

**INFLUENCE OF SCHOOL ENVIRONMENTAL FACTORS ON
TEACHING-LEARNING PROCESS IN PUBLIC PRIMARY SCHOOLS
IN LOWER NYOKAL DIVISION, HOMA-BAY DISTRICT, KENYA**

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DECLARATION

This project report is my original work and has not been presented for a degree in any other university.

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DEDICATION

This research project is dedicated to my children Owen Omollo Guda and Kimberly Atieno Guda, my parents Joel Omollo Mege and Phyllis Kedogo Mege who laid the foundation for my education and my husband Richard Guda Okal.

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LIST OF ABBREVIATIONS AND ACRONYMS

AEO	Area Education Officer
BOM	Board Of Management
CATS	Continuous Assessment Tests
DEO	District Education Officer
EFA	Education For All
FPE	Free Primary Education
GOK	Government Of Kenya
KCPE	Kenya Certificate of Primary Education
KESSP	Kenya Education Sector Support Program
MDG	Millennium Development Goals
MOEST	Ministry Of Education Science and Technology
NACOSTI	National Commission for Science Technology and Innovation
NCTE	National Council for Teacher Education
ROK	Republic Of Kenya
SACMEQ	South Africa Consortium for Monitoring Education Quality
SPSS	Statistical Package for Social Sciences
TTC	Teachers' Training College
UNICEF	United Nations Children Education Fund

ABSTRACT

The main purpose of this study was to determine the influence of school environmental factors on the teaching-learning process in public primary schools in Lower Nyokal division Homabay district, Kenya. School environmental factors refer to those aspects within the school surrounding that may influence the process of teaching and learning. The study sought to fulfill the following objectives: to examine the effect of physical facilities on the teaching-learning process; to assess how sufficiency of instructional materials can promote the teaching-learning process; to explore how class size promotes teaching-learning process and to determine how school location affects the process of teaching-learning in public primary schools. The study was guided by the Systems Theory of organizations. The study adopted descriptive survey design. Questionnaires were used to gather information from teachers and head teachers while focus group discussion guide was used with the pupils. The findings of the study revealed that schools have inadequate physical facilities, with some being totally unavailable. Instructional materials are generally insufficient. Majority of the schools had large classes though most teachers prefer small classes. Lastly the teachers prefer working in accessible schools with proximity to adequate social facilities and infrastructure. The study concluded that inadequacy of physical facilities in schools has been found to influence teaching-learning process. In addition, there is general insufficiency of instructional materials in schools has also been found to greatly influence the teaching-learning process. The size of class has been found to greatly influence the teaching-learning process small classes are mostly preferred by most teachers and even pupils yet they have large classes. On school location, the schools in the rural areas are least preferred. Non-cosmopolitanism has also greatly affected the rural schools as the communities still have influence in the administration and operations of the schools.

The study recommended that to improve teaching-learning process in the division, school heads should strive to provide physical facilities and instructional materials in schools. Large classes should be broken into two or more streams to make them manageable. Parents and communities living around the school should be sensitized on the importance of supporting school programs and be encouraged to organize fundraisers to put up physical facilities and procure instructional materials in schools. They should also be encouraged to buy revision books for their children. Further research may be done on influence of school environment on KCPE performance in public primary schools, influence of school motto and other school symbols on academic performance and how teacher characteristics influences pupils academic performance.

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

It is universally accepted, that education enables individuals to contribute to the development and improvement in the quality of life for themselves, their communities and the nation as a whole. Primary school is no doubt the foundation of education and has prominently been regarded as a fundamental human right. It is an essential component of human capital and it plays an important role in economic growth and development of a country. Primary education, therefore, remains an important area that should be carefully managed.

A study conducted by Kitetu and Sunderland (2000) at the Lancaster University found out that five or more years of a farmer's primary education led to increased farm productivity, reduced size of farm labour and increased use of yield augmenting inputs. This means that by acquiring primary education one can increase one's earnings (Kitetu, 1998).

The school environment refers to factors within the school that influence the teaching-learning process. The school environment includes classrooms, library, technical workshops, teachers' quality, teaching methods, peers, among others variables that can affect the teaching-learning process (Ajayi

2001). The extent to which pupils learn could be enhanced depending on what the school environment provides to the learners and the teacher.

It is believed that a well planned school will gear up expected outcomes of education that will facilitate good social political and economic emancipation, effective teaching-learning process and academic performance of pupils. Relating this study to international occurrences are the assertions of Williams, Persaud and Turner (2008) quoting Marsden (2005) which reported that safe and orderly classroom environment, school facilities were significantly related to students academic achievement in schools.

In developed countries like the United Kingdom and the Unites States of America, teaching and learning may not be affected by similar challenges as in the developing countries. As the developing countries talk of awareness and wastage due to illiteracy of the parents, the developed countries have concentrated in funding their education without fear of any wastage or poor enrolment (MOEST: Report on Sector Review and Development, 2003).

In New York, the government has put up measures to ensure all public primary schools have all the required physical facilities, instructional materials among others variables that may lead to effective teaching-learning process. Instructional materials are a major component in the process of teaching and learning and textbooks are often the most cost effective means of improving academic achievement and increasing the efficiency of schools (Psachropoulous & Woodhall, 1995).

In the developing countries, poor learning environments have always been identified as key factors that lead to poor performance in public primary schools (UNICEF, 2003). This is due to overstretching of the available resources due to increased enrolment. 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 and Ostendorf, 2001).

Beyond the direct effects that poor facilities have on pupils' ability to learn, the combination of poor facilities which creates uncomfortable and uninviting workplace for the teachers combined with frustrating behaviour by the pupil including poor concentration also have an effect on the teaching-learning process. The situation is not any different here in Kenya where several schools suffer due to lack of or inadequacy of physical facilities and instructional materials (UNICEF, 2003). Unless schools are adequately provided with physical facilities and instructional materials, effective teaching and learning may not take place.

Class size has also been an issue that affects the teaching-learning process in most schools in the developing countries. In Kenya, since the inception of Free Primary Education (FPE), there has been increased enrolment which leads to overcrowding in classrooms making the work of the teacher difficult

since he/she cannot easily move around in the classroom (Wabuoba, 2011) quoted in Chuma (2012)

The school administration is a crucial factor in the success of a school. The head teacher should be in a position to ensure that all factors within the school that make the school environment favourable for teaching-learning process be put in place to ensure quality standards are maintained. The Education Act of 1968 stipulates that the head teacher is responsible for overall management, control and maintenance of standards in the schools and is accountable for all that happens in the school. He is charged with the duty of planning, organizing, staffing, coordinating, reporting and budgeting (Okumbe, 2001) The head teacher is the seen as the first supervisor and therefore should always ensure that effective teaching-learning is taking place in the school. Teaching-learning process can be measured through assessment that is done to pupils using continuous assessment tests (CATS), standardized examination like the sub-county MOCK and the Kenya Certificate of Primary Education (KCPE).

In Lower Nyokal division school environmental factors such as availability of instructional materials, availability of physical facilities, class size and school location are factors within the school that may affect the teaching-learning process in Homa-Bay district. Effective teaching-learning process may not take place when rate of repetition, drop out and absenteeism seems to be high in the division and this affects performance of learners.

1.2 Statement of the Problem

The Government of Kenya (GOK) commitment to education is noted from Sessional paper no.1 of 2005 which guarantees every learner the right to quality and relevant education. The government has invested in education especially in public primary schools through the introduction of Free Primary Education (FPE). The country's provision of Free Primary Education is an effort by the GOK to increase access and retention of pupils in schools.

The development of Kenya Education Sector Support Programs (KESSP) is based on the rationale of the overall policy goal of achieving Education For All (EFA) and the Government's commitment to the attainment of Millennium Development Goals (MDG) as stipulated in Basic Education Act of 2013.

Despite efforts made by the GOK to ensure each child attends school by providing Free Primary Education, there are pupils who still fail to attend school on a regular basis (AEO, Lower Nyokal Division, 2012). Effective teaching-learning process may not be guaranteed when the rate of absenteeism, repetition and dropouts is high in the division. If teaching-learning process is not improved in Lower Nyokal, then the division will lag behind both in social and economic development in the district.

Anyango (2012) found that teachers' attitudes, adequacy of teaching-learning resources and girls' attitude towards education led to poor performance in KCSE among girls in Lower Nyokal division. Opudo (2012) found that head teachers' style of management influence the performance of

pupils in Homa-Bay district. However, no study known to the researcher has been conducted in Lower Nyokal division on how the school environment can influence the teaching-learning process. The researcher intended to find out if there is a relationship between school environmental factors and the teaching-learning process and make recommendations on how to improve them to ensure quality standards are maintained.

1.3 Purpose of the study

The purpose of this study was to investigate the influence of school environmental factors on the teaching-learning process in public primary schools in Lower Nyokal division, Homa-Bay district.

1.4 Objectives of the study

This study was guided by the following objectives.

1. To examine the effect of physical facilities on the teaching-learning process in public primary schools in Lower Nyokal division, Homa-Bay district.
2. To assess how sufficiency of instructional materials can promote the teaching-learning process in public primary schools in Lower Nyokal division, Homa-Bay district.
3. To establish how class size promotes teaching-learning process in public primary schools in Lower Nyokal division, Homa-Bay district.

4. To determine how school location affects the process of teaching-learning in public primary schools in Lower Nyokal division, Homa-Bay district.

1.5 Research questions

The study sought to answer the following research questions;

1. To what extent do physical facilities affect the process of teaching and learning in public primary schools in Lower Nyokal division, Homa-Bay district?
2. How does sufficiency of instructional materials promote the teaching-learning process in public primary schools in Lower Nyokal division, Homa-Bay district?
3. How does class size promote teaching-learning process in public primary schools in Lower Nyokal division, Homa-Bay district?
4. To what extent does school location affect the teaching-learning process in public primary schools in Lower Nyokal division Homa-Bay district?

1.6 Significance of the study

It is hoped that the findings of the study may help school administrators reflect upon various factors that influence the teaching-learning process. In so doing, they could investigate the possibility of introducing those factors to their schools which may consequently lead to reducing absenteeism, dropouts and repetition and consequently effective teaching-learning process. These

findings may also help the government through the Ministry of Education Science and Technology (MOEST) to provide more funds for schools through the FPE kitty for instructional materials and repair and maintenance of the available physical facilities, thus improving the teaching-learning process. Parents may also use findings from this study to help improve the school facilities by organizing for fundraisers for instance to construct a classroom, laboratory, library among other facilities. Policy makers would use the findings to help them make decisions in developing strategies towards improvement of academic standards. Future researchers would use the study in identifying priority areas and gaps on which to carry more research about public primary schools.

1.7 Limitations of the study

According to Best and Khan (1993) limitations are conditions beyond the ability of the researcher that may place restriction on the conclusions of the study and their application to other situations. The first limitation was on the part of obtaining information from the pupils where some were not willing to give information regarding their behaviour for fear of victimization by their teachers. Efforts were made to assure them of confidentiality on their identities. The other limitation was on the part of the researcher to carry out the research in the whole of Lower Nyokal division as the topic suggests. The researcher carried out the research in sampled schools.

1.8 Delimitations of the study

Delimitations refer to the scope of study in terms of location and respondents and the topic to be included in the study. This study was confined to public primary schools in Lower Nyokal division and findings generalized to all schools with caution since it was not possible for the researcher to conduct the study in all the schools. Pupils were randomly selected for the study from Classes Seven and Eight because they are mature enough to actively participate and answer the questions in the questionnaire with ease. The study was delimited to findings from only one division of a district that is affected by environmental factors within the region to represent all the divisions that also face the same problem.

1.9 Basic assumptions of the study

This study was based on the following assumptions;

1. That the pupils answered questions correctly and willfully.
2. That all the respondents are were conversant with the English language and were able to respond to the instruments with ease.

1.10 Definition of significant terms

The following terms are defined within the context of this study.

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.

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

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.

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.

1.11 Organization of the study

The study is organized into five chapters. Chapter one, introduction, has the following subtopics; background to the study, statement of the problem, purpose of the study, objectives of the study, research questions, significance of the study, limitations of the study, delimitations of the study, basic assumptions of the study, definition of significant terms, and organization of the study. Chapter two, literature review, has the following subtopics; introduction, concepts of school environmental factors and teaching-learning process, adequacy of physical facilities and the teaching-learning process, sufficiency of instructional materials and the teaching-learning process, class size and the teaching-learning process and school location and the teaching-learning process. Chapter three, research methodology, has the following subtopics; introduction, research design, target population, sample size and sampling procedure, research instruments, instrument validity, instrument reliability, data collection procedures, data analysis techniques. Chapter four

comprises of data presentation, analysis and interpretation while chapter five focuses on discussions of research findings, conclusion, recommendations and suggestions for further study. Reference and appendices follow at the end.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The literature review focused on school environmental factors that influence teaching-learning process. The chapter focused on school environmental factors under the following subheadings; concepts of school environmental factors and teaching-learning process, adequacy of physical facilities, sufficiency of instructional materials, class size, school location and assessment of the teaching-learning process. Theoretical framework, conceptual framework and summary of literature review followed at the end.

2.2 Concepts of school environmental factors and teaching-learning process

School environmental factors are those aspects within the pupils' surrounding at school that influence the process of teaching and learning. The school environment is an important aspect of educational planning. The quality of education not only depends on the teacher as reflected on performance of their duties, but also in the effective coordination of the school environment (Ajao, 2001) quoted in Chuma (2012)

It is believed that a well planned school will gear up expected outcomes of education that will facilitate good social, political and economic emancipation, effective teaching and learning process and academic

performance of pupils. Everything within the school environment has an influence on the teaching-learning process.

In this study, physical facilities, instructional materials, class size and school location are some factors within the school environment that were found to have an influence on the process of teaching-learning hence the school environment remains an important area that should be studied and well managed to enhance pupils academic performance (Ajayi, 2001 and Oluchukwu, 2000) quoted in Kilel (2012).

2.3 Adequacy of physical facilities and the teaching-learning process

The image of a school is dependent on the quality of its infrastructure. The physical facilities of the school have a variety of effects on teachers, students and the teaching-learning process. They include; administration office, staffrooms and offices, classrooms, laboratories, workshop equipment stores, libraries, hostels, staff houses and school ground.

Physical facilities in terms of adequacy and quality have been noted to have great impact on performance of students in examination. Heyneman and Loxley (1993) in their study on effect of availability of physical facilities on academic performance found out that presence of school library related significantly to achievement in Brazil, China, Botswana and Uganda. The library is an essential factor in the teaching-learning process. Fuller (1986) identified a library as an instructional resource which may significantly

influence the teaching-learning process and eventually the performance of pupils.

Ayoo (2002) and Eshiwani (1993) agree that school environment such as; classrooms, desks and books have a direct impact on good performance among the students in developing countries. Classrooms are a place that pupils spend the greatest part of their day. Wabuoba (2011) quoted in Chuma (2012) observed that overcrowding in classrooms make it difficult for pupils to write the teacher is also unable to move around the class to assist needy pupils and this affects the teaching-learning process.

Crowded classroom conditions not only make it difficult for learners to concentrate but inevitably limit the amount of time teachers can spend on innovative teaching methods such as cooperative learning and group work. The government of Kenya in Koech Report (1968) noted that congestion within classrooms affects teaching-learning process. This is because the teacher may not be able move around to give individual attention to all the pupils in need due to the high number of pupils in class.

Bernstein (2006) noted that in the United States of America, pupils who attend well maintained schools with good classrooms have a higher achievement than those who attend poorly maintained schools with poor classrooms. Schools with adequate facilities stand a better chance of providing education effectively. Hines (1996) found that student achievement was as much as 11 percentile points lower in substandard buildings as compared to above standard buildings.

Schools with equipped laboratory have their pupils performing better than their counterparts in schools without laboratories or those with ill equipped laboratories. Laboratory work stimulates learners' interests as they are made to personally engage in useful scientific activities and experimentations (Owoeye and Yara, 2010)

2.4 Sufficiency instructional materials and the teaching-learning process

Availability of instructional materials is a core determinant in the successful implementation of any curriculum. The head teacher should ensure there is proper selection and procurement of teaching-learning resources. According to Agosiobo (2007) the use of teaching resources is important because they motivate learners to learn as they offer stimulus variation and assist in sustaining learners' attention throughout the lesson. Collin and Rosmiller (1987) assert that even highly competent teachers find it difficult to teach effectively with inadequate facilities or if they are lacking the necessary instructional materials.

Ashton (2001) observes that instructional materials are crucial in planning and implementing a successful life skill program. The availability of learning resources is the most influential factor which may explain differing performance levels. It is generally assumed that the use of instructional materials leads to better performance. Kathuri (1986) in his study, found that the presence or absence of resources have an effect on teaching and learning.

Performance of students in examinations is influenced by the availability of instructional materials and school facilities such as laboratories, libraries, textbooks, laboratory equipment among others (Eshiwani, 1993). The quality and adequacy of such equipment as, instructional materials have a direct bearing on quality of education as they determine how effectively the curriculum is implemented (Republic of Kenya, 1999).

There is clear evidence that there is a relationship between adequate provision of books and achievement. Textbooks are often the most cost effective means of improving academic achievement and increasing the efficiency of schools (Psachropoulous & Wood hall, 1995).

Avalos (1991) pointed out that the quality of education the learners receive bears direct relevance to the availability or lack of instructional materials. Schools with adequate facilities such as textbooks and other instructional materials stand a better chance of having better results than poorly equipped ones. Textbook ratio should be one book per three pupils in lower primary and one book per two pupils in upper primary (Republic of Kenya, 2003). Sharing of these books may have an effect on the teaching-learning process since sometimes a pupil may be absent from school yet he/she had the book hence inconveniencing the colleague.

Sufficient quality and quantity resources and facilities determine how effectively the process of teaching and learning takes place. Fuller (1986) found that instructional materials such as textbooks, visual and audio materials not only enhance communication between teachers and learners but, also

facilitate child centered learning through discovery. With the availability of text books pupils will be able to read on their own while at home and do their homework. Availability of good quality instructional materials is an important factor on pupils' achievement. Thus a well- produced and easily available reference material is an important asset. Lockheed et al, (1993) noted that no meaningful teaching-learning can take place without adequate instructional materials.

Asikhia (2010) pointed that adequately well prepared instructional materials determine the amount of learning that can take place in a learning institution. Good quality instructional materials can motivate interest, maintain concentration and make learning more meaningful. The studies above reveal that there is a relationship between availability of instructional materials and the teaching-learning process.

2.5 Class size and the teaching-learning process

The influence of class size has a great impact on the teaching-learning process. The smaller the class size, the easier it is for the teacher-learner interaction thus improving the teaching-learning process since the teacher will be able to give the learner individual attention. Large class size impacts negatively to the teaching-learning process since the teacher is not even able to move freely to assess the pupils work as they do their exercises.

According to National Council for Teacher Education (NCTE) in India, small class size leads to engagement of the learner, increased participation, and attentiveness. Smaller class size allows educators to focus

more on the pupils in their teaching coming to better understanding and adjust their methods to diverse individual needs. Large class size makes monitoring of pupils' attendance very difficult thus encouraging pupils' absenteeism, and the quality of feedback to pupils become very low thus making the teaching-learning process ineffective (Bascia, 2003).

The small class size allows for individualized attention and this strengthens the cordial relationship between the teachers and learners. Managing a large class is a serious problem in many schools as it creates stressful working conditions for the teachers and leads to higher teacher absenteeism (Corcoran, Walker and White, 1988).

Wabuoba (2011) observed that overcrowding in class rooms make it difficult for the pupils to write and the teacher is also unable to move around to help the needy pupils. Corcoran, Walker & White (1988) noted that crowded classroom conditions not only make it difficult for learners to concentrate but inevitably limit the amount of time teachers can spend on innovative teaching methods such as cooperative learning and group work.

2.6 School location and teaching-learning process

The school location has variables such as schools in rural or urban areas, economic status of the neighbourhood, clanism, and schools built near market centers among other variables that affect the teaching-learning process (Ahmen, 2003). The extent to which pupils learning could be enhanced depends on the location of the school. When a school is built near market

center, the noise from the market will distract the learners from concentrating thus affecting the process of teaching-learning.

Economic status of the school neighbourhood also has an impact on the teaching-learning process. Aikens and Barbarin (2008) noted that schools located in low economic status communities are often under resourced and this affects the teaching-learning process. Parents from low economic status are unable to afford resources such as books, computers or tutors to create this positive literacy environment.

Woolfolk (2007) noted that when the communities' economic status is low, they may not be able to support the school financially. Economic status of the community will make the community have the ability to support or not support the schools within their communities.

The urban or rural location of the school has an effect on the teaching-learning process. Most schools in the urban areas are well staffed as compared to those in rural areas since everyone wants to work in the urban centers due to the technology which is high in the urban areas as compared to the rural areas. This causes under staffing in the rural areas thus affecting the teaching-learning process.

Clanism also affects the process of teaching and learning. Chuma (2012) noted that parents prefer taking their children to schools within their clans despite the performance of such schools. This affects teaching-learning

since some schools have a record of poor performance yet they still stick to them because of clanism.

2.7 Assessment of teaching-learning process

The process of teaching and learning can only be effective if assessment is done to determine how much teaching and learning has taken place. SACMEQ II study (2000) in Kenya revealed that the provision of quality basic education should be supported with efficient systems of delivery, and that teaching-learning process and pupils' achievement can be influenced by inputs such as availability of physical facilities, instructional materials and a conducive school environment.

The process of teaching and learning can be measured through performance of pupils in standardized examinations such as KCPE, Sub-county mock, Continuous Assessment Tests and regular exercises given in class. The main feature of an education system is academic performance.

Kellaghan & Greaney (1995) assert that KCPE performance not only determine access to secondary and subsequently higher education but also affects the way individuals view themselves and are viewed by the society. The problem of poor performance is costly for any country since education is the major contributor to economic growth (Atkinson, 1987)

The school administrator is also charged with the duty of performing the basic supervisory skills to assess his teachers to ascertain that there is effective teaching and learning and that the correct methodologies are used.

Supervision by the head teacher can be carried out on the teachers as they teach in class or even by check their professional records (Okumbe, 2001).

Pupils' books can also be used to check if there is teaching and learning taking place.

2.8 Theoretical framework

This study was guided by Systems theory of organizations as advanced by Ludwig Von Bertalanffy in 1951. This theory contends that all parts of an organization are interrelated such that changing one part of the system in a school affects other parts as well. The theory views school organization as a complex social system whose properties cannot be known from analysis of the constituent elements in isolation hence for effective management of the teaching-learning process, emphasis should shift from part to whole.

As applied to this study, the systems theory holds that the different factors in the system that influence the teaching-learning process must be managed together paying attention to all of them without overlooking some factors over the others in order to produce a common whole which in this case is effective teaching and learning. The performance of a system depends on how the elements work together and not how each element works independently.

For effective teaching-learning process, all factors that influence teaching-learning process at school must be looked at. In this study, the independent variables are instructional materials, physical facilities, class size

and the school location. These are the inputs which must be looked at to facilitate the process which is teaching-learning and the output which is reduced rates of dropouts, absenteeism and repetition.

2.9 Conceptual framework

Ogula (1998) defines conceptual framework as a description of the main independent and dependent variables of the study and the relationship among them. Independent variables are conditions or characteristics that are manipulated to ascertain the relationship and observers phenomenon. Dependent variables are conditions that appear to change as the independent variables are introduced or removed. In this study the dependent variable is teaching-learning process in public primary schools.

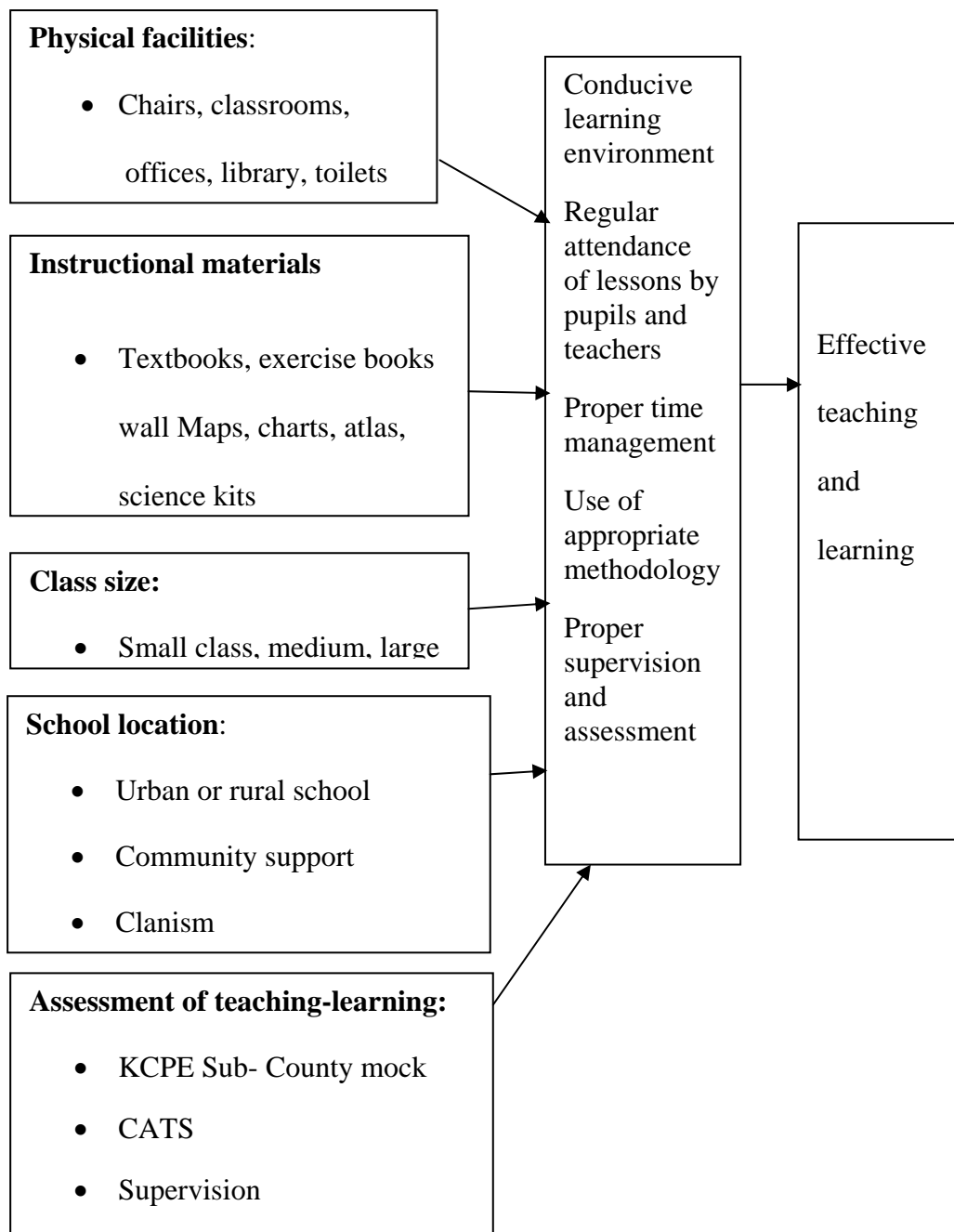


Figure 2.1 Relationship between school environmental factors and teaching-learning process

The conceptual framework shows the interrelationship between various school environmental factors thought to influence teaching–learning process. The

framework postulates that the factors which influence the teaching-learning process include physical facilities, instructional materials, class size, school location and assessment of teaching-learning process. The influence may be modified by ensuring there is conducive learning environment , regular attendance of lessons by pupils and teachers, proper time management, use of appropriate methodology and proper supervision and assessment which will lead to effective teaching and learning which will be measured through and performance in KCPE, sub- county mocks, CATS and other forms of assessment. The independent variables are school environmental factors which are inputs into the teaching-learning process.

2.10 Summary of literature review

The reviewed literature shows that there are various school environmental factors which influence the teaching-learning process. This study will investigate how the adequacy of physical facilities, sufficiency of instructional materials, class size and school location will influence the process of teaching and learning. Information on how school environmental factors influence the process of teaching and learning in public primary schools in Lower Nyokal division, Homa-Bay district is scanty.

Previous studies in Homa-Bay district by Anyango (2012) found that teachers' attitudes, adequacy of teaching-learning resources and girls' attitude towards education led to poor performance in KCSE among girls in Lower Nyokal division. Opudo (2012) found that head teachers' style of management influence the performance of pupils in Homa-Bay district. Okuogo (2013)

found that the introduction of FPE led to increased enrolment of pupils in public primary schools in Homa-Bay district and this affected performance. However, no study known to the researcher has been conducted in Lower Nyokal division, Homa-Bay district on how the school environment can influence the teaching-learning process. To complement these studies, the researcher intended to find the relationship between school environmental factors such as the availability of physical facilities, availability of instructional resources, class size and school location and the teaching-learning process and make recommendations on how to improve them to ensure quality standards are maintained and consequently fill this gap.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter focuses on research methodology under the following subheadings; research design, target population, sample size and sampling procedures, research instruments, instrument validity, instrument reliability, data collection procedures and data analysis procedures.

3.2 Research design

According to Best and Khan (2001) the purpose of descriptive design is to study the relationships that exist, practices that prevail, beliefs and attitudes held, the processes that are going on and the effects felt or trends that are developing. In this study the researcher adopted a descriptive survey research design to determine the influence of environmental factors on the process of teaching and learning.

The design was considered relevant since the researcher was to collect, analyze and report information as it exists in the field without manipulation of variables. It involved the use of questionnaires to a sample of head teachers and teachers and focus group discussions with the pupils to collect information about their opinions pertaining to issues that influence the process of teaching-learning in public primary schools.

3.3 Target population

Orodho (2005) states, all the people under consideration in any field of inquiry constitute a universe or targeted population. The target population for this study was the 32 head teachers, 264 teachers and 2,000 pupils from class seven and eight in the 32 public primary schools (Source: DEOs office, Homa-Bay District).

3.4 Sample size and sampling procedures

Orodho and Kombo (2002) define sampling as the procedure a researcher uses to gather people, places or things to study. In this study the researcher used 10 public schools out of the 32 public schools. This was derived from 30 percent of the schools. Thirty percent of the 32 head teachers gave a total of 10 head teachers. Thirty percent of the 264 teachers gave a total of 80 teachers and 10 percent of the 2000 pupils gave a total of 200. The total number of respondents was 290. Mugenda & mugenda (1999) recommend that for descriptive studies ten percent or above of the accessible population is enough for the entire study.

To select schools the researcher used simple random sampling because it allowed all members of the population an equal chance of being selected. The researcher wrote names of schools on small pieces of paper, put them in a small box and then randomly picked the pieces of paper until they were ten. Teachers were purposely picked. These were class teachers of class one to class eight because they are the ones who give attendance registers and are the ones who can give correct information concerning attendance. To select

pupils, the researcher used simple random technique to select 20 pupils from each of the selected schools, 10 from class seven and 10 from class eight. The total number of respondents was 290.

3.5 Research instrument

The researcher used questionnaires to collect data from teachers and head teachers. The researcher also used focus group discussion guides with the pupils. Gay (1992) observes that questionnaires give respondents freedom to express their views or opinions and make suggestions without fear as confidentiality is maintained. Questionnaires were considered best for this study because; they are easy to administer to the respondents and convenient to collect information within a short span of time. They also help produce more candid answers than is possible in an interview.

The researcher prepared two questionnaires; for the head teachers and teachers. The head teacher's questionnaire had seven sections. Section A obtained data on head teacher's demographic information. Section B obtained information about the school while sections C, D, E, F and G obtained information about data related to the research objectives.

The teachers' questionnaire had six sections. Section A obtained data on teacher's demographic information. Sections B, C, D, E and F obtained information about data related to research objectives.

Focus Group Discussion guides were also considered best for the study because they can make important contribution in education. Punch (2004)

states that Focus group discussion guides can yield a lot of information within a short time from the group members. Focus group discussion help bring out information that may otherwise not be exposed (Fontana & Frey, 1994) quoted in Punch (2004). The focus group discussion guide had two sections. Section A was on the general information while the section B, gathered information related to the research objectives.

3.6 Instrument validity

Validity is the degree to which results obtained from the analysis of the actual data actually represent the phenomenon under study (Mugenda & Mugenda, 1999). For instruments to be valid the content selected and included in the questionnaire and focus group discussion must be relevant to the variables being investigated so as to ascertain the effectiveness of the instruments in soliciting information regarding the topic. The researcher gave the instruments to the supervisors and to the members of the, Department of Educational Administration and Planning for scrutiny, judgment and correction upon which the tools were refined into the final instruments for use.

3.6.1 Pilot study

A pilot study was conducted in the two zones of Lower Nyokal division. Three schools were selected from target population through simple random sampling. The schools used in piloting were not used in the actual study. One teacher was selected randomly from each of the selected schools to participate in the pilot study. To select pupils, simple random sampling was used to pick

four pupils from each of the selected schools. In total, 3 head teachers, 3 class teachers and 12 pupils were used in the study. Through the pilot study, the researcher modified or discarded all the ambiguous items in the questionnaire and the focus group discussion guide.

3.7 Instrument reliability

Orodho (2002) states, that reliability is the degree to which empirical indicators of a theoretical concept are consistent across two or more tests. It tells how well a test measures what it is supposed to measure. To test reliability of the instrument, test– retest technique was used. The instrument was administered twice to the same group at intervals of two weeks. After the two tests the Pearson’s Product Moment Correlation Co-efficient was computed to establish the correlation co-efficient. A correlation coefficient of 0.77 was found for the head teachers’ questionnaires, 0.72 for the teachers’ questionnaires while 0.8 was found for the focus group discussion guide. According to Mugenda & Mugenda (1999), a correlation co-efficient of 0.7 or above is considered appropriate and hence reliable for collecting data.

3.8 Data collection procedures

The researcher sought permit from the Ministry of Education Science, Technology through the National Commission for Science Technology and Innovation (NACOSTI). The researcher then visited the Homa-Bay County Commissioner’s office and the Homa-Bay County Director of Education Office to seek permission before visiting the schools.

The researcher made appointment with the selected schools to administer the questionnaires and focus group discussion with the respondents on a later date. The researcher then set aside two weeks, visited the sampled schools and administered the questionnaires to the head teachers and the teachers. The questionnaires were collected on the same day.

The researcher held a focus group discussion with the pupils 20 per group by giving them guiding questions and prompting them to answer without fear due to confidentiality of identity.

3.9 Data analysis techniques

Data analysis refers to examining what has been collected in a survey or experiment and making deductions and inferences (Kombo & Tromp, 2006) The questionnaires collected from the respondents were checked to ascertain they were completed and accurate. They were then edited and coded. The data were analyzed using the Statistical Package for Social Sciences (SPSS). Mujis (2004) describes SPSS to have the capability of offering extensive data handling and numerous statistical analysis routines that can analyze small to very large data statistics.

Quantitative data was analyzed using descriptive statistics tools such as frequency distribution tables and graphs. Qualitative data were analyzed by synthesizing the information from the respondents and arranging the responses thematically in line with the objectives of study.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION

4.1 Introduction

In this chapter, the researcher analyzed and presented data obtained through questionnaires and the focus group discussions. The quantitative data obtained was analyzed and presented in form of frequency tables. The focus group discussions were analyzed and recommendations given based on the outcome of the responses.

4.2 The Questionnaire return rate

The study involved administration of 10 questionnaires to 10 head teachers and 80 questionnaires to 80 teachers. Response rate is shown in Table 4.1

Table 4.1

Questionnaire return rate

Respondents	Number issued	Number collected	Return rate
Head Teachers	10	10	100%
Teachers	80	80	100%

The results from Table 4.1 show a high number of questionnaire return rate. Respondents participated in the study which provided (100%) of both the head teachers and the teachers. This was taken as a good response for analysis of the variables under study. According to Mugenda & Mugenda (1999) it is high enough to provide the required information.

4.3 Demographic information of head teachers and teachers

The general information considered in this study was on gender, age, academic qualifications, years of experience, year of school establishment

4.3.1 Gender of head teachers and teachers

Gender was a factor to be considered among head teachers and teachers in schools because it would enable the researcher acquire information from both gender. The responses are shown in Table 4.2

Table 4.2

Head teachers and teachers' gender

Gender	Head teachers		Teachers	
	F	%	F	%
Male	7	70	44	55.0
Female	3	30	36	45.0
Total	10	100.0	80	100.0

From Table 4.2, thirty percent of head teachers were females, and the female teachers form 45 percent of the teaching staff. The number of female teachers in administrative and leadership positions as head teachers is low. This is in line with the study of Anyango (2012) who also found that the number of female teachers in administrative positions in Homa-Bay district is low.

4.3.2 Academic qualifications of head teachers and teachers

Academic qualification was a factor that was considered while seeking data on what could be influencing the teaching-learning process. The responses are shown in Table 4.3

Table 4.3

Head teachers and teachers' academic qualification

Academic qualification	Head Teachers		Teachers	
	F	%	F	%
MED	2	20.0	0	0.0
BED	0	0.0	20	25.0
Diploma	4	40.0	24	30.0
P1	4	40.0	36	45.0
Total	10	100.0	80	100.0

Table 4.3 illustrates that a great number of teachers (45%) as well as (36%) of head teachers are P1. SACMEQ (2000) revealed that the quality of teaching largely depends on teachers' academic qualification among other variables. Head teachers should be encouraged to upgrade their qualifications so as to equip themselves with broad managerial, administrative and financial skills that are useful in their line of duty so as to be able to manage the schools well and to improve the teaching-learning process. Effective teaching-learning process requires trained and qualified teachers to design teaching-learning strategies and support learners in order to avoid repetition, absenteeism and drop outs and to improve performance of learners.

4.3.3 Age of head teachers and teachers

The age of head teachers and teachers shows maturity and this influences the teaching-learning process. The researcher therefore found it necessary to ask the age of the respondents and the responses are shown in Table 4.4

Table 4.4
Head teachers and teachers' age

Age	Head Teachers		Teachers	
	F	%	F	%
21-30	0	0.0	24	30.0
31-40	3	30.0	40	50.0
41-50	3	30.0	12	15.0
51 – above	4	40.0	4	5.0
Total	10	100.0	80	100.0

From Table 4.4, half the number of teachers (50%) falls between the age group of 31-40 years. Majority of the head teachers were above 51 years of age. All head teachers were above 30 years of age and this indicates experience in the teaching profession. Youthful teachers should be encouraged to take up leadership positions as head teachers since they have vigor and are energetic.

4.3.4 Years of experience of head teachers and teachers

Experience of teachers and head teachers may have an influence on the teaching-learning process. Head teachers with over 10 years may have enough experience in handling administrative issues as well as the teaching-learning

process thus improving the process. Teachers with many years of experience have more skills in handling and improving the teaching-learning process. The responses are shown in Table 4.5

Table 4.5
Head teacher and teachers' years of experience

Years of experience	Head Teachers		Teachers	
	F	%	F	%
0 – 5	1	10.0	32	40.0
6 – 10	8	80.0	28	35.0
11 – 15	1	10.0	0.0	0.0
16 – 20	0	0.0	8	10.0
21 – Above	0	0.0	12	15.0
Total	10	100.0	80	100.0

From Table 4.5, forty percent of the teachers had been in service for not more than 5 years. Moreover, 35 percent of the teachers had 6-11 years' experience. There has been noticeable increase in number of teachers as the number of teachers with relatively few years of experience form (40%) of the teaching staff in the division.

Majority of head teachers (80%) of the head teachers had served in the same position for 6 years and above.

4.3.5 Number of years in the current station

The number of years a head teacher takes in an institution may help him/her understand better his administrative skills especially how to deal with the members of the community around the school. Teachers may also find this important since they will be able to understand their learners better. Responses are shown in Table 4.6

Table 4.6
Head teachers and teachers number of years in the current station

Years in station	Head Teachers		Teachers	
	F	%	F	%
0 – 5	8	80.0	60	75.0
6 – 10	2	20.0	20	25.0
Total	10	100.0	80	100.0

Table 4.6 illustrates that majority of head teachers (80%) and majority of teachers (75%) have been in their current stations for not more than 5 years. Only (25%) of the teachers have been in their current stations for 6-10 years. The high mobility of teachers, in terms of transfers and recruitment, makes it difficult for the teachers to monitor the factors affecting teaching-learning process is the transfer of teachers in and out of the schools.

4.3.6 Year of school establishment

The researcher sought data on year of school establishment as it would help identify schools which have stayed for long and still do not have facilities. The responses are shown in Table 4.7

Table 4.7
Year of establishment of school

Year	Head Teachers	
	F	%
1975 – 1980	5	50.0
1981 – 1985	5	50.0
Total	10	100.0

From Table 4.7, all the schools had been established by 1984. The schools in the division have been in existence for over three decades. The schools should have better and more facilities for effective teaching and learning because they have been in existence for quite a long time. This is in line with the findings of Okuogo (2012) who found that the number of years an institution has been should determine the quality of its infrastructure and resources.

4.4 Adequacy of physical facilities on the teaching-learning process

The adequacy of physical facilities in school promotes the teaching-learning process as the learning environment is made conducive. Schools are expected to prepare their pupils well in all areas. The study sought to examine the relevance of education by obtaining data on physical facilities that would help enhance effective teaching-learning process. Head teachers responses on adequacy of physical facilities are shown in Table 4.8

Table 4.8**Head teachers' responses on adequacy of physical facilities on effective teaching-learning**

Physical Facilities	VA		A		FA		I		NA	
	F	%	F	%	F	%	F	%	F	%
Staff rooms	1	10.0	6	60.0	3	30.0	-	-	-	-
Class Room	1	10.0	6	60.0	3	30.0	-	-	-	-
Toilets	-	-	-	-	6	60.0	4	40.0	-	-
Library	-	-	-	-	-	-	2	20.0	8	80.0
Playing Fields	-	-	1	10.0	4	40.0	5	50.0	-	-
Desks	2	20.0	2	20.0	6	60.0	-	-	-	-

N =10

KEY: VA- Very Adequate A-Adequate FA-Fairly Adequate
I-Inadequate NA-Not Adequate

Most of the head teachers (60%) percent pointed out that the schools have adequate classrooms and staffrooms. Desks and toilets were fairly adequate each at (60%). These agree with the findings Eshiwani (1993) and Bernstein (2006) who both agree that desks, class rooms and toilets are related to students' academic performance which is an indicator of effective teaching and learning. Half of the head teachers (50%) also highlighted that there was inadequacy of playing fields. Heyneman and Loxley (1993) agree that availability of library relates to academic achievement. Eighty percent of the

respondents categorically indicated that the schools in Lower Nyokal division lack library facilities.

When head 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.

Teachers were asked to indicate how adequate the physical facilities were in their schools and the responses are shown in Table 4.9

Table 4.9

Teachers' responses on adequacy of physical facilities on effective teaching-learning

Physical Facilities	VA		A		FA		I		NA	
	F	%	F	%	F	%	F	%	F	%
Staff room	4	5.0	16	20	32	40.0	28	35.0	-	-
Class Room	4	5.0	36	45	32	40.0	8	10.0	-	-
Toilets	8	10.0	12	15	32	40.0	28	35.0	-	-
Library	4	5.0	-	-	12	15.0	12	15.0	52	65.0
Playing Fields	12	15.0	4	5	20	25.0	44	55.0	-	-
Desks	8	10.0	-	-	44	55.0	28	35.0	-	-

N=80

KEY: VA- Very Adequate A-Adequate FA-Fairly Adequate
I-Inadequate NA-Not Adequate

Highest proportion of teachers (40%) pointed out that the schools have fairly adequate toilets, class rooms and staffrooms. The teachers (55%) also highlighted that there was generally inadequacy of playing fields which are very important in co-curricular activities. Most teachers (65%) categorically indicated that the schools in Lower Nyokal division lack library facilities.

When teachers were asked how inadequacy of physical facilities affects the teaching learning process, they indicated that when the physical facilities are not in place, the morale to teach goes down because employees work best when the working environment is conducive.

When pupils were asked about availability of Library facilities in their schools, they gave the responses indicated in Table 4.10

Table 4.10
Pupils' response on availability of library facilities

Library	Pupils	
	F	%
Available	0	0
Not available	200	100.0
Total	200	100.0

From Table 4.10, it is evident that no school had a library. This greatly affects the teaching-learning process as the pupils will not be able to get revision books. This is in agreement with the findings of Heyneman and Loxley (1993) who found that school library relates significantly to achievement.

When pupils were asked about the type of buildings they have in their schools they gave the responses indicated in Table 4.11

Table 4.11**Pupils' response on type of buildings**

Type of building	Pupils	
	F	%
Permanent	140	70
Semi-permanent	40	20
Both permanent and Semi-permanent	20	10
Total	200	100.0

From Table 4.11 most schools (70%) had permanent classrooms and this is important as pupils will be able to learn in a generally comfortable classrooms. Hines (1996) found that achievement is higher in standard buildings.

Pupils were asked about the availability of sanitary facilities in the schools and their responses are indicated Table 4.12

Table 4.12 Pupils response on availability of sanitary facilities

Sanitary facilities	Pupils	
	F	%
Good	40	20
Fair	40	20
Poor	120	60
Total	200	100.0

From table 4.12, most of the pupils (60%) indicated that the sanitary facilities were in poor condition, with some pit latrines poorly drained and sometimes submerged in water especially during rainy seasons. The pupils explained that

the poor toilet facilities affect their learning since they tend to absent themselves from schools especially during the rainy season as they will have no place to relieve themselves.

4.5 Sufficiency of instructional materials on the teaching-learning process

Provision of instructional materials is important in the teaching-learning process since it is a core determinant in the successful implementation of any curriculum. Responses from head teachers on sufficiency of instructional materials in schools is shown in Table 4.13

Table 4.13
Head teachers' response on sufficiency of instructional materials for effective teaching-learning

Instructional materials	VS		S		FS		I		NA	
	F	%	F	%	F	%	F	%	F	%
Text books	-	-	7	70.0	3	30.0	-	-	-	-
Exercise books	1	10.0	3	30.0	4	40.0	2	20.0	-	-
Pieces of chalk	5	50.0	2	20.0	3	30.0	-	-	-	-
Chalkboard/wall	-	-	6	60.0	4	40.0	-	-	-	-
Science kits	-	-	-	-	-	-	-	-	10	100.0
Wall charts	-	-	-	-	2	20.0	5	50.0	3	30.0
Supplementary books	-	-	1	10.0	3	30.0	4	40.0	2	20.0

N =10

KEY: VS-Very Sufficient S-Sufficient FS-Fairly Sufficient
I-Insufficient NA-Not Available

From Table 4.13, head teachers pointed out that chalk boards and text books are sufficient in most of the schools in the division. Half the number of head teachers indicated that pieces of chalk are very sufficient at (50%). However, supplementary books and wall charts are insufficient in most of the schools. All head teachers (100%) noted that science kits are not available in all the schools in Lower Nyokal division. The results also indicate that exercise books are fairly sufficient at (40%) in most schools. The table shows that this level of sufficiency in terms of instructional materials is generally very low. Eshiwani (1993) agrees that performance of students in examinations is influenced by the availability of instructional materials in schools. Fuller (1986) reported that availability of instructional materials makes the teaching task easy.

When head teachers were asked how sufficiency of instructional materials relates to effective teaching-learning process, they explained that the pupils are able to complete their assignments on time, the pupils also learn best when they see thus it is very important to provide materials such as the wall charts, text books, science kits among other materials. This is in agreement with Kathuri (1986) who found out that the presence or absence of instructional materials has an effect on teaching and learning.

The presence or absence of instructional materials has an influence on teaching and learning process. When teachers were asked how sufficient instructional materials are in their schools, they gave the responses indicated in Table 4.14

Table 4.14
Teachers' responses on sufficiency of instructional materials on teaching-learning

Instructional Materials	VS		S		FS		I		NA	
	F	%	F	%	F	%	F	%	F	%
Text books	-	-	16	20.0	36	45.0	28	35.0	-	-
Exercise books	-	-	28	35.0	28	35.0	24	30.0	-	-
Pieces of chalk	12	15.0	36	45.0	20	25.0	8	10.0	4	5.0
Chalkboard/wall	12	15.0	44	55.0	16	20.0	8	10.0	-	-
Science kits	-	-	-	-	8	10.0	8	10.0	64	80.0
Wall charts	-	-	8	10.0	12	15.0	52	65.0	8	10.0
Supplementary Books	-	-	-	-	24	30.0	44	55.0	12	15.0

N=80

KEY: VS-Very Sufficient S-Sufficient FS-Fairly Sufficient
I-Insufficient NA-Not Available

From Table 4.14, teachers pointed out that chalk boards, exercise books and pieces of chalk are sufficient in most of the schools in the division. Text books are fairly sufficient at (45%). However, supplementary books and wall charts are insufficient at (55%) and (65%) respectively in most of the schools. Science kits are not available in (80%) of the schools in Lower Nyokal division.

The table shows that the level of sufficiency in terms of instructional materials is generally very low. Most of the instructional materials and equipment are insufficient, with majority of the schools having insufficient materials. This greatly affects the teaching-learning process, thus increasing the chances of child drop-out, repetition and poor performance. These findings are in line with those of Asikhia (2010) who pointed out that adequately well prepared instructional materials determine the amount of learning that can take place in a learning institution.

When teachers were asked how the sufficiency of instructional materials relates to teaching-learning process and they generally responded by saying that sufficiency of instructional materials boosts their morale to teach and make work easier for the teachers because they have reference materials.

Pupils were asked to indicate how sufficient the instructional materials are in their schools and the responses are given in Table 4.15

Table 4.15

Pupils' response on sufficiency of instructional materials

Instructional materials	Pupils	
	F	%
Very Sufficient	12	6.0
Sufficient	15	7.5
Fairly Sufficient	87	42.0
Insufficient	66	33.0
Not available	20	10.0
Total	80	100.0

Table 4.15 shows that instructional materials are generally fairly sufficient at (42%). The pupils explained that they were not able to complete the assignments given due to insufficiency of instructional materials. The instructional materials were distributed to the pupils in groups and only shared during lessons.

Sharing of textbooks was noted by pupils as a major hindrance to their learning since the text and supplementary books are few and are shared among large groups thus making learning very difficult and this explains why they absent themselves from schools for fear of being punished for failure to do the assignments given. When pupils were asked how sufficiency of instructional materials affects effective teaching-learning, they said that when the schools

provide the leaning materials they are able to study on their own thus improving the learning process.

4.6 Class size and the teaching-learning process

Class size is an important factor to look at when addressing the issue of teaching-learning process because the size has an effect on the process of teaching-learning. Response on the class type is shown in Table 4.16

Table 4.16

Head teachers and teachers' response on class size

Type of class	Head Teachers		Teachers	
	F	%	F	%
Large	4	40	36	45
Small	6	60	44	55
Total	10	100	80	100

From table 4.16, sixty percent and 55 percent of head teachers and teachers respectively prefer handling small classes. The percentage of large classes is still high in Lower Nyokal division and more classrooms need to be constructed to reduce the stream size. Majority of head teachers and teachers were not comfortable handling large classes as they noted that the preparation of teaching materials for such classes is difficult. This agrees with the findings of Wabuoba (2011) who observed that overcrowding in class rooms make it difficult for the pupils to write and the teacher is also unable to move around and help the needy pupils.

Handling small classes comfortably is also seen as a way of identifying weak learners through marking assignments and homework. The teachers also noted that they are comfortable handling small classes since it is easy to monitor the pupils and better evaluate their performance. They also note that it is difficult to control large classes.

Class size is an important factor in the teaching-learning process. When pupils were asked about the class size, they gave responses indicated in Table 4.17

Table 4.17
Pupils' response on class size

Type of class	Pupils	
	F	%
Large	80	40
Small	120	60
Total	200	100

When pupils were asked about the class type, they were generally comfortable in small classes. They agreed that the teachers were able to mark their work and do revision in small classes. In large classes, the pupils reported that teachers instructed them to mark their own assignments, which made it difficult for teachers to assess performance and ability of each individual.

The pupils also said that they easily found ways of cheating during assignments and when doing examinations since the classes are large and space inadequate. Furthermore, the large class size makes them not be able to interact with their teachers on individual basis. Some pupils highlighted that they were comfortable in large classes since the teachers do not realize when

they were absent. This is in line with the findings of Bascia (2003) who found that large classes make it difficult for the teachers to monitor the pupils' attendance thus encouraging pupils' absenteeism thus making teaching learning process ineffective. The schools are single streamed. The limited number of classrooms made it difficult to break large classes into smaller, better handled streams.

Giving individualized attention is one way commonly used by most teachers to support their learners. Responses are shown in Table 4.18

Table 4.18
Head teachers and teachers' response on individualized attention

Individualized attention	Head Teachers		Teachers	
	F	%	F	S %
No	8	80	68	85
Yes	2	20	12	15
Total	10	100	80	100

From Table 4.18, eighty five percent of teachers and (80%) of head teachers stated that they do not give individualized attention to the pupils since they currently handle large classes. Some respondents also noted that it was easy to evaluate lessons and conduct remedial sessions during weekends as well as morning and evening sessions.

Giving individual attention was singled out as the best way to support weak and slow learners. This has been noted in majority of the respondents who prefer teaching small classes as they point out that they are able to

identify learners with different problems and look for possible and better solutions. Some of the head teachers and teachers who currently teach large classes, but are comfortable handling small classes point out that the large class environment make it difficult to have adequate time and attention with each individual learner.

There was a relationship between the type of class and giving individualized attention as most of the respondents who currently teach both types of classes preferred small classes and highlighted that this enables them to give individualized attention to the learners. This can be seen from the table 4.19 where 80 percent of the head teaches and 85 percent of the teachers noted that they do not give individualized attention due to the large type of classes that they handle.

The researcher sought the views of the pupils about getting individualized attention from their teachers. The responses are given in Table 4.19

Table 4.19

Pupils' response on individualized attention

Individualized attention	Pupils	
	F	%
Attention given	60	30
Attention not given	140	70
Total	200	100

Table 4.19 shows that most pupils (70%) are not able to get special or individualized attention from their teachers. The pupils further explained that most of their teachers reside in the urban areas hence they leave school early. The teachers are also not available for consultation during the morning or evening preps and over the weekends.

4.7 School location and the teaching-learning process

The location of a school is very important for effective teaching and learning. Schools should be located in an area that has conducive environment to enhance effective teaching and learning. Response on school location is shown in the Table 4.20

Table 4.20
Head teachers and teachers' response on the school location

School	Head Teachers		Teachers	
	F	%	F	%
Urban	0	0	0	0
Rural	10	100	80	100
Total	10	100	80	100

From Table 4.21, all head teachers and teachers indicated that the schools in Lower Nyokal division are located in the rural area.

The support that communities give is very vital in ensuring effective teaching-learning takes place. Response on community support is shown in table 4.21

Table 4.21
Head teachers and teachers’ response on community support on teaching-learning process

Community Support	Head Teachers		Teachers	
	F	%	F	%
No	5	50	40	50
Yes	5	50	40	50
Total	10	100	80	100

From table 4.21, fifty percent of head teachers and teachers agree that the communities support the schools. However, the support is not sufficient as the teachers and head teachers explain that the parents support focus on the recruitment of BOM teachers.

The head teachers and teachers who noted that the communities give support to schools explained that parents offer financial support that is used in hiring of BOM teachers. The recruitment of the additional teaching staff by the school is noted as a factor that enhances the teaching-learning process since most of these schools are understaffed.

In terms of material support, some of the head teachers and teachers highlighted that some parents buy revision materials and past papers. The provision of these instructional materials promotes the teaching-learning process, although the support level is low as some of the respondents pointed out that the communities are poor.

The head teachers and teachers who noted that the communities do not give support to the schools explained that most of the parents do not contribute to the development of physical facilities in the schools. They further explained that the parents argue that Free Primary Education should cater for the development of the schools and there should not be any development fees levied. The high poverty levels in the division, which affect the provision of support to the schools by the communities is a hindrance factor to the teaching-learning process. Majority of the head teachers observed that some parents hardly come to school even for meetings as they are busy making ends meet. This is in agreement with the findings of Woolfolk (2007) who found that when communities around the schools have low economic status, they are not able to support the schools.

Pupils were asked whether the communities around their schools give support, the responses are shown in Table 4.22

Table 4.22

Pupils' response on community supports

Community Support	Pupils	
	F	%
Support	60	30
No support	140	70
Total	200	100

From table 4.22, the pupils, (70%) pointed out that the communities did not give support to the schools. They further explained that this was due to poverty levels in the community. They further explained that this indeed has an effect on community support to schools, as the parents do not have the ability to avail the learning materials to the pupils. This is in agreement with the findings of Aikens and Barbarin (2008) who found that schools located in low economic status communities are often under resourced and this affects the teaching-learning process. Parents from low economic status are unable to afford resources such as books, computers or tutors to create this positive literacy environment.

Thirty percent of the pupils pointed out that the community supported the schools. They further explained that the communities support schools by paying money for the salaries of teachers who are employed by BOM, participating in fundraisers for school development and contributions towards recruitment of support staff and buying of revision books.

Clanism is a determinant factor in the teaching-learning process, especially in non-cosmopolitan environments. This homogeneity is affected by the clan factors as the location comprises different clans and sub-clans. Responses on clanism are shown in Table 4.23

Table 4.23
Head teachers and teachers' response on clanism

Clanism	Head Teachers		Teachers	
	F	%	F	%
	Has effect	1	10	80
No effect	9	90	0	0
Total	10	100	80	100

From Table 4.23, all teachers (100%) and (90%) of the majority head teachers concur that clanism has an effect on the teaching-learning process in schools. The rural nature of the schools has been explained as a major cause as local communities prefer one of their own.

Clan factors play important role in the administration of the schools, thus affecting the teaching-learning process. The clan factors include community support as well as staff motivation and recruitment. Respondents highlighted that the teachers fear being posted to schools in other sub-communities and sub-clans. The communities may also not accept teachers from outside their communities and sub-clans. This may consequently lead to teachers being posted to schools in their rural homes.

As noted earlier, all schools in Lower Nyokal division are rural. School location is also directly linked to clanism and community influence especially in non-cosmopolitan areas. This has consequent impact on teacher recruitment and staffing. As noted by majority of the head teachers, the urban areas are well staffed since the teachers prefer working in urban centers. This leaves the schools in the rural areas understaffed, and as such, the schools recruit untrained staff through BOM.

Clan factors play a big role in the administration of schools. Pupils were asked if clanism affect the teaching-learning process and responses are shown in Table 4.24

Table 4.24

Pupils' response on clanism

Clanism	Pupils	
	F	%
Has effect	60	30
No effect	140	70
Total	200	100

When asked whether clanism affect the teaching-learning process, most of the pupils (70%) concurred and pointed out that the schools are clan-based. Most of the pupils pointed out that the clans assume the schools as their own, and influence the administration of the schools. The pupils who attend the schools also come from the clan. They raised the concern that clanism indeed has an

effect on teaching-learning process as their parents allowed them to attend schools only within their clan irrespective of how far the school may be from the pupils' home.

4.8 Assessment of teaching-learning process

The process of teaching and learning can be measured through performance of pupils in standardized examinations such as KCPE, district MOCK, continuous assessment tests and regular exercises given in class.

The researcher sought information about KCPE performance because it is one of the indicators of effective teaching and learning. The response on KCPE performance is shown in Table 4.25

Table 4.25
KCPE Performance of schools

KCPE	2012		2013	
	F	%	F	%
150-200	4	40.0	4	40.0
201-249	3	30.0	4	40.0
250-300	1	10.0	2	20.0
300 above	2	20.0	1	10.0

Table 4.25, shows that majority of the schools scored a mean score of below 250 marks in the KCPE in the years 2012 and 2013 respectively. This could be as a result that effective teaching-learning process is not taking place. Poor performance of pupils in examination is expensive to the teachers, the parents

and the pupils. This is in agreement with the findings of Atkinson (1987) who found that the problem of poor performance is costly for any country since education is the major contributor to economic growth.

Assessment of pupils in examination is very vital as it helps teachers measure if teaching-learning process is taking place effectively. Responses on assessment are shown in Table 4.26

Table 4.26

Head teachers and Teachers' response on assessment

Frequency of assessment	Head Teachers		Teachers	
	F	%	F	%
Monthly	3	30.0	25	31.25
Midterm	2	20.0	10	12.5
Termly	5	50.0	45	56.25
Total	10	100	80	100

From Table 4.26, majority of Head teachers (50%) and teachers (56.25%) stated that they assess their pupils on a termly basis. This may not be quite effective since the head teachers and teachers may only know if teaching-learning is taking place only at the end of the term which sometimes may be too late to assist the pupils who did not understand a particular concept or topic.

Supervision is one of the main activities that the school head is charged with to ensure effective teaching and learning. Responses on frequency of supervision are shown in Table 4.27

Table 4.27

Head teachers' response on supervision

Frequency of supervision	Head Teachers	
	F	%
Often	6	60.0
Rarely	3	30.0
Not done	1	10.0
Total	10	100

From Table 4.27 majority of head teachers (60%) stated that they often do supervision in their schools to ensure there is effective teaching-learning process. This is in agreement with Okumbe (2001) who outlines the supervisory activities and skills of the school administrators.

When teachers were asked about their most preferred mode of assessment, the responses are shown in Table 4.28

Table 4.28

Teachers' preferred mode of assessment

Preferred mode of assessment	Teachers	
	F	%
Monthly	26	32.5
Midterm	9	11.25
End term	45	56.25
Total	80	100

From Table 4.28, majority of teachers (56.25%) stated that they preferred assessing their pupils on a termly basis. Other teachers (32.5%) prefer assessing their pupils on monthly while (11.25%) prefer midterm assessment to help them assess their methodology and ensure they are effective.

When pupils were asked about other factors that may affect the process of teaching and learning within the school environment they gave the following responses. The pupils explained that there are factors such as inadequate number of trained teachers, attitude of teachers towards the rural schools, high rate of absenteeism by the pupils at who said that they are either family heads due to orphan hood hence they get engaged in domestic chores or sometimes due to poverty in the families. The absenteeism cases were not detected by the teachers since the classes are large. Absenteeism by teachers, pupils' negative attitude towards education due to lack of role models from within the communities and lack of supplementary books, text books among others.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter gives a brief summary of the study, findings of the study, conclusions, recommendations and suggestions for further research.

5.2 Summary of the study

The main purpose of this study was to investigate the influence of school environmental factors on the teaching-learning process, conducted within Lower Nyokal division. The study's main objectives were; to examine the effect of physical facilities on the teaching-learning process, to assess how sufficiency of instructional materials can promote the teaching-learning process, to explore how class size promotes teaching-learning process and to determine how school location affects the process of teaching-learning in public primary schools in Lower Nyokal division, Homa-Bay district. The research questions were formulated from the objectives stated above.

The study used descriptive survey design and the sample size was 10 head teachers, 80 teachers and 200 pupils giving a total of 290 respondents in the 10 sampled schools. Simple random sampling technique was used to get the samples. Two different questionnaires were used to gather data from head teachers and teachers. Focus group discussion guides were used to gather information from the pupils.

Data were analyzed using both qualitative and quantitative techniques. Descriptive statistics was done using SPSS. Data were presented as frequency

tables. Findings of focus group discussion were also presented in frequency tables findings discussed in line with the objectives under study.

The findings were anchored on the research questions that were formulated from the research objectives of the study. Schools within Lower Nyokal division were found to have general inadequacy of physical facilities, with some being almost totally unavailable. Teaching-learning process was found to be greatly affected by the inadequacy of physical facilities such as playing fields, toilets and libraries. In addition, the playing fields, which were found to be insufficient, are important in the co-curricular development of the pupils because the pupils need the playing fields for games such as football, netball, volley ball among others.

Schools in the division were also found to generally have insufficient instructional materials. Instructional materials such as science kits and the wall charts were completely unavailable in most schools and this negatively affected the teaching-learning process.

Majority of schools in Lower Nyokal division had large classes. Even though most teachers taught large classes, they preferred small class size which they could comfortably handle. It was notable in the responses given that the small class size promoted individualized attention, which enhances teaching-learning process as the teachers were able to identify the weak learners, attend to individual needs of the pupils and comfortably address the problems the pupils face in the learning process.

Lower Nyokal division is entirely rural environment and schools are clan-based. The study found that, the number of trained teachers in the rural

schools was low as majority of teachers preferred working in urban centers as noted by the head teachers. Clanism and community support was observed to be directly linked to teacher enrolment as the communities preferred one of their own. Rural schools generally lacked adequate physical facilities and had insufficient instructional materials, which made them least preferred by the teachers.

5.3 Conclusions

Based on the findings of the study, it was concluded that schools the schools in Lower Nyokal have inadequate physical facilities. In addition, insufficiency of instructional materials in schools has also been found to greatly influence the teacher-learning process. The class size was found to influence the teaching-learning process as small classes were mostly preferred by most teachers and even pupils. On school location, the rural areas are still not open to development and most schools are remote, thus are least preferred. Non-cosmopolitanism has also greatly affected the rural schools as the communities still have influence in the administration and operations of the schools.

5.3 Recommendations

The recommendations contained in this report may be useful for the educationists, educational administrators and parents and other stakeholders in facilitating the teaching-learning process by ensuring the hindrances to the teaching-learning process are addressed.

1. The community should be encouraged to support the development of schools to improve the facilities such as the library to improve the teaching-learning process.
2. The head teachers should ensure the schools have enough instructional materials as they have the responsibility of procuring the materials for effective teaching and learning and consequently improve performance.
3. Classes should also be made manageable by adding more streams where classes are large.
4. The government should allocate more resources for the improvement of capital infrastructure in the schools. The head teachers should also plan and adequately utilize the Free Primary Education funds for the purpose of developing the priority areas in the school so as to enhance learning.

5.5 Suggestions for further research

This study focused on influence of school environmental factors on teaching-learning process in public primary schools, Lower Nyokal division, Homa-Bay district. The research looked at the school environment as all that goes on in the school but could not research on all aspects of the school environment.

Further research may be done on the following:

1. Influence of school environment on KCPE performance in public primary schools.
2. Influence of school motto and other school symbols on academic performance in public primary schools.

3. Teachers' characteristics and how it influences pupils' academic performance.
4. The study focused on a rural setting which is Lower Nyokal, a similar research could be carried out in urban setting to give a balanced view of the school environmental factors influencing teaching-learning.

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APPENDICES

APPENDIX 1

LETTER OF INTRODUCTION

Caroline Andisi Mege,
University of Nairobi,
PO BOX 30197,
NAIROBI.

The head teacher,
..... Primary School,

Dear sir/ madam,

RE: REQUEST TO CONDUCT RESEARCH IN YOUR SCHOOL

I am a postgraduate student at the University of Nairobi, pursuing a Master of Education Degree in Educational Administration. I am writing to solicit your support in carrying out a research on the topic “**Influence of school environmental factors on the teaching-learning process in public primary schools in Lower Nyokal division, Homa-Bay district, Kenya.**”

Kindly allow me to undertake the study in your school by responding to the questionnaire attached. The responses will be used for the purpose of study only. The identity of the respondents will remain confidential. Thank you in advance.

Yours sincerely,

Caroline Andisi Mege

APPENDIX 2

HEAD TEACHER'S QUESTIONNAIRE

The purpose of this questionnaire is to gather information about your own perception of how the environmental factors influence the process of teaching and learning in your school. The information will be treated with absolute confidentiality and is only meant for this study. 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? 30-40 () 40-50 () above 50 ()
3. What is your highest academic qualification? P1 () Diploma ()
Bed () Med () any other specify.....
4. How long have you been a head teacher? () years
5. How long have you been a head teacher in your current station? () years

Section B: Information on school

6. When was the school established?.....

Section C: Adequacy of physical facilities and the teaching-learning process

7. 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 fields					
Laboratory					
Desks					
Head teacher's offices					
Teachers' tables					

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

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

9. 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	Very sufficient	Sufficient	Fairly sufficient	Insufficient	Not available
Text books					
Exercise books					
Pieces of chalk					
Chalk boards/wall					
Science kits					
Wall charts					
Supplementary books					

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

Section E: Class size and the teaching-learning process

11. What type of classes do you prefer handling? Large class [] Small class []

12. Are you comfortable handling large or small classes? Kindly explain.....

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

14. How does class size affect effective teaching-learning process? briefly explain.....

Section F: School location and the teaching-learning process

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

16. 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 G: Assessment of teaching-learning process

19. Kindly indicate your school's KCPE performance for the years 2012 and 2013

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 3

TEACHERS' QUESTIONNAIRES

The purpose of this questionnaire is to gather information about your own perception of how the environmental factors influence the process of teaching and learning in your school. The information will be treated with absolute confidentiality and is only meant for this study. 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 0-5years () 6-10 years () 11-15years () 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? 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 fields					
Laboratory					
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? Where very sufficient=5, sufficient=4, fairly sufficient=3, insufficient=2, none=1

Resource	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. Are you comfortable handling large or small classes? Kindly explain.....

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

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

Section E: School location and the teaching-learning process

13. Where is your school situated? Rural [] Urban []
14. 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.....
15. In your opinion, can clanism affect the teaching-learning process, briefly explain?.....

Section F: Assessment of teaching-learning process

16. How often do you assess your pupils to ensure there is effective teaching-learning process? Every two weeks () Monthly () Midterm () Termly ()
17. 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 ()

APPENDIX 4

PUPILS' FOCUS GROUP DISCUSSION GUIDE

The purpose of this focus group discussion guide is to gather information about your own perception of how school environmental factors influence the teaching-learning process.

Date..... Venue of FGD.....

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

Age range of participants 13-16 years

Number of participants in the FGD.....

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?
7. How often are you able to complete your assignments given by the teachers?
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. In your opinion, how does clanism affect the teaching-learning process?
15. Which other factors within the school environment do you think affect the teaching-learning process?
16. How often are you assessed by your teachers?

APPENDIX 5

RESEARCH AUTHORIZATION



NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471,
2241349, 310571, 2219420
Fax: +254-20-318245, 318249
Email: secretary@nacosti.go.ke
Website: www.nacosti.go.ke
When replying please quote

9th Floor, Utalii House
Uhuru Highway
P.O. Box 30623-00100
NAIROBI-KENYA

Ref: No.

Date:

13th June, 2014

NACOSTI/P/14/0228/1825

Caroline Andisi Mege
University of Nairobi
P.O.Box 30197-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on *“Influence of school environmental factors on teaching-learning process in public primary schools in Lower Nyokai Division, Homa-bay District, Kenya,”* I am pleased to inform you that you have been authorized to undertake research in **Homabay County** for a period ending **31st December, 2014.**

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

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.


SAID HUSSEIN
FOR: SECRETARY/CEO

Copy to:

The County Commissioner
The County Director of Education
Homabay County.


APPENDIX 6
RESEARCH PERMIT

THIS IS TO CERTIFY THAT:
MS. CAROLINE ANDISI MEGE
of UNIVERSITY OF NAIROBI, 832-40300
homabay, has been permitted to conduct
research in Homabay County

on the topic: INFLUENCE OF SCHOOL
ENVIRONMENTAL FACTORS ON
TEACHING-LEARNING PROCESS IN
PUBLIC PRIMARY SCHOOLS IN LOWER
NYOKAL DIVISION, HOMA-BAY DISTRICT,
KENYA

for the period ending:
31st December, 2014

Caroline Andisi Mege
Applicant's
Signature


Full Secretary
Full Secretary
National Commission for Science,
Technology & Innovation

Permit No : NACOSTI/P/14/0228/1825
Date Of Issue : 13th June, 2014
Fee Received :Ksh 1,000