauli, M. B. (2014). An investigation on students academic performance for junior secondary schools in Botswana. *European Journal of Educational Research*, 3(3), 111-127.
- Mucai, E. W. (2013). *Availability and Utilization of Educational Resources in Influencing Students Performance in Mbeere South, Embu County*. [Unpublished Thesis]. Kenyatta University.
- Muchiri, R. N. (2014). *Investigating the Availability and Use of Teaching and Learning Resources in Tharaka Nithi district*. [Unpublished Thesis]. Kenyatta University.
- Mugenda, M. O., & Mugenda, A. (2013). *Research Methodology for Social Researches*. Nairobi: WRB Acts Press.
- Mulatya, M. (2014). *Financial Management Support Training Manual for HeadTeachers*: Unpublished training manual.
- Mungai, A. (2016). An assessment of teachers' performance: effectiveness of teacher's performance appraisal and development. *Educational Research*, 5(2), 1-8.
- Murithi, J. (2015). *A framework for Integrating ICT in the Teaching and Learning Process in Secondary Schools*. School of computing and informatics. University of Nairobi, Kenya:
- Mutetei. M., Orodho, J. A., & Onyango, G. (2011). Gender disparities in education administration: Causes and coping strategies. *Journal of Education Management* 1(1), 170-190
- Mutiso, F. N., & Ndombi, K. (2014). *Guidance and Counseling for Schools and Colleges*. Oxford University Press (East Africa).
- Musau, J. K. (2015). *School Based Factors Influencing Students Performance at Kenya Certificate of Secondary Education in Masinga Sub County, Machakos County, Kenya*. [Unpublished Thesis]. University Of Nairobi.
- MwanaMukubi, J. (2013). Reading difficulties in grade six learners and challenges faced by teachers in teaching reading: A case of Chadiza and Chipata Districts  
Zambia. *Educational Research and Review*, 4(5), 301-309

- Naisujaki, S. L., Too, J. K., & Kirui, J. K. (2017). Perception of teachers on availability of instructional materials and physical facilities in secondary schools of Arusha district, Tanzania. *International Journal of Educational Policy Research, 4*(5), 103-112.
- Nalusiba, P. (2010). Strategies for development of reading culture in Uganda secondary schools: A case of selected secondary schools in Kampala district. *Educational Research, 4*(7), 536-542.
- Nderitu, T. W. (2007). *Hindrance to Effective Implementation of Guidance and Counseling in Secondary Schools in Kamwangi Division, Thika District*: [Unpublished Med Thesis]. Nairobi, Tangaza College.
- Ndirangu, J. M. (2013). *Youth in Danger: Hand Book for Teachers, Students, Parents, pastors and County Workers*. Uzima.
- Ng'ang'a, W. M., Koskei, Z. K., & Ng'ang'a. S. I. (2011). Adoption and use of ICT in enhancing management of public secondary schools: A survey of Kesses zone secondary schools In Wareng district. *Journal of Education Management 1*(1), 1-25.
- Nturibi, R. P. (2015). *Influence of School Infrastructure on Academic Performance in Public Primary Schools in Ruiru Location, Meru County, Kenya*: [Unpublished Thesis]. University of Nairobi.
- Nyaega, J. O. (2011). Principals and students attitudes towards guidance and counselling services in management of secondary schools in Kisii County, Kenya. *International Journal of Business and Management, 3* (8), 13-21.
- Nyongo, T. J. (2015). *A Study on Factors that Hinder Effective Implementation of career Guidance and Counseling in Secondary Schools in Kitui Sub-County*. [UnPuplished M.Ed]. (CUEA).
- Oduor, A. (2017). *An Assessment of Teachers Performance in Secondary Schools in Kenya: A Case of Selected Secondary Schools in Kiambu County*. [Unpublished Thesis]. Kenyatta University.
- Ogola, C. A. (2017). *Influence of School Board of Managements' Strategies on Students' Performance at Kenya Certificate of Secondary Education in Suna West, Migori Count*. [Unpublished Thesis]. University of Nairobi
- Okoth, R. O. (2015). *Factors Hindering Effective Provision of Guidance and Counseling Services in Secondary Schools in Trans Nzoia West Sub-County, Kenya*. [Unpublished Master's Thesis]. CUEA.



- Okongo, B. R., Ngao, G., Rop, N. K., & Nyongesa, W. J. (2015). Effects of availability of teaching and learning resources on the implementation of inclusive education in Pre-school centers in Nyamira North Sub-County, Nyamira County, Kenya. *Journal of Education and Practice*, 6(35), 132-141.
- Okwara, M. O. (2013). Towards a model of integrated English language curriculum for secondary schools in Kenya. *Educational Research and Review*, 4(5), 301-309.
- Omariba, A., Ondigi, S. R., & Ayot, H. O. (2016). Challenges facing teachers in integrating educational technology into Kiswahili teaching: A case of selected secondary schools in Kisii County, Kenya. *International Journal for Innovation Education and Research*, 4(12), 23-39.
- Omariba, A. (2012). *Challenges Facing Teachers and Students in the Use of Instructional Technologies: A Case of Selected Secondary Schools in Kisii county, Kenya*. [Unpublished Thesis]. Kenyatta University.
- Omina, M. O. (2016). Availability and use of instructional resources for teaching and learning of English reading skills in secondary schools in Teso North Sub-County, Kenya. *International Research Journal*, 7(1), 1-9.
- Onsongo, E. N. (2015). Challenges facing procurement committees in implementing procurement Act: A case study of secondary schools in Kisii County. *Elixer International Journal*, 6(9).
- Orawo, R. (2016, May 6). *Analysis of Challenges Faced by Deputy Principals in Managing Instructional Programs in Public Mixed Day Secondary Schools in Nyando Sub-County Kisumu County, Kenya*. Jaramogi Oginga Odinga University of Science & Technology: <http://62.24.102.115:8080/xmlui/handle/123456789/322>
- Orodho, J. (2013). *Guidelines for Writing Academic Research Proposals and Thesis in the School of education*: Nairobi, Masla publishers.
- Otieno, J. (2013). Availability and utilization of educational resources in influencing students' performance in secondary schools in Migori Sub-County, Kenya. *Educational Research and Review Journal*, 1(5), 63-71.
- Owate, C. N., & Okpa, I. (2013). The availability and utilization of school library resources in some selected secondary schools (high school) in Rivers State. *Academic Journals*, 8(16), 1449-1460.

- Owoeye, J. & Yara, P.O., (2011). School facilities and academic achievement of secondary school agricultural science in Ekiti State Nigeria. *Asian Social Sciences*, 7(7), 1-10.
- Price Water House Coopers. (2017). *Governing our schools*. Business Community : [http /Www. Gatech.Edu](http://www.Gatech.Edu)2018-9.
- Republic of Kenya. (2014). *Divert Schools Funds not*. [Unpublished report].
- Republic of Kenya. (2005). *Sessional Paper No. 1 of 2005 on Policy Framework for Education, Training and Research*. Government Printers.
- Republic of Kenya. (2015). *The Public Procurement and Asset Disposal Act 2015*. Government Printers.
- Republic of Kenya. (2013). *The Kenya Basic Education Act 2013*. Government Printers.
- SACMEQ IV. (2017). *A Report on Monitoring of Learner Achievement at Form Two*. SACMEQ.
- Sanjari, M. (2014). Ethical challenges of researchers in qualitative studies: The necessity to develop a specific guideline. *Journal of Medical Ethics and History of Medicine*, 7(8), 7-14.
- Sekaran, U., & Bougie, R. (2013). *Research Methods for Business*. West Sussex, UK. John Willey & Sons.
- Schleicher, A. (2012). *Preparing Teachers and Developing School Leaders for the 21<sup>st</sup> Century: Lessons from around the World*. OECD Publishers.
- Taylor, S. (2011). *Improving Education Quality in South Africa*. University of Stellenbosch: National Planning Commission.
- Tanui, J. K. (2012). *A Survey of Availability and Use of Media Resources in Mathematics Instruction: The Case of Secondary Schools in Nandi North District, Kenya*. [Unpublished M. Phil Thesis].Moi University
- TSC. (2018). *A review Of 2016 KCSE performance: Challenges and Opportunities*. TSC (K).
- TSC. (2017). *Career Progression Guidelines for Teachers*. TSC (K)
- Tsotsekedi, K., Larner, M., & VanWyk. (2014). The Experience and the need for training of school governors in rural schools in South Africa. *South African Journal of Education*, 28(1), 385-400.
- UNESCO. (2015). *Challenges of Implementing FDSE in Kenya: Assessment Report*. Nairobi office: UNESCO.

- Usman, A. (2017). The relevant material resources to the teaching and learning of Arabic and Islamic studies. *An Encyclopedia of the Arts*, 7(1), 47 -52.
- Usman, Y. D. (2016). Educational Resources: An integral component for effective school administration in Nigeria. *Research on Humanities and Social Sciences*, 6(13), 27-37.
- Van, W. (2014). Perspective of effective financial management in the public sector. *Journal of Public Administration*, 29(2), 11-19.
- Wallen, N., & Fraenkel, J. R. (2011). *Educational Research: A Guide to the Process*. London: Laurence Earlbaum Associates.
- Wambu, G. W., & Fisher, T. (2015). School guidance and counselling in Kenya: Historical development, current status, and future prospects. *Journal of Education and Practice*, 6(11), 93-102.
- Wango, G. M., & Gatere, A. W. (2016). Integrity and financial accountability in schools: Role of principals of secondary in Kenya. *International Journal of Education and Research*, 4(4), 1-9.
- Wangui, K. M. (2012). Influence of learning environment on reading comprehension among young learners in Kikuyu division. *Curriculum Journals*, 17 (1), 73-88.
- Wanyama, J. (2010). *The Effectiveness of procurement regulations in Kenya*. OECD: <http://www.oecd.org>.
- Wekesa, J. M., & Nyaroos, S. (2018). Effects of compensation on performance of public secondary school teachers in Kajiado County. *International Journal of Scientific Research Publications*, 3(6), (23-30).
- Wetzel, A. (2011). *Factor Analysis Methods and Validity evidence: A Systematic Review of Instrument Development across the Continuum of Medical Education*: [Unpublished Thesis]. Virginia Commonwealth University
- World Bank. (2008). *Text book and School Library Provision in Secondary Education in Sub-Saharan Africa*. African Region Human Development.
- World Bank. (2017). Learning to realize education promise. *World Bank Development Report*. World Bank.
- Xaba, I. M. (2011). The possible cause of school governance challenges in South Africa. *South African Journal of Education*, (3(1), 201-211.
- Zuljan, V. M., & Zuljan, J. (2012). *Facilitating Effective Student Learning through Teacher Research and Innovation*. University of Ljubljana.

## APPENDICES

### APPENDIX I: QUESTIONNAIRE FOR TEACHERS

My name is Kosgei Kipruto Pius, a student of Kabarak University taking Masters Degree in Education Management and Leadership. This questionnaire is to collect data on the **“Relationship between Provision of Selected Resources and Effective Performance of Instructional Roles in Secondary Schools In Nandi East Sub County, Kenya”** for purely academic purposes. All information will be treated as confidential. Please **DO NOT** put any name or identification on this questionnaire.

Kindly answer the questions as indicated by ticking in the box or filling in the blank spaces.

#### SECTION A: Background Information of the respondent

- i. What is your gender? (i) Male  (ii)Female
- ii. What is your highest level of education?  
(i)Diploma  (ii) Bachelors’  (iii) Masters  (iv) PhD.
- iii. How long have you served as a teacher in this school?  
1-3 yrs  (ii)4-6 yrs  (iii)7-9 yrs  (iv) 10-12 yrs  over 12yrs
- iv. What is the category of your school? (i) Boarding  (ii) Day

#### SECTION B: Provision of Classroom Teaching Resources for Effective Performance of classroom Instructional Roles

This section requires you to give responses on provision of classroom teaching resources for effective performance of classroom instructional roles. Kindly respond by ticking your responses appropriately.

Key: 4. **SA** = strongly agree, 3. **A** = agree, 2. **D**=disagree, 1. **SD** = strongly disagree

Statement	4. SA	3. A	2. D	1. SD
1. My school provides teachers with adequate text Books.				
2. My school provides teachers with laptops for teaching				
3. My school provides teachers with Projectors for teaching				
4. My school provides teachers with models for teaching				
5. My school provides teachers with adequate Desks.				
6. My school provides teachers with note books				

7.	My school provides teachers with teaching reference materials.				
8.	My school provides teachers with audio-video instructional equipment.				

**SECTION C: Provision of Learning Resources for Effective Performance of classroom Instructional Roles**

This section requires you to give responses on provision of learning resources for effective performance of classroom instructional roles. Kindly respond by ticking your responses appropriately

Key: 4. **SA** = strongly agree, 3. **A** = agree, 2. **D**=disagree, 1. **SD** = strongly disagree

Statement	4. SA	3. A	2. D	1. SD
1. My school has a library for students learning.				
2. My school provides students with journals for learning.				
3. My school provides students with access to online learning resources.				
4. My school provides students with multi-media learning resources.				
5. My school provides students with Computer laboratory for learning				
6. My school provides students with academic electronic files for learning.				
7. My school provides students with educational games for learning.				
8. My school provides students with learning resources for academic projects.				

**SECTION D: Provision of Students' Evaluation Resources for Effective Performance of Students' Evaluation Roles**

This section requires you to give responses on Provision of Students' Evaluation Resources for Effective Performance of Students' Evaluation Roles. Kindly tick your responses.

Key: 4. **SA** = strongly agree, 3. **A** = agree, 2. **D**=disagree, 1. **SD** = strongly disagree

<b>Statement</b>	4. SA	3. A	2. D	1. SD
1. My school provides teachers with adequate writing evaluation materials.				
2. My school provides teachers with photocopiers.				
3. My school provides teachers with computers for evaluation				
4. My school provides teachers with adequate photocopying papers.				
5. My school provides teachers with printers.				
6. My school provides teachers with Examination analysis software.				
7. My school provides students with adequate rooms for examination.				
8. My school provides adequate time for evaluation				

**SECTION E: Provision of Academic Advising Resources for Effective Performance of Academic Advising Roles**

This section requires you to give responses on provision of academic advising resources for your effective performance of academic advising roles.

Key: 4. **SA** = strongly agree, 3. **A** = agree, 2. **D**=disagree, 1. **SD** = strongly disagree

<b>Statemen</b>	4. SA	3. A	2. D	1. SD
1. My school provides teachers with multi media items for use during academic advising sessions.				
2. My school provides teachers with chairs in academic advising rooms.				
3. My school provides teachers with computers for use in student academic advising rooms.				
4. My school provides teachers with an Office space for student advisory services.				
5. My school allocates time to teachers to attend academic advising sessions.				
6. My school provides teachers with lockable file cabinets in academic advising rooms.				
7. My school provides teachers with career resource materials.				
8. My school provides teachers with relevant pamphlets and fliers for academic advising.				

### SECTION F: Performance of Classroom Instructional Roles

This section requires you to rate your performance of classroom instructional roles.

Kindly respond by ticking your response(s) appropriately.

Key: 4. **VE** = Very Effective, 3. **E** = Effective, 2. **LE**= Less Effective, 1. **NE** = Not effective

<b>How do you rate your performance of the following classroom instructional roles?</b>	4. VE	3. E	2. LE	1. NE
1. Regularly explaining concepts in class.				
2. Regular use of audio-visual equipment during the lesson delivery.				
3. Regularly supervising students as they study.				
4. Regularly giving assignments.				
5. Regularly giving notes to students.				
6. Regularly providing reference materials.				
7. Giving timely feedback on student achievement to parents/guardians.				
8. Regularly preparing curriculum support materials.				

### SECTION G: Performance of Students' Evaluation Roles

This section requires you to rate your performance of students' evaluation roles. Kindly respond by ticking your responses appropriately.

Key: 4. **VE** = Very Effective, 3. **E** = Effective, 2. **LE**= Less Effective, 1. **NE** = Not Effective

<b>How do you rate your performance of the following students' evaluation roles?</b>	4. VE	3. E	2. LE	1. NE
1. Regularly setting CATs				
2. Timely marking CATs				
3. Timely Setting exams				
4. Timely Marking exams				
5. Timely Analysis of results				
6. Regularly Marking class exercises				
7. Regularly invigilating exams				
8. Giving timely feedback to parents on students' achievement.				



**SECTION H: Performance of Academic Advising Roles**

This Section requires you to rate your performance of academic advising roles. Kindly respond by ticking your responses appropriately.

Key: 4. **VE** = Very Effective, 3. **E** = Effective, 2. **LE**= Less Effective, 1. **NE** = Not effective

<b>How do you rate your performance of the following academic advising roles</b>	4. VE	3. E	2. LE	1. NE
1. Regularly providing students with academic advising literature materials				
2. Timely counselling of students with academic advising needs.				
3. Regularly organizing school wide academic advisory services				
4. Regularly providing students with academic recreational games				
5. Regularly providing students with career advice.				
6. Regularly providing individualized academic advice to students.				
7. Regularly providing students with career guidance resources				
8. Regularly providing students with audio-video materials for academic advising				

*Thank you for your time*

## APPENDIX II: QUESTIONNAIRE FOR DEPUTY PRINCIPALS

My name is Kosgei Kipruto Pius, a student of Kabarak University taking Masters Degree in Education Management and Leadership. This questionnaire is to collect data on the “**Relationship between Provision of Selected Resources and Effective Performance of Instructional Roles in Secondary Schools In Nandi East Sub County, Kenya**” for purely academic purposes. All information will be treated as confidential. Please **DO NOT** put any name or identification on this questionnaire.

Kindly answer the questions as indicated by ticking in the box or filling in the blank spaces.

### SECTION A: Background Information of the Respondent

- v. What is your gender? (i) Male  (ii)Female
- vi. What is your highest level of education?  
(i)Diploma  (ii) Bachelors’  (iii) Masters  (iv) PhD.
- vii. How long have you served as a deputy principal in this school?  
1-4 yrs  (ii)4-6 yrs  (iii)7-9 yrs  (iv) 10-12 yrs  over 12yrs
- viii. What is the category of your school? (i) Boarding  (ii) Day

### SECTION B: Provision of Classroom Teaching Resources for Effective Performance of Classroom Instructional Roles

This section requires you to give responses on provision of classroom teaching resources for effective performance of classroom instructional roles. Kindly respond by ticking your responses appropriately.

Key: 4. **SA** = Strongly Agree, 3. **A** = Agree, 2. **D**=Disagree, 1. **SD** = Strongly Disagree

Statement	4. SA	3. A	2. D	1. SD
1. My school provides teachers with adequate text Books.				
2. My school provides teachers with laptops for teaching				
3. My school provides teachers with Projectors for teaching				
4. My school provides teachers with models for teaching.				

5.	My school provides teachers with adequate Desks.				
6.	My school provides teachers with note books				
7.	My school provides teachers with teaching reference materials.				
8.	My school provides teachers with audio-video instructional equipment.				

**SECTION C: Provision of Learning Resources for Effective Performance of Classroom instructional roles.**

This section requires you to give responses on provision of learning resources for effective performance of classroom instructional roles. Kindly respond by ticking your responses appropriately

Key: 4. **SA** = Strongly Agree, 3. **A** = Agree, 2. **D**=Disagree, 1. **SD** = Strongly Disagree

Statement	4. SA	3. A	2. D	1. SD
1. My school has a library for students learning.				
2. My school provides students with journals for learning.				
3. My school provides students with access to online learning resources.				
4. My school provides students with multi-media learning resources.				
5. My school provides students with Computer laboratory for learning				
6. My school provides students with academic electronic files for learning.				
7. My school provides students with educational games for learning.				
8. My school provides students with learning resources for academic projects.				

**SECTION D: Provision of Students' Evaluation Resources for Effective Performance of Students' Evaluation Roles**

This section requires you to give responses on provision of students' evaluation resources for effective performance of students' evaluation roles. Kindly tick your responses.

Key: 4. **SA** = Strongly Agree, 3. **A** = Agree, 2. **D**=Disagree, 1. **SD** = Strongly Disagree

<b>Statement</b>	4. SA	3. A	2. D	1. SD
1. My school provides teachers with adequate writing evaluation materials.				
2. My school provides teachers with photocopiers.				
3. My school provides teachers with computers for evaluation				
4. My school provides teachers with adequate photocopying papers.				
5. My school provides teachers with printers.				
6. My school provides teachers with Examination analysis software.				
7. My school provides students with adequate rooms for examination.				
8. My school provides teachers with adequate time for evaluation of students.				

**SECTION E: Provision of Academic Advising Resources for Effective Performance of Academic Advising Roles**

This section requires you to give responses on provision of academic advising resources for your effective performance of academic advising roles.

Key: 4. **SA** = Strongly Agree, 3. **A** = Agree, 2. **D**=Disagree, 1. **SD** = Strongly Disagree

<b>Statement</b>	4. SA	3. A	2. D	1. SD
1. My school provides teachers with multi media items for use during academic advising sessions.				
2. My school provides teachers with chairs in academic advising rooms.				
3. My school provides teachers with computers for use in student academic advising rooms.				
4. My school provides teachers with an Office space for student advisory services.				
5. My school allocates time to teachers to attend academic advising sessions.				
6. My school provides teachers with lockable file cabinets in academic advising rooms.				
7. My school provides teachers with career resource materials.				
8. My school provides teachers with relevant pamphlets and fliers for academic advising.				

**SECTION F: Performance of Classroom Instructional Roles**

This section requires you to rate effectiveness in performance of classroom Instructional roles by teachers in your school. Kindly respond by ticking your response(s) appropriately.

Key: 4. **VE** = Very Effective, 3. **E** = Effective, 2. **LE**= Less Effective, 1. **NE** = Not effective

How do you rate effectiveness in performance of the following classroom instructional roles by teachers in your school?	4. VE	3. E	2. LE	1. NE
1. Regularly explaining concepts in class.				
2. Regularly using audio-visual equipment during the lesson delivery.				
3. Regularly supervising students as they study.				
4. Regularly giving assignments.				
5. Regularly giving notes to students.				
6. Regularly providing reference materials.				
7. Giving timely feedback on student achievement to parents/guardians.				
8. Regularly Preparing curriculum support materials.				

### **SECTION G: Performance of Students' Evaluation Roles**

This section requires you to rate effectiveness in performance of students' evaluation roles by teachers in your school. Kindly respond by ticking your responses appropriately.

Key: 4. **VE** = Very Effective, 3. **E** = Effective, 2. **LE**= Less Effective, 1. **NE** = Not effective

<b>How do you rate effectiveness in performance of the following students' evaluation roles by teachers in your school?</b>	4. VE	3. E	2. LE	1. NE
Regularly setting CATs				
Timely marking CATs				
Timely setting exams				
Timely marking exams				
Timely analysis of results				
Regularly marking class exercises				
Regularly invigilating exams				
Giving timely feedback to parents on students' achievement.				

## SECTION H: Performance of Academic Advising Roles

This section requires you to rate effectiveness in performance of academic advising roles by teachers in your school. Kindly respond by ticking your responses appropriately.

Key: 4. **VE** = Very Effective, 3. **E** = **Effective**, 2. **LE**= Less Effective, 1. **NE** = Not effective

<b>How do you rate effectiveness in performance of the following academic advising roles by teachers in your school</b>	4. VE	3. E	2. LE	1. NE
1. Regularly providing students with academic advising literature materials				
2. Timely counselling of students with academic advising needs.				
3. Regularly organizing school wide academic advisory services				
4. Regularly providing students with academic recreational games				
5. Regularly providing students with career advice.				
6. Regularly providing individualized academic advice to students.				
7. Regularly providing students with career guidance resources				
8. Regularly providing students with audio-video materials for academic advising				

*Thank you for your time*

**APPENDIX III: KREJCIE AND MORGAN TABLE OF SAMPLE SIZE  
DETERMINATION**

<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note.—*N* is population size. *S* is sample size.

Source: Krejcie & Morgan, 1970



**APPENDIX IV: LETTER TO RESPONDENT.**

Kosgei Kipruto Pius

Kabarak University

P.O. Box Private Bag Kabarak

Date 17<sup>th</sup> SEPTEMBER 2018

Dear Respondent,

**RE: REQUEST TO PARTICIPATE IN A RESEARCH STUDY**

I am a Student at Kabarak University taking Masters Degree in Education Management and Leadership. You are kindly requested to participate in the study. You will be provided with a questionnaire to fill in order to collect data on the “Relationship between provision of selected resources and effective performance of instructional roles in secondary schools in Nandi East Sub-County, Kenya”.

The information collected will be used purely for academic purposes. All information will be treated as confidential. Please note that you are free to opt out of this study.

Thank you

Signature .....

Kosgei Kipruto Pius.

## APPENDIX V: RESEARCH AUTHORIZATION- KABARAK



### INSTITUTE OF POST GRADUATE STUDIES

Private Bag - 20157  
KABARAK, KENYA  
E-mail: [directorpostgraduate@kabarak.ac.ke](mailto:directorpostgraduate@kabarak.ac.ke)

Tel: 0773265999  
Fax: 254-51-343012  
[www.kabarak.ac.ke](http://www.kabarak.ac.ke)

23<sup>rd</sup> August, 2018

Ministry of Higher Education Science and Technology,  
National Council for Science, Technology & Innovation,  
P.O. Box 30623 00100,

Dear Sir/Madam,

#### **RE: RESEARCH BY KOSGEI KIPRUTO PIUS-MED/M/0944/08/16**

The above named is a student at Kabarak University taking Masters Degree in Education Management and Leadership. He is carrying out research entitled "**Relationship Between Provision of Instructional Resources and Performance of Teaching Roles in Secondary Schools in Nandi East Sub-County, Kenya.**"

The information obtained in the course of this research will be used for academic purposes only and will be treated with utmost confidentiality.

Please provide the necessary assistance.

Thank you.



**Dr. Betty Tikoko**  
**DIRECTOR (POST GRADUATE STUDIES)**

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#### Kabarak University Moral Code

*As members of Kabarak University family, we purpose at all times and in all places, to set apart by our's heart. Jesus as I ord. (1 Peter 3:25)*



Kabarak University is ISO 9001:2015 Certified

## APPENDIX VI: RESEARCH AUTHORIZATION-NACOSTI



### NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Tel: +254-20-2911441  
2241349,3316271,2275478  
Fax: +254 20 218215, 218249  
Email: dg@nacosti.go.ke  
Website: www.nacosti.go.ke  
When replying please quote

NACOSTI Upper Kabete  
Off. Wanyaki Way  
P.O. Box 30823-00100  
NAIROBI-KENYA

Ref. No: **NACOSTI/P/18/59474/25082**

Date: **15<sup>th</sup> September, 2018**

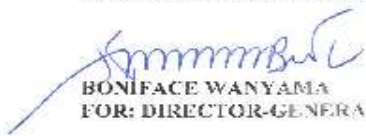
Pius Kipruto Kosgei  
Kabarak University  
Private Bag - 20157  
KABARAK.

#### **RE: RESEARCH AUTHORIZATION**

Following your application for authority to carry out research on "*Relationship between provision of instructional resources and performance of teaching roles in secondary schools in Nandi East Sub-County, Kenya*" I am pleased to inform you that you have been authorized to undertake research in **Nandi County** for the period ending **13<sup>th</sup> September, 2019**.

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

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

  
**BONIFACE WANYAMA**  
**FOR: DIRECTOR-GENERAL/CEO**

Copy to:

The County Commissioner  
Nandi County.

The County Director of Education  
Nandi County.


**APPENDIX VII: RESEARCH PERMIT**

**THIS IS TO CERTIFY THAT:**  
**MR. PIUS KIPRUTO KOSGEI**  
**of KABARAK UNIVERSITY, 487-30100**  
**ELDORET, has been permitted to conduct**  
**research in Nandi County**

**on the topic: RELATIONSHIP BETWEEN**  
**PROVISION OF INSTRUCTIONAL**  
**RESOURCES AND PERFORMANCE OF**  
**TEACHING ROLES IN SECONDARY**  
**SCHOOLS IN NANDI EAST SUB-COUNTY,**  
**KENYA**

**for the period ending:**  
**13th September, 2019**

**Permit No : NACOSTI/P/18/59474/25082**  
**Date Of Issue : 15th September, 2018**  
**Fee Received :Ksh 1000**



**Applicant's Signature**

*[Handwritten Signature]*  
**Director General**  
**National Commission for Science,**  
**Technology & Innovation**

**APPENDIX VIII: RESEARCH AUTHORITY FROM COUNTY DIRECTOR OF  
EDUCATION NANDI**

REPUBLIC OF KENYA



**MINISTRY OF EDUCATION  
STATE DEPARTMENT FOR EARLY LEARNING AND BASIC EDUCATION**

Email: cdenandicounty@yahoo.com  
When replying please quote

COUNTY DIRECTOR OF EDUCATION,  
NANDI  
P.O BOX 36 – 30300,  
KAPSABET.

Ref: NDI/CDE/RESEARCH/1/VOL.II/157

18<sup>th</sup> September 2018

Pius Kipruto Kosgei  
Kabarak University,  
Private Bag - 20157  
**KABARAK.**

**RE: RESEARCH AUTHORIZATION.**

Reference is made to the National Commission for Science,  
Technology and Innovation's letter Ref: **No.**  
**NACOSTI/P/18/59474/25082** dated **15<sup>th</sup> September, 2018**

The above named person has been granted permission by the  
County Director of Education to carry out research on  
***“Relationship between provision of instructional  
resources and performance of teaching roles in  
secondary schools in Nandi East Sub County, Kenya”*** for  
the period ending **13<sup>th</sup> September, 2019.**

Kindly provide him all necessary support he requires.

A handwritten signature in blue ink, appearing to be 'Odongo J. O.'.

For: *County Director  
of Education*  
NANDI COUNTY

Odongo J. O.  
For: County Director of Education,  
**NANDI COUNTY.**



**APPENDIX VIII: RESEARCH AUTHORIZATION- COUNTY  
COMMISSIONER**

**THE PRESIDENCY**

**MINISTRY OF INTERIOR AND COORDINATION OF NATIONAL GOVERNMENT**

Tel: 053 5252621, 5252003, Kapsabet  
Fax No. 053 – 5252503  
E-mail:  
nandlcountycommissioner@gmail.com  
When replying, please quote



County Commissioner's Office,  
Nandi County  
P.O. Box 30,  
KAPSABET.

18<sup>th</sup> September, 2018

Ref: No. NC.EDU/4/1/VOL.V(237)

Pius Kipruto Kosgei  
Kabarak University  
P.O. Box 20157,  
**KABARAK..**

**RE: RESEARCH AUTHORIZATION**

This is in reference to letter No. NACOSTI/P/18/59474/25082 dated 15<sup>th</sup> September, 2018 from the Director General/CEO, National Commission for Science, Technology and Innovation on the above subject matter.

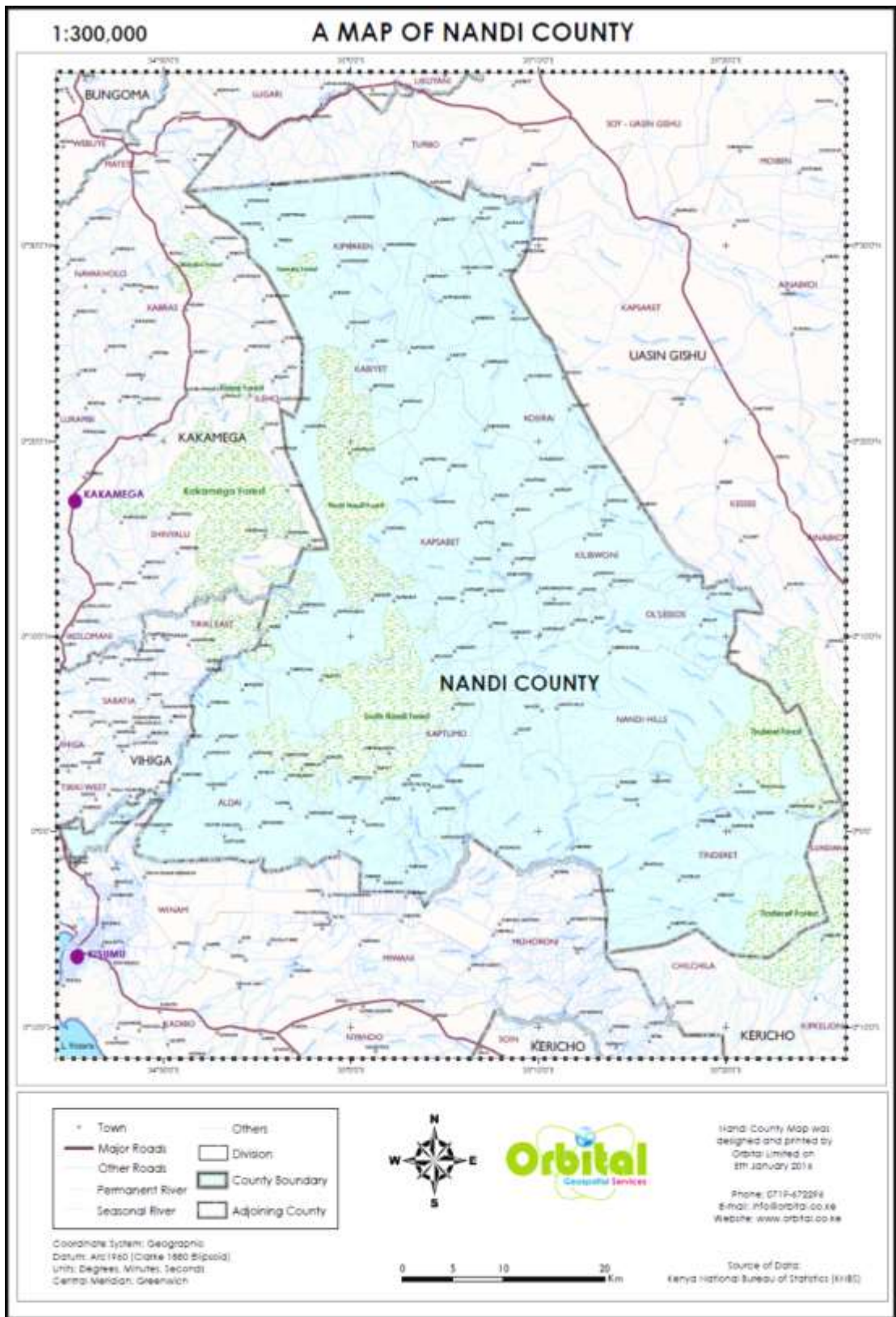
You are hereby authorized to conduct a research on **“Relationship between provision of instructional resources and performance of reaching roles in secondary Schools in Nandi East Sub County”** for a period ending **13<sup>th</sup> September, 2019.**

Wishing you all the best.



SAMUEL KIMITI, MBS  
COUNTY COMMISSIONER,  
**NANDI.**

# APPENDIX IX: MAP OF NANDI COUNTY



## APPENDIX X: LIST OF PUBLICATIONS

- Kosgei, P. K., Ngala, B. J. A., Kiplangat, K.H. (2018). Relationship between provision of teaching resources and performance of instructional roles in secondary schools in Nandi East Sub-County, Kenya. *Journal of Advances in Education and Philosophy*, 2(5), 492-500. Available online on:<http://saudijournals.com/> and on [www. semanticsholar.org](http://www.semanticsholar.org)
- Kosgei, P. K., Ngala, B. J. A., Kiplangat, K.H. (2018). Relationship between provision of evaluation resources and performance of instructional roles in secondary schools in Nandi East Sub-County, Kenya. *Scholars Bulletin (Scholars Middle East Publishers* 4(10), 813-821. Available online on:<http://scholarsbulletin.com/> and on [www. semanticsholar.org](http://www.semanticsholar.org)
- Kosgei, P. K., Kiplangat. K.H. & Ngala, B. J. A. (2020). Relationship between provision of learning resources and effective performance of instructional roles in secondary schools in Nandi East Sub-County, Kenya. *International journal of social sciences and management review* 3(6), 91-114. Available online on [www.ijssmr.org](http://www.ijssmr.org)
- Kosgei, P. K., Ngala, F. B. J. A., & Kiplangat, H. K. (2020). Relationship between provision of students' academic advising resources and effective performance of instructional roles in secondary schools in Nandi East Sub-County, Kenya. *Editon Cons .j.Curr.Educ.Stud.*, 2(1) 304-314. Available online on [www.editoncpublishing.org](http://www.editoncpublishing.org)