# INFLUENCE OF SCHOOL ENVIRONMENTAL FACTORS ON THE TEACHING-LEARNING PROCESS IN PUBLIC PRIMARY SCHOOLS: A CASE OF BUNGOMA COUNTY, KENYA

**BY**

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# DECLARATION

## Declaration by the Student

This thesis is my original work and has not been submitted for any academic award in any institution; and shall not be reproduced in part or full or in any format without prior written permission from the author and/or University of Eldoret.

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## Declaration by Supervisors

This thesis has been submitted with our approval as University supervisors.

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## DEDICATION

I dedicate this work to my late Father Mr. Mathews Ojiambo, my dear Mother Celina Anyona Ojiambo, Brothers, David and Dan and my Sisters, Lilian, Caroline, and Concilia.

## ABSTRACT

The degree to which students learn could be improved relying upon what the school condition gives to the students and the instructors on the grounds that the school condition influences the teaching learning process. This examination in this manner explored the impact of school ecological factors on the instructing learning process in open grade schools in Bungoma South Sub-County, Bungoma County, Kenya. The particular targets of the investigation were: to look at the impact of physical facilities on the educating learning process; to evaluate how adequacy of instructional materials can impact the instructing learning process; to build up how class size influences the educating learning process; and to decide how school area influences the way toward instructing learning. The examination was guided by the accompanying exploration questions: (I) To what degree do physical offices influence the way toward instructing and learning in open grade schools in Bungoma south sub-area, Bungoma County, Kenya? (ii) How does adequacy of instructional materials impact the educating learning process in open grade schools in Bungoma south sub-area, Bungoma County, Kenya? (iii) How does class size influence instructing learning process in open grade schools in Bungoma south sub-region, Bungoma County, Kenya? furthermore, (iv) To what degree does school area influence the instructing learning process in open grade schools in Bungoma south sub-province, Bungoma County, Kenya?. The discoveries of this examination will be noteworthy to the service of instruction as far as giving extra data to strategy plan in open elementary schools. A distinct study research configuration was utilized. The objective populace was the Head Teachers/Deputy Head instructors, Class Teachers, and Pupils in the Public Primary Schools in Bungoma South Sub-County, Bungoma County. Stratified inspecting, Simple arbitrary examining and Purposive testing were utilized. For a situation where there were more than one stream in a class, basic irregular inspecting was utilized to

choose one class instructor from each stream. An example size of 30 % of the objective populace was utilized. Essential information was utilized and gathered utilizing Questionnaires and Focus bunch talks. Information was broke down utilizing factual bundle for sociologies (SPSS). Consequences of this examination demonstrated that Sufficiency of physical offices particularly ampleness of study halls altogether influence the instructing learning process. The individuals who revealed having sufficient study halls performed superior to anything the individuals who announced insufficiency (Z=1.776, 0.046). Adequacy of instructional materials, Class size, and School area does not essentially influence the way toward educating and learning. The investigation reasoned that among the school ecological variables, physical offices especially ampleness of homerooms, was the main factor that fundamentally influenced instructing and learning whereby satisfactory study halls decidedly influenced while insufficient study halls contrarily influenced educating and learning. The investigation in this manner prescribes that National and County governments ought to guarantee that study halls are sufficient in Public grade schools.

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## ABBREVIATIONS, ACRONYMS AND SYMBOLS

**FGD** – Focus Group Discussion

**NPE** – National Policy on Education

**MOE** – Ministry of Education

**UK** – United Kingdom

**USA** – United States of America

**STR** – Student Teacher Ratio

**UNESCO** – United Nations Educational Scientific and Cultural Organisation

**NACOSTI** – National Commission for Science, Technology and Innovation

**SPSS** – Statistical Package for Social Science

**NCES** – National Centre for Education Statistics

**IQ** – Intelligent quotient

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# CHAPTER ONE

# INTRODUCTION

## 1.1 Background of the Study

This chapter introduces the background of the study; Statement of the Problem, Objectives, Research Questions, Significance of the Study, Justification of the study, The Scope of the Study, Theoretical Framework ,and finally Conceptual Framework.

The school environment refers to factors within the school that influence the teaching-learning process. The school environment consists of classrooms, educating mastering materials, library, technical workshops, teachers' quality, instructing methods, peers, amongst different variables that can affect the teaching–learning process. Instructional substances are a fundamental factor in the system of teaching and gaining knowledge of and textbooks are often the most price positive ability of enhancing educational achievement and increasing the efficiency of schools (Ajayi, 2001; Mege, 2014).

In developed countries like the United States of America, the government has put up measures to ensure all public primary schools have all the required physical facilities, instructional materials among other variables that may lead to effective teaching-learning process (Psachropoulous & Woodhall, 1995).

The Kothari Commission (1966) of India noted that the destiny of India is now being shaped in the classrooms and that because the students are the backbones of the nation, it is important to maintain a healthy school environment. In Ghana, inequality in educational resources and hence differences in the school environment has affected the quality of education in the Country (Dadze, 2010; Osei-Tutu, 2014; Hienno, 2005).

In Uganda, physical characteristics of the school have a variety of effects on the teachers, pupils and the learning process. Poor lighting, noise, high levels of carbon dioxide in classrooms and inconsistent temperatures make teaching-learning process difficult. Poor maintenance and ineffective ventilation systems lead to poor health among the pupils and higher absentee rates among pupils (Frazier, 2002; Lyons, 2001; Ostendorf, 2001).

The extent to which pupils learn could be enhanced depending on what the school environment provides to the learners and the teacher. Further, it was believed that a well-planned school was to gear up expected outcomes of education that was to facilitate good social, political and economic emancipation, effective teaching-learning process and academic performance of pupils (Mege, 2014). It is also reported that safe and orderly classroom environment and school facilities were significantly related to students' academic achievement in schools (Williams, et al, 2008).

In Kenya, a study on Influence of School Environment on teaching-learning process conducted by Mege (2014) found that inadequacy of physical facilities in schools and insufficiency of instructional materials in schools has great influence on the teaching-learning process.

In Bungoma it was noted that there was low enrolment in Bungoma County especially in Mount Elgon and Bungoma North Sub-Counties. This was attributed to insufficient teaching and learning resources and physical facilities (Rasto, 2015).

## 1.2 Statement of the Problem

The Government of Kenya has provided Free Primary Education as a way of ensuring that

all children attend school. However, Rasto (2015) noted that there was low enrolment in Bungoma County especially in Mt. Elgon and Bungoma North sub-counties. This was attributed to insufficient teaching and learning resources and physical facilities. According to Mutai (2006), most rural schools also have dilapidated buildings which affect the teaching and learning process. Effective teaching-learning process may not be assured with the foregoing problems in Bungoma County. No study has so far been done in Bungoma south sub-county, Bungoma County to determine the influence of school environmental factors. Therefore this study was carried out to determine the relationship between school environmental factors and the teaching-learning process in Bungoma south sub-county, Bungoma County, Kenya to make recommendations on improvement.

## 1.3 Objectives of the Study

### 1.3.1 Main Objective

The main objective of this study was to investigate the influence of school environmental factors on the teaching-learning process in public primary schools in Bungoma south sub-county, Bungoma County, Kenya.

### 1.3.2 Specific Objectives

The specific objectives of the study were as follows:

i. To examine the effect of physical facilities on the teaching-learning process in public primary schools in Bungoma south sub-county, Bungoma County, Kenya.

ii. To assess how sufficiency of instructional materials can influence the teaching-learning process in public primary schools in Bungoma south sub-county, Bungoma County, Kenya.

iii. To establish how class size affects teaching-learning process in public primary schools in Bungoma south sub-county, Bungoma County, Kenya.

iv. To determine how school location affects the process of teaching-learning in public primary schools in Bungoma south sub-county, Bungoma County, Kenya.

### 1.4 Research Questions

The study was guided by the following research questions:

i. To what extent do physical facilities affect the process of teaching and learning in public primary schools in Bungoma south sub-county, Bungoma County, Kenya?

ii. How does sufficiency of instructional materials influence the teaching-learning process in public primary schools in Bungoma south sub-county, Bungoma County, Kenya?

iii. How does class size affect teaching-learning process in public primary schools inBungoma south sub-county, Bungoma County, Kenya?

iv. To what extent does school location affect the teaching-learning process in public primary schools in Bungoma south sub-county, Bungoma County, Kenya?

### 1.5 Significance of the Study

The knowledge obtained from this research will help to shape up appropriate interventions

that will eventually help improve school environmental factors so as to enhance the teaching-learning process in public primary schools in Bungoma south sub-county, Bungoma County, Kenya. The findings of this study will also be significant to the Ministry of Education in terms of providing additional information for policy formulation in Public Primary Schools. The other stakeholders who stand to benefit from the implementation of this study are the teachers in public primary schools and parents. The teachers will operate in a better teaching environment while the parents will get satisfaction as a result of pupils performing well in a conducive school environment.

### 1.6 Justification of the Study

The situation of Primary education in most developing countries is not good. Many factors are adversely affecting the quality of primary education and service delivery of teaching-learning. Educational expenditure in most developing countries is also declining (Stephens, 1991). However, Primary education is among the building blocks for successful higher education, and therefore all factors that may affect teaching and learning in primary schools need to be determined and resolved. These factors include among others, school environmental factors. In Kenya, few studies have been done on effects of school environmental factors on teaching-learning and non for Bungoma County. Therefore this study was carried out to determine the relationship between school environmental factors and the teaching-learning process in Bungoma south sub-county, Bungoma County, Kenya to make recommendations for improvement. The findings of this study will make all the stakeholders in public primary schools in Bungoma county reflect upon the various factors that influence the teaching-learning process. This will hopefully make the stakeholders either introduce those factors which were lacking or increase factors that were not sufficient in primary schools in Bungoma county and so aid the teaching-learning process.

### 1.7 Assumptions of the Study

The study assumed that the respondents will cooperate by giving adequate, correct, and reliable information by providing relevant and honest answers to question items on the questionnaires. The Focus group discussions that were conducted between the researcher and the pupils were assumed to give accurate information. It was also assumed that Focus group discussions were able to capture any additional information in order to supplement information from the Questionnaires. It was further assumed that the information that was obtained from Bungoma Education Office was reliable.

### 1.8 The Scope of the Study

The study was conducted in Bungoma south Sub-county, Bungoma County. The study covered Primary School Teachers, Administrators and Pupils. There are several environmental factors that can influence teaching-learning process, however this study only focused on physical facilities, instructional materials, class size and school location.

### 1.9 Limitations of the study

There are two major limitations in this study that could be addressed in future research. First, selection bias and secondly, time constraints. Selection bias could arise due to the use of simple random sampling to identify schools in the zones. This method may have left out other public primary schools that could have given divers information. Time constraints were experienced because the public primary schools were in the examination period hence both teachers and pupils had limited time to spare for this research.

### 1.10 Theoretical Framework

The learn about used to be guided with the aid of Systems principle of groups as superior by Ludwig Von Bertalanffy (1969). According to this theory, all components of an

enterprise are interrelated and that when one part of the school machine is altered the other components are also affected. The idea views college company as a complicated social gadget whose homes cannot be known from analysis of the constituent factors in isolation as a result for positive management of the teaching-learning process, emphasis need to shift from section to whole.

The systems principle as utilized to this learn about states that the extraordinary factors in the device that impact the teaching-learning technique have to be managed collectively however now not in piece meal. The holistic strategy is considered a higher way to attain positive instructing and learning. The overall performance of a gadget relies upon on how the factors work together and now not how each element works independently (Mege, 2014).

### 1.11 Conceptual Framework

This study had three types of variables, Independent Variables, Dependent variable and Intervening variables. The conceptual framework was prepared by the researcher (2018). The conceptual framework for the study is shown in Figure 1.

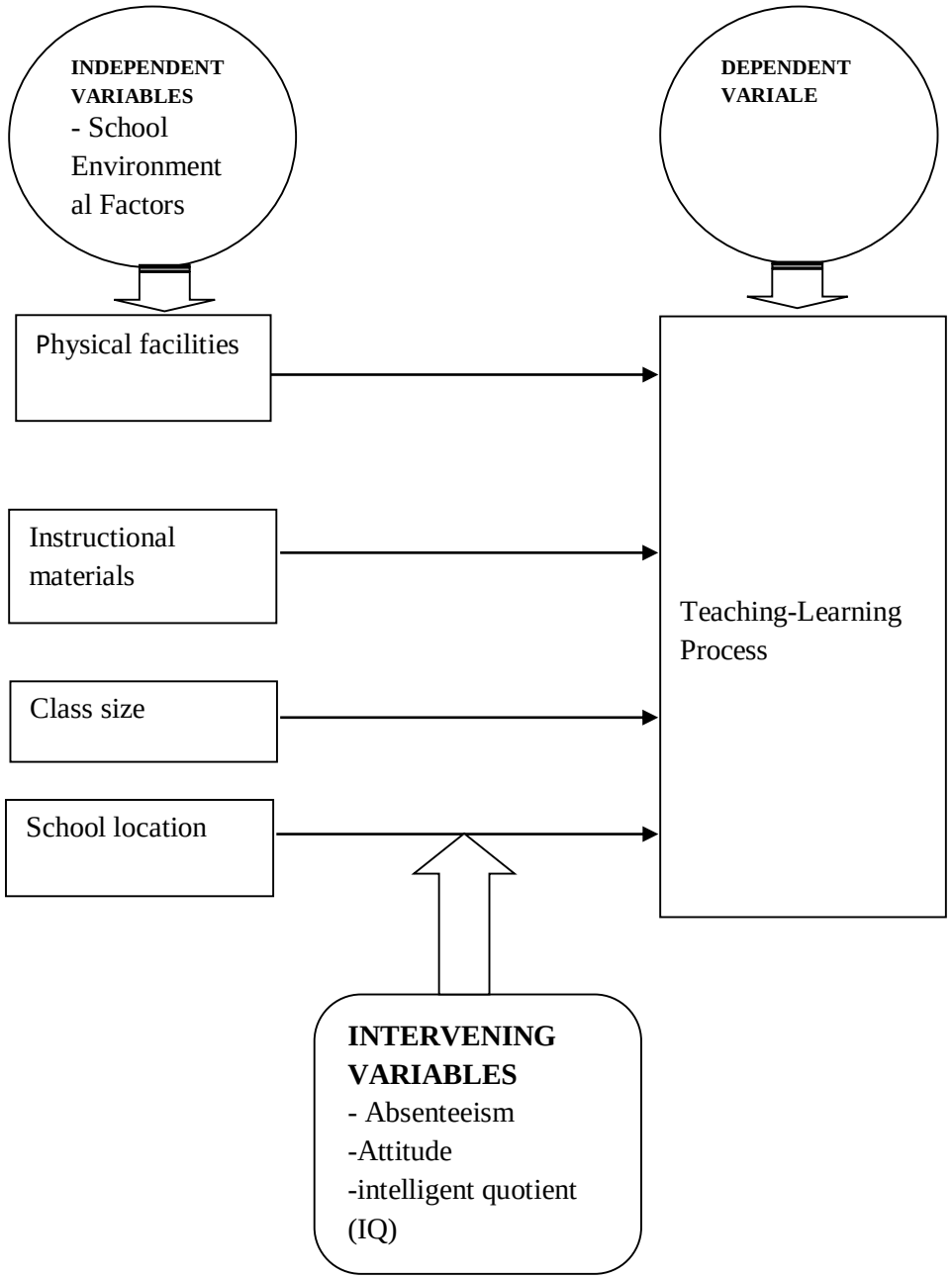


**Figure 1: Conceptual Framework (Source: Author, 2019)**

The conceptual framework shows how the variables are interrelated. It also shows that the factors that influence teaching–learning process are Physical facilities, Instructional materials, Class size and School location. The conceptual framework shows that the influence on teaching–learning process is affected by factors like Absenteeism, Attitude and Intelligent Quotient.

### 1.12 Operational Definition of Terms

In this study the following terms are defined as follows:

**Class size:** class size refers to the number of pupils in a class.

**Influence:** refers to the effect that the school environmental factors have on the teaching-learning process. The effect could be either positive or negative.

**Instructional materials:** refer to those materials that a teachers uses in class to facilitate teaching and learning. They include Text books, Exercise books, Revision books, Chalk, Wall maps and Charts, Atlas.

**Key informant interviews:** also called In-depth interviews are a research method to gather specific qualitative information, from "informants" who are usually experts and decision-makers, about a topic or a community's views. In this study Key Informants were the Head Teachers / Deputy Head Teachers.

**Physical facilities:** refer to the movable and immovable objects in schools that bring comfort to the learner. They include classrooms, Libraries, offices, toilets, desks.

**School environmental factors:** are those aspects within the pupils' surrounding at school that influence the teaching-learning process.

**School location:** refers to where the school is situated, that is the site.

# CHAPTER TWO

# LITERATURE REVIEW

## 2.1 Introduction

This Chapter examines Literature related to the study. The review examines literature related to the school environmental factors that influence teaching-learning process in public primary schools in various parts of the world.

## 2.2 General School Environment

Education is the bedrock for all future development. This statement ability that training is an essential tool for making sure the continued boom of all nations. Akrofi (1978) is of the same opinion that "what the citizens of a united states of america come to be is established upon the sort of schooling provided them". According to Lockheed and Vespoor (1991), the future development of the World and man or woman international locations hinges greater than ever on the ability of humans and countries to acquire, adapt and enhance knowledge. This capability depends on whether the population has attained the required capabilities and information wished to extend and make desired improvement.

Education is the method of imparting to the youthful generation, knowledge, values, competencies and attitudes that will enable them to play various energetic roles in the society in which they find themselves (Taba, 1962). The knowledge, values, competencies and attitudes required of the younger technology are expressed in the philosophy of education or the goal of training of the country. These dreams or philosophy of schooling are translated into practical use thru a medium referred to as curriculum (Abosi & amp; Amissah, 1992).

‘Education is a continuous procedure of experiencing and of revising or non-revising experiences. It is the improvement of all those capacities in the individual, which permits him to manipulate his surroundings and fulfill his possibilities’ (Dewey, 1926; Arul & Vimala, 2012). The forces of surroundings commence to have an impact on the growth and development of the individual right from the womb of the mother. Educational technique of development takes place in physical, social, cultural and psychological environment. A perfect and ample environment is very a great deal essential for a fruitful learning of the child. Especially the domestic and the faculty ought to supply the integral stimulus for mastering experience. The infant spends most of his time in school and right here his environment is exerting a exceptional affect on performance through curricula, teaching techniques, relationship (Arul & Vimala, 2012).

Arul & Vimala (2012) declared that if all were well with our educational institutions, all would be well with the nation. Educational institutions are intimately linked with society at large. They are the temples of knowledge. They are the agents of social change and transformation. Therefore, the general condition of our schools, colleges and universities is a matter of great concern to the nation. Environment plays a vital role in the development of the personality of the students. As a student spends most of his life at school, the school environment is highly responsible for the inculcating of great values in him. The Kothari Commission (1966) has beautifully said, “The destiny of India is now being shaped in her classrooms”. As students are the backbones of the nation it is important to maintain a healthy school environment.

School Environment means the extent to which school settings promote student safety and student health, which may include topics such as the physical plant, the academic

environment, available physical and mental health supports and services, and the fairness and adequacy of disciplinary procedures, as supported by relevant research and an assessment of validity (Zais, 2011).

### 2.3 Physical Facilities and the Teaching-Learning Process

In Ghana, instructional infrastructural improvement is unequally shared with the aid of the Ghana Education Trust Fund Secretariat (Hienno, 2005). Whereas some faculties are well resourced in phrases of infrastructure, personnel and instructional substances inter alia, others have insufficient classrooms, personnel and teaching – gaining knowledge of materials. This inequality in assets has affected the first-class of training in the Country (Dadze, 2010; Osei-Tutu, 2014).

Ensuring that all the school learning facilities are adequate and that they are in good condition creates conducive environment for learners and also supports learning. Education is advocated for in most of the states across the globe to equip their citizens with values, skills and knowledge that will enable them to build their societies and eliminate inequality and disparity (Newmann, 1992). The success of schools can be measured through the good performance posted by the students in those schools.

Availability and the effectivity of physical amenities have a nice influence on students' educational performance whilst Lack of these facilities leads to poor influence on academic performance. Taylor and Kroth (2009) argue that enough bodily amenities give a boost to and motivate the tutorial overall performance of schools. The learning system can be greater through growing conducive gaining knowledge of surroundings that favors gaining knowledge of with the aid of ensuring that the classrooms are arranged properly. Based on Taylor and Kroth (2009) argument the setting of the study room adds price to the teaching and mastering technique for this reason resulting in

educational success unlike when there are no facilities. According to Lyons (2001), getting to know in a well-structured classroom improves cooperation between the teacher and the students' consequently true students' performance. On the other hand, when the students are uncomfortable in the classroom, they tend to post negative consequences in their academic overall performance due to verbal exchange barrier between the trainer and the students. Therefore, teachers' effectiveness and students' academic performance can be significantly influenced by way of poor college facilities.

In Kenya, Onyara (2013) determined a direct relationship between the students' performance and availability of college bodily facilities. This is in line with Mwangi et al. (2011) who argued that true academic performance is contributed to with the aid of the availability of faculty structures and other excellent plans therefore ensuing to high-quality educating and learning activities. High instructional performance can as well be done thru having a first-class ecosystem and different bodily amenities such as latrines and playgrounds.

### 2.3.1 The influence of Library on the Performance of Students in Kenya

Library is an fundamental factor in teaching-learning process. It types one of the most essential instructional services. The academic manner features in a world of books. The chief motive of a school library is to make reachable to the pupil, at his handy convenience, all books, periodicals and other reproduced substances which are of interest and price to him but which are now not provided or assigned to him as simple or supplementary textbooks. The significance of library has been confirmed via the authorities when she expressed in the National Policy on Education (NPE) that each nation Ministry wishes to furnish funds for the establishment of libraries in all her academic establishments and to teach librarians and library assistants. As a resource, it

occupies a central and primary place in any college system. It supports all features of school-teaching and offers service and coaching to its readers (World Bank, 2008).

Farombi (1998) reiterated that faculty libraries might also not be superb if the books therein are no longer ample and up to date as its have an impact on might also only be significant if the library may want to be opened to the college students constantly for a giant length of time in a college day. With all the above cited facts, it is unhappy to be aware of that many faculties function without libraries (Shodimu, 1998) whereas Ogunseye (1986) had before mentioned that total absence of an equipped college library would proceed to spell dooms for lots of students. This assertion sincerely implied that many faculties operate barring
libraries and had affected the academic performance of their students.

Fuller et al. (1986) recognized a faculty library as an academic useful resource which may additionally extensively impact pupils' achievement after controlling for pupils' household background. He observed that effect of library size and its recreation have been positive in 15 out of 18 analyses. Also, in his learn about on the relationship between educational facilities and educational performance, Popoola (1989) located that library correlates with tutorial success and those faculties with well-equipped library typically keep excessive educational performance. In any other study on raising faculty nice in creating countries, Fuller et al. (1985) found that collection of books stored for reading in the library is associated to performance.

## 2.4 Instructional Materials and the Teaching-Learning Process

### 2.4.1 Meaning/Definition of Instructional Materials

Instructional materials refer to these alternative channels of communication, which a study room instructor can use to concretize a notion all through educating and mastering process. Traditionally, lecture room instructors have relied closely on the 'talk-chalk' approach in the course of their teaching. But recently, educational substances assist to furnish versions in the methods in which messages are sent across. In the use of academic materials teachers and college students do no longer solely lengthen the vary of sense organs we use but additionally prolong the range of substances used for convening the equal message thru the identical organ. For instance, in teaching a theme a instructor can manipulate real objects or use their simulators. Instructional substances therefore constitute the media of change through which a message transaction is facilitated between a source and a receiver. In addition to extending the vary of materials that can be used to carry the equal instructional message to newcomers instructional materials also facilitate the 'process' nature of communication. In this passage, the system nature of conversation implies that both the source and the receiver of a message are actively worried in a communication encounter. Infarct, it means that each the receiver and the supply share and trade ideas, emotions in any verbal exchange (Tyler, 1987; Dike, 1989; Amadioha, 2009).

### 2.4.2 Types of Instructional Materials

Instructional materials are classified into the following types: Graphic materials, Three-dimensional Materials, Still Pictures, Still Projected Pictures, Motion Pictures and Audio Materials (NAPTEA, 2003).

(1) Graphic materials: - This represent these charts, graphic, posters and diagrams, cartoons, comics, maps and globes which we draw on a cardboard paper or on a piece of cloth and present to our learners to help them visualize what we have been laboring so hard to explain verbally. Graphic materials belong to the family of two- dimensional material and proportional relationships that may exist among variables in a phenomenon. Graphic materials are used to compress information, to focus and captivate attention, to vary stimuli presented and as an aid to recall. Graphic materials when properly produced can help in attaining all processes in the information processing model of learning as well as serve as avenue for applying principles from other learning theories.

(2) Three - Dimensional Materials: - They are different from charts and graphs which are illustration of two - dimensional materials because of the incorporation of a third element- department. Thus, whereas graphs and charts embrace the width and height of a visualized object, a three-dimensional embraces this third element department, a feature that makes the three- dimensional material a replica of the real thing. Different types of three-dimensional materials exist, namely: Models and mock-ups, realia, specimen, kits and dioramas-which is the creation of a scene in an event.

(3) Still pictures: - This refers to flat opaque pictures which we take during festivals or when we are commemorating an event. They also refer to pictures we fined in journals and magazines. They are called still pictures because in admiring them, we hold them in our hands or place them on a surface, which is, we do not view them with the aid of projector, as is the case with motion pictures or still projected

pictures. Like graphic materials, still pictures belong to the group of two - dimensional materials.

(4) Audio Materials: - This is a class name for tape recordings and discs. A disc or record as it is popularly called here is a round and flat acetate containing grooves, which produces sound vibrations through the action of a needle. Discs usually come in different sizes and play at different speeds. The clarity of sound production from a disc rests on the quality of needle, the speed and state of the grooves. In overseas countries records exist for almost all subjects. People in music department appreciate the importance of records in their studies. Special effects such as the sound of thunder, the cry of owl at night, the noise produced in a factory during work can all be recorded in a disc and synchronized with other events to create special effects during production. To use a record, a teacher has to specify his/her objectives thoroughly. Hence, students can listen to a record as a group or individually.

### 2.4.3 Importance of Instructional Materials

The importance of Instructional materials as reported by Amadioha (2009) is as follows:

a) The essence of producing instructional materials, is to facilitate the teaching learning process. The essence is not to use such instructional materials as objects of decoration in our classroom or as objects to be presented during award winning national exhibitions on improved instructional materials. If the essence of producing instructional materials is to use such materials to facilitate teaching learning, it therefore seems logical that the best approach to adopt in any production exercise is to predict out production on research findings on how

individuals learn. Besides, there are for instance, many factors that affect attention of human beings. There are also ideas about how we perceive objects. Hence, for a classroom teacher, who wants to produce instructional materials, his production has to be on sound principles.

b) While presenting various learning theories, one has to be sure that a classroom teacher is guided by expert ideas during his production and utilization of instructional materials.

c) They supply a concrete basis for conceptional thinking and reduce meaningless work responses for pupils as it makes learning more permanent.

d) Instructional materials have a high degree of interest for the learner; for they offer a reality of experience, which stimulates self-activity on the part of pupils.

e) Instructional materials develop a continuity of thought, this is especially true of motion pictures, as they provide experiences not, easily obtained through other materials and contribute to the efficiency, department and variety of learning.

f) Therefore, the use of instructional materials in teaching/learning process exposes the learner to primary experiences and this enriches learning (Amadioha, 2009).

**2.5 Class Size and Teaching-Learning Process**

The amplify in populace in a faculty affects the classification sizes, the overall performance of students come to be an issue. Class dimension refers to the range of college students in a given route or classroom, mainly both the wide variety of students being taught with the aid of man or woman teachers in a path or classroom or the average

number of students being taught with the aid of instructors in a faculty or educational system. The term may also also be the quantity of students collaborating in studying experience. Class dimension is nearly an administrative selection over which teachers have little or no control. Class dimension refers to an educational device that can be used to describe the common quantity of college students per type in a college (Adeyemi, 2008). There are large and small sizes in school. The smaller the class, the larger the probability is that a trainer will spend greater time with person pupils.

Large lessons current more challenges for classroom management, pupil control, and marking, planning, and assessment. Teachers are put below more strain when confronted with large classes. In smaller classes, it can be simpler for teachers to spot problems and supply feedback, perceive specific needs and gear educating to meet them, and set character objectives for pupils. Teachers also trip better relationships with, and have more understanding of individual pupils. Ajayi and Adeosun (2004) opined that in order to manage rising capital value of education, the average class-size could be increased. These factors were also supported through Toth and Montagna (2002) who stated that the amplify in enrollment in many institutions which has come to be main worries of students should in reality lead to an extend in class size. Commeyras (2000) however, disagreed with these arguments and suggested that effective instructing looks impracticable for instructor educators having large category sizes of 50, 75, one hundred or greater (Ayeni & Olowe, 2016).

Class dimension is one of the elements that affect the teaching-learning process. Kyricou (1997) considers class size as one of the most vital elements that impacts the teaching-learning process. According to Galton (1994), school room measurement cannot simply be a count number of the variety of scholars in a class however how that number of

pupils impacts other study room approaches and activities which themselves undergo more immediately on educating and learning.

Blatchford and Mortimore (1994) point out the following as some of the school room methods and things to do that may be affected by means of type size; teaching methods, time management, motivation of learners, assessment, behaviour management, teaching-learning materials, teacher-pupil interactions and instructor outreach programmes, amongst others.

### 2.5.1 Class Size and the Choice of the Teaching Styles

A find out about executed by using Lemmer (1999), observed that a massive classification measurement has an effect when it comes to the choice and use of a variety of educating styles, in precise team work. This is so due to the fact in an over-crowded lecture room the working space for group activities is limited, and mobility of the instructors to display team activities is also quite challenging.

However, it is essential to word that team work is one of the most important strategies of teaching. According to (Kutnick, 1994), group work is one pedagogical method that promotes participation and interplay amongst inexperienced persons in class. It fosters a deeper and more energetic getting to know process, and it additionally affords instructors with valuable demonstrations of the degree to which students recognize specific subjects or standards easily.

Student tutelage in a team formation is greater preferable as compared to being guided in the entire class formation. Kutnick (1994) states that historically a instructor has usually been handled as an indemnified character who leads the total class, dictating his/her notes and lectures to the scholars trying to put the whole thing into the minds of

the pupils. This one-way mode of communication has not been that tremendous and environment friendly as compared to the new vogue of forming exceptional small learn about companies among the pupils. It has been ascertained that the existence of the crew in the study room is now not so new a phenomenon. According to Kutnick (1994), “from earliest recorded writings about education (from Plato to Socrates), getting to know used to take vicinity in a team context. Hence, the significance of social interactions in studying can't be overlooked”. The thinking of group work incorporates with it a vision of scholars talking to each other, sharing, reshaping and refining their ideologies and concepts. It skill those children’s enthusiasm and subsequently studying opportunities expand with in-group situations, both cooperative and collaborative. Moyles ( 1980) also cites children’s desire for working with someone else as being the most important, not because they just enjoy working with a friend however because they can acquire help, give help and alternate ideas.

Group work, states Wells (1985), provides pupils with an opportunity to assimilate their know-how through discussion with their peers, therefore assisting each other’s learning. It has also been observed that younger pupils very regularly in the study room do now not have the chance to develop their listening and speaking capabilities in a entire classification approach. This has been stated that, “the quantity of time any character pupil can speak in a entire category state of affairs is limited, so group discussions can expand the opportunities for talk and inspire scholars to arrange their very own discussion. Thus it is through dialogue in a group that pupils improve a better ability to pay attention and receive others’ opinions and strengthen self-belief in expressing their very own views by speakme with clarity. Wells (1985) states that all young people learn most things to do when there are usual possibilities of collaborative talk with teachers

and fellow pupils. Therefore, this proved that while engaging in team work, college students in a way take cost of their very own learning.

While team work methodology is vital in the teaching-learning process, more interest must be given to the following team aspects: firstly, the dimension of the team and how agencies are formed, secondly the nature of crew task, thirdly monitoring of group duties via the instructor and subsequently time management.

The function of the teacher throughout crew duties is that of directing the pupils, facilitating and monitoring their studying process. It is also generally considered that the pupils in a class have extraordinary attitudes and strengths. Therefore, the trainer is a person who suggests acceptance of children, praises every child's strengths and recognises every child's forte by means of planning purposeful tasks, having readability of desires and ways. In this regard, Cordon (2000) has outlined the duties of the instructor at some stage in team tasks. He states that all through group tasks the teacher should introduce the undertaking and set up a collaborative working climate; via clarifying expected outcomes. The instructor must make certain that students have a clear perception of the floor guidelines for the crew work, appreciate guidelines and interdependency. This proves that although team work is a learner-centered approach, the trainer nonetheless has to play a leading role in that he/she has to act as a beacon for his/her pupils. In fact, a trainer has a central position in the entire process of group work. It is his/her duty to layout things to do in such a way that kids may want to work effectively in businesses under the training of their teacher. Cordon (2000) factors to the importance of teachers encouraging pupils to see themselves as responsible learners via designing the things to do which make certain students pose questions, make observations and make contributions opinions. Group work increases pupils' ability to

cooperate and analyze from others, thus allows them to take responsibility of their own learning and reducing reliance on the teacher.

The Ministry of Education (MoE, 2008), also acknowledges that large training have an impact on the preference of the educating strategies due to the fact teachers have to alter their instructing strategies according to the variety of scholars in the class. Furthermore the MoE (2008) also states that giant training necessitate putting immoderate reliance on teacher-centered methods, with pupil participation being reduced to listening, taking down notes and absorbing what is acquired from the teacher. According to Teunis et al. (2008), the consequent substantial absence of student pastime and palms on ride might make contributions to the superficiality of gaining knowledge of and bad overall performance being experienced both in the examinations and subsequently, in the real-life situation. Meanwhile, Mbozi (2008) observes that giant lessons may additionally be a limiting thing in the choice of teaching methods. Thus, some styles might also no longer be employed at all thereby depriving some scholars who would have benefited from the employment of such styles. For example, the trainer may fail to employ mission technique due to the stress of work on the part of the teacher when it comes to monitoring and keeping the pupils' assignment manuscripts. But the use of the challenge technique can also help the instructor to perceive now not solely sluggish novices but additionally weaker ones who may additionally need particular assistance.

### 2.5.2 Class Size and Teacher-Pupil Interaction

Teacher-pupil interaction is yet every other important teaching-learning factor that is affected by way of classification size, in that, the larger the type size, the less the occurrence of teacher-pupil interactions.

In an over-crowded classroom, teacher-pupil interaction may also be challenging as reflected in the research accomplished by means of Kaulule (2006). Kaulule (2006) found that instructors might also now not entirely interact with all the character pupils, and as a result, the teacher can also not come to understand each pupil's capability and disability, which may additionally result in the teacher's failure to structure the teaching-learning substances for significant learning of every pupil.

Obanya (1980), also located that considerable teacher-pupil interplay in a classroom is affected by category size. He mentioned that the smaller the class, the increased the possibility for important teacher-pupil interaction, especially thru monitoring and feedback.

Furthermore, the learn about on the challenges of free education in Zambia, completed by means of Kaulule (2006), advised that there were editions in teacher-pupil interaction in giant classes, in that the trainer finds it extra difficult to supply interest to all needy students throughout the teaching-learning process. Thus, many students cannot be noticed by way of the instructor in a crowded classroom. In massive classes, a scenario may also occur in which the instructor may additionally fail to call upon some students to participate in the lesson and thus, main to such scholars dropping enthusiasm and involvement in studying thinking that the teacher does now not care about them. Thus, if these interactions were certainly beneficial, many scholars in large lessons would be deprived of such advantages (Kaulule, 2006).

Other studies have also determined some relationship between class dimension and teacher-pupil interactions. These interactions are carried out in two ways, namely, teacher-initiated and pupil-initiated (Brophy and Good, 1970). Whatever, the course of

these verbal exchange channels, a indispensable position is played by way of the teacher, and all freshmen have to have their truthful share of get right of entry to that resource.

Garner and Bing (1973) did a find out about on study room practices and located that there used to be uneven in teacher-pupil interactions, in that the teachers observed it extra hard to provide interest to all needy learners all through the teaching-learning procedure in large classes. In the learn about achieved via Dunkin and Doevan (1982) it was once said that teacher-pupil interactions diminished as the type dimension increased. They stated that teacher-pupil interactions were at the core of the educational system and as such vital in ‘judging the fantastic of academic opportunity’. It was noticed that in giant classes a variety of students had been denied this critical interaction with the teacher. Cotton (1990) additionally reviews numerous studies, which covered studies through Corno (1986), Snow et al (1986) as nicely as Cotton and Savard (1981), which centered on teacher-pupil interactions inside the realm of the classroom, college or district. These studies pointed out that these interactions had been to be fantastic to improve scholar performance. In order to reap this, for instance, teachers had been entreated to do the following: firstly, teachers have been to pay attention to pupil interests, troubles and accomplishments in social interactions both in and out of the classroom. Secondly, instructors have been to speak pastime and caring to students each verbally and via such non-verbal skill as giving individual attention, retaining eye contact, smiling and advantageous head nodding, and finally, teachers had been to foster effective teacher-learner and learner-learner relationships through the use of cooperative mastering strategies.

Meanwhile, instructors in the U.S.A study mentioned that most mother and father desired small classes for their adolescents because of the person attention afforded to

the children. Even instructors themselves preferred teaching in small classes than giant ones because in small classes, it used to be less difficult to meet each child's character attention. Teachers felt that it was their privilege to enhance to the fullest extent all the abilities and abilities pupils possessed as properly as supporting them to make the satisfactory use of their capability whether or not excellent or small. The learn about also determined that as instructions increased, the share of students who surpassed the direction went down due to restrained individualised attention to pupils with a number learning difficulties. According to Bloom (1971) massive training supposed much less character attention for pupils, each in category and after type due to the fact of the higher coaching and marking load for teachers with giant instructions resulting into students becoming annoyed and having more behavioural issues in classification which made it more difficult for all the students to learn.

### 2.5.3 Class Size and the Teaching-Learning Resources

Segal et al. (1980) describes teaching-learning resources as materials teachers use to deliver instructions effectively. MoE (2003) acknowledges the inadequacies of teaching-learning resources in large classes, stating that, "overcrowded classrooms naturally lead to inadequate teaching-learning resources to match the number of pupils in classes, meaning that the pupil-textbook ratio becomes high".

However, it is important to note that teaching-learning resources play a vital role in the improvement of the quality of the teaching-learning process in that they support pupils' learning and increases their retention of lessons learnt. In addition, teaching-learning resources significantly increase pupils' achievement by supporting their learning. For example, a worksheet may provide pupils with important opportunities to practice a new skill gained in class. This process aids in the learning process by allowing the pupils to

explore the knowledge independently as well as providing repetition. Learning materials can also add important structure to lesson planning and the delivery of instruction. Particularly in lower grades, learning materials act as a guide for both the teacher and pupils. They can provide a valuable routine. For instance, if a teacher of language wants to teach new vocabulary words, having an audio tape to provide pupils with practice regarding the new words will both take pressure off the teacher and provide important practice for pupils. Furthermore, apart from supporting learning more generally, teaching-learning materials can assist teachers in an important profession duty; the differentiation of instruction. Differentiation of instructions is the tailoring of lessons and instructions to the different learning styles and capacities within the classroom. Teaching-learning resources also allow teachers to modify work to best activate each individual pupil's learning style. Teaching-learning materials may come in many shapes and sizes, and may include such things as maps, wall charts, flip charts, flash cards and toys. All these have in common the ability to support pupils' learning activities at school.

According to Segal et al. (1980), it is essential for quality materials to be made available to the teachers and pupils in adequate quantities to support the teaching-learning process. Ideally, every pupil in every class should possess his/her own copy of the textbooks required by the school for each subject.

### 2.5.4 Class Size and Availability of time for Individual Attention

Pail (1980), factors out that time is an important resource in the teaching-learning method and instructors want to manage it efficaciously in order to implement their strategy. According to the study carried out through Galton and Hargreaves (1996), it

used to be found that smaller training supplied teachers with the opportunity to devote extra time to each pupil with regard to person attention. Furthermore, Lemmer (1999) argues that smaller classes allow teachers to increase the time dedicated to each pupil, either for my part or in smaller groups, and thereby improving the quality of learning. However, in massive lessons it used to be located that instructors had restricted time to attend to the desires of all the pupils in type and this resulted in scholars performing poorly.

### 2.5.5 Class Size and Assessment of Learners

According to the findings of the find out about conducted by using Shapson et al, (1980), it was once revealed that assessment is unique in small and massive classes. According to the teachers in this study, marking of pupils' work took little time and corrections had been immediately in smaller lessons whereas in large classes, marking became extra time-consuming and most frequently comments to scholars delayed. Hence, a excellent variety of teachers of large instructions rarely gave assessment to their learners.

However, it is vital to be aware that evaluation is a very quintessential device in a school room that all teachers should master. Assessment is defined as a method and technique used to collect data, making use of a variety of factors, about pupil performance. Therefore, each and every academic professional must be capable to successfully asses and consider the pupils' growth and expertise of the topics being taught. A trainer additionally be able to determine how a pupil learns and if the strategies the teacher is using is effective. As teachers, it is vital to be aware of a pupil's overall performance in the classroom for many reasons. If a teacher is accurately in a position to determine pupils' progress, the trainer will recognize if the educating methods are working, and if and where the pupils need help. Assessment is a quintessential element in the

educational machine and all teachers should be conscious of the capability and strategies of assessing.

### 2.5.6 Class Size and Motivation

The find out about carried out by means of Don (2010) observed that class size has an effect on the motivation of pupils. The learn about observed that motivating youngsters in a smaller classification used to be simpler than motivating them in a large one due to the fact every child in classification is encouraged in another way in accordance to his/her wants and characteristics.

Nelson (2009) adds that motivation of scholars requires knowing character differences and traits of every pupil. In the case of much less crowded classes, pupils' wants are greater without problems recognised and less difficult for teachers to encourage them.

According to Cheryl and Spaulding (1992) scholar motivation in the study room is extraordinarily necessary for their success due to the fact it performs a imperative position in the improvement of human cognition. Motivation also influences student behaviour. Infant behaviour is built on motivation.

Motivation been perceived otherwise through extraordinary people. According to Edwards (2002) motivation is the inside and external factors that stimulate want and strength in human beings to be constantly interested in and dedicated to a job, role, or subject, and to exert persistent effort in achieving a goal. As for Maehr (1997), motivation is the energizer of behaviour and 'mother' of all actions. It outcomes from the interactions amongst aware and unconscious factors such as the depth of desire or need, incentive or reward value of the goal, and expectations of the person and of his or her good sized others. Biehler and Snowman (2001) also defines motivation as the forces

that account for the arousal, selection, direction, and continuation of behaviour. Finally Ormond (2003) sees motivation as the power that offers a individual the energy to get up and maintain going even when matters are now not going how you expected.

Theorists and researchers of human motivation factor out two sorts of motivation as extrinsic and intrinsic motivation (Deci and Ryan, 1991). Extrinsic motivation exists when people are influenced by way of an consequence that is exterior or functionally unrelated to the exercise in which they are engaged (Spaulding, 1992). When persons are extrinsically motivated, they preserve some favored outcomes as a goal. They realise that a certain way of behaving is expedient potential to that goal, and they make plans to alter their behaviour in a such a manner that they are probably to trip the favored outcome (Lepper and haddel, 1989). Furthermore, Paul and Burden (2000) additionally outline extrinsic motivation as motivation from outside the learner and has to do with exterior rewards for finishing a task. But if we take this into account, we have to know that, “the reinforcement practices of extrinsic motivation can be effective, but the excessive use of rewards can also be decreasingly profitable in new situations, may additionally foster dependence on the teacher, and may additionally undermine intrinsic motivation (Paul and Burden, 2000). Therefore, it is accurate to use extrinsic motivation taking into account the rewards, when this is really necessary. For example, when the college students locate themselves much less intrinsically interested and satisfied.

Within extrinsic motivation, we find, in accordance to Deci and Ryan (1991) four sub-types of extrinsic motivation, and these are:

1. External regulation: this is when the behaviour is carried out to satisfy an external demand or reward. The behaviour is influenced by using rewards or punishments, for

example, a infant might also work difficult to pass by passing an examination so that parents would purchase him a mobile cellphone as per promise.

2. Introjected regulation: this is when the individual knows the motives for carrying out these actions, however but is influenced through rewards or punishments. For example, when a scholar tries to omit a test due to the fact the previous take a look at was now not passed. This is regulated via self-control, ego involvement, internal rewards and punishment.

3. Identified regulation: this is when the people are capable to manage their behaviour, once understood the motive for their actions. For example, when an character decides to study for the significance that the know-how have in his life. This is regulated by using private importance and conscious valuing.

4. Integrated regulations: this is when pupils treat and consider the targets of the action. The person is entirely conscious, and regulates his or her behaviour even though it is regarded extrinsic due to the fact their behaviour is carried out to gain results. The built-in regulation is carefully related to intrinsic motivation. This is regulated by means of congruence, cognizance and synthesis with self.

In distinction to extrinsic motivation, intrinsic motivation seems to be a by-product of two self perceptions. People tend to be intrinsically motivated in situations in which they experience both competent and self figuring out (Deci and Ryan, 1991). The simplest example of such motivation would be curiosity or interest. Furthermore, a variety of theories of human motivation have revealed that pupil's perceptions of competence and manipulate affect their encouraged behaviour and task-related management in an mind-blowing way. Thus teachers who want to enhance their pupils' intrinsic motivation in the

study room need to think about two things: they need to create tutorial environments that furnish their pupils with manipulate possibilities and they must be sure that their pupils are in a position of performing efficaciously in those environments (Spaulding, 1992). This competence cause can be activated in any state of affairs that gives opportunities for growing new competencies, a range of tasks, materials, things to do and a appropriate gaining knowledge of environments. Even though students normally do now not try faculty duties unless there is some extrinsic purpose for attempting them, if positive stipulations are met, they may additionally end up intrinsically motivated to proceed works (Spike, 1988).

In order for the instructor to inspire pupils' intrinsic motivation in the classroom, there are a number of standards they want to follow.

To start with, the first precept includes a predictable study room environment. The principle suggests one way to decorate pupils' self perceptions of competence and control. In this principle, teachers can help scholars to sense better in school by way of growing predictable environments in their classrooms. Pupils most often decide on to comprehend what the upcoming sketch for their training are, so that they can deal correctly with the educational challenges (Spaulding, 1992). To put this precept into practice, teachers should for occasion prepare their lessons in such a way that days of a week grow to be related with certain habitual things to do or they could commence and stop each class duration with predictable routines (Spaulding, 1992). Nevertheless, it is important to point out that these kinds of activities do now not mean that instructors do not have a duty to carry novel and interesting thoughts into their classes (Spaulding, 1992). At the contrary, to supply pupils with interesting classes and things to do is any other necessary principle of intrinsic motivation. It suggests that teachers should make their classes novel or unusual

with discrepant or sudden outcome. If they do so students will likely be greater interested in the content of their training (Spaulding, 1992).

Another principle to maximize intrinsic motivation in the lecture room is to locate a stability between handy and quite difficult tasks. Pupils must have the probability to show their present competences via managing easier tasks and according to this develop new competences with the aid of efficaciously competing fairly challenging tasks (Spaulding, 1992). Tasks that are too tough are now not intrinsically motivated for pupils. In that case they do no longer journey any development of competence, and consequently will not be encouraged to continue to have interaction the task (Stipek, 1988). According to Stipek (1988), each baby should be given duties that are tough ample to require some effort and to end result in extended competence however easy adequate to be accomplished with no extra than a modest amount of help (Stipek, 1988).

Another variable that encourages intrinsic motivation is person choice. Several current studies have proven that pastime in school-related activities is improved through much less teacher control and greater scholar desire in tasks (Cherly, 1992). There are many methods to supply some scholar desire barring growing chaos in a classroom. One approach should be to supply pupils some directions when they entire specific tasks so they can order tasks in accordance to their non-public preferences.

Altogether many probabilities exist to improve intrinsic motivation in the classroom. Pupils are intrinsically influenced to manipulate duties that are fairly challenging, novel and relevant to their own lives. Tasks which are too difficult or too easy, repetitive, or perceived to be beside the point do no longer encourage intrinsic motivation. Pupils will additionally sense more capable and proud, and consequently more intrinsically inspired in tasks, when they can take responsibility for their success (Stipek, 1988). However, it is

not constantly handy to put all these ideas into practice, especially in instructions with many pupils. It should be a trouble to admire individual needs.

Class dimension therefore is an necessary dimension in the planning and realizing of fantastic instructing and studying in schools. Hence the teaching-learning manner in basic faculties can be made greater high quality via taking into account the trouble of type measurement when it comes to the planning of schooling provisions in simple schools.

### 2.6 School Location and the process of Teaching-Learning

The college area has variables such as schools in rural or city areas, economic popularity of the neighborhood, clanism, and faculties constructed close to market facilities amongst different variables that affect the teaching-learning manner (Ahmen, 2003). The extent to which students mastering ought to be stronger relies upon on the place of the school. When a college is constructed close to market center, the noise from the market will distract the novices from concentrating consequently affecting the method of teaching-learning. Economic reputation of the college local additionally has an have an impact on on the teaching-learning process. Aikens and Barbarin (2008) mentioned that faculties located in low economic status communities are often beneath resourced and this impacts the teaching-learning process. Parents from low monetary reputation are unable to have enough money sources such as books, computers or tutors to create this nice literacy surroundings (Mege, 2014).

Woolfolk (2007) stated that when the communities' monetary popularity is low, they might also now not be able to guide the faculty financially. Economic reputation of the neighborhood will make the neighborhood have the ability to assist or no longer assist the schools inside their communities. The city or rural vicinity of the faculty has an effect on

the teaching-learning process. Most faculties in the city areas are properly staffed as in contrast to these in rural areas considering every person wishes to work in the urban facilities due to the technological know-how which is excessive in the city areas as in contrast to the rural areas. This causes beneath staffing in the rural areas for that reason affecting the teaching-learning system (Mege, 2014).

Clanism also impacts the manner of instructing and learning. Chuma (2012) referred to that mother and father select taking their youth to colleges within their clans in spite of the overall performance of such schools. This influences teaching-learning considering the fact that some colleges have a document of poor overall performance yet they nevertheless stick to them because of clannism (Mege, 2014).

### 2.7 Teaching Resources and Students' Academic Performance

Teaching resources are described as methods and materials used in instructing (Onyango, et al., 2010). Evidence from the World Bank and different international groups on the quality of getting to know in the creating international locations points out the importance of individual school's enter (Onyango, et al., 2010). Some of the inputs include teachers, classroom measurement and its environment, educational materials such as textbooks and other analyzing substances as properly as college structures and facilities (Eshiwani, 1996). These inputs can affect students' academic overall performance both positively or negatively.

Globally, students' educational performance is as a result of a range of factors such as the school surroundings as well as educating and getting to know resources. In developed international locations like the UK, USA, Germany and France, the authorities allocates sufficient cash for the training zone to deal and ultimately fight the causes of bad academic

performance in colleges (McKenzie & Schweitzer, 2001). The dollars are therefore used in making sure adequate educating and getting to know materials such as textbooks. Technology is integrated as a main useful resource fabric for use in teaching and mastering in the developed nations with the purpose of enhancing the tutorial performance of students (Wenglinskiy, 2002).

Laurillard (2013) study on wonderful teaching, and studying applied sciences in Botswana observed that lack of applicable instructing substances caused dismal students' tutorial performance. The find out about in addition discovered that students' academic achievement is by and large caused by means of lack of applicable textbooks and different print materials such as publications and handbooks. The government of Botswana is committed to ensure that the Ministry of Education and Skill Development receives lion's share, both recurrent and development finances (Matambo et al, 2007). Despite all the efforts by the authorities on education, the students' academic performance has been declining these days from 2010 (Luke & Gore, 2014).

The Republic of Rwanda, is committed to in shape aid availability with useful resource requirements, enlarge infrastructure and furnish gear in accordance with set standards, as well as gaining knowledge of materials, though this intention has not been wholly met (Benjamin & Orodho, 2014). Lowe (2009) recommends that newbies have to be allowed to study in a way which suits the favored fashion of learning. Students have to be given an opportunity to research their mastering fashion by the use of a number mastering resources that fantastic swimsuit them. Lowe (2009) goes on to say that beginners analyze and perform higher when their lecture room is nicely prepared giving them sufficient space.

According to Agosiobo (2007), the use of instructing assets is important due to the fact they inspire novices to learn. They provide stimulus variation and aid in sustaining learners' interest in the course of the lesson. Learning resources make clear information, and provide a clear explanation to complex concepts. Agosiobo (2007) located that academic materials stimulate lively type discussion. For instance after staring at a movie in a type or listening to radio. In addition, they additionally assignment independent thinking, especially when used for my part in an assignment or as a class activity.

Adequate use of instructing sources gives the learner a sensible journey which can assist in selection of getting to know concepts greater clearly. Utilization of instructional assets and educational overall performance are intently associated due to the fact college students can master the learning strategies. Momoh (2010) in West Africa discovered that there is a wonderful sizable relationship between instructional resources and academic performance. The find out about also discovered that Schools endowed with more substances performed better than colleges that were much less equipped. This corroborated with the study through Babayomi (1999) that private faculties performed higher than public faculties due to the fact of the availability and adequacy of instructing materials.

Lyons (2012) argues that students' overall performance is influenced by using the first-rate and quantity of teaching materials. Lyons (2012) observed that institutions with enough teaching/learning resources such as textbooks, charts, maps, audiovisual and digital academic materials such as radio, tape recorder, tv and video tape recorder stand a better threat of performing properly in examination than poorly equipped ones. Therefore, bad tutorial overall performance should be attributed to lack of sufficient educating materials and equipment.

In Kenya, Oyugi and Nyagah (2010) assessed the have an effect on of Teaching and Learning Resources on the Implementation of Inclusive Education in Pre-School Centers in Nyamira North Sub-County found that teaching/learning resources influenced student performance. A find out about by using Yara and Otieno (2010) on educating and studying sources and tutorial overall performance shows that, stationaries and educating aids impact students' performance. His findings are in settlement with findings of UNESCO (2008) report that teaching and getting to know materials such as text books, educating aids (chalk, chalk board) and stationaries can have an effect on students' educational performance.

### 2.8 Teacher Adequacy and Students' Academic Performance

The success of the instructional device is determined through the availability and adequacy of teachers. To pick out the adequacy of instructors in the studying environment, the student-teacher ratio (STR) want to be decided which will account for the quantity of college students a single teacher handles in a class. The STR approach will make it simple for teachers to be allotted a precise number of college students in the type at any educational level. The technique as well suggests the workload of any given teacher in any stage of education. Additionally, the method is beneficial in that it can determine the wide variety of the college students that need to be enrolled in any learning organization as properly as the manpower that is required for a given number of college students (Afolabi, 2005; UNESCO, 2012).

According to Rosehotz and Simpson (2002), current schooling notion holds that one of the pivotal motives of unsteady development in many international locations is inability to competently group of workers schools with teachers. Tyke and O'Brien (2002) argue that schools are plagued by using scarcity of instructors due to make bigger in students'

enrolment, teacher attrition and retirement main to bad academic performance. Teacher inadequacy is believed to confront many faculties world over and Kenya is not exempted. Similar state of affairs was discovered in Australia by Klaus and Dolton (2008) who argue that the state need to appoint at least one million teachers over the subsequent ten years due to the fact the inadequacy can have an impact on students' tutorial performance.

According to MacDonald (2007), the attrition of both new and experienced teachers is a splendid mission for colleges and faculties directors in the course of the United States. This can have an impact on students' tutorial performance. According to Tyke and O'Brien (2002) the shortage of teachers has forced many education systems to lower training requirements via the employment of unqualified teachers to fill the gap, therefore decreasing the school's tutorial performance.

In Tanzania, students' overall performance is dismal, and the satisfactory of performance is suspected to be influenced with the aid of inadequate teachers as well as low syllabus coverage amongst other factors (Mdee & Donatha, 2015). Mdee and Donatha (2015) in addition endorsed that, for the Tanzanian usa to improve the satisfactory and the performance of the students, teacher students' ratio wants to be addressed collectively with using more qualified teachers. According to Mosha et al (2014) most of the secondary college in Tanzania has inadequate teachers which has led to terrible educational performance.

A survey performed in Kenya by using United Nations Educational, Scientific and Cultural Organization (2008), confirmed that the common STR ratio in 162 sampled schools was 58:1 towards the requirement of 40:1. Such type sizes in public colleges make it tough for instructors to educate classes efficiently as in contrast to their counterparts in private colleges who handle a smaller range of students. Therefore, instructor adequacy is

a significant element influencing students' educational performance. Students will be regarded passive in the category due to their giant variety as a result of the teaching strategies that will be employed with the aid of the trainer in taking care of the massive populace (Okongo et al., 2015).

**2.9 Assessment of Teaching-Learning Process**

The process of teaching and getting to know can only be fine if evaluation is carried out to determine how much instructing and learning has taken place. Njoroge (2011) published that the provision of high-quality primary education in Kenya be supported with efficient systems of delivery, and that teaching-learning method and pupils' fulfillment can be influenced by inputs such as availability of physical facilities, instructional substances and a conducive faculty environment. The system of instructing and studying can be measured through performance of pupils in standardized examinations such as KCPE, Sub-county mock, Continuous Assessment Tests and everyday workouts given in class. The essential feature of an schooling gadget is tutorial overall performance (Mege, 2014).

Kellaghan (1995) assert that KCPE performance no longer only decide get entry to secondary and in consequence greater training but also impacts the way persons view themselves and are viewed via the society. The hassle of negative overall performance is luxurious for any united states of america considering training is the most important contributor to economic growth (Atkinson and Aschmann, 1987). The school administrator is also charged with the responsibility of performing the primary supervisory skills to investigate his instructors to verify that there is wonderful teaching and mastering and that the correct methodologies are used. Supervision by using the head trainer can be carried out on the teachers as they train in type or even through check their

professional information (Okumbe, 2001). Pupils' books can additionally be used to check if there is instructing and gaining knowledge of taking location (Mege, 2014).

Fuentealba (2011) pointed out that evaluation is a effective mastering device that can beautify getting to know and schooling and that the manner of scholar assessment ought to align with curricular desires and educational objectives. Fuentealba (2011) in addition states that figuring out the evaluation techniques crucial for the perfect assessment of students' development inside character applications is as necessary as establishing curricular content and shipping methods. The factors to be viewed in the course of assessment design consist of purpose of assessment, domains to be tested, and characteristics of the assessment tools to be employed. Assessment equipment are evaluated according to 4 foremost characteristics: relevance, feasibility, validity, and reliability. If assessment plan aligns with educational results and instructional methods, it improves the fantastic of training and helps pupil mastering (Fuentealba, 2011).

According to Cameron (2002) and Gibbs & Graham ((2004), evaluation for getting to know is high-quality described as a system by means of which evaluation facts is used by way of instructors to alter their instructing strategies, and by using college students to modify their studying strategies. Assessment, teaching, and mastering are inextricably linked as every informs the others. Assessment is a powerful system that can both optimise or inhibit learning, depending on how it is applied.

For teachers: Assessment for mastering helps instructors acquire statistics to:

-plan and modify instructing and mastering programmes for person students, organizations of students, and the type as a whole

-pinpoint students’ strengths so that both instructors and college students can construct on them

-identify students’ getting to know wants in a clear and optimistic way so they can be addressed

-involve parents, families, and guardians in their kid's learning.

For students: Assessment for studying offers college students with information and preparation so they can graph and manage the subsequent steps in their learning.

Assessment for learning uses information to lead from what has been realized to what wishes to be learned next.

Assessment for studying should use a vary of approaches. These may include:

-day-to-day activities, such as gaining knowledge of conversations

-a easy mental be aware taken by means of the trainer during observation

-student self and peer assessments

-a designated analysis of a student’s work

-assessment tools, which may also be written items, structured interview questions, or gadgets teachers make up themselves.

What things most is not so a good deal the form of the assessment, however how the data gathered is used to improve instructing and gaining knowledge of (Cameron, 2002; Gibbs & Graham, 2004).

The evaluation of studying and instructing can be considered as two complementary and overlapping things to do that purpose to advantage each the quality of scholar studying and the expert improvement of the instructor. Assessing learning by myself is not ample because the final success of students is also established upon their motivation and commitment to learning. Similarly, assessing only educating behaviors and route things to do is not sufficient due to the fact traits of the trainer can also be appreciated with the aid of college students however not optimally useful to their gaining knowledge of and growth. Done in tandem, assessing educating and learning can help instructors enhance and refine their instructing practices and help enhance students' gaining knowledge of and overall performance (Maki, 2002; Wiggins & Jay, 2005).

**2.10 Teachers' Satisfaction among Public Primary School Teachers**

Armstrong (2001) characterized educators' fulfillment as the sentiments and dispositions of instructors towards their activity. In the event that individuals have good and uplifting frames of mind towards their activity, this implies fulfillment, however on the off chance that they have horrible and negative mentalities towards their activity, this implies disappointment. This definition is bolstered by Bennel and Akyeampog (2007) who likewise states that it is the level of fulfillment or satisfaction experienced by laborers with their calling.

As indicated by Latham (1998), fulfilled instructors can contribute altogether to the improvement of understudies' scholastic execution and school adequacy on the loose. Essentially, Shann (2001) affirms that fulfillment holds educators and makes them focused on their work and through this likewise makes their schools compelling. As such, fulfillment adds to progress of educating, understudies' learning and educator maintenance.

Educators' fulfillment speaks to one of the most significant territories of work inspiration (Scott and Dinham, 2005). Instructors' fulfillment is just characterized as the powerful direction that a representative has towards his or her work (Price, 2001). Instructors' fulfillment is a specialist's feeling of accomplishment and accomplishment at work. Educators' fulfillment is a feeling, an inclination, a mentality and a matter of discernment that outcome from a worker examination at work. Educators' fulfillment is dictated by how much the individual sees related needs are being met.

Inspired staff at that point creates dependability or pledge to an organization coming about to more noteworthy efficiency and lower turnover rates. Brudett et al. (2003) in an examination dependent on an example of 57 schools in England and Wales reasoned that those learning organizations with copious learning and showing asset, great understudy educator proportion, estimable remaining task at hand and great reward and motivator for instructors' perform better contrasted with learning foundations which don't give the equivalent. It is commonly seen to be straightforwardly connected to profitability just as to individual prosperity.

Instructors' fulfillment further infers eagerness and satisfaction with ones' work. It is the key fixing that prompts acknowledgment, salary, advancement and the accomplishment of different objectives that lead to a sentiment of satisfaction (Kaliski et al, 2008). Educators' fulfillment additionally implies a gathering of sentiments and convictions that individuals have about their present place of employment. People groups' level or level of instructors' fulfillment can run from outrageous fulfillment to extraordinary disappointment. Notwithstanding having dispositions about their occupations in general, individuals additionally have frames of mind about different parts of their employments,

for example, the sort of work they do, their associates, bosses or subordinates and their compensation (Ghazzawi, 2008).

Armstrong (2001) states that the degree of fulfillment is influenced by inborn and extraneous propelling variables, the nature of supervision, social associations with work gatherings and how much people succeed or bomb in their work. Individuals are spurred to accomplish certain objectives and will be fulfilled in the event that they accomplish these objectives. Specialists demonstrate that absence of fulfillment on part of workers bring about low degrees of pledge to perform and accomplishing authoritative objectives. Concentrates additionally demonstrate that if work power is happy with their occupations just as the authoritative condition including its schools, pay and initiative, they will be increasingly dedicated with their association when contrasted with the individuals who are not fulfilled (Okpara, 2004). Specialists have contemplated the association between educator' statistic factors and fulfillment. Harris (2006) proposed that degrees of fulfillment felt by instructors in comparative workplace can differ starting with one individual then onto the next.

Instructors' fulfillment is certifiably not another wonder at all in hierarchical science and authoritative conduct. It is one of the themes that have drawn enthusiasm among researchers in the field. Numerous investigations have been directed on this specific theme for a long time now and several articles distributed (Zembylas and Papanastasiou, 2006). Nonetheless, writing demonstrates that the vast majority of the investigations were done in the created nations, for example, United States of America, United Kingdom, Canada and New Zealand however not many were embraced in the creating nations (Ngimbudzi, 2009). A study led as of late on instructors' inspiration and fulfillment in 12 nations in Asia and Sub-Saharan Africa including Tanzania raises worries about the impact of low

educators' fulfillment on instructor's non-appearance, delay and absence of pledge to their work (Bannel and Akyeampong, 2007). Moreover, instructors' fulfillment isn't just imperative to educators themselves as government employees, instructive directors and pioneers and bosses yet in addition to understudies in a wide range of schools. As per Shann (2001), 'educators' fulfillment has been demonstrated to be an indicator of instructor maintenance, determinant of instructor responsibility, and thus, a supporter of school adequacy'. This suggests instructors' fulfillment is a significant wonder for teachers, their bosses and understudies on the loose.

In increasingly created nations, for example, the United States of America (USA), the United Kingdom (UK), Australia and New Zealand, educators appear to enter instructing for inborn as opposed to extraneous reasons (Scott and Dinham, 2005). These variables incorporate understudy accomplishment, helping understudies, constructive associations with understudies and others, self-development, etc growing warm, individual associations with youngsters, the scholarly challenge of educating, and abnormal amounts of showing self-sufficiency, solid initiative and regulatory help (Shann, 1998; Houtte, 2006; Noddings, 2006). Instructors' fulfillment has been connected to positive results including educator maintenance and better execution (Armstrong, 2009). An investigation completed by Goodlad (1984) in the United States demonstrates that fulfilled educators positively affect study hall learning.

Despite what might be expected, an investigation did in the United States by Lyson and Falk (1984) out that it is the best qualified instructors who are well on the way to leave educating. Subsequent to depicting the instructor maintenance issue in the field of a custom curriculum in Georgia, Fore et al. (2002) presumed that an absence of acknowledgment, couple of chances for 30 advancement, poor educator working

conditions, absence of authoritative help, lacking assets, restricted basic leadership power, and broad time spent in gatherings, and constrained open doors for individualisation, all add to instructors' choices to leave schools.

The general image of educators' fulfillment in the United States of America schools is accounted for by the National Center for Education Statistics (NCES) in 2002 in its Staffing Survey (SASS). The discoveries of the examination uncovered the variables that comprise the separating factors between the most fulfilled and the least fulfilled educators. These are class size, support for the training of the entire tyke, scholarly perfection, and treatment of educators as experts, including giving them impressive self-governance and autonomy. The investigation refered to likewise steady and empowering organization. On the other hand, it is refered to that instructors in the USA have little worry with pay and advantages.

Concentrates on fulfillment can be followed back roughly two centuries prior when modern insurgency started in the United Kingdom. The vast majority of these investigations concentrated on amplifying laborers yield (Kinyua, 2011). Investigation of representatives' sure or negative response to their occupations started to grab hold when Elton Mayo previously considered the impact of lighting on workers' exhibition (Kinyua, 2011). Mayo later included factors, for example, weariness, breaks and working hours. Examining workers and giving them more consideration expanded their profitability and inspiration.

Educators in establishment schools displayed the most reduced instructors' fulfillment (Kinyua, 2006). The purposes behind low educator fulfillment are fluctuated. Different creators refer to various elements, including struggle among work and family life (Spear et al., 2003); conduct troubles shown by certain students, the 'bombing schools' (Dinham

and Scott, 2004) just as compensation (Chung et al., 2004). Speal et al. (2003) in their examination reasoned that the primary supporters of large amounts of instructors' fulfillment are working with kids, the scholarly challenge of educating and representative self-rule and freedom. Disappointment with educating was frequently connected to high outstanding task at hand, low degree of compensation and poor status.

In the UK, fulfillment among instructors has changed after some time. Klassen and Anderson (2007) found that educators evaluated their fulfillment altogether lower and requested the wellsprings of disappointment essentially uniquely in contrast to did instructors in 1962. They uncover that, though instructors in 1962 were most worried about outer wellsprings of disappointment (for example compensation, state of structures and hardware and poor human relations), instructors in 2007 communicated the most worry about variables identifying with showing itself (for example time requests and students' conduct). All the more as of late, Nagai (2007) sees that, in Japan, instructors' outstanding task at hand and other work attributes and mental variables, for example, weakness, exertion reward parity and traded off general wellbeing, have been proposed as components of fulfillment for educators.

Australian investigations, have reliably featured the significance of acknowledgment for instructors' work and the inherent inspiration got from understudy learning, accomplishment and improvement (Campbell, 2004). Once more, Barnett, Marsh and Craven (2001) found a few potential factors that worked as satisfiers inside schools. These included quality and clearness of correspondences, adaptable utilization of school principles and guidelines, and the positive utilization of the hierarchy of leadership official

s

## 2.11 Socio-Cultural Factors Influencing Teaching-Learning Process

Writing has shown that instructing and learning is influenced both decidedly and adversely by socio-social variables. UNESCO (2005) uncovers that learning of students is profoundly impacted by the network and additionally guardians mentality towards training. She saw that understudies would work more earnestly and adapt well in the event that they understand that their folks are keen on their school work. Along a similar line, Kibera and Kikomoti (2007) point out that, kids who are not energized by their folks in school work are probably going to go to class late, for they might be offered obligations to perform before going to class. They caution that steady late-participation at school will undoubtedly adversy affect their learning. In a report, it is guaranteed that negative parental frame of mind including absence of good direction urge kids to search work and in the end drop out of school (Ministry of Education, 1994). This influences their learning.

Kibera and Kikomoti (2007) reprimand the general public for denying young ladies sufficient time to think about. They fight that the general public does not put a great deal of accentuation on training for young ladies. They further bring up society‟s see that a lady shouldn't be taught in light of the fact that dissimilar to men who is the leader of the family and bread worker, she is relied upon to be a spouse, a home producer and a mother.

Gendered division of work has been found to influence learning of understudies. Studies have demonstrated that young ladies perform household obligations which struggle with the quest for instruction. They are over-troubled with family unit obligations, for example, getting water and kindling, washing garments and dishes, dealing with the kin and other related occupations to the detriment of their examinations (Kibera and Kikomoti, 2007). Along a similar line, Republic of Kenya (1999), revealed absence of sex affectability in schools. It uncovered that in certain schools, obligations are dispensed unjustly with

young ladies accomplishing more and thus possessing less energy for studies. In different schools, male educators were accounted for to send young ladies to cook for them while the young men were learning. These deny them of sufficient time to think about and subsequently perform ineffectively in school.

Kombo and Waiyaki (2002) state that socialization in certain networks has put accentuation on different angles other than school-work, for instance circumcision services. Mukhongo (2003) in his examination on impact of circumcision service in instruction of elementary school students among the Bukusu people group in Kanduyi Division of Bungoma, Kenya discovered that grade school students would in general drop out of school at a higher rate during the circumcision time frame than at some other season. The training was observed to be normal among the low financial families who invest a large portion of their energy seeing relatives requesting for subsidizing and practicing in tunes and moves before circumcision.

Writing has likewise shown that commencement transitional experience is related with attitudinal changes. As per Ministry of Education (1994), it is affirmed that circumcision, through the substance of functions changes mentalities. The transitional experience was accounted for to give grown-up status on the starts which result to conduct change, for instance, young men and young ladies among the Kipsigis feel that they are "grown-ups". It was without a doubt discovered that after circumcision functions, young men and young ladies see themselves as "men" and "ladies", "excessively develop" to be instructed by the uncircumcised in this way rearing indiscipline. Mutesa (2003), in his examination on financial, social and school-based elements influencing the desire of Samburu young ladies of Samburu District in Kenya found that young ladies who are circumcised see

themselves as grown-ups and scorn their uncircumcised associates and instructors. Studies have accordingly demonstrated that commencement soul changing experience breeds indiscipline in schools. Eshiwani (1993) advices that school order must be kept up consistently in light of the fact that it is when there is great control that legitimate learning can be relied upon to happen.

Writing has demonstrated that training result is influenced by early relationships. In an investigation, Ministry of Education (1994) set up that wedding young ladies at an early age is seen as a gainful business due to the guarantee of lady of the hour cost. It found that, occasionally in exceptionally remote territories, the training avert tutoring of young ladies for dread that their fairly estimated worth will deteriorate. In agreeing with the discoveries, UNICEF (2005) points out that lady of the hour cost are motivation for guardians to swear off instructing their little girls and rather wed them once in a while as youthful as ten years to more seasoned men. Young ladies subsequently quit going to class once they get hitched.

Late examinations have shown that learning is influenced adversely when students take part in sexual exercises. Safron et al (2001) and Parkes et al, (2010) feature explicit impacts of being distracted with sexual action and dating. They diagram plausibility of disturbance to training by pregnancy or explicitly transmitted contaminations and loss of time and focus on the instruction destinations as the inconvenient impacts of commitment with sexual action and dating. Parkes et al, (2010) declares that sexual presentation may likewise prompt enthusiastic issues, for example, discouragement and low confidence which could obstruct school work.

Studies propose that religiosity positively affects learning. In looking into on the effect of otherworldliness on learning, Fukofuka (2007) found that understudies who set aside the

effort to focus on profound exercises improve their capacity to exceed expectations scholastically. He refers to a few investigations that demonstrate that otherworldliness positively affects understudy learning. Among them, Walker and Dixon (2002) in their examination had built up that profound convictions and religious investment were emphatically identified with learning. Additionally, Line (2005) likewise refered to, built up a solid connection among learning and individual religiosity, particularly in the zone of individual sacred text study, satisfying church models and individual supplication life. He saw that when understudies enhance themselves from sacred writing, complying with their congregation principles paying little respect to confidence and have a steady supplication life, their learning react emphatically. Fukofuka, (2007) likewise found that religious duty positively affected the learning of understudies and furthermore on their school-related conduct. Fukofuka saw that understudies who were focused on their religion were polite in school and would be advised to scholastic execution.

Writing has likewise shown that sorted out groups related exercises have negative effect on educating and learning. As per Ministry of Education, Science and Technology (2001) the way of life of savagery has been presented in the general public. There is savagery in the homes, avenues and all over the place. Along a similar line, UNESCO (2003) echoes that schools are not places of refuge. It expresses that they not just endure pack related brutality overflowing from the roads, yet are themselves quickly getting to be focuses of group exercises working especially as site for enrollment and mingling (Burnett, 1994). Walker et al (2004), note that pack individuals have low support in school exercises.

Burnett (1994) battles that nearness of pack assume a noteworthy job in the across the board increment of viciousness in schools. He expressed that since packs by definition are sorted out gatherings, and are regularly effectively associated with medication and

weapons dealing, their insignificant nearness in school can expand strain in them. Walker et al (2004) caution that savagery and dangers of it is profoundly problematic to the school condition and meddles altogether with instructing learning process. They call attention to that physical and mental brutality is ruinous both to individuals‟ confidence and to their enthusiastic prosperity.

UNICEF (2005) regrets that numerous young ladies are casualties of lewd behavior and viciousness inside and outside the school. It calls attention to that when guardians are anxious about the possibility that that their little girls won't be protected returning and forward to class or in the earth they keep them home. UNESCO (2003) in simultaneousness asserts that numerous young ladies who surmount the boundaries keeping them from going to class face inappropriate behavior and sexual maltreatment from companions and instructors once they are enlisted. These practices may have added to poor learning of young ladies in scholastic work and loss of enthusiasm for school which may result to class drop-out (Kibera and Kikomoti, 2007).

**2.12 Summary of Literature Review**

This part took a gander at the impact of school natural factors on the educating learning process in open grade schools in Bungoma South Sub-district, Bungoma County Kenya. The part explored the General Environmental components that impact instructing and learning. A portion of the explored writing were; physical offices and the educating – learning process, instructional materials and educating – learning process, class size and instructing – learning process, school area and the way toward instructing and learning. Tylers and vlastor (2009) contends that sufficient physical offices reinforce and empower the scholarly exhibition. An examination done by kaulule (2006) demonstrated that educators may not completely collaborate with all the individual understudies, and thus,

the instructor may not come to see every student's capacity and incapacity. This may bring about the instructor's inability to structure the educating – learning materials for important learning of every understudy. The examination led by Don (2010) found that class size affects the inspiration of the students.

# CHAPTER THREE

# RESARCH DESIGN AND METHODOLOGY

## 3.1 Introduction

This part caught the exploration system and methodology that was utilized to research the impact of school natural factors on the instructing learning process in open elementary schools in Bungoma south sub-area, Bungoma County, Kenya. It depicted the techniques that should have been utilized in the investigation so as to understand the set destinations of this examination. It contains the Research structure, Philosophical Paradigm, Study region, Target populace, Sampling method, Sample size, Research instruments, Validity and unwavering quality of the Research apparatuses, Administration of Research Instruments, Data investigation, and Ethical contemplations.

## 3.2 Research Design

A research design according to Orodho (2004), is the scheme, outline or plan that is used to generate answers to research problems. A descriptive survey research design was used in this study. A descriptive research involves collecting data in order to test hypothesis or to answer questions concerning the current status of the subject of the study. It determines and reports the way things are (Gay, 1996). In addition, this type of research attempts to describe such things as possible behaviour, attitudes, values and characteristics (Mugenda and Mugenda, 2003). It is also noted that Descriptive survey research describes behaviours by gathering people's perceptions, opinions, attitudes and beliefs about a current issue such as Educational Issues. The Descriptions are then summarized by reporting the number or percentage of persons reporting each response. According to Aggarwal (2008), descriptive research is devoted to the gathering of information about

prevailing conditions or situations for the purpose of description and interpretation. This type of research method is not simply amassing and tabulating facts but includes proper analyses, interpretation, Comparisons, identification of trends and relationships.

The rationale for adopting survey design was that it allows collection of data from a sample of participants from a target population in order to determine the current status of that population with respect to one or more variables (Gay, 1996; Orodho, 2009). The latter further points out that survey study gathers data at a particular point in time with the intention of describing the nature of the existing conditions and determining the relationship that exists between specific events. In survey research, the researcher collects data by interviewing or administering a questionnaire to a sample of individuals or by observation (Njoroge, 2011).

### 3.3 Philosophical Paradigm

Research paradigm is the set of common beliefs and agreement shared between scientist about how problems should be understood and a dressed (Kuhn, 1962). This study used pragmatism which states that reality is constantly renegotiated, debated, interpreted, in light of usefulness in new predictable situations. It further explains that the best method is one that solves the problems, change is the underlying aim.

### 3.4 Study Area

The study was conducted in Bungoma South Sub-county, Bungoma County, Kenya. Bungoma County is located in Western region of Kenya (Appendix I: Figures 3.3 and 3.4), has a population of 1,375,063 people and an area of 2,069 $KM^2$. The economy of Bungoma County is mainly agricultural, centering on the sugar cane and maize industries. The area experiences high rainfall throughout the year and is home to several large rivers

which are used for small scale irrigation. Bungoma County has 9 Sub-Counties namely Bumula, Kanduyi, Sirisia, Kabuchai, Kimilili, Tongaren, Webuye East, Webuye West and Mt. Elgon (Bungoma Development Plan, 2016).

### 3.5 Target Population

Mugenda and Mugenda (2003) defines target population as a population to which a researcher wants to generalize the results of a study. It consists of sample frame from which a sample is selected (Rono, 2013). According to Kohler et, al (2018), population is an entire group of individuals, events or objects having a common observation. The target population was the Head Teachers / Deputy Head Teachers, Class Teachers and Pupils in the Public Primary Schools in Bungoma South Sub-County, Bungoma County Kenya.

### 3.6 Sampling Procedure

Sampling is defined as the procedure a researcher uses to gather people, places or things to study (Orodho and Kombo, 2002). Stratified sampling, Simple random sampling and Purposive sampling were used in this study. Bungoma South Sub-County was stratified into three zones because the Sub-County is not homogeneous. The zones were Municipality, Sangalo and Mwibale. If a population from which a sample is to be drawn does not constitute a homogeneous group, stratified sampling technique is generally applied in order to obtain a representative sample (Kothari & Garg, 2014). The three zones therefore constituted the strata. This sampling design ensured that each zone contributed to the sample a number proportional to its size in the population and offered every member (school) of the stratum an equal chance of being selected.

Simple random sampling was used in the zones to identify schools. This was done by writing the names of the schools in folded papers then selecting the sample when blind

folded. Simple random sampling allowed all members of the population an equal chance of being selected.

Purposive sampling was used within each school to select the Head teacher/ Deputy Head teacher and also to select the Class Teachers in Class Six and Class Seven. In a case where there was more than one stream in a school, simple random sampling was then used to select one stream and Purposive sampling was used to select the Class teacher. The Head teachers/ Deputy Head teachers and Class Teachers were purposively selected because they were in a good position to give information on the availability of the resources within their schools and as managers of schools they were in constant touch with Pupils in their classes.

Pupils were selected through Simple random sampling of pupils in Class Six and Class Seven to participate in Focus Group Discussion (FGD) because these were the pupils who could comprehend questions. Eight folded papers written boys and girls (Four papers written boys and four papers written girls) were selected by the pupils among other folded papers not written on in Class Six and Class Seven separately. The pupils who selected the written papers were chosen to participate in the FGD. This method offered every pupil in the Class an equal chance of being selected. Class Eight pupils were left out of the study because of being an examination class.

### 3.7 Sample Size

In this study a sample of 30 % of the target population was used as shown in Table 3.1. This is because Mugenda & Mugenda (2003) recommended that for descriptive studies, ten percent or above of the accessible population is enough for the entire study. Therefore 30 % (27) of 91 Schools was sampled. The study used Head teachers/ Deputy Head

teachers of the sampled schools (27) and also Class teachers of Class Six and Seven from the sampled schools. One class teacher from class six and one class teacher from class seven from each school was sampled. This translated to 54 class teachers. Eight pupils (4 boys and 4 girls) from each sampled school were selected to participate in the FGD.

**Table 3.1: Sample Size determination**

| No. | ZONES | SCHOOLS IN ZONE | % | SAMPLE SIZE |
|---|---|---|---|---|
| 1 | MUNICIPALITY | 38 | 12% | 11 |
| 2 | SANGALO | 26 | 9% | 8 |
| 3 | MWIBALE | 27 | 9% | 8 |
| | **TOTALS** | **91** | **30%** | **27** |

### 3.8 Research Instruments

Research tools are the instruments that were used in this study from collection of data to analysis. Primary data was used in this study. According to Driscoll & Brizee (2017) Primary data is data that is collected by a researcher from first-hand sources, using methods like surveys, interviews, or experiments. It is collected with the research project in mind, directly from primary sources.

A primary data source is an original data source, that is, one in which the data are collected firsthand by the researcher for a specific research purpose or project. Primary data can be collected in a number of ways. However, the most common techniques are self-

administered surveys, interviews, field observation, and experiments. Primary data collection is quite expensive and time consuming compared to secondary data collection. Notwithstanding, primary data collection may be the only suitable method for some types of research (Neil, 2010). In this study Primary data was collected using Questionnaires and Focus Group Discussion Guide.

### 3.8.1 Questionnaire

Questionnaire is a research instrument consisting of a series of questions for the purpose of gathering information from the respondents. Often questionnaires use both open and closed ended questions to collect the data. Questionnaires are good instruments for collection of Primary data (Kothari & Garg, 2014). Questionnaires offer considerable advantage in administration, presents an even stimulus potentiality to large numbers of people simultaneously and provides the investigation with an easy accumulation of data. It's on the basis of these strengths that the instrument was chosen. The questionnaire presented both open and closed ended questions that required a single response. In open ended questionnaires the respondents gave their explanation or their own opinion and in closed ended questionnaire the respondents gave either 'Yes' or 'No' response. The purpose of the questionnaires was to collect a lot of information over a very short period of time. Each item in the questionnaire was developed to address a specific objective of the study (Mugenda and Mugenda, 2003).

Two questionnaires were prepared; one for the Head Teachers / Deputy Head Teachers and the other for the Class Teachers of Class Six and Seven. The questionnaire for the Head Teachers / Deputy Head Teachers had the following sections:

Section A: Adequacy of physical facilities and the teaching-learning Process

Section B: Sufficiency of instructional materials and teaching-learning process

Section C: Class size and the teaching-learning process

Section D: School location and the teaching-learning process

Section E: Assessment of teaching-learning process

The questionnaire for the Class Teachers had the following sections:

Section A: Background Information

Section B: Adequacy of physical facilities teaching-learning process

Section C: Sufficiency of instructional materials and the teaching-learning process

Section D: Class size and the teaching-learning process

Section E: School location and the teaching-learning process

Section F: Assessment of teaching-learning process

Section G: Teaching-learning process Indicators

The questionnaires were administered to the Head teachers / Deputy Head teachers and the Class Teachers by the researcher.

### 3.8.2 Focus Group Discussion Guide

Focus Group Discussion (FGD) is a qualitative research method in the social sciences with a particular emphasis and application in the developmental program evaluation sphere. It is led by a skilled moderator. FGD is used when one needs to understand an

issue at a deeper level than he/she can access with a survey. FGD involves two to eight people on average. Greater than eight participants becomes a crowd for an FGD (Monishankar and Garcia, 2017). Focus group discussions were conducted between the researcher and the pupils. A focus group discussion was able to capture any additional information in order to supplement information from the Questionnaires. The FGD was appropriate for this study since it allowed the pupils to share their opinions and hear those of others (Gay, 1996) and to talk about the problems they encountered (Mwiria and Wamahiu, 1995). The FGD gathered information related to the research objectives.

### 3.9 Validity and Reliability of the Research Instruments

Validity and Reliability of the Research Instruments is very important and was done.

#### 3.9.1 Validity of the Research Instruments

According to Liang and Baranowski (2014) validity is 'the degree to which a test measures what it is intended to measure. Validity entails the appropriateness, meaningfulness and usefulness of inferences a researcher makes based on the data collected (Saunders, Lewis & Thornhill, 2009). In this study, validity was examined through the ability of the testing instruments to measure what they were supposed to measure. The researcher gave the instruments to the supervisors to scrutinize if the instrument were valid. The advice given by the supervisors helped the researcher to determine the validity of the research instrument. After verification of the instruments, Content validity of the instrument was determined through piloting, where three schools were used. The schools used in piloting were not used in the actual study. This helped to show whether the research tools could give the intended results.

### 3.9.2 Reliability of the Research Instruments

Reliability is a measure of the degree to which a research instrument yields consistent results after repeated trials (Liang and Baranowski, 2014). It involves a measure of the degree to which a research instrument yields consistent research or data after repeated trials. Reliability of the instruments is influenced by random error which is a deviation from a true measurement due to factors that have not effectively been addressed by the researcher. In this study pilot method was used to test the reliability of the instrument being used. To test reliability of the instrument, test–retest technique was used. In this technique the instrument was administered twice to the same group at intervals of two weeks. Piloting was done in Webuye East Sub-County.

### 3.10 Administration of Research Instruments

The research instruments were developed by the researcher. Permission to carry out the research was obtained by the researcher from University of Eldoret (School of Education and Board of Post graduate Studies). After that the Researcher applied for a Research Permit from the National Commission for Science, Technology and Innovation (NACOSTI). Authority to carry out research was also given by the County Commissioner and the County Director of Education, Bungoma County. The Research Instruments were piloted and finally administered to the Head Teachers/ Deputy Head Teachers, Class Teachers and Pupils by the researcher.

### 3.11 Data Analysis

Data Analysis is the process of systematically applying statistical and/or logical techniques to describe and illustrate, condense and recap, and evaluate data (Silverman & Manson, 2003; Shepard, 2002). According to Shamoo and Resnik (2003) various analytic procedures "provide a way of drawing inductive inferences from data and distinguishing the signal (the phenomenon of interest) from the noise (statistical fluctuations) present in the data".

The Primary data that was collected in this study through the Questionnaires and Focus group discussions was cleaned, coded and entered into the computer for analysis using statistical package for social sciences (SPSS) version 21 for Windows. Descriptive statistics was used to analyze quantitative data and findings presented in Frequency tables and charts.

### 3.12 Ethical Considerations

This study was built on ethical considerations of anonymity and confidentiality, intellectual honesty, respect for intellectual property rights, non-fabrication of findings and originality. Any information provided by the respondents was maintained in confidence. Permission was obtained from participants to use information for the purpose of the study. All sources of information or data was acknowledged. Finally, this study was approved by the University. Formal consent of the participants and the authority letter from the university was provided as a sign of genuineness of undertaking the research. The respondents were assured about confidentiality and privacy, ensure that anonymity of the respondent were protected and made sure that the research undertaken will not course physical or psychological harm. The researcher obtained the consent of

the pupils from the Head teachers and their Class teachers. Pupils were also assured that the information given was to be treated with confidentially.

# CHAPTER FOUR

# DATA ANALYSIS, PRESENTATION, INTEPRETATION AND DISCUSSION OF FINDINGS

## 4.1 Introduction

This chapter presents the results and discussions of this study.

## 4.2 Demographic characteristics of the Population

The response rate is as indicated in table 4.1.

Table 4.1: Questionnaire response rate

| Questionnaire | Target | Collected | Response rate |
|---|---|---|---|
| Teachers | 54 | 57 | 106% |
| KII | 27 | 27 | 100% |

The response rate was 106% and 100% respectively for the Teachers and KII (Table 4.1). The very high response rate for the Teachers was because three schools had two streams and all the teachers filled the questionnaire hence this resulted to 57 questionnaires being collected instead of the targeted 54 giving a questionnaire response rate of 106%.

**Table 4.2: Teachers demographic characteristics**

| Characteristic | Frequency (%) |
|---|---|
| **Gender** | |
| Male | 26(45.6) |
| Female | 31(54.4) |
| **Age-bracket** | |
| 20-30 | 1(1.8) |
| 31-40 | 27(47.4) |
| 41-50 | 20(35.1) |
| Above 50 | 9(15.8) |
| **Highest academic level** | |
| P1 | 29(50.9) |
| Diploma | 15(26.3) |
| Bed | 11(19.3) |
| Med | 2(3.5) |
| **Teaching experience (years)** | |
| 0-5 | |
| 6-10 | 4(7.0) |
| 11-15 | 20(35.1) |
| 16-20 | 13(22.8) |
| Over 20 | 4(7.0) |
| | 16(28.8) |

The demographic characteristics considered in this study were gender, age, academic qualifications, years of experience and duration in the current station (Table 4.2). Among the 57 questionnaires collected, 31(54.4%) were female and 27(47.4%) were aged between 31-40 years. The age of head teachers and teachers shows maturity and this influences the teaching-learning process. Half 29(50.9%) had P1 as highest level of education attained. Effective teaching-learning process requires trained and qualified teachers to design teaching-learning strategies and support learners in order to avoid repetition. 20(35.1%) had a teaching experience of between 6-10 years as indicated in table 2. The median duration in the current station was 5 years IQR (3, 8). Experience of

teachers and head teachers may have an influence on the teaching-learning process. Teachers with many years of experience have more skills in handling and improving the teaching-learning process. This was also noted by Dadze (2010) who found out that various resources such as personnel can affect teaching – learning process.

### 4.3 Effects of Physical Facilities on the Teaching-Learning Process in Public Primary Schools in Bungoma South Sub-county, Bungoma County, Kenya.

**Table 4.3: Adequacy of Physical Facilities and the Teaching-Learning Process by Class Teachers**

| Physical facilities | Very adequate | Adequate | Fairly adequate | Inadequate | Not available |
|---|---|---|---|---|---|
| Staffroom | 17(29.8%) | 22(38.6%) | 9(15.6%) | 6(10.5%) | 3(5.3%) |
| Classroom | 14(24.6%) | 10(17.5%) | 25(43.9%) | 8(14%) | 0(0.0%) |
| Toilets | 4(7.0%) | 7(12.3%) | 31(54.4%) | 15(26.3%) | 0(0.0%) |
| Library | 1(1.8%) | 5(8.9%) | 12(21.4%) | 15(26.8%) | 23(41.1%) |
| Playing Ground | 7(12.3%) | 11(19.3%) | 13(22.8%) | 23(40.4%) | 3(5.3%) |
| Desks and tables | 5(8.8%) | 13(22.8%) | 28(49.1%) | 11(19.3%) | 0(0.0%) |

Twenty two teachers 22(38.6%) pointed out that the schools have adequate staffrooms while 25(43.9%) said that they have fairly adequate classrooms. Desks and tables were fairly adequate at 28(49.1%). Twenty (40.4%) of the teachers also highlighted that playing grounds were inadequate which are very important in co-curricular activities. Majority 23(41%) reported unavailability of library facilities in their schools. Highest proportion of teachers 31(54.4%) pointed out that the schools had fairly adequate toilets (Table 4.3).

When the teachers were asked how the inadequacy of physical facilities affects the teaching-learning process, they generally noted that for effective teaching learning to take place, the school environment should be conducive by providing all the physical facilities required. They reported that lack of these facilities leads to congestion and hence non conducive environment for teaching and learning process. These findings concur with Osei-Tutu (2014) who reported that the final quality of education is affected by availability of physical facilities.

Njoroge (2011), in his studies, found that some physical and material resources in schools are inadequate and in deplorable conditions in others. The inadequate latrines in some schools pose a problem in the teaching and learning process. Learners would queue desperately in the morning and at break time to use the facilities resulting to poor preparation for the in-coming lesson as well as loss of instructional time. It also create a fertile ground for indiscipline whereby the young and “weak“ are harassed (bullied and teased) by their younger and “stronger“ peers. This often results to emotional imbalance which impedes learning/teaching process. The inadequate and poorly maintained desks affect negatively teaching/learning process. Pupils are found uncomfortably seated. This adversely affects their listening, reading and writing skills since they have to be on high alert to avoid falling down and getting embarrassment. The sitting manner threatens co-operative learning since learners at times would be found quarreling over positions injuring the social need, specifically affiliation (Njoroge, 2011).

**Table 4.4: Adequacy of Physical Facilities and the Teaching-Learning Process by Head Teachers / Deputy Head Teachers**

| Physical facilities | Very adequate | Adequate | Fairly adequate | Inadequate | Not available |
|---|---|---|---|---|---|
| Staffroom | 8(29.6%) | 11(40.7%) | 3(11.1%) | 2(7.4%) | 3(11.1%) |
| Classroom | 4(14.8%) | 11(40.7%) | 6(22.2%) | 6(22.2%) | 0(0.0%) |
| Toilets | 2(7.4%) | 6(22.2%) | 7(25.9%) | 12(44.4%) | 0(0.0%) |
| Playing ground | 2(7.4%) | 4(14.8%) | 8(29.6%) | 11(40.7%) | 2(7.4%) |
| Library | 1(3.7%) | 2(7.4%) | 5(18.5%) | 8(29.6%) | 11(40.7%) |
| Desks | 2(7.4%) | 5(18.5%) | 16(59.3%) | 4(14.8%) | 0(0.0%) |
| Head teachers offices | 8(29.6%) | 11(40.7%) | 1(3.7%) | 6(22.2%) | 1(3.7%) |
| Teachers tables | 2(7.4%) | 5(18.5%) | 12(44.4%) | 6(22.2%) | 2(7.4%) |

Higher proportion of the Head teachers 11(40.7%) reported that staff room, classrooms and head teachers offices were adequate in their schools. Similarly, higher proportion reported inadequacy of toilets and playgrounds, 12(44.4%) and 11(40.7%) respectively. Library facilities were reported to be inadequate by 8(29.6%) of the head teachers. Desks and teachers tables were reported to be fairly adequate by 16(59.3%) and 12(44.4%) of the teachers respectively as indicated in table 4.4.

**Table 4.5: Effect of Adequacy of Physical Facilities on the Teaching-Learning Process**

| Physical facilities | Performance | | Statistic (Z) | P-value |
|---|---|---|---|---|
| | <50% | 50-70% | | |
| Staffroom | 32.0 | 27.8 | 0.884 | 0.377 |
| Classroom | 23.1 | 31.3 | 1.776 | **0.046** |
| Toilets | 27.4 | 29.6 | 0.510 | 0.610 |
| Library | 27.6 | 28.9 | 0.267 | 0.789 |
| Playing Ground | 30.8 | 28.3 | 0.520 | 0.603 |
| Desks and tables | 29.4 | 28.9 | 0.115 | 0.909 |

Non parametric statistics (Mann Whitney U-test) indicated that among the physical facilities, adequacy of classrooms was significantly associated with teaching and learning (performance). Those who reported having adequate classrooms performed better than those who reported inadequacy (Z=1.776, 0.046) as shown in Table 4.5. These findings concur with the findings of Nepal and Maharjan (2015) that showed that there was no significant difference with respect to four types of physical facilities such as educational material, sport material and play ground, library and toilets on Learning and outcomes of students in Nepal. The study further showed that the physical facilities and student's outcome in community schools of Central Nepal had poor relationship (Nepal and Maharjan, 2015).

When the teachers were asked how the inadequacy of physical facilities affects the teaching-learning process, they generally noted that for effective teaching learning to take place, the school environment should be conducive by providing all the physical facilities

required. They reported that lack of these facilities leads to congestion and hence nonconductive environment for teaching and learning process. Similar findings were reported by Zais (2011) who reiterated that academic environment is a key component of school environment.

The adequacy of physical facilities in school was reported to affect teaching and learning process in that it makes pupils enjoy learning and it eliminates the aspect of congestion. It was noted in a similar study that basic technology which entails physical facilities is key in enhancing teaching and learning in Primary schools and that it would be counterproductive for poor countries to try to provide primary education without the basic technology which richer countries have long taken for granted (Urwick-Sanusi and Junaidu, 1991).

The physical facilities and student's outcome in community schools of Central Nepal are poor. Many community schools face related problems in terms of lack of availability and utilization of physical facilities, even the basic requirements such as educational material, sport material and play ground, IT Laboratory, library and toilets. These have led to high rates of failing students from public schools attributed to poor quality of teaching-learning in these schools (Nepal and Maharjan, 2015).

### 4.3 Influence of Sufficiency of Instructional Materials on the Teaching-Learning Process in Public Primary Schools in Bungoma South Sub-County, Bungoma County, Kenya.

**Table 4.6: Sufficiency of Instructional Materials and Teaching-Learning Process by Class Teachers**

| Resource Materials | Very sufficient | Sufficient | Fairly sufficient | Insufficient | Not available |
|---|---|---|---|---|---|
| Text books | 2(3.5%) | 15(26.3%) | 26(45.6%) | 14(24.6%) | 0(0.0%) |
| Exercise books | 5(8.8%) | 17(29.8%) | 21(36.8%) | 13(22.8%) | 1(1.8%) |
| Pieces of chalk | 8(14%) | 23(40.4%) | 22(38.6%) | 3(5.3%) | 1(1.8%) |
| Chalk boards/wall | 14(24.6%) | 24(42.1%) | 18(31.6%) | 1(1.8%) | 0(0.0%) |
| Science kits | 0(0.0%) | 7(12.3%) | 8(14%) | 28(50.8%) | 13(22.8%) |
| Wall charts | 2(3.5%) | 7(12.3%) | 21(36.8%) | 26(45.6%) | 1(1.8%) |
| Supplementary Books | 2(3.5%) | 10(17.5%) | 22(38.6%) | 20(35.1%) | 3(5.3%) |

As indicated in table 4.6, 26(45.6%) of the teachers reported having fairly sufficient text books while 28(50.8%) and 26(45.6%) reported having insufficient science kits and wall charts respectively. Chalk boards were reported to be sufficient by 24(42.1%) of the teachers. Exercise books and pieces of chalk were reported to be fairly sufficient by 21(36.8%) and 22(38.6%) of the teachers respectively. Supplementary books were reported to be insufficient by 20(35.1%) of the teachers.

**Table 4.7: Sufficiency of Instructional Materials and Teaching-Learning Process by Head Teachers / Deputy Head Teachers**

| Resource Materials | Very sufficient | Sufficient | Fairly sufficient | Insufficient | Not available |
|---|---|---|---|---|---|
| Text books | 2(7.4%) | 7(25.9%) | 15(55.6%) | 3(11.1%) | 0(0.0%) |
| Exercise books | 4(14.8%) | 6(22.2%) | 9(33.3%) | 8(29.6%) | 0(0.0%) |
| Pieces of chalk | 6(22.2%) | 14(51.9%) | 6(22.2%) | 1(3.7%) | 0(0.0%) |
| Chalk boards/wall | 4(14.8%) | 14(51.9%) | 7(25.9%) | 1(3.7%) | 1(3.7%) |
| Science kits | 0(0.0%) | 0(0.0%) | 9(33.3%) | 4(14.8) | 14(51.9%) |
| Wall charts | 0(0.0%) | 4(14.8%) | 11(40.7%) | 10(37%) | 2(7.4%) |
| Supplementary Books | 0(0.0%) | 4(14.8%) | 13(48.1%) | 9(33.3%) | 1(3.7%) |

Text books, wall charts and supplementary books were reported to be fairly sufficient by 15(55.6%), 11(40.7%) and 13(48.1%) respectively. Science kits were reported to be inadequate 14(51.9%). Pieces of chalk and chalk boards/wall were reported to be sufficient by 14(51.9%) of the head teachers. A third of the head teachers 9(33.3%) reported that exercise books were fairly sufficient as in table 4.7.

Sufficient instructional materials was reported to enable teachers to have valid information and that they are able to teach efficiently. This finding agree with Amadioha (2009) who stated that there are many benefits of instructional materials such as exposing the learner to experiences that enrich learning.

**Table 4.8: Effect of Sufficiency of Instructional Materials on the Teaching-Learning Process**

| Resource Materials | Performance | | Statistic (Z) | P-value |
|---|---|---|---|---|
| | <50% | 50-70% | | |
| Text books | 32.1 | 27.8 | 0.932 | 0.351 |
| Exercise books | 29.4 | 28.9 | 0.112 | 0.911 |
| Pieces of chalk | 28.5 | 29.2 | 0.142 | 0.887 |
| Chalk boards/wall | 30.9 | 28.3 | 0.568 | 0.570 |
| Science kits | 31.3 | 28.1 | 0.693 | 0.489 |
| Wall charts | 31.8 | 27.9 | 0.865 | 0.387 |
| Supplementary Books | 31.7 | 28.0 | 0.798 | 0.425 |

None of the instructional materials was significantly associated with teaching and learning process ($p>0.05$) (Table 4.7). This implied that sufficiency of instructional materials does not significantly influence teaching and learning process. However sufficiency of instructional materials was reported to enable teachers to have valid information and that they are able to teach efficiently.

Findings of this study concur with Adalikwu and Iorkpilgh (2013) whose study in Nigeria revealed that students taught with instructional materials performed significantly better than those taught without instructional materials and also that the use of instructional materials generally improved students' understanding of concepts and led to high academic achievements.

In a case study conducted by Were (2014) in Rachuonyo South Sub County, the research found out that teaching and learning materials when appropriately acquired, used and stored increases the transition rate of the pre-school learners. The research therefore concluded that teaching and learning materials should be used in teaching the pre-school children. The research recommended that teaching and learning materials be provided by the parties responsible for the same to enhance holistic development of the child. Teachers should take the leading role in the acquisition, appropriate use and storage of the teaching and learning materials to help improve the academic part of the child. Similar results were found by (Kang'ethe, 2015.)

### 4.4 Effects of Class Size on Teaching-Learning Process in Public Primary Schools in Bungoma South Sub-County, Bungoma County, Kenya.

The effects of Class size on teaching-learning process is shown on table 9.

**Table 4.9: Effect of Class Size on the Teaching-Learning Process**

| Factor | Learning process (performance) | | P-value |
|---|---|---|---|
| | Below 50% | 50-70% | |
| Class Size | 42.2(SD 6.3) | 41.6(SD7.1) | 0.768 |

Class size did not fluctuate by execution as appeared by Table 4.9. Hence the investigation has demonstrated that class size does not fundamentally influence showing learning process (p=0.768). These outcomes concur with discoveries of Filges (2018) who announced that there is some proof to recommend that there is an impact of lessening class size on perusing accomplishment, in spite of the fact that the impact is exceptionally little. The examination found a factually noteworthy beneficial outcome of diminishing the class

size on perusing. Eastco'it (2016) additionally recognized that the genuine effect of class size is substantially less clear than is inferred by the ordinary declarations with respect to its significance. Eastco'it (2016) further expressed that there is no sliver of proof at present that littler classes lead to higher achievement with the exception of in the fairly uncommon conditions of therapeutic classes.

The mean number of understudies favored by educators in a class was 42(SD 6.8) min 25, max 60. The purpose behind the favored numbers was for the educator to have the option to give singular consideration regarding every student and successful instructor understudy relationship. The greater part of the educators 31(54.4 %) detailed not to give singular regard for their students because of the enormous number of understudies in their classes due to the high enrolment.

The impact of class size greatly affects the educating learning process. It was accounted for that the greater the class size, the more troublesome it is for the instructor to give singular regard for their understudies because of the huge number of students in their classes and that little sizes encourages educators to focus on frail understudies and this likewise makes the stamping of assignments simple. The littler the class size, the simpler it is for the instructor student communication hence improving the educating learning process since the educator will most likely give the student singular consideration. Enormous class size adversely impacts the educating learning process in that the instructor isn't even ready to move uninhibitedly to survey the understudies fill in as they do their activities.

In an investigation directed by Blatchford et al (2007), it was discovered that there was progressively singular consideration in littler classes, an increasingly dynamic job for students, and advantageous consequences for the nature of instructing. Consequently it

was recommended that instructors in both huge and little classes need to create procedures for progressively singular consideration yet in addition perceive the advantages of different types of learning, for instance, bunch work (Blatchford, et al 2007).

### 4.5 Effects of School Location on the Process of Teaching-Learning in Public Primary Schools in Bungoma South Sub-County, Bungoma County, Kenya.

In the present investigation, the greater part of the schools 31(56.4%) were situated in the urban region as in figure 4.2. The urban or provincial area of the school impacts the showing learning process. Most instructors will in general like schools in the urban zones contrasted with those in provincial zones since everybody needs to work in the urban territories because of the innovation which is high in the urban zones when contrasted with the rustic regions. This causes under staffing in the country regions in this manner influencing the showing learning process.

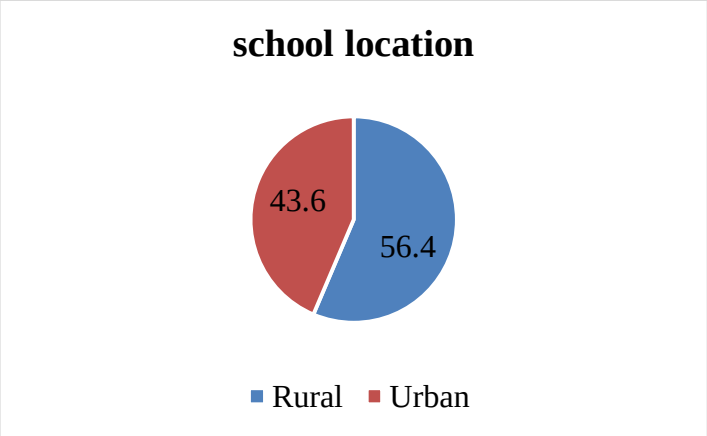


**Fig 4.2: Location of the School (Source: Author, 2019)**

The extent to which pupils learning could be enhanced depends on the location of the school. When a school is built near market centre, the noise from the market will distract the learners from concentrating thus affecting the process of teaching-learning.

**Table 4.10: Effects of School Location on the Process of Teaching-Learning**

| **Factor** | **Learning process (performance)** | | **P-value** |
|---|---|---|---|
| | Below 50% | 50-70% | |
| Location of the school | | | |
| Rural | 8(25.8%) | 23(74.2%) | 0.946 |
| Urban | 6(25%) | 18(75%) | |

There was no significant difference in performance between schools located in urban and those located in the rural areas (p=0.946) (Table 4.10). Hence school location does not significantly affect teaching learning process (Performance).

The extent to which pupils learning could be enhanced depends on the location of the school. When a school is built near market centre, the noise from the market will distract the learners from concentrating thus affecting the process of teaching-learning.

According to Nepal and Maharjan (2015), Institutional schools (Urban schools) got good results in comparison to the community based schools (rural schools). More than 60 percent of institutional school's students got pass in examinations as compared to the community schools students. This is attributed to the fact that most of the physical structures and students' outcomes within the institutional schools are better than community schools. Therefore, according to Osokoya and Akuche (2012) Educational

stakeholders should encourage teachers and students in rural schools by making available the infrastructures, equipments, materials, etcetera (that are in city schools) in less city schools.

# CHAPTER FIVE

# SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

## 5.1 Introduction

This chapter gives the summary, conclusions and recommendations of this study.

## 5.2 Summary

This examination explored the impact of school ecological factors on the educating learning process in open grade schools in Bungoma South Sub-County, Bungoma County, Kenya. The particular goals of the investigation were: to analyze the impact of physical offices on the educating learning process; to survey how adequacy of instructional materials can impact the instructing learning process; to build up how class size influences instructing learning process; and to decide how school area influences the way toward educating learning. The investigation was guided by the accompanying exploration questions: (I) To what degree do physical offices influence the way toward educating and learning in open elementary schools in Bungoma south sub-district, Bungoma County, Kenya? (ii) How does adequacy of instructional materials impact the educating learning process in open elementary schools in Bungoma south sub-province, Bungoma County, Kenya? (iii) How does class size influence instructing learning process in open elementary schools in Bungoma south sub-area, Bungoma County, Kenya? what's more, (iv) To what degree does school area influence the educating learning process in open grade schools in Bungoma south sub-region, Bungoma County, Kenya?. A graphic study research configuration was utilized. The objective populace was the Head Teachers/Deputy Head educators, Class Teachers, and Pupils in the Public Primary Schools in Bungoma South Sub-area, Bungoma County. Stratified examining, Simple irregular inspecting and Purposive testing were utilized. For a situation where there was more than one stream in

a class, straightforward irregular testing was utilized to choose one class instructor from each stream. An example size of 30 % of the objective populace was utilized. Essential information was utilized and gathered utilizing Questionnaires and Focus bunch talks. Information was examined utilizing factual bundle for sociologies (SPSS). Aftereffects of this examination demonstrated that Sufficiency of physical offices particularly ampleness of homerooms essentially influence the educating learning process. The individuals who revealed having satisfactory homerooms performed superior to anything the individuals who announced deficiency (Z=1.776, 0.046). Adequacy of Instructional materials, Class size, and School area does not essentially influence the way toward educating and learning. This investigation presumed that among the school ecological elements, physical offices especially sufficiency of homerooms, was the main factor that fundamentally influenced instructing and learning whereby satisfactory study halls decidedly influenced while lacking study halls contrarily influenced educating and learning. This investigation along these lines prescribes that National and County governments ought to guarantee that study halls are sufficient in Public Primary Schools.

### 5.3 Conclusions

In conclusion, this study found out the following:

a) Sufficiency of physical facilities especially adequacy of classrooms significantly affect the teaching-learning process. Those who reported having adequate classrooms performed better than those who reported inadequacy (Z=1.776, 0.046).

b) Sufficiency of instructional materials does not significantly influence the teaching and learning process.

c) Class size does not significantly affect the teaching and learning process.

d) School location does not significantly affect the process of teaching and learning.

## 5.4 Recommendations

### 5.4.1 Recommendations to Management and Policy Makers

This study recommends that National and County governments should ensure that classrooms are adequate in Public primary schools because this significantly affects the process of teaching and learning.

### 5.4.2 Recommendations for Further Research

This study recommends that further research should be done in the following areas:

(i) To investigate the influence of school environmental factors on the teaching-learning process in public primary schools in other Counties in the Country so as to determine the major significant factors nationally to be used to inform National policy in Education.

(ii) To determine adequacy of classrooms in public primary schools in the country since this significantly affects the teaching-learning process.

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# APPENDICES

## APPENDIX I: STUDY AREA


**Figure 3.3: Map of Kenya showing location of Bungoma** (Source: Bungoma Development Plan, 2016).

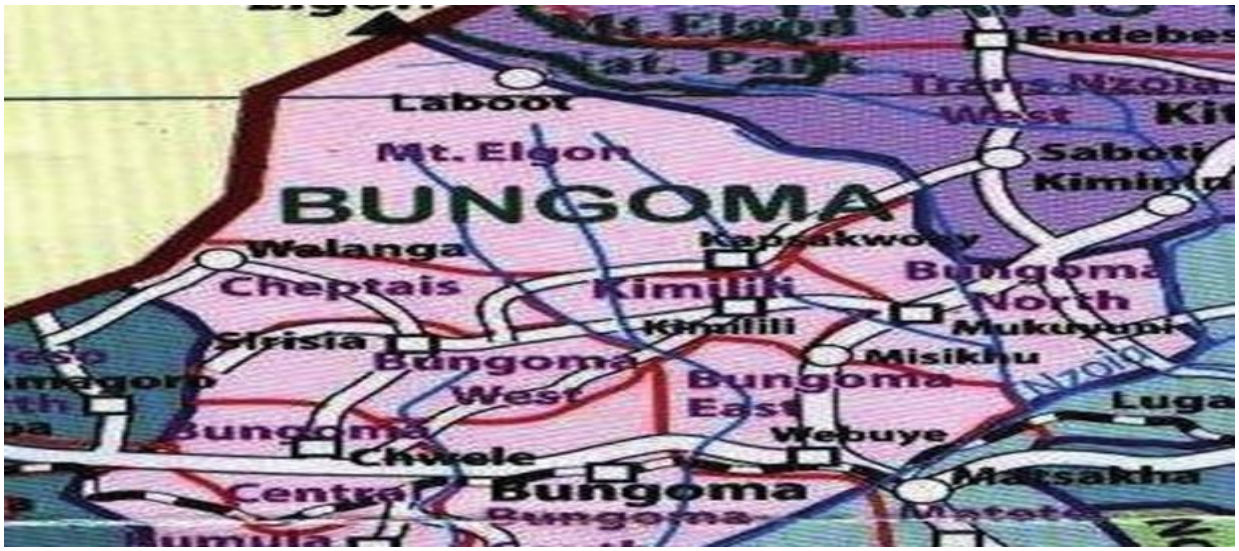



**Figure 3.4: Map of Bungoma County** (Source: Bungoma Development Plan, 2016).

**APPENDIX II: KEY INFORMANT INTERVIEW SERIAL NO:…….**

**HEAD TEACHER/ DEPUTY HEAD TEACHER**

**Introduction**

I am a student pursuing a Masters degree in Early childhood and Primary Education at the University of Eldoret. In partial fulfillment of the requirements to the award of the Masters degree, I am required to carry out a study on **"INFLUENCE OF SCHOOL ENVIRONMENTAL FACTORS ON TEACHING-LEARNING PROCESS IN PUBLIC PRIMARY SCHOOLS: A CASE OF BUNGOMA COUNTY, KENYA"**. I request you to spare some of your time to respond to the questionnaire. Kindly read each question carefully and please tick and write as necessary. The information given will be treated with utmost confidentiality for the purpose of this study only. Please do not write your name or the name of your institution.

**SECTION A: Adequacy of physical facilities and the teaching-learning Process**

**1.** To what extent are the following physical facilities adequate in your school for effective teaching-learning? Please **tick** only one, where very adequate=5, adequate=4, fairly adequate=3, inadequate=2, not available=1

| Physical facilities | Very adequate | Adequate | Fairly adequate | Inadequate | Not available |
|---|---|---|---|---|---|
| Staffroom | | | | | |
| Classroom | | | | | |
| Toilets | | | | | |
| Playing Ground | | | | | |
| Library | | | | | |
| Desks | | | | | |
| Head teacher's Offices | | | | | |
| Teachers' Tables | | | | | |

2. How does adequacy of physical facilities in schools affect the teaching-learning process?

…….....

**Section B: Sufficiency of instructional materials and teaching-learning process**

3**.** To what extent is your school sufficient in the following instructional materials for effective teaching-learning? Please **tick** only one. Where very sufficient=5, sufficient=4, fairly sufficient=3, insufficient=2, none=1

| Resource Materials | Very sufficient | Sufficient | Fairly sufficient | Insufficient | Not available |
|---|---|---|---|---|---|
| Text books | | | | | |
| Exercise books | | | | | |
| Pieces of chalk | | | | | |
| Chalk boards/wall | | | | | |
| Science kits | | | | | |
| Wall charts | | | | | |
| Supplementary Books | | | | | |

4. How does sufficiency of instructional materials affect the teaching-learning process?.....

**Section C: Class size and the teaching-learning process**

5. What type of classes (number of pupils) do you prefer handling? ……

6. Kindly explain question 5 above: ……..……

……..

……

7. Are you able to give individual attention to your pupils? Yes [ ] No [ ]
Briefly explain

……...……

……

……

8. How does class size affect effective teaching-learning process?

Briefly explain

……

……

……..

**Section D: School location and the teaching-learning process**

9. Where is your school situated? Rural [ ] Urban [ ]

10. Do you get support from the communities living around the school to assist in effectively carrying out the teaching-learning process Yes [ ] No [ ] briefly explain

……

……

……

17. In your opinion, can clanism affect the teaching-learning process?

……

18. In your opinion is there any relationship between school location and the number of teachers in a school? .....

**Section E: Assessment of teaching-learning process**

19. Kindly indicate your school's KCPE performance for the years 2016, 2017 and 2018

20. How often do you assess your pupils to ensure there is effective teaching-learning process?

Every two weeks ( ) monthly ( ) Midterm ( ) Termly ( )

21. As an administrator, how often do you do supervision to your teachers to ensure there is they are carrying out teaching-learning process effectively?

Often ( ) Rarely ( ) Not done ( )

**APPENDIX III: TEACHERS' QUESTIONNAIRES SERIAL NO:…….**

**Introduction**

I am a student pursuing a Masters degree in Early childhood and Primary Education at the University of Eldoret. In partial fulfillment of the requirements to the award of the Masters degree, I am required to carry out a study on **"INFLUENCE OF SCHOOL ENVIRONMENTAL FACTORS ON TEACHING-LEARNING PROCESS IN PUBLIC PRIMARY SCHOOLS: A CASE OF BUNGOMA COUNTY, KENYA"**. I request you to spare some of your time to respond to the questionnaire. Kindly read each question carefully and please tick and write as necessary. The information given will be treated with utmost confidentiality for the purpose of this study only. Please do not write your name or the name of your institution.

**Section A: Background Information**

1. What is your gender? Male ( ) Female ( )
2. What is your age bracket? 20-30 ( ) 31-40 ( ) 41-50 ( ) 51 above( )
3. What is your highest academic level? P1 ( ) Diploma ( ) Bed ( ) Med ( )
4. Indicate your teaching experience 0-5 years ( ) 6-10 years ( ) 11-15 years( ) 15-20 years ( ) over 20 years ( )
5. How long have you been a teacher in your current station? ( ) years.

**Section B: Adequacy of physical facilities teaching-learning process**

6. To what extent are the following physical facilities adequate in your school for effective teaching-learning? Please **tick** only one. Where very adequate=5, adequate=4, fairly adequate=3, inadequate=2, not available=1

| Physical Facilities | Very adequate | Adequate | Fairly adequate | Inadequate | Not available |
|---|---|---|---|---|---|
| Staffroom | | | | | |
| Classroom | | | | | |
| Toilets | | | | | |
| Library | | | | | |
| Playing ground | | | | | |
| Desks and tables | | | | | |

7. How does availability of physical facilities in schools affect the teaching-learning process?.....

**Section C: Sufficiency of instructional materials and the teaching-learning process**

8. To what extent is your school sufficient in the following instructional materials and equipment for effective teaching-learning? Please **tick** only one. Where very sufficient=5, sufficient=4, fairly sufficient=3, insufficient=2, none=1

| Resource Materials | Very sufficient | Sufficient | Fairly sufficient | Insufficient | Not available |
|---|---|---|---|---|---|
| Text books | | | | | |
| Exercise books | | | | | |
| Pieces of chalk | | | | | |
| Chalk boards/wall | | | | | |
| Science kits | | | | | |
| Wall charts | | | | | |
| Supplementary books | | | | | |

9. How does sufficiency of instructional materials affect the teaching-learning process?

**Section D: Class size and the teaching-learning process**

10. What type of classes (number of pupils) do you prefer handling? ……

11. Kindly explain question 5 above: ……..……

……

……

12. Are you able to give individual attention to your pupils? Yes [ ] No [ ]
Briefly explain

……...……

……

……

13. How does class size affect effective teaching-learning process?

Briefly explain

……

……

……..

……

……..……...

**Section E: School location and the teaching-learning process**

14. Where is your school situated? Rural [ ] Urban [ ]

15. Do you get financial support from the communities living around the school to assist in effectively carrying out the teaching-learning process? Yes [ ] No [ ]

Briefly explain

……..……

……

……..……

16. In your opinion, can clanism affect the teaching-learning process,

briefly explain?

…….....

.....

**Section F: Assessment of teaching-learning process**

17. How often do you assess your pupils to ensure there is effective teaching-learning process?

Every two weeks ( ) Monthly ( ) Midterm ( ) Termly ( )

18. Which is your most preferred mode of assessing pupils to ensure teaching-learning process is effective? Homework ( ) Monthly Tests ( ) Mid-term Tests ( ) End term Test ( )

**Section G: Teaching-learning process Indicators**

18. To what extent do you cover the syllabus?

100% ( ) 75% ( ) 50% ( )

19. What is the average class attendance of the pupils in your class?

100% ( ) 75% ( ) 50% ( )

20. What is the rate of completion of assignments of pupils in your class?

100% ( ) 75% ( ) 50% ( )

21. What is the average performance of pupils in your class?

Above 70% ( ) 70 – 50 % ( ) Below 50% ( )

**APPENDIX IV: PUPILS' FOCUS GROUP DISCUSSION GUIDE**

**Introduction**

I am a student pursuing a Masters degree in Early childhood and Primary Education at the University of Eldoret. In partial fulfillment of the requirements to the award of the Masters degree, I am required to carry out a study on **"INFLUENCE OF SCHOOL ENVIRONMENTAL FACTORS ON TEACHING-LEARNING PROCESS IN PUBLIC PRIMARY SCHOOLS: A CASE OF BUNGOMA COUNTY, KENYA"**. I request you to spare some of your time to respond to the focus group discussion guide. The information given will be treated with utmost confidentiality for the purpose of this study only. Please do not write your name or the name of your institution.

Date…….. Venue of FGD…….

Group: pupils Gender: boys……..girls……..

1. What is the total number of classes in your school?
2. What is the condition of sanitary facilities in your school?
3. What type of buildings do you have in your school?
4. Do you have a library in your school?
5. How does inadequacy of physical facilities affect the teaching-learning process?
6. How do you rate the provision of instructional materials in your school? E.g. Excellent, Good, Fair, Poor
7. How often are you able to complete your assignments given by the teachers?

   100% ( ) 75% ( ) 50% ( )
8. How does sharing of textbooks affect your learning?
9. What is the relationship between sufficiency of instructional materials and the teaching-learning process?
10. Which type of class are you comfortable in, large or small?
11. How often are you able to get individualized attention from your teachers?
12. Where is your school situated, rural or urban?

13. How does the community around your school support the teaching-learning process?
14. Which other factors within the school environment do you think affect the teaching-learning process?
15. How often are you assessed by your teachers?

## APPENDIX V: AUTHORIZATION LETTER – UNIVERSITY OF ELDORET

University of Eldoret
flame of knowledge and innovation

**UNIVERSTY OF ELDORET**
**SCHOOL OF EDUCATION**
**DEPARTMENT OF CURRICULUM AND INSTRUCTION/ EDUCATIONAL PSYCHOLOGY**

**DATE:** 11th February, 2019

The Executive Secretary,
National Council for Science Technology & Innovation
P.O.BOX 30623-00100,
**NAIROBI**.

Dear Sir/Madam,

**RE: RESEARCH PERMIT FOR OCHWADA YOUANITA ETLE**
**SEDU/CIM/M/003/17**

This is to confirm that the above-named Post Graduate Student has completed Course work of Masters of Education in Early Childhood and Primary Education.
She is currently preparing for field work to collect data on the thesis title: "***Influence of school environmental factors on teaching learning process in public primary schools: A case of Bungoma County Kenya"*** The proposal was examined and approved by academic board of examiners of the school of education on 5th February, 2019.

Any assistance accorded her to facilitate acquiring research permit for data collection will be highly appreciated.

Thank you

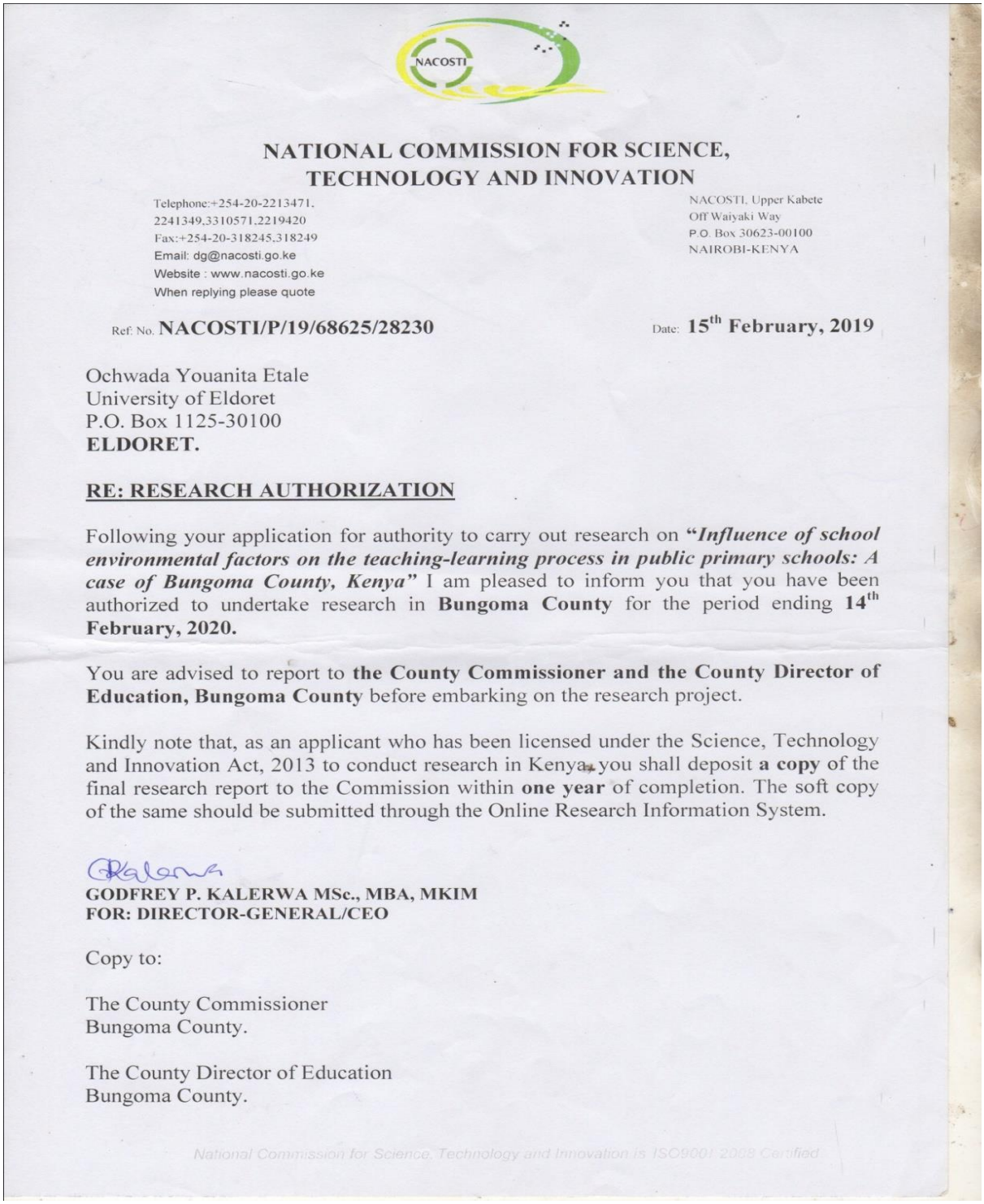
Head of Department
Curriculum & Instruction
UNIVERSITY OF ELDORET

FOR ***DR. AGNES OSEKO***
**HEAD OF DEPARTMENTS OF CURRICULUM & INSTRUCTION/ EDUCATIONAL PSYCHOLOGY**

Cc. *DVC(ASA)*
*Dean, School of Education*

University of Eldoret is ISO 9001-2015 Certified

## APPENDIX VI: AUTHORIZATION LETTER – NACOSTI (a)



NACOSTI

**NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION**

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

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

Ref: No. **NACOSTI/P/19/68625/28230**

Date: **15th February, 2019**

Ochwada Youanita Etale
University of Eldoret
P.O. Box 1125-30100
**ELDORET.**

**RE: RESEARCH AUTHORIZATION**

Following your application for authority to carry out research on ***"Influence of school environmental factors on the teaching-learning process in public primary schools: A case of Bungoma County, Kenya"*** I am pleased to inform you that you have been authorized to undertake research in **Bungoma County** for the period ending **14th February, 2020.**

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

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

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

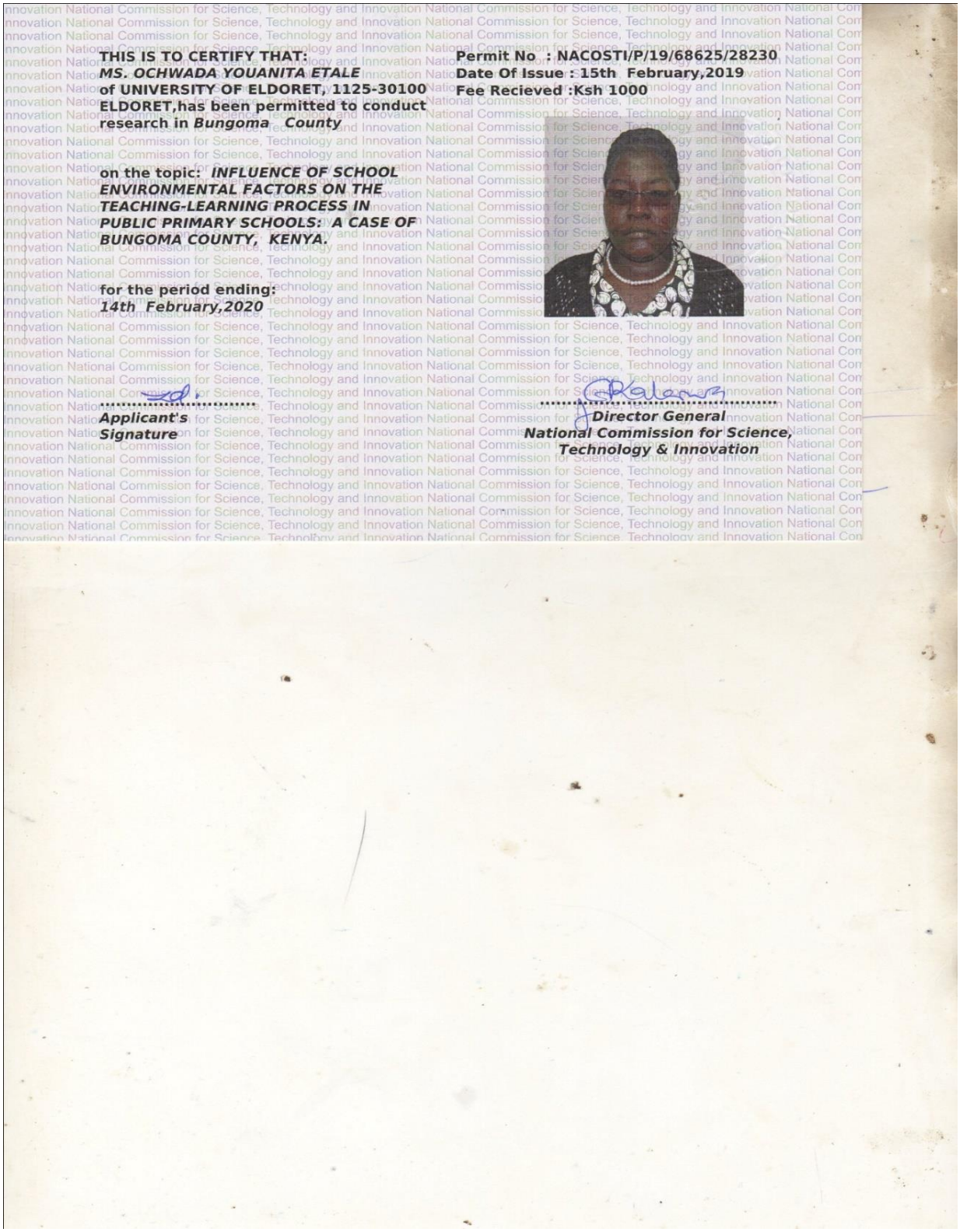
Copy to:

The County Commissioner
Bungoma County.

The County Director of Education
Bungoma County.

National Commission for Science, Technology and Innovation is ISO9001:2008 Certified

## APPENDIX VII: AUTHORIZATION LETTER – NACOSTI (b)



THIS IS TO CERTIFY THAT:
*MS. OCHWADA YOUANITA ETALE*
of UNIVERSITY OF ELDORET, 1125-30100
ELDORET,has been permitted to conduct
research in *Bungoma County*

on the topic: *INFLUENCE OF SCHOOL ENVIRONMENTAL FACTORS ON THE TEACHING-LEARNING PROCESS IN PUBLIC PRIMARY SCHOOLS: A CASE OF BUNGOMA COUNTY, KENYA.*

for the period ending:
*14th February,2020*

Permit No : NACOSTI/P/19/68625/28230
Date Of Issue : 15th February,2019
Fee Recieved :Ksh 1000

## APPENDIX VIII: AUTHORIZATION LETTER – NACOSTI (c)

THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013

The Grant of Research Licenses is guided by the Science, Technology and Innovation (Research Licensing) Regulations, 2014.

CONDITIONS

1. The License is valid for the proposed research, location and specified period.
2. The License and any rights thereunder are non-transferable.
3. The Licensee shall inform the County Governor before commencement of the research.
4. Excavation, filming and collection of specimens are subject to further necessary clearance from relevant Government Agencies.
5. The License does not give authority to transfer research materials.
6. NACOSTI may monitor and evaluate the licensed research project.
7. The Licensee shall submit one hard copy and upload a soft copy of their final report within one year of completion of the research.
8. NACOSTI reserves the right to modify the conditions of the License including cancellation without prior notice.

National Commission for Science, Technology and innovation
P.O. Box 30623 - 00100, Nairobi, Kenya
TEL: 020 400 7000, 0713 788787, 0735 404245
Email: dg@nacosti.go.ke, registry@nacosti.go.ke
Website: www.nacosti.go.ke

REPUBLIC OF KENYA

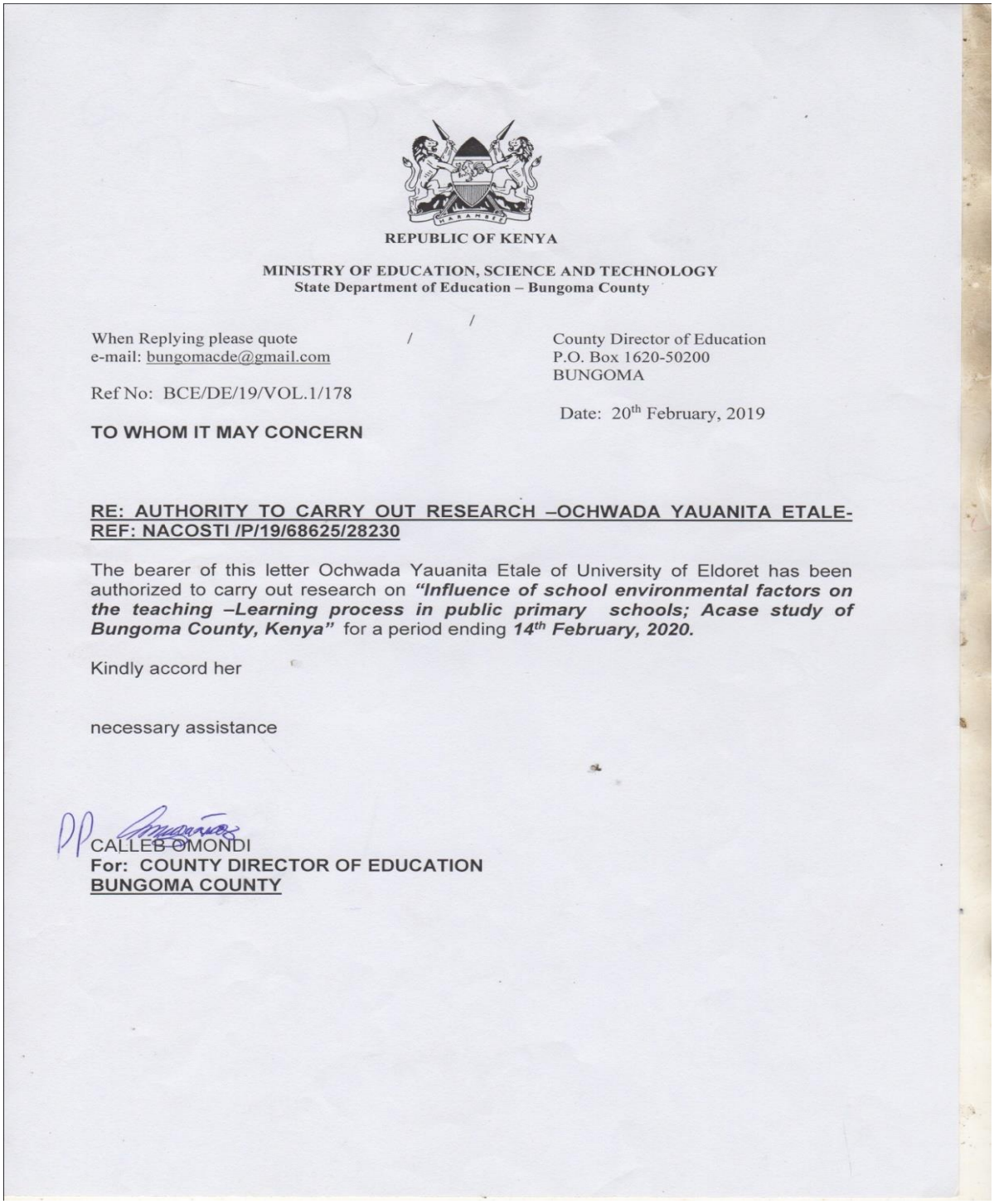
National Commission for Science, Technology and Innovation

RESEARCH LICENSE

Serial No.A 23178

CONDITIONS: see back page

**APPENDIX IX: AUTHORIZATION LETTER – COUNTY DIRECTOR OF EDUCATION, BUNGOMA COUNTY**



REPUBLIC OF KENYA

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY
State Department of Education – Bungoma County

When Replying please quote
e-mail: bungomacde@gmail.com

County Director of Education
P.O. Box 1620-50200
BUNGOMA

Ref No: BCE/DE/19/VOL.1/178

Date: 20th February, 2019

**TO WHOM IT MAY CONCERN**

**RE: AUTHORITY TO CARRY OUT RESEARCH –OCHWADA YAUANITA ETALE-REF: NACOSTI /P/19/68625/28230**

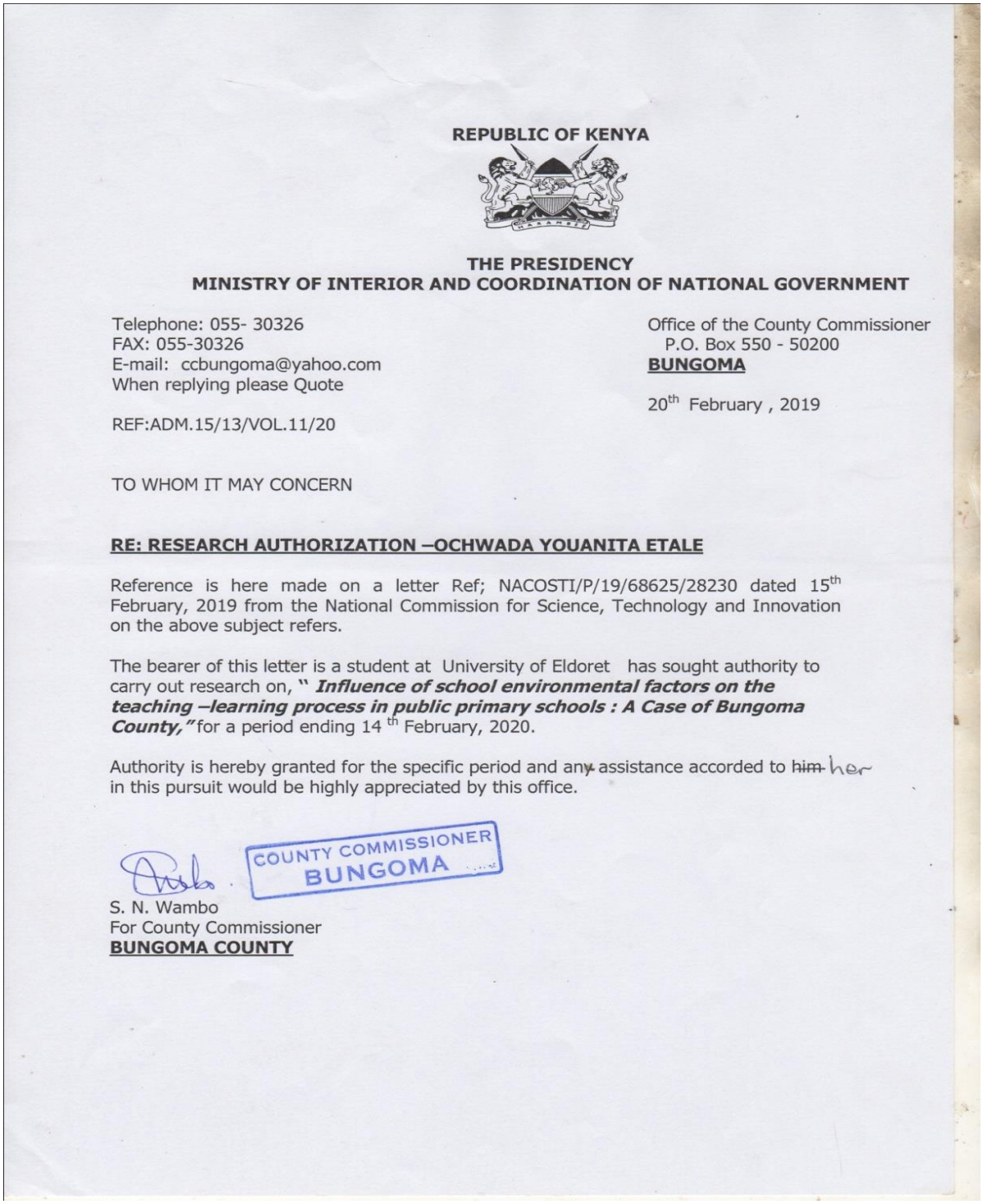
The bearer of this letter Ochwada Yauanita Etale of University of Eldoret has been authorized to carry out research on ***"Influence of school environmental factors on the teaching –Learning process in public primary schools; Acase study of Bungoma County, Kenya"*** for a period ending ***14th February, 2020.***

Kindly accord her

necessary assistance

PP
CALLEB OMONDI
**For: COUNTY DIRECTOR OF EDUCATION**
**BUNGOMA COUNTY**

## APPENDIX X: AUTHORIZATION LETTER – COUNTY COMMISSIONER, BUNGOMA COUNTY



REPUBLIC OF KENYA

THE PRESIDENCY
MINISTRY OF INTERIOR AND COORDINATION OF NATIONAL GOVERNMENT

Telephone: 055- 30326
FAX: 055-30326
E-mail: ccbungoma@yahoo.com
When replying please Quote

REF:ADM.15/13/VOL.11/20

Office of the County Commissioner
P.O. Box 550 - 50200
**BUNGOMA**

20th February , 2019

TO WHOM IT MAY CONCERN

**RE: RESEARCH AUTHORIZATION –OCHWADA YOUANITA ETALE**

Reference is here made on a letter Ref; NACOSTI/P/19/68625/28230 dated 15th February, 2019 from the National Commission for Science, Technology and Innovation on the above subject refers.

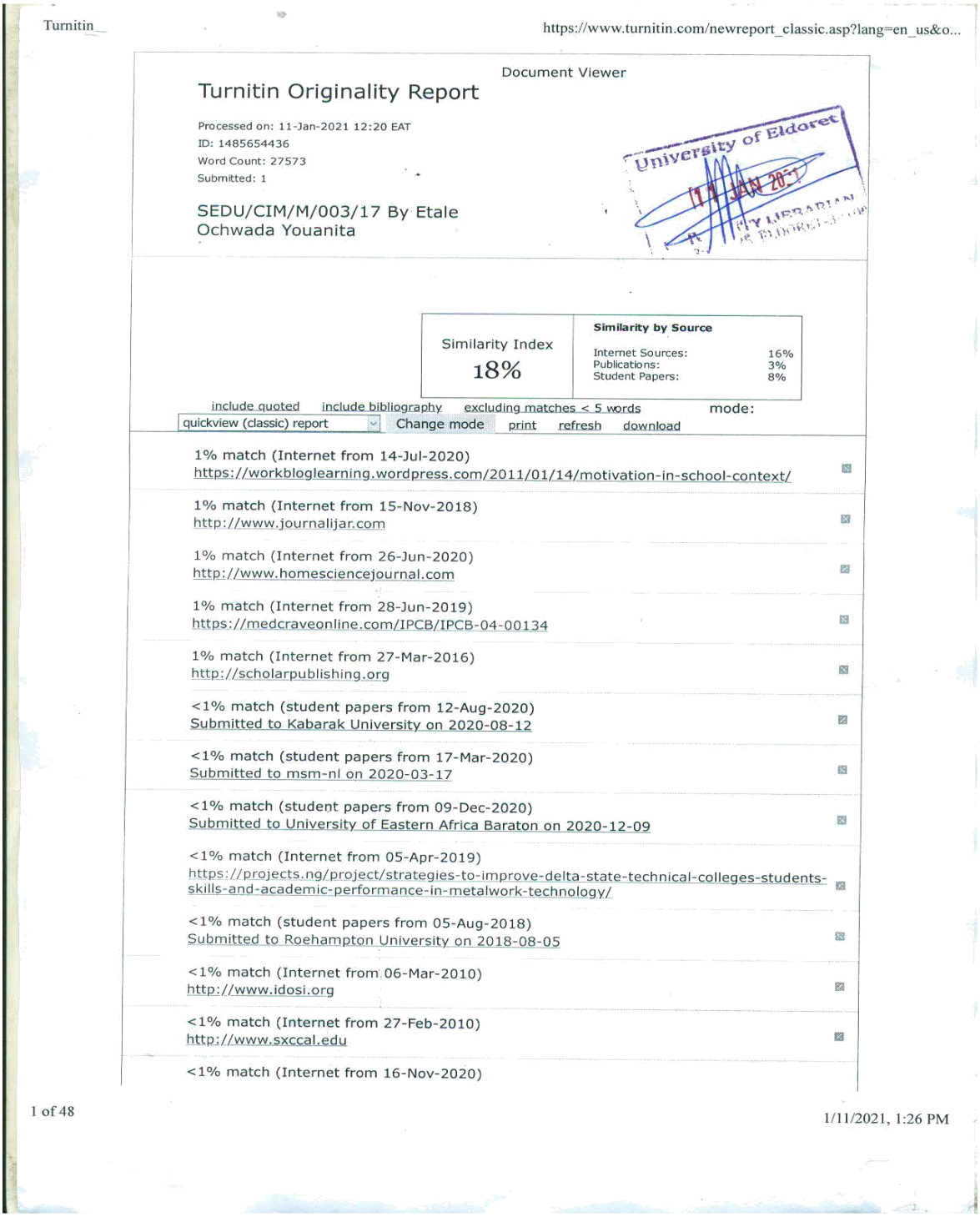
The bearer of this letter is a student at University of Eldoret has sought authority to carry out research on, " ***Influence of school environmental factors on the teaching –learning process in public primary schools : A Case of Bungoma County,"*** for a period ending 14 th February, 2020.

Authority is hereby granted for the specific period and any assistance accorded to ~~him~~ her in this pursuit would be highly appreciated by this office.

COUNTY COMMISSIONER
BUNGOMA

S. N. Wambo
For County Commissioner
**BUNGOMA COUNTY**

# APPENDIX XI: SIMILARITY INDEX/ANTI-PLAGIARISM REPORT



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SEDU/CIM/M/003/17 By Etale Ochwada Youanita

University of Eldoret
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