

**PERFORMANCE IN ENGLISH, MATHEMATICS AND
CHEMISTRY OF STUDENTS IN KCSE IN SELECTED
SECONDARY SCHOOLS IN NYAMAIYA,
DIVISION, NYAMIRA DISTRICT,
KENYA**

A Thesis

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In Partial Fulfillment for the Requirements for the Degree
Master of Arts Education Management and Administration

Omuya Lucy Nashilu

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DECLARATION A

"This Thesis is my original work and has not been presented for a Degree or any other academic award in any University or Institution of Learning".

OMUYA LUCY NASHILO *NLO-ye* .

Name and Signature of Candidate

11/09/2010

Date

DECLARATION B

"I/We confirm that the work reported in this dissertation was carried out by the candidate under my/our supervision".

Rev. Olupri EZEKA Alio



Name and Signature of Supervisor

~~Name and Signature of Supervisor~~

11th/09/2020

Date

~~Date~~

APPROVAL SHEET

This dissertation entitled "Performance in English, Mathematics and Chemistry of students in selected schools in Nyamaiya division Nyamira district ,Kenya" prepared and submitted by Omuya Lucy Nashilu in partial fulfillment of the requirements for the degree of Master of Arts Educational Management and Administration has been examined and approved by the panel on oral examination with a grade of PASSED.

Name and Sig. of Chairman

OCHAN JOSEPH

Name and Sig of Supervisor

Rev. Olupot Ekenia Eno

Name and Sig. of Panelist

Kiggundu Zephaniah
29/9/2020

Name and Sig. of panelist

11/09/2020
Date of Comprehensive Examination: _____

Grade: _____

Name and Sig. of Director, SPGSR

Name and Sig. of DVC, SPG

DEDICATION

To my beloved husband Anam Moturi, children Albert, Joshua, Marion, for your patience during my long absence from home, Dad and Mum in appreciation for educating and supporting me during my entire period of study for this course.

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God bless you all

ABSTRACT

In this study, the evaluation of English performance on sciences in KCSE exams was carried out. The study specifically sought to find out how performance in English affects students academic performance in Mathematics and Chemistry

The study used a cross sectional survey and correlation research design with qualitative aspects. A total of 18 teachers and 6 head teachers were consulted in the division. Purposive stratified sampling technique was used to select the respondents. The researcher generated questionnaires that were used for gathering data after passing the validity and reliability tests. Frequency and percentage tables were used to tabulate data for easy interpretation. The statistical package for social sciences was used in the analysis of data charts and graphs were used to present the data.

Study findings indicated that there was a positive correlation between the performance of students in English, Mathematics and Chemistry. English was the main medium of instruction although Kiswahili and mother tongue was occasionally used. In order to improve performance in languages and science subjects a language policy should be effected, adequate syllabus coverage by second term in form four before students sit for KCSE, encouraging students to use English in communication, were among the major recommendations. In conclusion the study revealed that performance in English largely determines the performance in sciences so it should English should be emphasized in secondary schools.

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CHAPTER ONE

INTRODUCTION

Introduction

Education is one of the most important aspects of human resource development. Abagi & Odipo (1997). Poor school performance not only results in the child having a low self-esteem, but also causes significant stress to the parent. There are many reasons for children to under perform at school, such as medical problems, below average intelligence, specific learning disabilities, attention difficult, hyperactivity discords, emotional problems, poor social economic culture home environment and others. Education is very important to everybody. So every child should have the opportunity to exploit his/hers full academic potential.

Background to the study

The Malaysia's vision to become a developed nation by the year 2020 has placed science and technology as important subjects to excel in. This is especially so since science and technology are often perceived as fundamental forces behind economic development in industrialized countries (Lee, 1989; Loo et al., 1997). Reports on performance in science learning, especially those that highlighted students' lack of interest as well as declining ability to do science (Kong, 1993; Lee, 2001; MOE, 1998) sparked much concern about the ability to achieve the targeted goals.

This is further exacerbated by the fact that enrolment in the sciences as compared to the art stream at higher secondary level is less than the expected 60:40 percent ratio (EPU, 2006).

Although there were researches examining factors that influence science learning in Malaysia, the studies were not comprehensive. Among the aspects investigated include language influence on students' understanding (Nabilah, 2006; Loo & Sarmiento, 2005); problems with translating and analyzing text, pictures, charts and diagrams as well as failure to come up with the right conceptions of science objects or process (T. Subahan, 1996; Yee, 1998); difficulty arising from complexity of terminology and its ideological or technological nature (Mohd Zakaria, 1992); inability to apply process skills (Mohammad Najib, 1999; MOE, 1998), and failure to classify, synthesize and evaluate information (MOE, 1994; MOE, 1995; MOE, 1996; MOE, 2001b). However none of the above aforementioned studies were comprehensive enough to cover the affective, language and cognitive ability determinants of science learning.

Kenya is a multilingual country that uses the English language as a medium of instructions throughout the education system at primary, secondary and tertiary levels. The English language is officially recognized for both economic and political reasons. However it is still a foreign language although it is recognized and encouraged by law as a vehicle for communication and as the language of administration. English is widely used in courts and newspapers and its importance is further emphasized in that students are taught and examined in English. In Kenya

passing the English examination is a qualifying factor in the selection for further studies and in order for a student to be selected for further education a credit in English language is requirement.

There are several other factors that have been identified for the poor performance in science in secondary schools. These factors include low teacher –student ratio, Socio –cultural misconceptions from the families of the student, Poor attitude and beliefs that leads to lack of the interest, inadequate teaching /learning materials range of subjects being taught in the curriculum, stereotypes in the subjects, lack of adequate opportunity to practice in the laboratories and teacher related inadequacies such as lack of commitment to duty and teaching style Wodidi (2007).

In an article published on Wednesday 24th march 2010, the East African Standard, education column page 34, an analysis was carried out on the reasons for poor performance in mathematics in the Kenya Certificate of Secondary Education. Among the reasons was the issue of “mother tongue”. In secondary schools some teachers are unable to communicate effectively in English and use mother tongue to teach (Math) although exams are set in English. Mean score performance in English at KCSE (2009) is below 40 per cent, a score that illustrates a lot has to be done to wards improvement of the language. Such statistics reveal that most students go through high school without learning basic language.

This gave the researcher a basis to come up with this study and establish whether English can affect the performance of in sciences within secondary schools.

Statement of the Problem

The need for education in Kenya has been addressed and the ministry charged with the mandate to provide and manage the educational services has done so by focusing on primary, secondary and tertiary institutions of learning (Chaube & Chaube, 1998).

Secondary school education is viewed as an academic preparation for entrance into higher education in Kenya (Kochhar, 1996). In recent years, KSCE examination results have been indicating very low mean standard scores in science subjects (The World Bank, 2007), yet this accounts for the overall performance in national examinations.

A student who understands English expresses himself well, both verbally and in written, thus, being able to comprehend facts applied in science subjects. If this trend is left to continue in the future, the nation will be deemed, in that, performance will continue to dwindle thus, affecting the economy in the long run, thus affecting the huge government expenditure on education, of which science related subjects are the engine of any development of any nation. This study therefore, sought to carry out an investigation on how English, enhances, the performance in Mathematics and Chemistry in KCSE among selected secondary schools in Nyamaiya division, Nyamira district Kenya.

Purpose of the Study

The study seeks to establish the relationship between English and the performance in Mathematics and Chemistry in Nyamaiya division, Nyamira district, and Nyanza province, Kenya.

Objectives of the study

1. To determine the profile of the principals and teachers in Nyamaiya division.
2. To determine the medium of instruction in schools and its effect on the performance of mathematics and chemistry in Nyamaiya division
3. To determine the level of performance of English language in selected schools in Nyamaiya division
4. To determine the level of performance of science in selected schools in Nyamaiya division.
5. To determine the relationship between performance in English, Mathematics and Chemistry in selected schools in Nyamaiya division

Research Questions

1. What is the profile of the principals and teachers of selected schools Nyamaiya division?
2. What is the medium of instruction of the schools where the respondents belong?

3. What is the level of performance of English of selected schools in Nyamaiya division?
4. What is the level of performance of Mathematics and Chemistry of selected secondary schools in Nyamaiya division?
5. Is there a significant relationship between the levels of performance in English Mathematics and Chemistry?

Hypothesis

H₀1. There is no significant difference between the performance in English and the academic performance in Chemistry and Mathematics.

Scope

The study was carried out within secondary schools in Nyamaiya division, Nyamira district, Nyanza province, Kenya. A pilot study was carried out in one selected school, using sampling technique. Schools that were selected for the study were from all categories; co-educational, single sex, day and boarding, private, focusing on the students performance, teachers in science and principals between January 2005 and august 2010 a time when there was a notable decline in the performance of students in KCSE in the division.

Significance of the Study

This study would be paramount in promoting performance in science. It will also be used to improve on the mean standard score of

institutions The study may give Science teachers' training colleges and universities sufficient knowledge, skills and attitude to handle learners effectively. For curriculum developers it would help revise if need arises the curriculum to suit both the interest of students and the government

The stakeholders in education such as parents /teachers association and government would be able to affirm the necessity of providing resource materials to improve teachers' and learners' skills. To future researchers, it may serve as a reference on the subject in question. Finally to the learners, it would instill a positive attitude and motivation to improve performance.

Operational Definitions of key terms

Communication- refers to the ability to send and receive information in its original meaning.

Academic performance- refers to the completion of an educational task to specified standards.

Teacher proficiency- refers to the expert knowledge of the teacher in a subject.

Principal- the teacher placed in charge of day to day running of the secondary schoolboy the government.

CPE - Certificate of Primary Education

KCSE - Kenya Certificate of Secondary Education

MSS	-	Mean Standard Score
M Ed	-	Master of Education
B Ed	-	Bachelor of Education
B.A	-	Bachelor of Arts
PGDE	-	Post Graduate Diploma in Education
BSc	-	Bachelor of Science
P.T.A	-	Parents Teachers Association
B.O.G-		Board of Governors
T.S.C	-	Teachers Service Commission
CPA-		Certified Public Accountant
CPS-		Certified Public Secretary
KATC	-	Kenya advanced technical certificate

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter will focus on the review of the related literature. It is intended to shed more light on the study problem.

Concepts ideas opinions from authors/experts

Why communication skills are needed

Harsh Shukla (2004) defines communication as a complex interactive process involving shared assumptions and unspoken agreement between individuals. He further notes that there are frequent errors and misunderstanding in communication due to several barriers that prevent us from transmitting our ideas meaning fully. It is therefore paramount that effective communication is realized at all stages for the technical institution to succeed.

Communication should be perceived as the transfer of information, feelings and data from the sender to the receiver with the correct information being received by the receiver Maicibi, (2007). Cheryl and Cordell (1987:4) define communication as "the process of people sharing thoughts, ideas and feelings with each other in the commonly understandable ways".

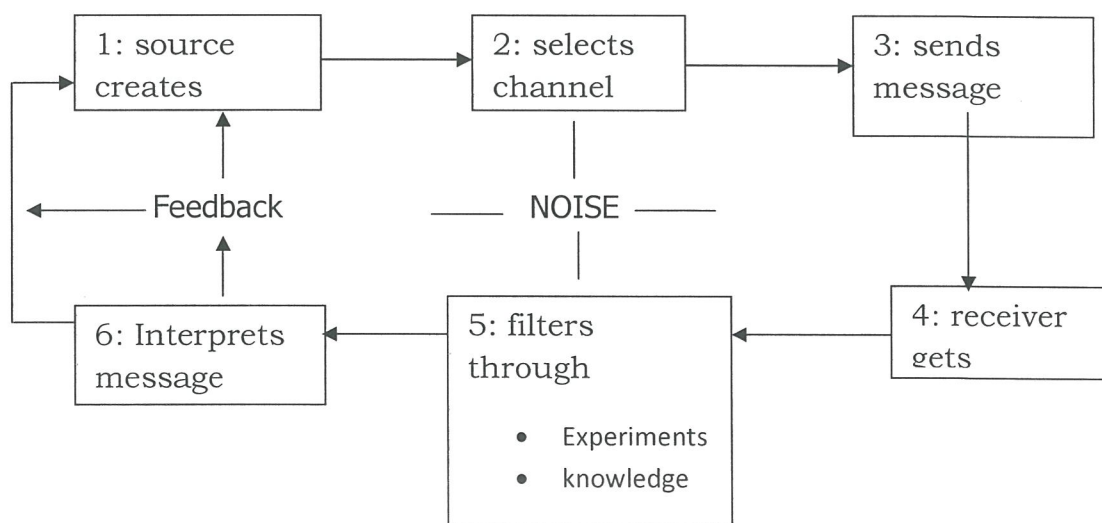
Therefore effective communication involves both the giving out information by one or more people, and the receiving and understanding of that message by another person or others.

Communication Process

Communication is said to be complete when the receiver has understood the content in the same sense as the sender has conveyed It Maicibi, (2007).

This is only possible through communication process. The communication process is the sequence of the steps needed to transmitted message from to receiver as shown in the diagram below:

Figure 1: Communication process model



Source: Maicibi Nok Alhas, (113)



Significance of English as a medium of communication.

English as a medium of instruction (E M I) is a recently developed bilingual learning method. The main idea of E M I is to combine the conventional instruction of content-areas subjects with foreign language learning, instead of the mother tongue, a foreign language is used as a "tool" for communication in different subjects, Claudia (2006).

Many developing countries of the world have their first language as that of its inhabitants but there is growing need of nations to adopt English as a medium of communication as a prerequisite for the functioning of global communication, which enables every one to be understood. English has become the 'lingua franca' in science as well as in technology and in economics. Next to its linguistic advantages E M I also influence pupil's subject skills and abilities positively.

The concept of EMI also favors the use of various authentic teaching materials, which often give different access to a topic, Abuja G and Heindler D (1993) and thus broaden the repertoire of adequate problem solving tools.

The use of foreign language frequently avoids the confusion between every day concepts and scientific concepts. One major problem in the instruction physics for example is that people can hardly distinguish between the meaning of a term denoting a concept acquired through every day experience and that denoting a scientific concept. Since people acquire their mother tongue long before they are instructed physics, it causes big problems for them to relate a later acquired scientific concept to an already familiar terms. Pillay and Thomas (2004), in their report to

the ministry of Education in Malaysia noted that, to implement the use of English as a medium of instruction 14 working committees should be established to include areas of curriculum, text books, teacher training, teaching resources, supplementary resources, ICT, publicity monitoring assessment, special education, technical studies, matriculation programs, promoting English language use and funding for schools.

To enhance the English language skills of mathematics and science teachers for effective teaching using English as a medium of instruction, teachers' needs assessment is required. This includes both what teachers know and can do and what they want to learn and be able to do. Needs assessment of teachers should focus on what teachers want or believe they need to learn (Weddel and Van Duzer 1997). These needs will determine the kind of teacher who will be able to offer instructions in English effectively.

This therefore calls for strategies to be developed in preparing the mathematics and science teachers professionally, and for making available teaching and learning resources which are tailored to teachers need (SEAMEO Library 2003). Ojambo (1978) argues that many times and other related instructors do not actually know the needs and interest of the children under their development stage hence creating a class between themselves and students. This greatly impedes the academic progress of learners subjecting them to academic failures

Yadav (2001) claimed that in the world of education nothing can be said to be effective teaching without an effective teacher. Teachers effectiveness is mainly used to refer to the result a teacher gets or the amount of progress the student make toward specified goals of education as a result of instructions. He adds that the poor performance of the student in science subjects can be attributed to the presence of ineffective teachers who cannot offer guidance and instruction during the course of teaching.

Kakinde (2007) reveals that at all level of the Uganda education system, the performance in science is poor. The performance of girls is always poorer than that of boys. He adds that although the Uganda ministry of education and sports has put in place a number of strategies to address the problems including the compulsory science for all students up to the fourth year of secondary education construction of science laboratory, skewed recruitment of science teachers and in science training of science teachers, much is still needed to address this problem and this clearly portrays the reason for the poor performance of students in such disciplines.

According to World Bank report (2007), in most developing countries not enough mathematics and science teachers are produced by universities and colleges. Recent visits to schools by personnel from the ministry of education revealed that most of the teachers do not have expertise in their subjects. One consequence is that students fall examination and fewer of them pursue science courses at tertiary level, leading to an even greater shortage of mathematics and science teacher.

English in relation to Performance in Sciences and Mathematics.

Howie (2003) documented a strong relationship between Mathematic achievement and learner proficiency in English. He found that a learner who has a better understanding of English performs better in mathematics examination.

Shukla (2004) also noted that communication abilities particularly in technical institutions are important. Graduate engineers for instance will wield power, design prototypes and plans that they need to present to others in an effective way. They should thus be able to present themselves anywhere in the most effective way. They have to face and attend interviews, group discussions and oral examinations and make technical presentations. In all these, they are required to prove themselves worthy of the career and position they seek. Understanding the textual material in science has shown to be problematic for first language speakers, which means that difficulties in comprehension are likely to be even greater for second language readers. Therefore learning English is important for passing and qualifying to be selected for further education

Related studies on performance of English Mathematics and Chemistry

Several other reasons that account for the performance in Mathematics and Chemistry have been highlighted by other authors.

Kochhar, (1996) revealed that classroom, laboratories and subject rooms should be suitable for the correct posture of going student that they should be convenient for work, well equipped with adequate future,

and this can make learners perform well in class in absence of such facilities , students will not have opportunity to what they learn in classroom theory. Such a factor has been responsible for the poor performance of students in science subjects.

The investigation of Yadav, (2001) added to Kochhar's findings where he confirmed no course in science can be considered complete without including some practical work in it. The practical work ought to be carried out by individuals in science lab. At school stage practical work is more important because of facts that we learn by doing scientific principles and application are thus rendered more meaningful. It is a well-known fact that an object handled impresses itself more firmly on the mind than the object merely seen from a distance or in an illustration. Thus, practical work forms an important feature in any science course.

In their studies in several Africans countries Foster and Clignet (1966), Heyneman (1984) found a strong relationship between resources and students achievement. They gave the laboratory a central and distinctive role in education. In addition students done in less development countries such as Uganda, Indian, Ghana, Brazil and Malaysia indicated that access to textbook is positively related to students' achievements.

In India and Chile data showed that a block of factors which include textbook availability accounts for more of the variance In test scores than does a block, which indicates home circumstance and student's age and sex ,Heyneman (1984)

In a recent study undertaken by Kathuri (1982) research revealed that schools resources including textbook availability are not significantly related to performance in certificate of primary education (CPE) However he summarized his book by saying that teaching resources may not be significant in totality but very critical in some situations and subjects.

The School environment where the actual learning takes place should not be taken lightly, infrastructure such as school buildings compound seats, water source, and electricity among others plays an important role in the education of the child. Inadequate and unsuitable reading materials unattractive school buildings, poor sitting facilities are reasons of not only attracting children but also force children drain out of school as Chaube, S.P and Chaube,A.(1998) remarked in their studies of Indian primary education.

An enabling environment for learning is very vital as all children can learn. However, appropriate level of input including personnel, materials and facilities must accompany the learning process (UNESCO, A challenge to goals of education, (2003). This is because children's learning abilities can be hampered as a result of poor environment.

Home environment is very paramount in determining the success of the child's education. Banks (1990) pointed out that the school cannot and does not take over and completely from the family. It is also true to say that family exerts profound influence on the response of the child to gain from teaching largely depends on his/her home environment. If the home

of the child is conducive to learning process, then the child will find it easy to gain from classroom teaching and reverse is also true.

Freiberg (1999) asserts that poor home environment causes phobia. A student may fail to volunteer answering questions during class discussion for fear of getting incorrect response. This can kill interest in learners who come from poor homes. Even a child being confident and innovative effort will just dry up, hence he/she can easily drop in performance.

Maynard N. J (1967), While considering the home environment in Africa, said that in rural areas, Where most people are poor, their homes are simple and bare, with no radio, newspaper, magazines, television and books, the children from such homes are not very much exposed to the current development and cannot compare with their counterparts in towns who are all the time exposed to such facility Based on the literature reviewed in this study, the researcher found it safe to conclude that education is essential to personal (individual) and the country's socio economic development. The literature cited the need for utilization of the teacher training, qualification and experience in the process of instruction so as to translate it into learning gain especially in the field of Math and Chemistry.

The literature further revealed that there is need for efficient utilization of Chemistry and Mathematics teachers so that effective and high standards of students' academic achievement can be realized. Other factors such as availability of school resources, school/home climate and

environment and effective communication skills contribute to effective learning and high standard of academic achieve

First, a number of studies discussed above have been conducted to identify and investigate factors that contribute to low achievement in science in secondary school level across countries. Second, the researcher has established that there is no empirical research known to have been undertaken to study the relationship between English and academic achievement in Mathematics and Chemistry with particular reference to schools in Nyamaiya Division, Nyamira district in Kenya

Therefore, in an attempt to fill the above gap, the researcher collected sufficient data on Student performance in English, mathematics and Chemistry to be able to establish their relationship to academic achievement in Mathematics and Chemistry among students at form four level in Nyamaiya Division.

On the contrary Kathuri's research reveals that school resources including text book availability were not significantly related to achievement. His finding explained that:

"..... this may not mean that teaching resources or facilities are necessary. Good as they may be their effectiveness below a certain level may depend on how they are made use of in combination with other facilities. Teaching resources may also not be significant in totality but very critical in some situations or subjects".

Wodidi (2007) in his research asserts that "various factors combine to influence the preference of some subjects over others and thereby, determine the number of students enrolling for this subject".

The preference and therefore perception of the subject by the learner depends on interaction of several factors such as the availability of relevant qualified human resources, schools practices and policies, physical facilities available and the use in the school, teachers' characteristics in the terms of availability, experience, qualification and verbal expression for or against the subject as well as students characteristics such as sex and motivational level.

He further adds that factors contributing to poor performance in a subject like physics would generally contribute to low perceptions in such a subject. Some students are convinced that sciences are hard and difficult subjects. They therefore perceive it negatively, are less concerned about the subject, which result to failure in examinations. Therefore with regard to this study, a student will be motivated to opt for the science if he expects rewards like good performance, higher chances of future employment and prestigious careers.

THREE CHAPTER

RESEARCH METHODOLOGY

Introduction

This section discusses the research design, target population, sample and sampling procedure, research instruments, validity and reliability of the instruments, data collection and data analysis procedure.

Research Design

This study used a descriptive survey and correlation design to investigate the relationship that exists between the performance of students in English, mathematics and chemistry. Descriptive survey designs were used in preliminary and exploratory studies to allow researcher to gather information, summarize, present and interpret for the purpose of classification Orodho (2002).

There are certain non-definite practices among formal research workers that the beginner can adopt, comments Nwana (1982) on sample size, and as such suggests that if the population is a few hundreds a 40%(percent) or more sample will do, if many hundreds, a 20% will do, if a few thousands a 10% sample will do and if several thousands a 5% or less sample will do. Schools were selected across categories and school types, stratified and random sampling was used to select the study schools.

Table 1: Sampling matrix for schools

Type/gender	Girls		Boys		Co- educational		
	Provincial	District	Provincial	District	provincial	District	Private
Day	-	-	-	-	-	1	
Boarding	1	-	1	-	-	-	
Day and Boarding	-	-	-	-	-	2	1

For the case of this study, a sample of six secondary schools was selected from fifteen secondary schools. This gave a sample of 40%. Purposive sampling was selected because it involves selecting samples using set criteria such as type of school (national, provincial, or district or private whether the school is boys, girls or co-educational).

The basic assumptions behind purposive sampling is that with good judgment appropriate strategy one can hand pick the cases to be included in the sample and thus develop samples that are satisfactory in relation to ones needs.

District co-educational day and boarding schools were written on papers then picked using the blind folding technique according to their proportional allocation. Systematic sampling was used to select teachers to be involved in the study from the eligible teachers. The eligible were those who were teaching the subjects under study which was done by the majority of the students.

Research Instruments

The instruments used in collecting data from the samples were questionnaires. Questionnaire was selected because of its wide application in education and in survey research, Isaac and Michael (1981)

Questionnaire Method

This method involves questions that are printed or typed on a paper in a definite order. Each item in questionnaire was developed to address a specific objective /research question of the study .The questionnaire may be mailed or personally delivered by the researcher and left with the respondents.

The respondents are then expected to read and understand the questions and write down the response in the spaces meant for this purpose in the questionnaire itself. The respondents have to answer the questions on their own. This method has a large coverage enabling the gathering of a large sample very inexpensively. It is anonymous and this helps to produce more candid answers than is possible in an interview. Data concerning performance in English, chemistry and mathematics and factors influencing academic performance in the sciences was obtained by use of questionnaires for principals and the other for teachers.

The questionnaire contained both closed ended and open ended questions. Closed-ended questions were in an immediate usable form and were easy to administer because each question was followed by alternative answers. They were also easier to code responses and analyze them by use of a computer. Open ended questions gave the respondent an opportunity to express their views, experiences and suggestions fully.

Piloting of the Instruments

Prior to the main study, a pilot study was carried out in a pilot school; the entire research procedure was carried out including analysis. Procedure planned for the main study pilot studies are carried out with fewer subjects than will be employed in the main study to determine the instruments validity and reliability.

The term validity indicates the degree to which an instrument measures the constant under investigation Borg and Gall (1989). Reliability of research instruments is it is therefore is one that constantly produces expected results when used more than once to collect data from two samples randomly drawn from the same population.

Reliability of a standard test is usually expressed as a correlation coefficient, which measures the strength of association between variables. Such coefficients vary between 0.00 and 1.00 with the former showing that there is no reliability whereas the later perfect reliability which is very difficult to achieve in practice. Reliability coefficient shows the extent to which an instrument is free of error reliance.

The research instrument was tested in order to asses its validity and reliability. One secondary school was selected for piloting the instrument. This was done before the rest of the schools. The questionnaires were given to the respondents to fill in the presence of the researcher in order to see whether they experiencing any problem in filling them. The researcher was able to probe the participants and gave explanations and clarification where necessary as regards the problem under study.

After one week the same questionnaires were administered to the same respondents to fill. To test the reliability of the instruments, test re-test was used. To compute the correlation coefficient of the instruments the following formula was used

$$R = \frac{\sum XY - \frac{\sum X \sum Y}{N}}{\sqrt{\left[\frac{\sum X^2 - \frac{(\sum X)^2}{N}}{N} \right] - \left[\frac{\sum Y^2 - \frac{(\sum Y)^2}{N}}{N} \right]}}$$

WHERE

R=Correlation coefficient

N=Total number of scores

$\sum$ =Summation of scores

X=Scores

Y=scores

Data collection Procedure

The researcher was given a research permit from the District Education Office and an introductory letter from the Institute of Open and Distance Learning, Kampala International University. The researcher delivered all the questionnaires to the schools personally.

During the personal contact the researcher explained the purpose of the study. The researcher also took the opportunity to explain some of the complex aspects of the questionnaire. The respondents were given three weeks to fill the questionnaires and the researcher collected them. There was an allowance of one for those who had not filled the questionnaires. The K.C.S.E results of the sampled schools were collected from the school analysis for the exam for the last 5 years 2005, 2006, 2007, 2008 and 2009.

Data Analysis

The researcher undertook the actual data collection. Data editing was done. A computer carried out the entry and initial analysis. The study questions were analyzed using Statistical Package for Social Sciences (SPSS)

The statistical analysis sought to establish whether a significant relationship exists between the mean scores achieved in Mathematics and Chemistry and English subjects. The 0.05 level of significance was used as the standard for rejecting or accepting the null hypotheses. Descriptive statistics such as percentage and frequency were used concurrently in the analysis. The results obtained gave the researcher the basis for making inferences in order to test the formulated questions and hypothesis in the study.

Correlation research design was used to analyze how English as an independent variable affects the performance in Mathematics and Chemistry, the dependent variables. The use of cross –section design is justified because only a few selected schools were subjected to the study.

The design also highlighted information concerning the degree of relationship between variables. Information was collected on performance in English Math and Chemistry in KCSE exams. Simple random sampling was used to select school and teachers for the study. Data collection technique used was the use of questionnaires. Pearson product-moment correlation analysis was used to determine the degree of relationship between variables.

Research Population

The study targeted all English, Mathematics and Chemistry teachers and principals. There are a total of 15 secondary schools with 105 teachers and 15 principals in the Division. The target population will comprise principals of 6 categories of schools namely, 1 all boys, 1 all girls, 1 co-educational boarding, 2 co-educational day & boarding, 1 private and one teacher in each of the three subjects (English, mathematics and chemistry) in the 6 schools.

In this study six out of the total 15 schools were selected using purposive random sampling. The rationale for this sample size is that it will give a representation of the teachers' population in the schools. This constitutes 40% of the total number of schools in the study as recommended by Nwana (1982).

Purposive sampling was used to select teachers to be involved in the study. In purposive sampling, a researcher consciously decides who to include in the sample for the purpose of collecting focused information. This helps to select typical and useful cases only. It also saves time and money. Oso, W.Y and Onen, D (2008).

Stratified sampling was used to identify the sub groups and their proportions and select from each sub group to form a sample. This method ensures that subgroups are proportionately represented and accounts for the difference in sub group characteristics. Oso & Onen (2008).

Research Instrument

Documentary data where by information was extracted from the documented results was used. This is mainly student's KCSE results analysis. The instrument was valid because it gave information on performance, the subject of interest. The researcher also used questionnaires, which had both closed and a few open- ended questions. Questionnaires are selected because of their wide application in education and in survey research. Isaac and Michael (1981) .The closed- ended questions helped to obtain factual data for quantities analysis while the open- ended questions provoked personal view.

Validity and reliability

The researcher appraised the questionnaires and then undertook a pilot study in one school to identify the question items that are appropriate in data collection. Test-retest technique was applied by administering questionnaires to the respective pilot group to measure the consistency of the test scores over time. The instrument was administered again after one week and response from all the two trials were correlated to establish the reliability. Questionnaires were validated through expert judgment of my supervisor.

Data presentation and analysis.

The research intends to use Pearson's Product-moment Correlation to analyze relationships between the variables in the study. Descriptive statistics including frequencies and percentages was used. This was then presented in tables and charts to indicate the influence of independent variable on performance of students in mathematics and chemistry. The researcher then undertook discussion of findings, the implications of the study and then made conclusions.

Ethical consideration

Ethics relating to correspondents was enhanced by keeping information provided confidential. Respondents were told the truth about the research in order to give reliable information. Effort was made to ensure the self esteem and dignity of respondents is maintained by avoiding causing anxiety and fear among respondents.

A letter of introduction seeking permission to carry out research in individual schools and outlining objectives of the study was obtained from the researcher's institution of learning. Consent of the respondents was also acknowledged.

Limitations

The study did not consider other factors that are likely to lead to poor performance like failure to pay fees, long walking to and from school by village students among others. The population samples of study may not have been the best performing in the division in academics thus may not fully account for reasons for poor performance within the schools.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

Introduction

The main objective of the research was to determine the relationship between performance of English, Mathematics and Chemistry. Eighteen teachers and six principals in schools in Nyamaiya division were considered for the study. All of the 24 teachers were issued with a questionnaire. All the twenty four questionnaires were responded to. This constitutes 100% of the sample size and formed the basis for data analysis.

Information on profile of respondents

This contains a summary of information concerning the ages, gender, academic qualification, experience in field of respondents.

The information was necessary as it was used to determine whether the different variables have an impact on performance in academic achievement of students in English and Sciences and how it also impacted the overall performance in KCSE. The study revealed the frequency of male to female teachers as 19 and 5 respectively.

Male teachers were 79% while female teachers formed 21% showing a very significant difference of 48%. This reflects the levels of teacher training and recruitment by the T.S.C; there are more male

teachers than female. The study also revealed age distribution of the teachers in the division. The study showed that the age group between 30-39 had the highest percentage of 42 % followed by age group of 40-49 Which had a percentage of 37 while age group between 20-29 had only 5 teachers translating to 21%.None of the respondents was above 50 years.

The table 2 also shows the academic qualification of the teachers. The study revealed that majority of school teachers were degree holders constituting 71% while Masters were 21% and 8% had other professional qualifications such as CPA, CPS and KATC. This indicates that all the teachers were qualified to teach their respective subjects although some were untrained.

Respondents were asked to state the number of years that they have been teaching. 58% had served the shortest period and constituted the majority of respondents. 21% had taught between 9 and 14 years while 13% had taught between 15-20 years. Those between 20 and above were 8%, the least, indicating that most teachers had a long period of time to remain in the service and very few were about to retire.

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Table 2: Profile of the respondents

Gender			Age				Qualification			Experience			
	M	F	20-29	30-39	40-49	50+	Masters	Degree	Others	0-8	9-14	15-20	20+
F	19	5	5	10	9	0	5	17	2	14	5	3	2
%	79	21	21	42	37	0	21	71	8	58	21	13	8

Medium of communication in schools

Principals were asked to indicate whether there was a school language policy. In this item, 67% said yes while 33% said no.

A language policy enhances the students' ability to use English as a medium of communication hence enhances learning and understanding. It is through proper understanding and learning that a learner can perform well in class. Lack of proper English skills indicates that the level of performance of learners is hampered hence poor results. 67% gave English as the medium of instruction and communication while 33% gave Kiswahili. All the respondents indicated that their school had an official language policy with two respondents indicating that their official language were both English and Kiswahili.

Two other respondents indicated that their official language was Kiswahili whereas one respondent indicated the official language in his

school was English. Other languages such as mother tongue had one response.

Table 3: Medium of communication in schools.

	Frequency	Percentage (%)
English	4	67
Kiswahili	2	33
Others	0	0
Total	6	100

The use of English language in class

When the respondents were asked to indicate whether they readily spoke English during class lessons, twelve respondents strongly agreed, 5 agreed whereas one disagreed. The respondents were also asked whether they were ready to handle learning problems of students who were weak in English to learn mathematics and chemistry. Nine respondents strongly agreed whereas seven respondents agreed with the statement. One respondent each disagreed and strongly disagreed.

Another emerging issue was the use of mother tongue in class to explain some concepts one respondent strongly agreed with the statement whereas two respondents agreed with the same.

Seven respondents though disagreed with the statement as 8 respondents strongly disagreed as it was against the teaching ethics. On the issue of students responding to the question given in test even without the correct answer, two respondents strongly agreed with the statement whereas eleven respondents agreed to the same. Five respondents though disagreed with the statement.

Table 4: The use of English language in class

Question	Response	Frequency	Percentage
Teacher readily uses English during class lessons	SA	12	66
	A	5	28
	D	1	6
	SD	0	0
Ready to handle learning problems	SA	9	50
	A	7	38
	D	1	6
	SD	1	6
Use of mother tongue to explain concepts	SA	1	6
	A	2	11
	D	7	39
	SD	8	44
Student give correct responses to questions	SA	2	11
	A	11	61
	D	5	28
	SD	0	0

Overall Performance of students in KCSE

This study was carried out in six schools 1 boys boarding, 1 girls boarding, two co-educational day schools, 1 co-educational day and boarding school and 1 private co-educational day and boarding school. In 2006 the overall mean standard score for all the schools was highest with a mean of 4.85 this was followed by the year 2007 which recorded a mean of 4.66 .since then the performance has been steadily going down. Schools with boarding facilities that is Nyamaiya mixed secondary ,Rangenyio girls' and Nyansabakwa boys' had better performance than the day schools ,however Masosa mixed day school registered better performance despite being a day school.

The only private school in the division which was a sample recorded dismal performance which can be attributed to lack of adequate school facilities such as laboratory and a library, inadequate trained and qualified teachers and low entry behavior of students.

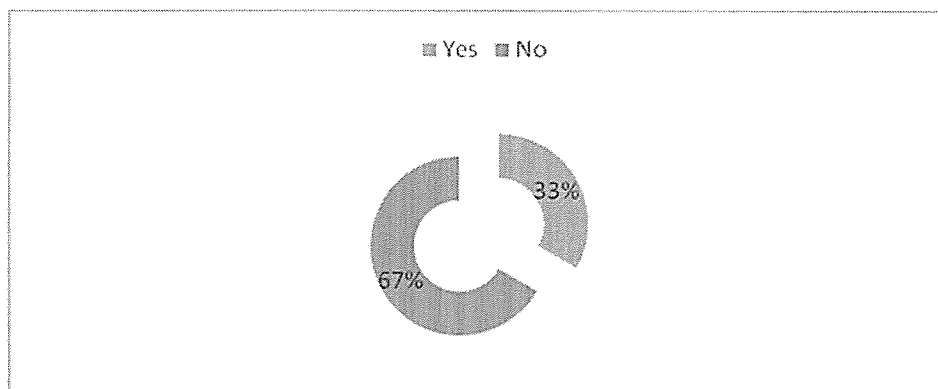
When the respondents were asked to indicate whether their school performance was satisfactory, 67% indicated that it was whereas 33% of the respondents were not satisfied with their current school performance.

Table 5: Overall performance of selected schools 2005-2009

School	M S.S				
	2005	2006	2007	2008	2009
St. John Okong'o	2.037	2.26	2.48	2.19	3.19
Nyamaiya Mixed Secondary	5.7	6.3	5.3	5.3	4.6
Kemasere mixed day	3.50	3.52	3.79	4.09	3.05
Rangenyo Girls secondary	5.45	4.94	4.45	4.21	4.20
Nyansabakwa Boys secondary	4.99	5.68	6.46	5.55	4.42
Masosa mixed secondary	4.89	6.41	5.50	5.10	5.36
Overall M.S.S	4.42	4.85	4.66	4.41	4.14

When the respondents were asked to indicate whether their school performance was satisfactory, 67% indicated that it was whereas 33% of the respondents were not satisfied with their current school performance.

Figure 2 : Satisfactory school performances



Performance of students in English, Math and Chemistry, 2005-2009 of selected schools in Nyamaiya division.

When the respondents were asked to describe the performance in the subjects in their school, 50% indicated that it was average whereas 17% indicated it was good. 33% though indicated that it was below average. This statement is questionable because the overall performance of English in the selected schools was a mean score of 4.842, Mathematics was 2.878 and Chemistry was 3.972. The Mean standard score falls far below the expected maximum mean of 12.00 in the national exam.

It can be safely concluded from the data below also that the performance in Mathematics and Chemistry is steadily going down. The trend is not any better in English, although the performance is slightly higher by a dismal one or two points.

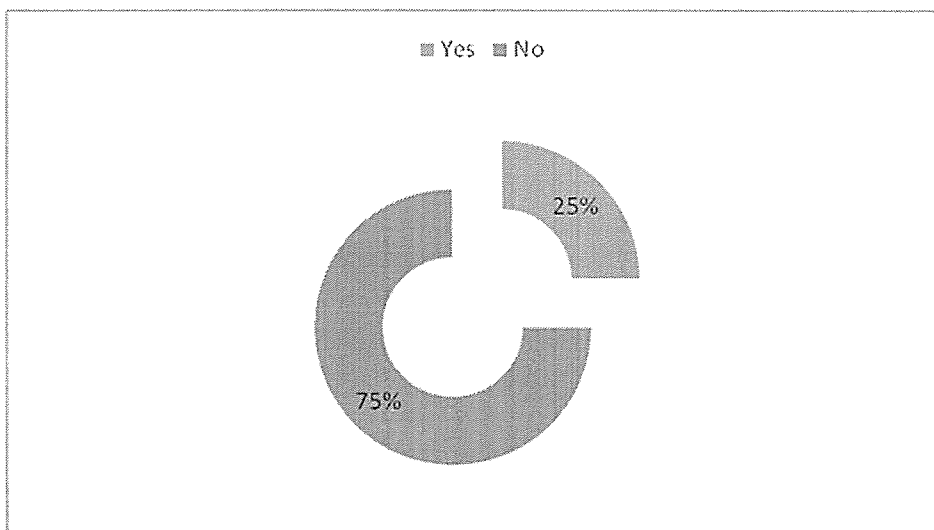
Table 6: Performance of English, Mathematics and Chemistry in selected schools in Nyamaiya division in mean standard scores

School	English					Mathematics					Chemistry				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
St John okongo	3.21	3.11	4.42	3.62	5.03	2.13	2.36	3.12	3.15	3.52	4.67	4.21	3.34	4.12	3.48
Nyamaiya sec	5.00	5.87	5.38	5.58	5.50	2.69	3.65	2.52	3.58	3.32	4.78	5.56	3.7	3.70	3.45
Kemasare sec	3.67	3.25	4.11	3.86	3.54	2.11	2.51	2.66	2.89	2.71	2.58	2.38	3.30	3.10	2.36
Rangeny girls	4.81	5.38	5.57	4.70	4.22	2.55	2.34	2.04	2.15	1.95	4.79	3.58	3.28	2.96	2.74
Nyansabakwa	7.78	5.31	5.16	5.28	4.87	2.56	3.36	2.98	3.50	2.74	4.49	5.36	5.43	3.50	2.98
Masosa sec	4.50	6.40	5.07	4.80	5.70	2.32	3.98	3.47	3.62	3.89	4.81	6.13	4.41	5.35	4.58
Overall m.s.s	4.88	4.88	4.95	4.64	4.81	2.39	3.03	2.80	3.15	3.02	4.35	4.54	3.91	3.79	3.27
Overall m.s.s per subject	4.832					2.878					3.972				

Perception on level of Performance

When the respondents were asked to indicate whether the performance in their subjects was satisfactory, 75% indicated it was whereas 25% of the respondents indicated it was not satisfactory.

Figure 3: perception on level of performance



Relationship between the performance in English and Science subjects

The main result of a correlation is called the correlation coefficient (or "r"). It ranges from -1.0 to +1.0. The closer r is to +1 or -1, the more closely the two variables are related. If r is close to 0, it means there is no relationship between the variables. If r is positive, it means that as one variable gets large the other gets larger.

If it is negative it means that as one gets larger, the other gets smaller (often called an "inverse" correlation).

The total number of respondents in this study as indicated by the N values was 17 secondary school teachers. The relationship between performance in English and science subjects was statistically significant since it had a p value of less than 0.05. i.e. 0.000 at the 95% confidence interval level (2 tailed). The relationship had a positive correlation value of 0.622 this means that as performance in English increases, performance in science subjects also increases at a rate of 0.622.

Table 7: Relationship between the performance in English and Science subject

		Performance In English	Performance in Science Subjects
Performance in English	Pearson Correlation	1	.622**
	Sig. (2-tailed)		.000
	N	18	18
Performance in Science subjects	Pearson Correlation	.622**	1
	Sig. (2-tailed)	.000	
	N	18	18

** . Correlation is significant at the 0.01 level (2-tailed).

CHAPTER FIVE

FINDINGS, CONCLUSION AND RECOMMENDATIONS

Introduction

This chapter presents a summary of the findings, as regards to the main objectives of the study. Based on these findings the conclusions were drawn and some recommendations on the way forward made. The main objective of this study was to determine whether there was a significant relationship between performance of English and the performance of mathematics and chemistry.

The other specific objectives were, to determine the profile of respondents of the study, determine the level of performance of English in selected schools, and determine the level of performance of mathematics and chemistry science. Once collected, the data was analyzed by use of descriptive and inferential statistics. From the responses obtained by interviewing 6 principles and 18 teachers, it was clear that there was a significant relationship between the dependent and the independent variables.

Findings

The relationship between performance in English and science subjects had a positive correlation value of 0.622. There is a significant relationship between English and the performance of mathematics and chemistry.

As the mean standard score of English improved the mean standard score of mathematics and chemistry also improved and the inverse was true. Therefore the hypothesis formulated for the study can be accepted.

The study revealed that very few females are teachers in secondary schools, the majority of the respondents were male. This indicates that TSC employs more teachers from one gender creating disparity. Such disparity may be the cause for poor performance among girls in examinations.

The majority of the respondents were between thirty and forty-five years. Many had served for more than ten years as teachers hence had more experience which implies that they should be better placed to help students do well in exams. All respondents however were qualified to teach in the levels and subjects they were handling.

Most of the respondents indicated that they had an official language policy whereby the official main languages used were English and Kiswahili. Respondents strongly agreed that they used English during class lessons and they were ready to handle learning problems of the students who were weak in English to learn science subjects. Most of the respondents strongly disagreed that they used mother tongue in teaching as most of them agreed that students responded correctly to questions given in test even without the correct answer.

The level of performance in English was below average as majority of students scored below the mean of 6.00 which is usually the average mark. Mathematics and Chemistry were much lower with a mean of 5 indicating that there is need to give more attention to the subjects.

Student's frequent absence from school, lack of mentors in the science disciplines, vernacular speaking in school, lack of exposure of students to various techniques, low commitment of students towards sciences, were hindrance to achievement as found out from the research questions.

The study further revealed several other factors that hinder students' achievement in the subjects in study which cited absenteeism's the major hindrance pointing to either high poverty index leading to lack of school fees; this was followed by lack of adequate textbooks and inadequate learning facilities.

Lack of teachers in the subjects was third. This is probably due to slapping of a ban on employment of teachers in 1997 by the government and adopting the policy of merely replacing those who leave the profession due to natural attrition and retirement. This may have caused acute shortage in critical subjects like mathematics and English and in turn affect students' performance in exam, students negative attitude towards teachers and subjects, poor time management all contribute negatively.

Conclusion

From the study it can be concluded that the performance in English largely determines the performance of students in Mathematics and Chemistry in secondary schools. As the performance of English gets better, performance in Mathematics and Chemistry also improves and vice versa. The schools and the government can help improve the performance of students in sciences by training and recruiting more teachers improving school facilities such as rooms, laboratories and allocating more time for science subjects in the time tables in schools. The government can promote science subjects at secondary level by waiving taxes on school equipment like laboratory equipment and chemicals.

Recommendations

In order to improve on the performance in languages and science subjects, several measures needs to be put in place, this includes:-

The Use of the language policy such as: Kiswahili once a week, English-four days, weekend and holiday tuition, encouraging students to use English in communication and discouraging the use of mother tongue by introducing a strong and working language of all teachers in the schools.

All teachers should ensure that they adequately cover the syllabus in advance to give room for revision and practice and organized seminars, symposium and contests. In line with this, the Ministry of Education should liaise with the Kenya Institute of Education to revise the syllabus so that it ends earlier than form four second term to allow students time to prepare for the KCSE exam.

Teachers should encourage student to use English in communication and thus discouraged them from mother tongue speaking this can be achieved by introducing a Strong and working language policy through concerted efforts of all teachers in the schools.

The government should employ more teachers and give proper employment consideration for science oriented persons with good package to motivate teachers.

All teachers should give continuous guidance and encouragement to students at all times. Giving learners regular exams and motivate especially girls who record dismal performance.

Teachers should simplify the abstract concepts in sciences to be better understood by learners. This can be achieved by giving students more guidance on revision habits, inviting examiners to teach students on how to answer questions, vertical teaching and more practice on the subjects by weak students.

Suggestions for further research

Since this study concentrated on Nyamaiya division, further research is suggested in other divisions country wide to understand the situation of the subjects on the ground.

This study used correlation as an inferential technique thus further research is suggested on the use of linear regression analysis to determine the linear relationship between the dependent variable and the independent variables.

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APPENDIX 1

TRANSMITTAL LETTER



**KAMPALA
INTERNATIONAL
UNIVERSITY**

Ggaba Road - Kansanga
P.O. Box 20000, Kampala, Uganda
Tel: +256- 41- 266813 / +256- 41-267634
Fax: +256- 41- 501974
E- mail: admin@kiu.ac.ug,
Website: www.kiu.ac.ug

Office of the Director

April 24, 2010

TO WHOM IT MAY CONCERN

Research/Project Writing Re:Omuya Lucy Nashilu MED/21942/81/DF

The above named is a student of Kampala International University pursuing a Masters degree in Educational Management and Administration in the Institute of Open and Distance Learning (IODL).

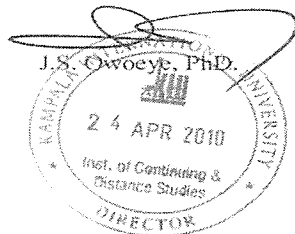
She wishes to carry out her research/project titled *Performance in Science Subjects in relation to English Language as a Medium of Communication in Nyamirya Division, Nyamira District, Kenya*

Your School/Institution has been selected for this study.

Research/Project writing is a requirement for the award of a Masters degree in Education.

It will be appreciated if you can accord her the necessary assistance to complete her project.

I thank you for your cooperation



"Exploring the Heights"

APPENDIX II

COMMITTAL LETTER

MINISTRY OF EDUCATION



Telegram: "EDUCATION", Nyamira
Telephone: (058) 6144224

DISTRICT EDUCATION OFFICE
NYAMIRA DISTRICT
P.O.BOX 4
NYAMIRA.

When replying please quote

NYED/ADM/119/35

16TH JUNE, 2010

Ref. No.

Date:.....

OMUYA LUCY NASHILU
MED/21942/81/DF.

RE: RESEARCH AUTHORIZATION.

OMUYA LUCY NASHILU of Kampala International University has been granted permission by the said University vide Research Permit No. MED/21942/81/DF dated 24th April, 2010 to carry out a research on "PERFORMANCE IN SCIENCE SUBJECTS IN RELATION TO ENGLISH LANGUAGE AS A MEDIUM OF COMMUNICATION IN NYAMAIYA DIVISION, NYAMIRA DISTRICT, KENYA"

The purpose of this letter is to allow Omuya Lucy Nashilu to carry out her research in the Secondary Schools in Nyamaiya Division, Nyamira District.

Let her be accorded the assistance she may require.

A handwritten signature in dark ink, appearing to read 'Ogachi R.O.', is written over a horizontal line.

OGACHI R.O.
FOR: DISTRICT EDUCATION OFFICER
NYAMIRA DISTRICT.

APPENDIX III

RESEARCH INSTRUMENT

Principal's Questionnaire

Dear Sir,

This questionnaire is only for research purpose. This study will help principals to understand and formulate appropriate strategy in improving the performance in science subjects in secondary school. I therefore request you to give information through the questionnaire provided. Please respond to all items. The information given shall be treated as highly confidential and will be used for the research report of this study.

Regards

OMUYA LUCY NASHILU-Researcher

Please put a tick [☒] next to the response applicable to you where appropriate.

Section A

1. What is your gender? Female [☐] Male [☐]
2. What is your age? _____years
3. Indicate your highest professional qualification.

M. Ed Degree [☐]

B. Ed Degree [☐]

B.A /PGDE []

B. sc / PGDE []

Diploma in Education [] others (specify) _____

4. How long have you served as a principal? _____years

Section B: School characteristics

5. Indicate your school mean standard score (M.S.S) attained for the years school in table below

Year	2005	2006	2007	2008	2009
School MSS					

6. Do you think the performance of your school has been satisfactory?

YES () NO ()

7. a) Does your school have an official language policy?

YES () NO ()

b) If yes, which language is mainly used?

English () Kiswahili () other (specify).....

8. How would you describe the performance of science in your school?

Satisfactory () Good () Average () Very good ()

Below average ()

9. State the factors that may have contributed to the level of performance in science in your school.

I.
.....

II.
.....

III.
.....

IV
.....

V
.....

End of questionnaire.

Thank you.

APPENDIX IV

Questionnaire for Teachers

Part I: Instructions.

This questionnaire is for research purpose only. It aims at finding out the relationship between the performance of English and performance in science subjects. Kindly provide answers to the questions in the questionnaire as honestly and preciously as possible. I would like to assure you that all information provided will be treated with confidentiality. Please tick [✓] or fill appropriately in the space provided in the following sections.

Part II: Personal profile

1. How old are you?
 - a) 20-29 ☐
 - b) 30-39 ☐
 - c) 40-49 ☐
 - d) 50 and above ☐
2. What is your sex? Male ☐ Female ☐
3. What is your personnel qualification?
 - a. ATS/Diploma ☐
 - b. Degree ☐
 - c. Masters ☐
 - b) Any other (specify) _____

4. How long have you been a teacher?

a. Below 2 years ☐

b. Between 3 -8 years ☐

c. Between 9-14 years ☐

d. Between 15-20 years ☐

e. 20 years and above ☐

Part III: Medium of instruction

5. Do I readily speak English during class lessons?

☐ Strongly agree

☐ Agree

☐ Disagree

☐ Strongly disagree

6. I am ready to handle learning problems of students who are weak in English to learn science/mathematics.

☐ Strongly agree

☐ Agree

☐ Disagree

☐ Strongly disagree

7. Sometime I use mother tongue in class to explain some concepts.

☐ Strongly agree

☐ Agree

☐ Strongly agree

☐ Agree

☐ Disagree

☐ Strongly disagree

8. Students correctly respond to the questions in test even without the correct answer.

☐ Strongly agree

☐ Agree

☐ Disagree

☐ Strongly disagree

9. Fill in the following table showing the performance in your teaching subject in KCSE.

Subject – English, () math (), chemistry (), (tick one applicable to you)

	A	A-	B+	B	B-	C+	C and below	Entry	M.S.S.
Grade									
Year									
2005									
2006									
2007									
2008									
2009									

11. Do you think the performance in your subject has been satisfactory?

YES ☐ NO ☐

12. State factors that may have contributed to the level of performance your subject has been recorded as per questionnaire (ii) above

- i.....
.....
- ii.....
.....
- iii.....
.....
- iv.....
.....
- v.....
.....

10. Suggest possible measures that can be taken to improve the performance in sciences/mathematics in you school.

- i.....
.....
- ii.....
.....
- iii.....
.....
- iv.....
.....
- v.....
.....

Thank you

RESEARCHER'S CURRICULUM VITAE

Personal profile

Name : Omuya Lucy Nashilu
Date of Birth : 10th/12/1968
Identity No : 9910969
Nationality : Kenyan
Marital status: Married
Permanent Address: Box 350, Nyamira, 40500, Kenya
Contact Address: Box 683, Nyamira, 40500, Kenya
Mobile Number : +254723 316 816, +254 738182039

Educational background

Kampala International University: 2008-2010 Master of Arts Education
Management & Administration
Kenyatta University: 1989-1992 Bachelor of Education (Arts)
Gusii Highlights High School: 1986-1988 Kenya Advanced Certificate
of Education (KACE) 3 Principals, One Subsidiary

Narok High School: 1982-1985 Kenya Certificate of Secondary
Education – Division 2

Eor- Enkitok primary school: 1975-1981 Certificate of Primary
Education – 25 points

Work experience

Graduate Teacher 1993- - St Peter's Nyaisa Secondary School

1993 – 2002- Ntana Secondary school

2003 – Present – Nyamaiya Secondary School

2003 – Present – Nyamaiya Secondary School

Employer – Teachers' Service Commission

Grade – Senior Graduate Teacher Job Group N.

Work and personal experience

2009 – Senior Supervision- National Population Census

2008 – Church elder- Ntana Secondary School S.DA Sabbath School.

2008 – present – senior teacher – Nyamaiya Secondary. School

2004 – 2008- Head of department – Guidance and counseling Adventist
Youth patron, music trainer Nyamaiya Secondary school.

2002, 2005, 2007, 2010 – Presiding Officer, Electoral Commission of Kenya

1998 – 2002 – Acting Deputy Head teacher, Ntana Secondary school.

1993 – 1997 – Boarding Teacher, Ntana Secondary school

HOBBIES.

Traveling, Sports, Drama and Music, Socializing with others, attending Church fellowship and Community development activities.

Other courses, workshop and seminar attended

2010 – Human Resource Management workshop African Population Consult –

Makerere University

- Project planning workshop – Kampala International University

- Election monitoring and Evaluation – Kampala International University

2008 – Peer Counseling workshop

2007 – 2008 – APHIA II NYANZA Project – schools programme.

2005 – Geography and CRE Insets.

2004 – Malaria, HIV/ AIDS & TB prevention and control (Merlin & Kenya government)

2002 – Guidance and counseling

1989 – National Youth Service

REFEREES

1. Principal Nyamaiya Secondary school
P.O Box 683, 40500

Nyamira, Kenya.

2. Pastor Ezekiel Mouko
Nyamira Conference

P.O Box 515, 40500

Nyamira, Kenya



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