

**THE INFLUENCE OF SCHOOL-BASED FACTORS ON STUDENTS' ACADEMIC  
PERFORMANCE OF GEOGRAPHY IN SECONDARY SCHOOLS IN NGONG  
DIVISION, KAJIADO COUNTY, KENYA.**

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**MARIST INTERNATIONAL UNIVERSITY COLLEGE  
A CONSTITUENT COLLEGE OF THE CATHOLIC UNIVERSITY OF EASTERN  
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**MARCH, 2022**

## **DECLARATION AND RECOMMENDATION**

I hereby declare that this Research Project is my original work and that it has not been submitted for an award of a degree in any other university except Marist International University College.

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## **DEDICATION**

This study is dedicated to my family; My late Father; Thokozani Kafatsa and My Mother; Roseby Bandawe, siblings; Damiano Kafatsa, Alice Kafatsa, Hope Kafatsa, Matiki Kafatsa, my late beloved sister; Deborah Kafatsa, all my relatives, friends, colleagues, teachers, formators and others for their support, care, love and help in whatever way they have contributed in my Life.

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## **THE ABSTRACT**

Geography is regarded to be one of the important academic disciplines world-wide. Its general objective in some countries is to achieve Sustainable Developmental Goals (SDGs) for economic growth. As a discipline, Geography offers various career opportunities in the society. For one to achieve these career opportunities, one has to pass the subject with good grades. For a number of years, Geography has been one of the subjects that students have not been performing well in secondary schools worldwide. This prompted the researcher to study some of the factors that might have contributed to poor academic performance of students in Geography. The purpose of the research was to study the influence of school-based factors on students' academic performance of geography in secondary schools in Ngong division, Kajiado county, Kenya. It was guided by the following objectives: to find out the influence of teaching and learning resources on the students' academic performance of Geography in secondary schools; to examine the influence of teacher adequacy on the students' academic performance of Geography; and to evaluate the perception of students and teachers towards Geography in Secondary Schools. The study used descriptive survey design and adopted the quantitative approach. The study enlisted 125 respondents comprising 113 students, and 12 teachers drawn from Ngong Division, Kajiado County. Statistical Program for the Social Sciences (SPSS) version 25 was used to analyze the data. Thematic structure was equally used to analyze the opinions of the respondents. The study established that most schools have some basic teaching and learning resources such as Geography maps, the library, and textbooks which most teachers and students used during the teaching and learning of Geography. Similarly, the study also established that most schools had Geography teachers who were qualified. The study recommended that students should be working hard and improve their attitude towards Geography. Through such actions they will improve their academic performance in the subject. The study recommended that teachers and administrators take students for field trips so that they learn from experience. Geography teachers were recommended to be awarding the best performing students in Geography to motivate others and keep Geography an interesting subject. The study also recommended that School Administration in collaboration with the Government need to build Geography laboratories in schools so as to provide a conducive environment for teaching and learning. The study concluded that the Government should train many Geography teachers and motivate them through promotions.

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## **CHAPTER ONE**

### **1.0 INTRODUCTION**

This chapter presented an overview of the influence of school-based factors on students' academic performance of geography in secondary schools in Ngong division, Kajiado County, Kenya. The chapter provided the background of the study, the statement of the problem, the purpose and the objectives of the study, the research questions, justifications of the study, limitations of the study, the scope and delimitations, conceptual and theoretical frameworks, operational definitions of key terms and organizations of the study.

### **1.1 Background of the Study**

The term Geography has been defined by several authors at different times. Geography refers to the study of places and the relationships between people and their environment (National Geographic Society [NGS], 2021). Geographers explore both the physical properties of Earth's surface and the human societies spreading across it. They also examine how human cultures interact with the natural environment and the way locations and places can have an impact on people. Therefore, Geography seeks to understand where things are found, why they are there, and how they develop and change over time (NGS, 2021).

Geography as a discipline has several importance to people. According to Child ventures (2016), Geography helps one to know and understand the nation and the world in which he or she lives in. Geography also gives an understanding of international matters, multicultural concerns, and environmental matters. One learns to read maps, interpret local and global information, and understand international networks for trade and other things. All this information allows him or her to integrate multiple concepts from humanities, social science, and science, and apply critical thinking to dealing with current issues at the local, national, and international level. But it starts

with allocating some hours or days per week for the study of different geographical aspects in the education system (Childventures, 2016).

“Geography also provokes and answers questions about the natural and human worlds, using different scales of enquiry to view them from different perspectives. It develops knowledge of places and environments throughout the world, an understanding of maps, and a range of investigative and problem-solving skills both inside and outside the classroom. As such, it prepares pupils for adult life and employment. Geography is a focus within the curriculum for understanding and resolving issues about the environment and sustainable development. It is also an important link between the natural and social sciences. As pupils study geography, they encounter different societies and cultures. This helps them realize how nations rely on each other. It can inspire them to think about their place in the world, their values, and their rights and responsibilities to other people and the environment (Maude, 2010).”

Having seen the importance of Geography, many countries have adopted it as a subject in their education curriculum. Lauglo & Maclean (2005) state that the Kenyan curriculum places Geography subject among humanities alongside History, Christian Religious Education, and others. Kenyan National Goals of Education indicates that Geography as a subject has the goals of ensuring environmental awareness and sustainability, enabling Kenyan citizens to understand the cultural, social, and industrial environment of the world, ensuring the protection of the natural environment at local, regional, national and international scales, protecting the planet as the global heritage and finally for intellectual development (Nyamoti, 2020).

Geography is a fundamentally interdisciplinary subject. It is one of the few disciplines that encompass very different ways of knowing from the natural and social sciences and the humanities. Geographers are therefore uniquely equipped to understand and address critical problems facing the world. Geographers are motivated by issues such as social and environmental justice and the efficient, equitable and sustainable use of resources.

One of the major parameters used to measure educational output is performance in examinations. This performance is however achieved after the various inputs into the educational process undergo the educational production process. These education inputs used in the education process include but are not limited to the student, the teacher, teaching and learning resources, the

school facilities and the school environment. Notably, a healthy interaction of the given inputs results in a good performance (Hanushek, 1979).

Good performance in both internal and external examinations in any subject creates an academic discipline commitment and desire to pursue the subject to a higher level for career purposes. Since success is measured by the ability of a student to pass the final examination, Gibbs et al., (2007) state that average performance in any subject would be detrimental to the student from opting it in the subject choices. Students often benefit from the teachers' attitude to the subject especially the coaching that is meant to ensure the student achieves or scores high marks in a subject.

Several factors have been studied by several scholars that affect and influence the academic achievement of learners worldwide. Naqvi & Hijazi (2006) studied that students' academic performance of Geography in India is associated with their profile such as their attitude towards class attendance, time allocation of studies, parent's level of income, mother's age and mother's education. Beaumont-Walters & Soyibo (2001) elaborated that students' academic performance of Geography is very much dependent on the socio-economic background (SEB). Winston et al., (2002) focused on students' impatience as one of the factors that influence their academic performance.

Joseph (2015) in his study conducted in Tanzania cited that in European countries, apart from school location affecting students' academic performance, socioeconomic differences in countries such as Belgium, Finland, Germany, Greece, Iceland, Ireland, Israel, the Netherlands, Poland, Sweden, the United Kingdom and the United States also affect students' academic performance of Geography. The study indicated that the variation in academic performance reflected differences in the educational opportunities available in rural and urban areas, The study

concluded that the characteristics of these locations, such as population density, distribution of labour markets, and the extent to which urban and Sub-urban areas are populated by individuals from different backgrounds.

Anlimachie (2019) in his study, understanding the causes of students' weak performance in geography at the WASSCE and the implications for school practices: a case of two Senior High Schools in a rural district of Ghana found out that insufficient teaching and learning resources and limited exposure to practical and fieldwork affected students' academic performance of Geography. Similarly, Mukondeleli (2018) did a study on teaching of geography mapwork in Grade 12: A case of Nzhelele West Circuit in Vhembe District in South Africa and found out that poor mathematical abilities and few geography teachers affected students' academic performance in Geography.

According to Kenya National Examinations Council (KNEC, 2015) Geography as one of the elective subjects in the Kenyan secondary school curriculum has been noted that its performance in KCSE has been comparatively declining in relation with other humanities such as Christian Religious Education (CRE) and History and Government. Kojweke (2013) did a study on factors influencing performance in Geography in KCSE in selected secondary schools in Migori District, Kenya. The study found that the available physical facilities, teaching/learning resources, qualifications of Geography teachers, methods of teaching, preparation of the teacher through pre-service, in-service, parental involvement in school activities and the general assistance the school principals' offer to Geography teachers determine students' academic performance. From the aforementioned, the current study focused on the influence of the school-based factors affecting students' academic performance of Geography in Ngong Division, Kajiado County, Kenya.

## **1.2 Statement of the Problem**

Geography is one of the subjects in the secondary school curriculum whose aims and objectives have been derived from the national goals of education of Kenya. When the geography syllabus is covered well and its content taught according to the national goals of education, it is expected that the learner will be able to acquire knowledge and skills during classroom interactions. The practical activities will also enable him/her prepare for a career in life as well as pursue further studies. The teaching and learning of Geography have, however not met its objectives in terms of realization of national goals of education as stipulated in the Geography syllabus due to the way it is taught (Kipkoge, 2016).

In recent years, the decline in educational outcomes has affected an individual's achievement and aspiration of the economy of many countries in the world (Yeung, 2015). The problem of poor performance in arts subjects such as Geography is of great concern to the governments, the educators, parents, and the world as a whole. According to the report of Kenya National Examinations Council (K.N.E.C, 2016), there is a continued poor performance in Geography which is attributed to several factors including students' attitude towards Geography, teachers' attitude towards students' abilities, inadequate teaching and learning resources and poor teaching methodologies and inadequate teachers in Kenya.

According to Gopsill (2013), students face various challenges in the process of learning Geography. These problems are either internal that is within themselves or external that is from other sources. Wekesa (2014) conducted a study on school-related and intrinsic factors influencing the perception of students in selecting Geography in Kiminini Zone, Transzoia County. He found out that students choose to study Geography out of their convictions. The study also found out



that because of peer influence, parental and sibling influence, teachers influence and available learning resources, students' choice of Geography was determined.

Nyamwaka (2017) did a study on factors affecting the performance of Geography in public Secondary schools in Nyamira County, Kenya. The study found that inadequate teaching and learning resources, teachers' attitudes and teaching methodologies affected students' academic performance. Tati (2021) did a study on factors influencing the teaching and learning of geography in public secondary schools in Ngong Division, Kajiado county, Kenya. The study found that teaching methodologies, teachers' and students' perception of Geography and up to date and adequate teaching and learning resources influenced the teaching and learning of Geography. In retrospect, no study has been done on the influence of school-based factors affecting students' academic performance of Geography in secondary schools in Ngong Division, Kajiado County.

Students' academic performance of Geography in Ngong Division for the past years that is 2016, 2017, 2018 and 2019 has had a mean score below 5.0 which is the mean grade of C plain. Little improvement was made in the year 2020 as the mean score reached 5.25. Cumulatively, students' academic performance of Geography in Ngong Division has not been that good. The results of the past five years are summarized in table 1.0 below.

*Table 1.0 KCSE Performance of Geography in Ngong Division, Kajiado County, Kenya.*

<b>Years</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
<b>Mean Score</b>	3.83	4.61	3.86	4.55	5.25

*Source: Education Office, Ngong Division (July 2021).*

Table 1.0 showed the mean scores of Geography in the past five past years. The fluctuating performance of the subject as shown in the table has raised a lot of concern as to why Geography has a dismal score. This tendency led various stakeholders to be in the quest to understand and

know the root cause of the problem. Therefore, this study aimed at investigating the influence of school-based factors affecting students' academic performance of Geography in secondary schools in Ngong Division, Kajiado County, Kenya.

### **1.3 Objectives of the study**

This study was guided by the following objectives;

- i. To find out the influence of teaching and learning resources on student's academic performance of Geography in Secondary Schools in Ngong Division, Kajiado County, Kenya.
- ii. To investigate the influence of the inadequacy of Geography teachers on student's academic performance in Secondary Schools in Ngong Division, Kajiado County, Kenya.
- iii. To assess the influence of students' and teachers' attitude on Geography academic performance in Secondary Schools in Ngong Division, Kajiado County, Kenya.

### **1.4 Research Questions**

The study was guided by the following research questions:

- i. What are the influences of teaching and learning resources on student's academic performance of Geography in Secondary Schools in Ngong Division, Kajiado County?
- ii. How does inadequacy of Geography teachers influence students' academic performance of Geography in Secondary Schools in Ngong Division, Kajiado County?
- iii. How does teachers' and students' attitudes influence Geography academic performance in Secondary Schools in Ngong Division, Kajiado County?

### **1.5 The significance of the study**

The study focused on the influence of school-based factors affecting students' academic performance of Geography in Secondary Schools in the Ngong Division, Kajiado County, Kenya. The findings of the current study are of great importance to students, teachers, parents,

and the government administration. The findings will help parents and Government administration to understand how the teaching and learning resources, adequacy of Geography teachers and the perception of both teachers and students towards Geography influence the academic performance of students in Secondary Schools.

The findings of this research will help teachers provide the solutions to the challenges students face in learning Geography. The findings will help teachers implement effective teaching methodologies thereby helping students develop a positive attitude towards the subject.

### **1.6 Scope and Delimitation of the Study**

The study was limited to school-based factors influencing students' academic performance of Geography despite the fact that there are other factors influencing the academic performance of Geography. Data was collected through questionnaires. Geography teachers and students from three Secondary Schools were selected randomly out of the twenty Secondary Schools in the Ngong Division, Kajiado County. The respondents from these schools were Geography students, and Geography teachers. These respondents were selected because of their experience in Geography. Therefore, their Geographical experience facilitated the study of the variables in this study. These variables were teaching and learning resources, teacher adequacy, and students' and teachers' attitude towards Geography.

### **1.7 Conceptual Framework**

The conceptual framework of this study illustrated the relationship between the independent variables and the dependent variables. The independent variables include teaching and learning resources, teacher inadequacy and teachers' and students' attitudes towards Geography. The dependent variable is academic performance of Geography.

### 1.7.1 Independent Variables

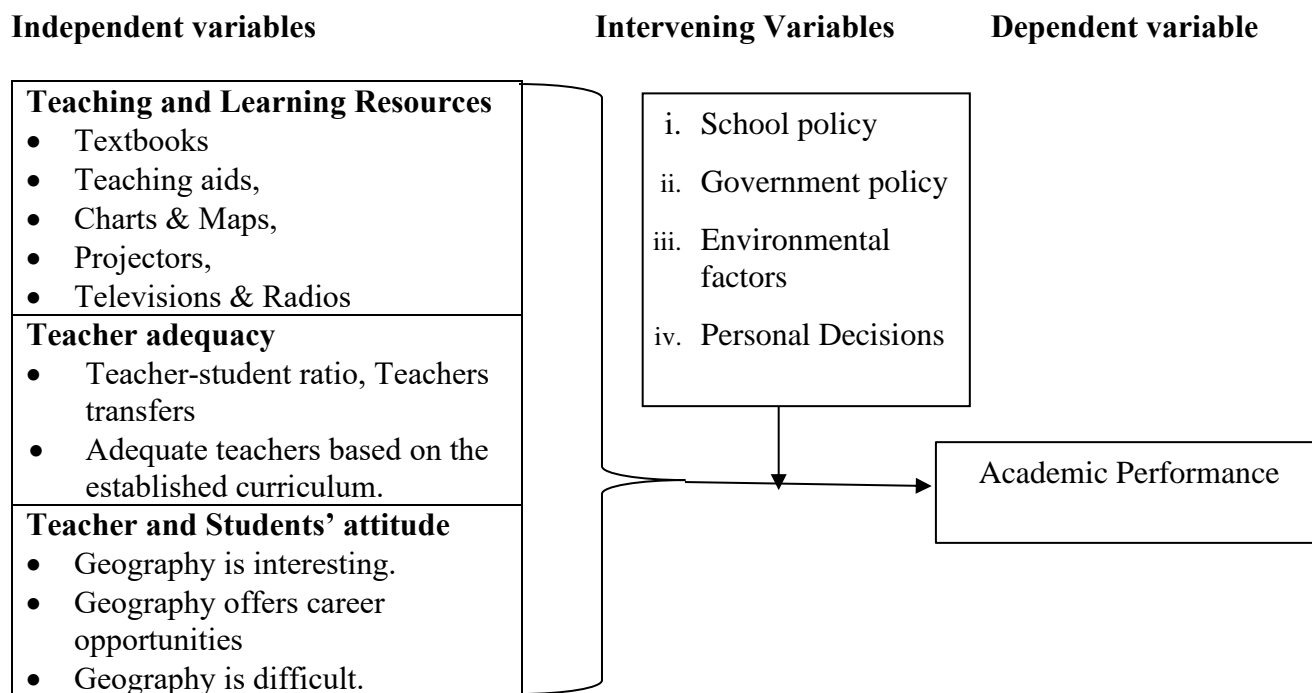
An independent variable is defined by Thomas (2020) as the variable that is changed or controlled in a scientific experiment. It represents the cause or reasons for an outcome.

### 1.7.2 Dependent Variable

A dependent variable is what is measured in the experiment and what is affected during the experiment (Kendra Cherry, 2019). The dependent variable responds to the independent variable. It is called dependent because it depends on the independent variable. Therefore, this research conceptualized two variables used in scientific research is independent variables and dependent variables.

### 1.7.3 Intervening Variable

This is an entity and hypothetical which is influenced by an independent variable and in turn influences the dependent variable (Pam, 2013). The conceptual framework used in this study is presented in figure 1 below;



**Figure 1.:** Conceptual framework showing interrelationship among variables

The conceptual framework above showed the influence of school-based factors on students' academic performance of Geography. The variables were teaching and learning resources, teacher inadequacy, and teachers and students' attitudes towards Geography. The conceptual framework indicated that teaching and learning resources such as teacher reference books and guides, student course books, teaching aids, laboratory, maps, radios, television, computers and projectors influence the student's academic performance in Geography. In addition, teachers' adequacy influence students' academic performance in Geography. A positive attitude towards geography by teachers and students improves the academic performance of the subject. If the opposite holds, the academic performance of Geography would be negatively affected.

### **1.8 Theoretical framework**

According to Trochim (2017) & Butlett (2020) a theoretical framework consists of the concepts that are relevant to scholarly literature which are used for a particular study. A theoretical framework must, therefore, be able to demonstrate an understanding of theories and concepts that are relevant to the topic of the research that relates to the broader area of knowledge being considered.

The first theory which was used in this research is Maslow's hierarchy of needs for learners (Maslow, 1943). The theory explains certain needs that must be met before higher-level needs are met. This theory can be used to motivate learners in a classroom setting. Understanding and executing Maslow's hierarchy is of the best interest for both teachers and learners. The teacher can adopt the theory to structure the learning environment. This is done to meet the students' needs such as safety, sense of belonging, and self-esteem.

The theory advocates that for learning to be fully successful the teacher has to ensure that lighting, space, ventilation, and drinking water among other basic things are available in the

classroom and school environment. These basic needs help learners to concentrate during lessons and other extra-curricular activities. The second level in the hierarchy of needs principle is on the safety needs; learners should not only feel physically safe in a classroom but also emotionally and psychologically safe. It is also vital for learners to feel that they are loved and belong, for them to be able to identify with other students and feel that they are important in the group.

The theory further states that the learner's self-esteem and self-confidence are what help learners to be more receptive to learning. Students who have acquired self-confidence motivate other weak students hence promoting a positive attitude towards that subject. It should be noted that this theory did not explain more on how the students can work in groups to improve their academic performance. Therefore, to increase the self-esteem of the learners, the teachers need to involve the learners in activities that promote peer-teacher and peer-peer assessment activities.

This study was also guided by the Social Learning Theory established in 1977 by Albert Bandura. The theory suggests that modelling, imitation and observation play a primary role in the learning process. Bandura states that from observing others, one forms an ideal on how new behaviours are performed. For example, when students are finding out geographical features on a map, there is a need to develop a skill of observation. To develop the skill of observation, students need to go out of the classroom and have a direct interaction with the concepts they are learning.

Furthermore, students can be put in groups so as they can learn from each other. When they sit together and analyse different geographical features, for example on map reading, they can learn various skills from each other. Social Learning Theory state that, for effective modelling, students need to pay attention to relevant elements in the learning environment. Therefore, since Geography studies the environment, it requires more interactive teaching and learning activities.

The other concept reviewed in Bandura's theory is about attention. If a student fails to pay attention during the learning process probably due to lots of distractions, he or she may end up losing out on the concept and teaching and learning may not take place effectively resulting in poor performance. Therefore, for students to acquire the skill of observation fully in their learning process, Bandura's theory supports that, students need to be motivated to pay attention and to imitate the behaviour that has been modelled. In this regard reinforcement and punishment play an important role in motivation.

Although this theory applies to the teaching and learning of Geography among secondary school students, the theory has both strengths and weaknesses. The primary strength of this theory is that it is flexible to explain the difference in a child's behaviour and learning. The environmental or societal aspect of Bandura's theory sometimes termed as social learning theory stating that if there is a change in the child's environment, the child's behaviour may change. For example, a child may have trouble following instructions in a relaxed environment, but have no problems with the stricter school setting. This gives the child multiple modes of learning, either through observation or experience.

On the other hand, the view of this theory as neglecting to consider the child's development, across all of the domains, is a potential weakness. Although not every child matures at an identical rate, some of the standard milestones and markers may still occur regardless of the environmental setting. For example, a child who is influenced by the environment to be shy, he or she may overcome shyness after reaching a certain level of maturity. Therefore, this study was guided by these theories to establish the school-based factors influencing students' academic performance of Geography in secondary schools in Ngong Division, Kajiado County.

## 1.9 Operational definitions of key terms

The following were the definitions of key terms as being used in this study.

**Factors:** Are facts, circumstances, or influences that contribute to a result.

**Education:** A formal process of giving or receiving systematic instructions especially at the school level.

**Secondary schools:** School level ahead of primary level and before tertiary level that help an individual attain skills, values, knowledge for living successfully in society.

**Affect:** changing or impacting on something to behave differently from usual.

**Effect:** an outcome or a result caused by something and it can be either positive or negative.

**Academic performance:** state of measuring student's achievement through assessment at school level.

**Attitude:** is a psychological tendency that is experienced by evaluating a particular entity with a degree of favour or disfavour.

**Teaching:** the process by which a teacher or a more knowledgeable other transmits knowledge, skills, values, and attitudes as related to Geography.

**Geography:** This is the discipline of study learners undertake in secondary school to study the lands, features, inhabitants, and phenomena of the Earth and other planets.

**Teaching and learning resources:** are any collection of materials including living and non-living objects and human and non-human resources that a teacher may use in teaching and learning situations to help achieve desired learning objectives.

## 1.10 Organization of the study

The study had five chapters. Chapter one was an introduction of the whole study which included the background to the study, statement of the problem, the objectives, research questions,



purpose of the study, scope and delimitations of the study, significance of the study, conceptual framework, theoretical framework, operational definitions of key terms and organization of the study. Chapter two consisted of a literature review of previous publications relevant to the study. It was categorized under the following theme; the influence of teaching and learning resources on the students' academic performance of Geography, the influence of Geography teachers on the students' academic performance of Geography, the influence of teachers' and students' attitude on the students' academic performance of Geography and summary of literature review. Whilst chapter three had research methodology, research design, target population, sampling techniques and sample size, research instruments, validity and reliability of the research instruments, data collection procedures and analysis techniques. Chapter four involved data analysis, interpretation and discussion of research findings. Finally, chapter five provided a summary of findings, conclusion, recommendations and areas for further research.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter reviewed literature on school-based factors influencing the academic performance of geography students in secondary schools. According to McCombes (2021), a literature review refers to a survey of scholarly sources on a specific topic. This survey provides an overview of current knowledge, allowing the researcher to identify relevant theories, methods and gaps in the existing research. The review is categorized under the following sub-headings: teaching and learning resources and students' academic performance, teacher adequacy and student's academic performance, teachers' and students' attitude towards geography and summary of the literature review.

#### **2.1 The Influence of Teaching and Learning Resources on Students' Academic Performance of Geography.**

Teaching and Learning Resources (TLRs) are the tools that are used by teachers and instructors as well as students within a school environment to facilitate teaching, learning and understanding of concepts. They are the educational materials that are used within the classroom setting to support the learning objectives, as set out within the lesson plans. Within the education system, there has been the use of TLRs since ancient times. TLRs make learning real, practical and pleasurable for the students. The teachers also make use of TLRs to illustrate or reinforce a skill, viewpoint, perspective or idea among others (Kapur, 2019).

The teaching and learning resources provide a range of experiences to the learners. When these resources are used adequately, they motivate learners towards the acquisition of education (Kapur, 2019). When the teachers are unable to make use of effective teaching and learning

resources, then the students experience setbacks. It has been studied that student studying in class five are unable to read class three textbooks. This is also the result of a lack of appropriate teaching and learning materials (Kapur, 2019). Therefore, to enrich the system of education and to enable individuals to achieve academic goals, it is essential to implement effective teaching and learning resources.

Globally, students' academic performance is a result of a variety of factors such as the school environment as well as teaching and learning resources. In developed countries like the UK, USA, Germany and France, the government allocates enough funds for the education sector to deal with and ultimately combat the causes of poor academic performance in schools (Bušljeta, 2013). The funds are therefore used in ensuring enough teaching and learning materials such as textbooks among others. Bizimana & Orodho (2014) in their study on Teaching and learning resource availability and teachers' effective classroom management in secondary schools in Huye District, Rwanda found out that technology was been incorporated as a major resource material for use in teaching and learning of Geography.

Laurillard (2013), conducted a study on effective teaching, and learning technologies in Botswana. The study found that lack of relevant teaching materials caused dismal students' academic performance of Geography. The study further found that students' poor academic achievement was mainly caused by lack of relevant Geographical textbooks and other print materials such as publications and handbooks, maps among others. The government of Botswana is committed to ensuring that the Ministry of Education and Skill Development receives a lion's share, both recurrent and development budget (Mphale & Mhlauli, 2014). This study only focused on the relevance of teaching and learning resources and did not address their adequacy which this study sought to establish.

According to Agosiobo (2007) in his book titled “Effective teaching in schools: Theory and practice” outline that the use of teaching resources by teachers is important because they motivate learners to learn. Teaching resources offer stimulus variation and assist in sustaining learners’ attention throughout the lesson for example, after watching a film in a class or listening to the radio. He further stated that learning resources clarify information, and offer a clear explanation to complex concepts and stimulate lively class discussion. In addition, they also challenge independent thinking, especially when used individually in an assignment or as a class activity. Therefore, adequate use of teaching resources gives the learner a practical experience which can help in the selection of learning concepts more clearly. This book of Agosiobo (2007) only focused on the use of teaching resources and did not address their influence on the students’ academic performance. Therefore, this study sought to find out the influence of teaching and learning resources on the students’ academic performance.

Makori & Onderi, (2014) did a study on examining the teaching and learning resources related challenges facing small and medium-sized public secondary schools in Kenya: A comparative analysis. They found out that institutions with adequate teaching/learning resources such as textbooks, charts, maps, audiovisual and electronic instructional materials such as radio, tape recorder, television and videotape recorder stand a better chance of performing well in examination than poorly equipped ones. This implied that poor academic performance could be attributed to a lack of enough teaching materials and equipment, thus the need to carry out this study to establish the validity of this statement. Even though this study focused on Examining the teaching and learning resources related challenges facing small and medium-sized public secondary schools in Kenya, it did not specify on the up-to-date teaching and learning resources which this current study sought to find out.

Okongo et al., (2015) assessed the effects of Teaching and Learning Resources on the implementation of inclusive education in Pre-School Centers in Nyamira North Sub-County. The study found that teaching/learning resources also include community involvement, regular teachers for both special needs students and the average students which influence student's performance.

Ong'amo, Ondigi, & Omariba (2017) did a study on the Effect of utilization of biology teaching and learning resources on students' academic performance in secondary schools in Siaya District-Kenya. Their findings are in agreement with the findings of UNESCO (2008) report that teaching and learning materials such as textbooks, teaching aids (chalk, chalkboard) and stationaries influence students' academic performance if they are well utilized by both teachers and students. These studies did not assess how inadequate teaching and learning resources affect students' performance in Ngong Division which this study seeks to establish.

## **2.2 The Influence of Teacher Adequacy on Students' Academic Performance of Geography.**

The success of the educational system is determined by the availability and adequacy of teachers. According to Santiago (2002) to identify the adequacy of teachers in the learning environment, the student-teacher ratio (STR) needs to be determined which will account for the number of students a single teacher handles in a class. He further outlined that the STR method will make it simple for teachers to be allocated a specific number of students in the class at any educational level. Additionally, the method is helpful in that it can determine the number of students that need to be enrolled in any learning institution as well as the manpower that is required for a given number of students.

According to Rosehotz & Simpson (2002), contemporary education thought holds that one of the pivotal causes of unsteady development in many countries is the inability to adequately staff schools with teachers. Similarly, Tyke & O'Brien (2002) outline that schools are plagued by a shortage of teachers due to an increase in students' enrolment, teacher attrition and retirement leading to poor academic performance in subjects such as Geography. A similar situation was observed in Australia by Klaus & Dolton (2012) who suggested that the nation needed to hire at least one million teachers over the next ten years because the inadequacy can influence students' academic performance of Geography among other subjects. Therefore, lack of enough teachers in many secondary schools is a global issue and Kenya is not exempted.

In Tanzania, students' academic performance of Geography is dismal, and the quality of performance is said to be influenced by inadequate teachers as well as low syllabus coverage among other factors (Mdee & Donatha, 2015). They further recommended that, for the Tanzania to improve the quality and the academic performance of the students, teacher students' ratio need to be addressed together with employing more qualified teachers. According to Mosha (2014), most of the secondary schools in Tanzania have inadequate teachers which have led to poor academic performance in many subjects including Geography.

A survey conducted in Kenya by United Nations Educational, Scientific and Cultural Organization (UNESCO, 2015), showed that the average ratio in 162 sampled schools was 58:1 against the requirement of 40:1. Such class sizes in public secondary schools make it difficult for teachers to teach lessons effectively as compared to their counterparts in private schools who handle a smaller number of students. Okongo et al., (2015) observed that students will be considered passive in the class due to their large number as a result of the teaching methods that

will be employed by the teacher in taking care of the big population. Therefore, teacher adequacy is a significant factor influencing students' academic performance.

Since the introduction of free primary and subsidized secondary education in Kenya, the ratio of teacher to student has escalated from the recommended range of 1:40 to 1:60 (MOEST, 2010). The teacher-student ratio factor is a major contributor to the compromised results of the students. UNESCO (2012) report indicates that Kenya faces a serious shortage of qualified teachers which influences the performance of schools. The shortage of teachers is, therefore, a significant factor that is impinging on the students' academic performance of Geography in KCSE and thus the need for this study.

### **2.3 The Influence of Teachers' and Student's Attitudes Towards Geography on Students' Academic Performance of Geography.**

Understanding students' attitudes is important for supporting their achievements and interest in a particular discipline. Various research studies suggest that students are motivated to learn if the educational content is interesting, connected with everyday life and useful for their future development. One's attitudes can be influenced by many factors, such as previous experience and social influences among others.

Biddulph & Adey (2014) did a study on the investigation of students' enjoyment and perceived usefulness of geography in England. The study found out that strategies such as group work, practical approaches to learning geography for example, fieldwork with geographical equipment and using information and communication technologies are tools that have enhanced students' enjoyment of geography. They also found out that geography was perceived as useful for students though they were not able to explain why geography is useful for them. The gap on

this study is that it was done in Europe, while the current study was done in Ngong Division, Kajiado County, Kenya, Africa.

Korkmaz & Karakus (2019) investigated the impact of e-learning methods on student attitudes towards their Geography course. They found out that e-learning positively influenced students' attitudes towards Geography in comparison with traditional educational methods. The study also found out that there was a positive correlation between students' attitudes towards geography and their ability to think critically. Korkmaz & Karakus study only focused on teaching method as an influence of student's attitude towards geography while the current study looked at other school-based factors that influence students' attitude towards the subject.

Wekesa (2014) carried out a study on an investigation into school-related and intrinsic factors influencing the perception of students in selecting Geography in Kiminini Zone, TransZoia County, Kenya. The study found out that students' choice to do Geography solely depended on their convictions. Some made decisions through influence from their friends, parents, teachers, content and performance. She recommended that teachers need to use a variety of teaching methods to accommodate all students with different interests and backgrounds in Geography. Wekesa further recommended that teachers need to encourage and motivate students by involving them during lessons to help them understand Geographical concepts and have a positive attitude towards the subject. Even though this study was done in Kenya, it was not done in Ngong Division, Kajiado County which the current study did.



## **CHAPTER THREE**

### **RESEARCH DESIGN AND METHODOLOGY**

#### **3.0 Introduction**

This chapter discussed the research methodology and the research design which were used in the study. It included the area of study, the target population, sample size and sampling techniques, data collection and analysis techniques. The chapter also included the description of research instruments, validity of research instruments, data collection procedures and ethical considerations.

#### **3.1 The Research Design**

According to Shona (2019), research design is the process of questioning individuals on a certain topic or topics and then describing their responses. On the other hand, Creswell and Creswell (2017) also define a research design as a strategy of how researchers and investigators address the research objectives and questions.

The research design which was used in this study was the descriptive research design. According to Shona (2019) the main advantage of descriptive research design is that it accurately and systematically describes a population, a situation, and finally answer questions of where, when, and how. The descriptive research design which was adopted in this study aimed at investigating thoughts, actions and views of the respondents regarding the school-based factors influencing students' academic performance of Geography in secondary schools in Ngong Division, Kajiado County. The survey design also increased the validity and depth of the research, since the target population of this study was large.

### 3.2 Area of Study

The research study was carried out in Ngong Division, Kajiado County. This is an area that is characterized by both lower-class and middle-class citizens. The area is considered to have farmers and nomadic settlers commonly known as the Maasai. This area was suitable in carrying out the study on the school-based factors influencing students' academic performance of Geography in secondary schools.



*Figure 2: Map of Ngong Division, Kajiado North County (2021).*

### 3.3 The Target Population of the Study

The target population is defined as a set of elements that the study focuses upon and which the results obtained by the testing sample should be generalized (McLeod, 2019). The target population in this research study was all Geography teachers and all Geography students in all 56 secondary schools in Ngong Division, Kajiado County.

### **3.4 Sample Size and Sampling Technique**

According to Shaheen & Pradhan (2019), the sample size is a significant component of any empirical study. Sampling techniques are identifications of processes by which entities of a sample have been selected.

#### **3.4.1 Sample Size**

Anderson et al., (2017), defines a sample size as the process of choosing the number of observations to be included in a statistical sample. The sample size can also be defined as the number of subjects selected from a general population and considered as a representative of the whole population for the study (Shaheen & Pradhan, 2019). Berg & Lune (2017) outline that it is often impossible, extremely expensive, or rather impractical to collect data from all potential units of analysis covered by the research problem. Therefore, a sample of 120 students and 15 teachers was collected out of all students and teachers to represent 30% of the entire population of students and teachers in secondary schools in Ngong Division, Kajiado County, Kenya.

#### **3.4.2 Sampling Technique**

A sampling technique is a procedure that the researcher uses to select individuals, items, and subjects to study. The process of sampling involves non-probability and probability sampling methods (McLeod, 2019).

This study adopted simple random sampling procedure whereby the researcher selected three secondary schools within Ngong Division at random to ensure that there was an equal chance in selecting the schools. The respondents were obtained through random sampling to ensure that each unit in the population has an equal chance of being selected for the study. The researcher divided the students into strata by gender; boys and girls. The students in each stratum were numbered and the numbers was written on small pieces of paper and placed in different boxes.

Following this sampling technique, a required number of students was picked from each stratum for the study.

The researcher also used purposeful sampling in selecting Geography teachers from the schools. The selected schools represented the entire target population of all secondary schools in Ngong Division, Kajiado County. The researcher went to each of the schools and distributed the questionnaires to the respondents. The researcher was present as the respondents filled the questionnaires. The researchers also provided clarifications of questions to the respondents.

### **3.5 Data Collection Instruments**

Data collection instruments also referred to as research instruments are defined as tools that the researcher uses to collect data on the problem area being studied. These tools assist the research to get answers to the research questions (Nolfi, 2021).

The data collection instrument that was used in this study was the questionnaire. Bartolucci et al., (2015) defined a questionnaire as a prudently designed research instrument for collecting data directly from people. As part of quantitative research instruments, questionnaires are relevant in that, the format is easily understood by the respondents. They generate a large amount of data and provides enough time for the respondents to answer the questions.

The researcher designed questionnaires to have both open-ended and closed-ended questions. In closed-ended questions, the respondents were required to tick and indicate to what extent the individual respondent strongly disagreed, disagreed, undecided, agreed, or strongly agreed with the statement. In open-ended questions, the respondents were required to write their personal opinions in the spaces provided.

The researcher designed separate questions for student and teacher respondents though all the questions were generated from the three objectives. This enabled the respondents to provide

their personal opinion on each question. Both the teacher questionnaire and the student questionnaire had four sections: Section A, B, C, and D.

Section A contained the demographic information, Section B focused on the influence of teaching and learning resources on students' performance; section C comprised the influence of inadequate Geography teachers on students' performance, and section D focused on the influence of teachers' and students' attitude towards Geography on students' academic performance.

### **3.6 Validity of research instruments**

According to Dikko (2016) validity of research instrument refers to the extent to which the instrument measures accurately what it is intended to measure. To ensure content validity, the researcher sought assistance from the research experts, supervisor, and other lecturers who read through the work and made necessary corrections. To ensure that the questionnaires were valid, the response return rate was 95%. Out of 135 questionnaires distributed, 125 were returned. This implied that the respondents were able to understand the questions and were free to give their opinions regarding the topic under study.

### **3.7 Data collection Procedures**

Carlhed (2017) outlined that the data collection procedure is a process of administering research instruments to the respondents to collect information related to the research problem. While Swanson et al., (2018) stated that data collection is the gathering of specific information to provide facts. In this study the researcher obtained an authorization letter from the Deputy Principal Academics of Marist International University College (MIUC). The researcher visited the three schools to seek permission from the principals to carry out the research. He further booked for an appointment with heads of the Geography department to enquire when to administer

the questionnaires to the respondents. The researcher also explained to the respondents, the purpose of the study and assured them confidentiality of their responses to the questions.

### **3.8 Data Analysis Techniques**

Data analysis is defined as a technique that analyses both the qualitative data and quantitative data in an active and interactive process (Mihas, 2019). Durbarry (2017) states that data analysis is clearer and simple provided the researcher uses software such as SPSS among others. The researcher adopted SPSS software version 25 and Microsoft excel to calculate, organize, and analyze the collected data. Thematic structure was used to analyze opinions of the respondents. The analyzed data was presented in frequency distribution tables, charts, graphs, and percentages to show the findings.

### **3.9 Ethical considerations**

Ethical considerations are the principles and norms that direct one's behaviour and attitude. They are concerned with the morality and standards of conducting research (Lacey et al., 2015). The researcher followed ethical procedures by getting official permission from the school principals to conduct research in their schools. The researcher also gave the respondents the freedom to participate voluntarily and freely. The researcher requested the assistance of the head of the Geography department and Geography teachers to help distribute the questionnaires.

The researcher also acknowledged all sources of information of this study to avoid any form of plagiarism. All the work done was cited and referenced using the APA format 7th edition. The researcher assured confidentiality of the information the respondents gave. Finally, the researcher made sure that all the information gathered in the research study were used only for educational purposes.

## CHAPTER FOUR

### DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION

#### 4.0 Introduction

This chapter comprised the analysis and interpretation of data collected on school-based factors influencing students' academic performance of Geography in Secondary Schools of Ngong Division, Kajiado County.

#### 4.1 Response Return Rate

The study was conducted among the three Mixed Day Secondary Schools. The respondents were Geography students and teachers in three Public Secondary Schools of Ngong Division, Kajiado County. The response rate of the research was presented in table 2 below.

*Table 2: Questionnaire Return Rate*

Respondents	Questionnaires Distributed		Questionnaires Returned	
	<i>f</i>	%	<i>f</i>	%
Teachers	15	11	12	9
Students	120	89	113	84
<b>Total</b>	<b>135</b>	<b>100</b>	<b>125</b>	<b>100</b>

Table 2 shows that, out of the 135 questionnaires distributed in the schools 125 were returned by the respondents while 10 questionnaires went missing. This represents 93% return rate of the distributed questionnaires. The good return rate from the participants implied the reliability of the findings of this study.

## 4.2 Demographic Information

The study categorized the respondents according to their gender, age, type of school, year of study, teaching experience, and teaching qualification. The responses were identified and summarized as follows.

### 4.2.1 Gender of the Participants

The responses on gender were summarized as indicated in table 3.

*Table 3: Gender Distribution*

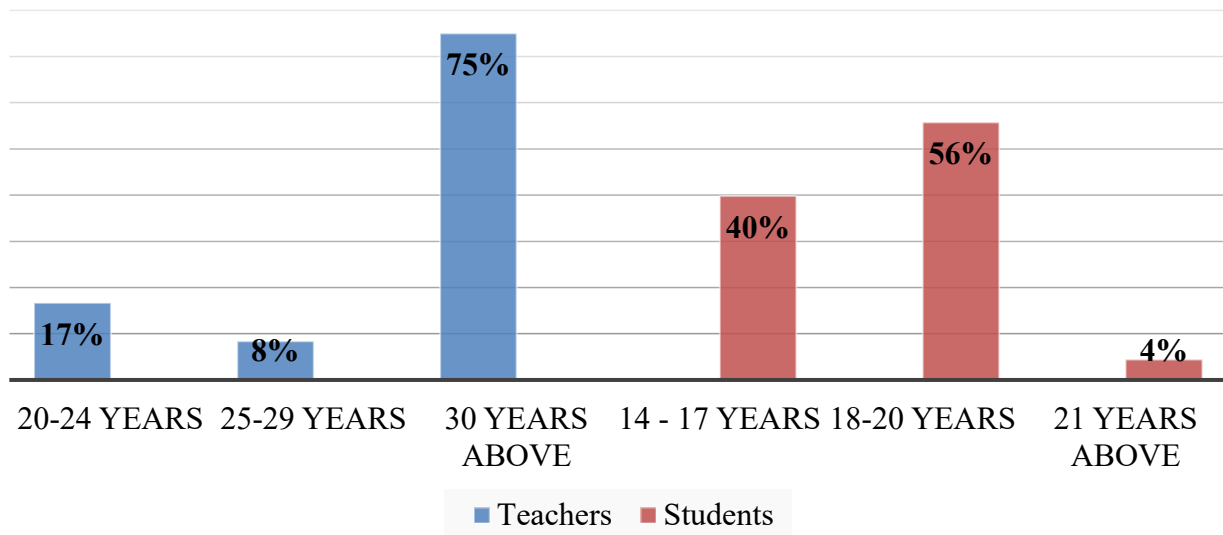
Gender	Geography Students		Geography Teachers	
	Frequency	Percentage	Frequency	Percentage
Male	66	58	4	33
Female	47	42	8	67
<b>Total</b>	<b>113</b>	<b>100</b>	<b>12</b>	<b>100</b>

The findings on table 3 indicated that there were more male students' respondents (58%) than female students (42%). On the other hand, female teachers were 67% and male teachers were 33%. This implied that both male and female students and teachers participated in the study. This gender disparity did not affect the outcome of the study in any substantial manner.

### 4.2.2 Age of Teachers and Students

The responses on age were summarized as indicated in figure 3 below.





*Figure 3: Age of Teachers and Students*

The findings on the age of participants were presented in figure 3 above. The findings showed that 17% of the teachers were aged 20-24 years, 8% were aged 25-29 years, and 75% of the teachers were 30 years and above. On the same figure, 40% of students were 14- 17 years, 56% were 18-20 years and 4% were 21years and above. According to Wobber et al. (2014) adolescence period enables a teenager to gain the ability to think systematically about all logical relationships within a problem. From the aforementioned, both students' and teachers' respondents were mature enough to understand the questions and draw conclusions.

#### **4.2.3 School Type**

Data was collected regarding the type of school that the respondents were sampled from. The findings were summarized and presented in the table 4.

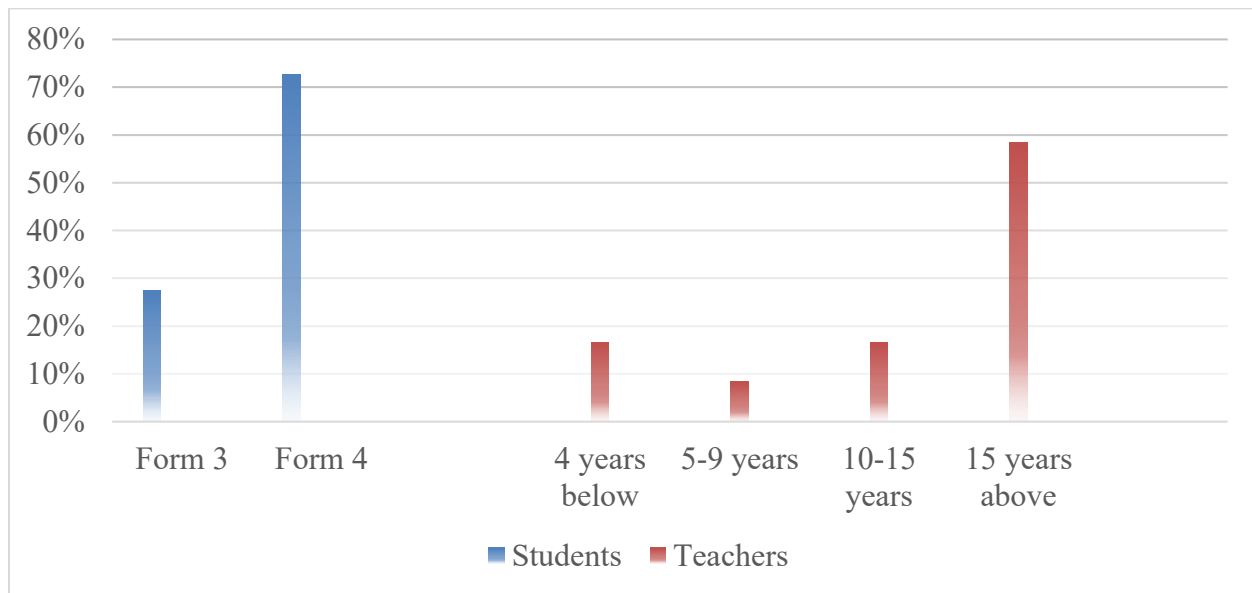
*Table 4: Students' and Teachers' School Type*

School Type	Geography Students		Geography Teachers	
	Frequency	Percentage	Frequency	Percentage
Public Mixed Day Secondary School	113	100	12	100
Boys Secondary School	0	0	0	0
Girls Secondary School	0	0	0	0
<b>Total</b>	<b>113</b>	<b>100</b>	<b>12</b>	<b>100</b>

The findings from table 4 showed that all respondents came from Mixed Day Secondary schools. This implied that most of the secondary schools in the study area were Public Mixed Day Secondary schools. These findings concurred with Chemiat (2020) who did a study on the school-based factors influencing academic performance in public secondary schools in Mt. Elgon Constituency, Bungoma County, Kenya. He found out that most of public secondary schools in Mt. Elgon constituency were public mixed secondary schools. His findings showed that 46.7% were mixed public day secondary schools, 40% for boys only while 13.3% for the girl's only secondary school.

#### 4.2.4 Students' Year of Study and Teachers' Teaching Experience

The findings on students' year of study and teachers' teaching Experience were presented in Figure 4 below.



*Figure 4: Students' year of Study and teachers' experience*

Figure 4 showed that 27% of the respondents were form three students while 73% of the respondents were in form four. This showed that majority of the respondents were in form four level. On teachers' length of service, the findings showed that 17% were below 4 years' experience, 8% were those between 5-9 years' experience, 17% were for those with and 10-15 years teaching experience while teachers majority 58% had 15 years of teaching experience. The findings in this study concur with those of Podolsky et al. (2019) who found out that teachers who gained much experience in teaching influenced their students to do better on measures of success beyond test scores. Therefore, lack of experience on teachers would impede effective teaching and learning of Geography in Mixed Day Secondary Schools.

#### 4.2.5 Teachers' Qualification

The responses on teachers' qualification were summarized in the table 5 below.

*Table 5: Teachers' Teaching Qualification Level.*

Responses	Geography Teaching Qualification	
	Frequency	Percentage
Certificate	0	0
Diploma	0	0
Degree	11	94
Masters	1	6
PhD	0	0
<b>Total</b>	<b>12</b>	<b>100</b>

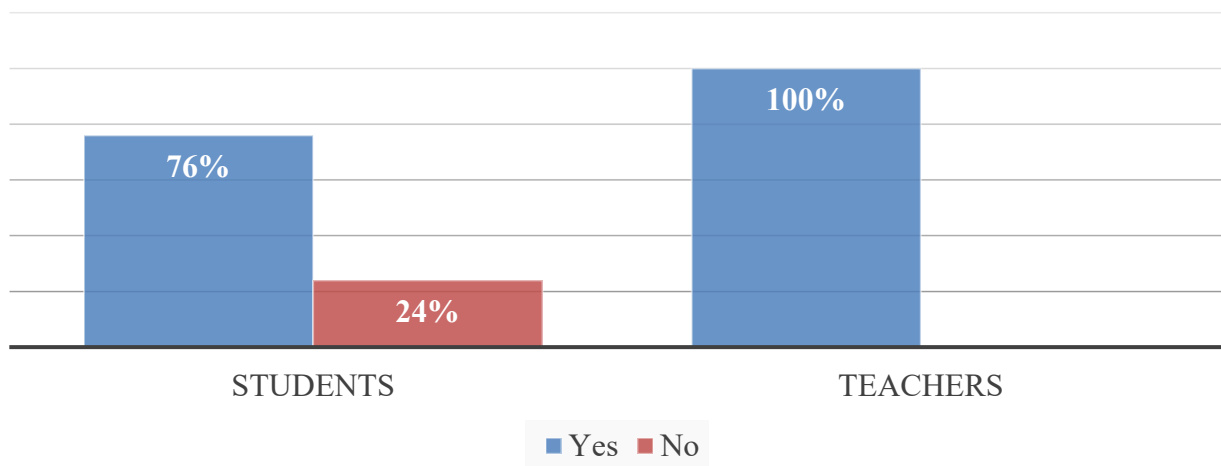
The findings on table 5 showed that 94% of the geography teachers who were respondents of this study were holders of Degree certificate while 6% were for master's degree certificate. These findings agree with those of Casian, Mugo & Mukamzipata (2021) who found out that educational qualification of a teacher led to the effectiveness of teacher' content mastery thereby improving students' grades. They concluded that the working experience of teachers was the key indicator in the promotion of schooling system where schools experience a high level of students' completion.

#### 4.3 Influence of Teaching and Learning Resources on Students' Academic Performance.

One of the objectives in the study was to find out the influence of teaching and learning resources on students' academic performance of Geography. The analysis of the variables which were raised on this objective were as follows.

#### 4.3.1 The School Environment and Teaching and Learning of Geography

The school environment plays a very important role on the effectiveness of teaching and learning process. The responses on the school environment and teaching and learning of Geography were summarized as shown in figure 5 below.

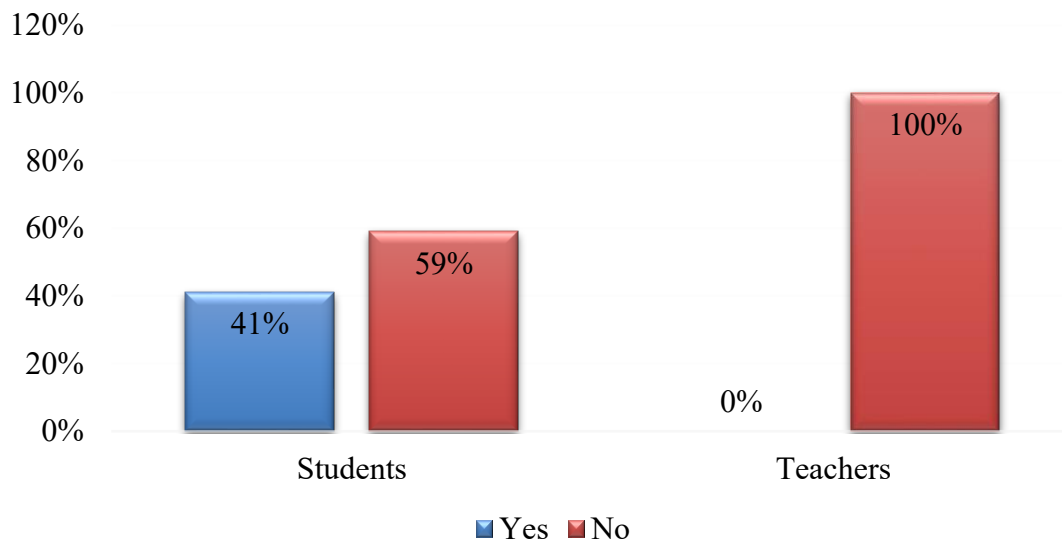


**Figure 5:** *The School Environment and Teaching and Learning of Geography.*

Figure 4 showed that, 76% of students said their school environment was conducive for effecting learning of Geography while 24% said that their school environment was not conducive. However, all teachers said their school environment was conducive for teaching and learning of Geography. The findings of the current study were similar with the ones of Chukwuemeka (2013) & Jay et al., (2021). They found out that several factors affecting learning ability were seating arrangements, light, noise, and the colour of the classroom. They indicated that students who had a positive learning environment were more motivated, engaged, and had a higher overall learning ability.

### 4.3.2 Availability of Enough and Updated Geography Maps

The responses on adequate and updated Geography maps were summarized in figure 6 below.



**Figure 6:** Availability of enough and updated Geography Maps

The findings on figure 6 showed that 41% of students strongly agreed that they had enough and up to date maps in their Schools while 59% were not in support of this. On the other side, all teachers strongly disagreed that maps in their school were not enough and up to date. Despite the fact that maps were not sufficient as indicated by the majority of students and teachers, both students and teachers made use of what they had. These findings concur with Fleming (2021) who outlined that studying maps and globes in Geography help students to learn much about a country, including information about its landforms, bodies of water, natural resources and climate.

### 4.3.3 Availability of Geography Laboratory

School laboratories help students and teachers enhance their learning and teaching as they aid in understanding the theoretical concepts of the subject which are taught in classrooms. The findings on the availability of geography laboratory in the study area were presented in table 6.

*Table 6: Availability of geography Laboratory*

Responses	Geography Students		Geography Teachers	
	Frequency	Percentage	Frequency	Percentage
Yes	0	0	0	0
No	112	100	12	100
<b>Total</b>	<b>113</b>	<b>100</b>	<b>12</b>	<b>100</b>

The findings in table 6 revealed that all (100%) students' and teachers' respondents indicated that there were no Geography laboratories in their schools. These findings agree with those of Tati (2020) who found out that 77 % of the respondents stated their schools had no geography laboratory. He concluded that absence of Geography Laboratory affects the effectiveness of teaching and learning of the Geography.

#### **4.3.4 Internet Use for Geographical Information.**

Internet is believed to be the reservoir of online resources which help the world in very many ways. One of the resources found on internet is geographical information. The researcher sought to find out whether students and teachers used internet to acquire more geographical information. The responses were summarized and presented in Table 7 below.

*Table 7: Internet Use for Geographical Information*

Responses	Geography Students		Geography Teachers	
	Frequency	Percentage	Frequency	Percentage
Yes	50	44	6	50
No	63	56	6	50
<b>Total</b>	<b>113</b>	<b>100</b>	<b>12</b>	<b>100</b>

The study revealed that 44% of the students stated that they used internet to access geographical information while 56% indicated they did not use internet as a learning resource. 50% of the teachers said they did not use internet for geographical information while the other 50% used internet as a resource. These findings disagree with those of Musumba (2019) who found out that learning institutions could not access ICT tools such as internet, computers, projectors among others. He concluded that lack of access was due to high cost of such tools and lack of skills from teachers.

Sharna (2019) outlined that internet plays a very vital role in education as the most popular search engines such as Yahoo, Google, YouTube among others offer an easy and instant reach to the vast amount of information in just a few seconds. Therefore, proper use of internet by students improves their retention rate and is also the source of vast geographical content for teachers.

#### **4.3.5 Well-equipped Library with adequate and updated Geography Materials**

The library is the repository of content used for studies in learning institutions. Respondents were asked whether their schools had a library with sufficient and updated Geography materials. The responses were presented in table 8 below;

*Table 8: Well-Equipped Library with Adequate and Updated Geography Materials*

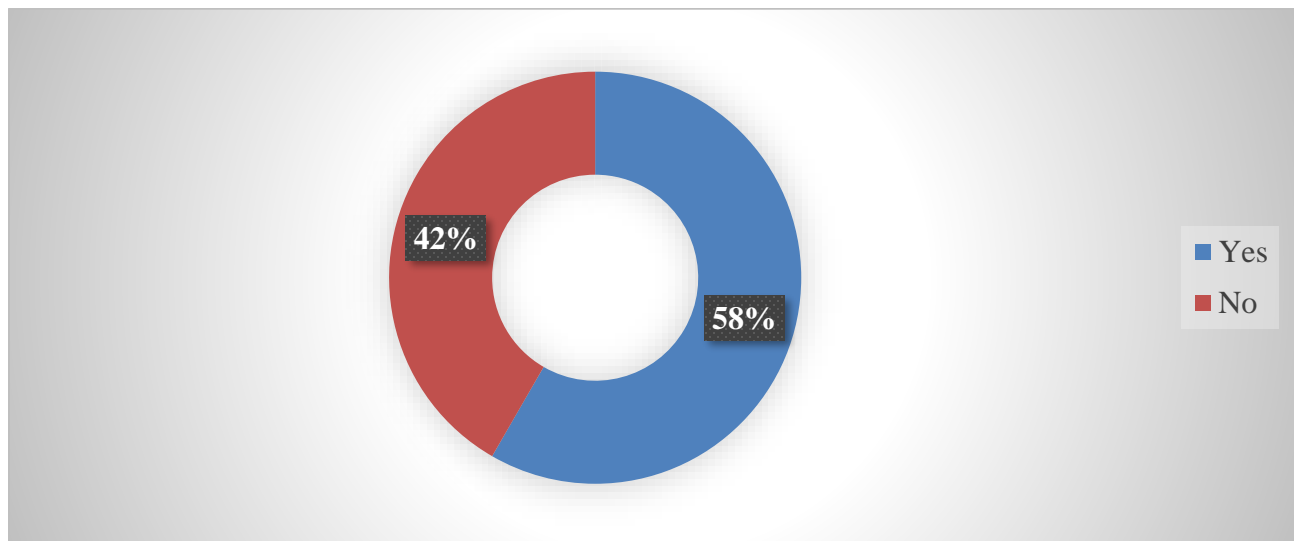
<b>Responses</b>	<b>Geography Students</b>		<b>Geography Teachers</b>	
	Frequency	Percentage	Frequency	Percentage
Yes	38	34	2	17
No	75	66	10	83
<b>Total</b>	<b>113</b>	<b>100</b>	<b>12</b>	<b>100</b>



Table 8 showed that, 66% of the students refuted that they had a well-equipped and up to date library with sufficient Geography materials while 34% of the students indicated that their schools had a library. Some of the students reported that the existing libraries had outdated Geography books and other Geography related materials. 17% of the teachers agreed that their schools had a well-equipped library, while 83% of the teachers refuted that their schools had a library with adequate and updated Geography materials. The findings are in-line with those of Tati (2021) who found out that many respondents indicated that their schools did not have the library. On the other hand, some respondents pointed out that their schools had libraries but with outdated teaching and learning materials such as books, maps, computers among others.

#### **4.3.6 Sufficient Geography Books for Teaching and Learning**

Teaching resources play a very important role in ensuring effective teaching and learning of students. Figure 7 showed the responses on the sufficiency of Geography books for teaching and learning in the study area.



**Figure 7:** *Sufficient Geography Books for Teaching and Learning*

Figure 8 showed that 58% of the teachers said they had sufficient Geography books for teaching while 42% said they did not have sufficient books for teaching Geography in their

schools. These findings agree with Akungu (2014) who found out that 66.6% of head teachers' stated that they had adequate books in their schools. The study also found out that the school had allocated enough funds towards the purchase of reference books for effective teaching and learning of Geography.

According to UNESCO (2014) books inspire teachers and students to do great things in life and overcome failures. Relevant books provide knowledge unconditionally without asking anything in return. Therefore, the provision of sufficient textbooks and teacher guides ensure a coherent pedagogy, benefiting both pupils and teachers.

#### 4.4 Influence of Inadequate Geography Teachers on Students' Academic Performance

The second objective of this study was to determine the influence of teacher adequacy on students' academic performance. The responses were summarized in the table 8 below.

*Table 9: Effects of Inadequate Geography Teachers on Students' Academic Performance*

Statements	SD		D		UN		A		SA	
	F	%	F	%	F	%	F	%	F	%
Our School does not have enough Geography Teachers	14	12	6	5	8	7	37	33	48	43
Geography Teachers attend to our needs effectively	52	46	40	35	7	6	8	7	6	5
We are taught by form four school leavers who did well in their KCSE	90	80	21	19	2	1	0	0	0	0

Geography Teachers have few students in the classroom because we are few in school	19	17	9	8	4	4	31	27	50	44
There are regular teacher transfers in our schools	11	10	9	8	10	9	34	30	49	43
There are few Geography Teachers in our school	30	27	10	9	8	7	24	21	41	36

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**Legend:** SD-Strongly disagree, D-Disagree, UN- Undecided, A-Agree, SA- Strongly Agree

The findings in table 9 showed that 12% of the students strongly disagreed that their school had few Geography teachers, 5% also disagreed that their school had no enough Geography teachers. 7% of the students were undecided. 33% agreed that their school did not have enough Geography teachers while 43% strongly agreed they had enough Geography teachers. These findings are in line with García & Weiss (2019) findings. They found that shortage of teachers affects students, teachers, and the public education system as a whole. Lack of sufficient, qualified teachers and staff instability threatens students' ability to learn.

On the question whether Geography teachers attended to students need, 5% of the students' respondents strongly disagreed to the statement, 7% disagreed, 35% agreed and 46% strongly agreed and 6% were not sure. Majority of the students agreed that Geography teachers attended to their needs effectively. This is in line with the findings of Zakrzewski (2012). He found out that teachers who are more caring influence the academic performance of students positively. A caring teacher can transform the school experience especially for students who face enormous difficulties, such as dropping out of school or dysfunctional home lives."

When students were asked to indicate their extent of agreeing or disagreeing as to whether they are taught by form four school leavers who performed well in their KCSE, 80% of the respondents strongly disagreed and 19% disagreed while 1% were not sure. These findings agree with Tati (2021) who found out that Geography was taught by well trained teachers who graduated from higher learning institutions with majority been degree holders.

On the question on the number of students in the classroom. Students were asked whether they were few in the classroom. 17% strongly disagreed, 7% disagreed, 4% were not sure as they were undecided, 27% agreed while 44% strongly agreed. These findings concurred with those of Kaberia (2020). He found out that there were few students who chose to study Geography because it was an optional subject at senior section level of Kenyan secondary schools.

Students' respondents were asked whether there were regular teacher transfers in their school. 10% of the students strongly agreed there were regular teacher transfers in their school, 8% agreed, 9% were not sure hence were undecided, 30% disagreed to that statement while 43% strongly disagreed. These findings agreed with Onsomu (2014) who found out that teachers' transfers led to much workload on the remaining teachers in the school. He also stated that schools with few teacher transfers had good performance as teachers improved on their weak areas in teaching over time.

The influence of teacher adequacy on students' academic performance was enquired from the teachers. The teachers indicated the degree of acceptance to some statements and the following were the findings in table 10;

*Table 10: Influence of Teacher Adequacy on Students' Academic Performance*

Statements	True		False	
	F	%	F	%
I have many Geography students to attend to	9	75	3	25
Our school is sufficiently supplied by teachers as per curriculum	5	42	7	58
We are very few Geography teachers in our school	6	50	6	50
The teacher-pupil ratio in our school is sufficient	5	42	7	58
There are regular teacher transfers in our school by the TSC	2	17	10	83
When teachers transfer from our school, we do not get immediate replacement.	8	67	4	33

The findings on table 10 revealed that 75% of teachers had many Geography students to attend to while 25% indicated they did not have many students to attend to. This implied that most Geography teachers had many students in their classrooms. The findings in the current study concur with Altinok & Kingdon (2012) and Bizimana & Orodho (2014) who found out that large class size led to pressure on the utilization of academic resources and teachers found it challenging to attend to the needs of each student in the classroom. Therefore, large class size led to low academic performance as teachers found it difficult to help every student in the areas that needed further assistance.

On the question whether there were adequate Geography teachers as per curriculum, 42% were in agreement while 58% did not accept this statement. This implied that in some schools there were sufficient Geography teachers while in others there were not. The findings in the current study are in line with those of Milligan (2017) who found out that schools which had few geography teachers experienced challenges in teaching and learning process. He indicated that teachers did extra work to meet up to the needs of the students. The findings of the current study concur with Too (2016) who found out that poor distribution and understaffing of teachers had been blamed for the poor performance of some schools in Kenya. He concluded that the most affected were county and sub-county schools, where majority of students from humble backgrounds were enrolled.

On teacher-student ratio, 42% of the teachers responded that their schools had sufficient teacher-student ratio while 58% were not in agreement with the statement. This implied that most teachers handled more students in their schools. These findings were in agreement with the findings of Mwangi (2016) who found that teachers who handle many students in their classroom became overwhelmed affecting teaching and learning process. She concluded that the number of students' enrolment per class influenced teacher's performance. Therefore, there is need to employ more teachers in order to reduce the burden of work on teachers.

Geography teachers were asked if there were many teacher transfers in their schools by the TSC. 17% agreed while 83% refuted the statement. The findings in the current study differ with those of Mwangi (2016) who found out that majority of the teachers were transferred while others dropped out of teaching profession.

Finally, on the replacement Geography teachers, 67% indicated that geography teachers were replaced immediately while 33% disagreed to that. These findings are in line with Farzana,

Muhammad, Adeel & Lodhi (2012) who found out that frequent transfer of teachers was harmful to academia. They further stated that the situation becomes more acute when teachers are transferred without immediate replacement thereby affecting the academic performance of students.

#### **4.5 Learners and Teachers Perception and Students' academic performance**

Another objective of the current study was to establish the influence of students' and teachers' perception of Geography on the students' academic performance. The analysis of data collected under this objective was as follows:

##### **4.5.1 Students' Perception towards Geography**

The perception of students towards Geography was summarized in table 11 below;

*Table 11: Students' Perception towards Geography*

<b>Question</b>	<b>Yes</b>		<b>No</b>	
	<b>F</b>	<b>%</b>	<b>F</b>	<b>%</b>
Do Geography teachers motivate you to like the subject?	84	74	29	26
Are Geographical concepts easy to understand?	92	81	21	19
Do you like Geography because it offers career opportunities?	94	83	19	17
Is Geography the easiest subject to pass in secondary school?	71	63	42	37
Is learning Geography interesting?	101	89	12	11

Does Geography help you to locate places of different areas?	106	94	7	6
Do you like Geography because of too many assignments?	15	13	98	87
Do you like Geography because of field trips/tours?	61	54	52	46

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The findings in table 11 showed that 74% of the students indicated that Geography teachers motivated them to like the subject while 26% did not agree with the statement. The findings in the current study are in harmony with those of Gbollie & Keamu (2017) who found out that motivation encouraged students to understand a subject perceived to be difficult. They further stated that motivation of students was important for better output in the academic pursuit. They concluded that teacher motivation influenced the academic performance of students.

The researcher sought to find out whether Geographical concepts were easy to understand. 81% of the students' indicated Geography was an easy subject while 19% disagreed. These findings concur with those of Tati (2021) who found out that majority of the students' affirmed that Geographical concepts were easy to understand. This implied that most students did not find learning of Geography difficult. He further recommended that Geography teachers should give more attention to students who found difficulties to understand Geographical concepts.

The researcher also sought to find out whether students selected Geography because of the career opportunities. 83% of the students responded in agreement while 17% did not agree. The findings in the current study agreed with those of Tati (2021) who found out that students who



selected Geography were motivated by the career opportunities the subject offered. He concluded that majority of the students having a preference for Geography is a sign of positive perception towards the subject.

In order to determine whether learning Geography was interesting, the researcher found out that 89% of the students stated that learning Geography was interesting while 11% did not. The findings in the current study concur with Renninger et al., (2014) who found out that interest was vital in development and learning as it served as a bridge between one's development and learning in any subject area. They concluded that interest led to a positive perception of students towards their academic endeavors.

On the question whether Geography helped students to locate geographical places, 94% of the students stated that Geography helped students to locate geographical places while 6% disagreed. These findings concur with Tyner (2014) who found out that when studying map reading on atlas maps helps the student to locate different places in actual life situation.

The researcher further sought to find out whether students liked Geography because of the assignments given by the teachers. The study found out that 13% of students liked Geography because of the assignments while 87% did not. This implied that most students did not like writing or doing assignments. The findings in the current study concur with those of Slinger-Friedman & Patterson (2012) who found out that students often perceived writing as an onerous task rather than as an opportunity for learning and communication. They further stated that students shy away from the writing assignments. They concluded that written assignments within the geography discipline could increase the overall quality of learning.

The study found out that 54% of the Geography students indicated that field trips/tours were of benefit while 46% of students disagreed. These findings are in line with Krakowka (2012)

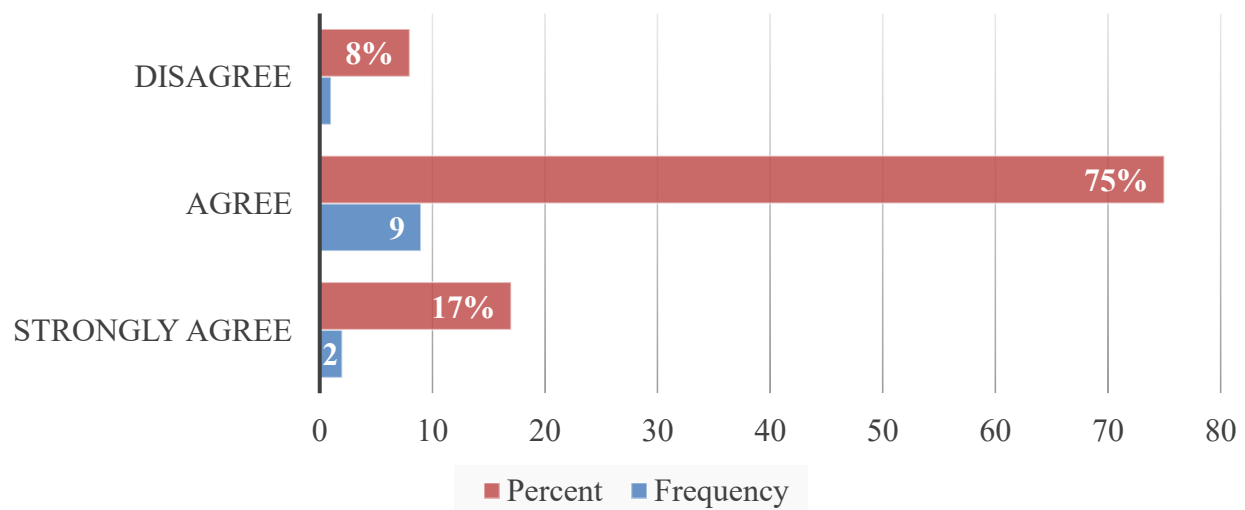
who found out that field trips were acknowledged as valuable learning experiences in geography. Similarly, Kolb (1984) in an experiential learning model stated that field trips contributed to internalization of relevant geographical theory and concepts. He further recommended that students in secondary schools should be exposed to more fieldtrips for better understanding of geographical concepts.

### 4.5.3 Teachers' Perception towards Geography

The third objective of the study was to find out the influence of teachers' perception of Geography on the students' academic performance. The variables under this objective were discussed below.

#### 4.5.3.1 Teaching of Geography is Interesting

The researcher sought to find out whether Geography teachers found the subject interesting. The responses were summarized and presented in the figure 8 below;



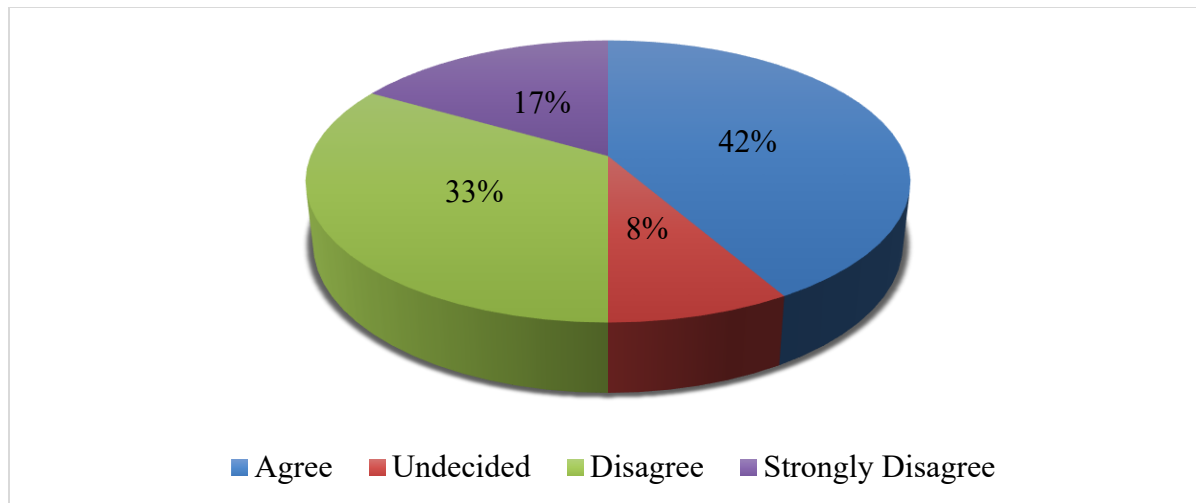
**Figure 8:** Showing Degree of Geography Subject Being Interesting.

Figure 8 shows that 8% of the teachers indicated that teaching Geography was not interesting, 75% agreed that teaching Geography was interesting while 17% strongly agreed that

teaching Geography in Secondary School was interesting. These findings were in line with Tati (2021) who found out that most Geography teachers enjoyed teaching Geography.

#### 4.5.3.2 Complexity in teaching Geography

The research sought to find out whether teachers found it difficult to teach Geographical concepts. Their responses were presented in the figure 9;

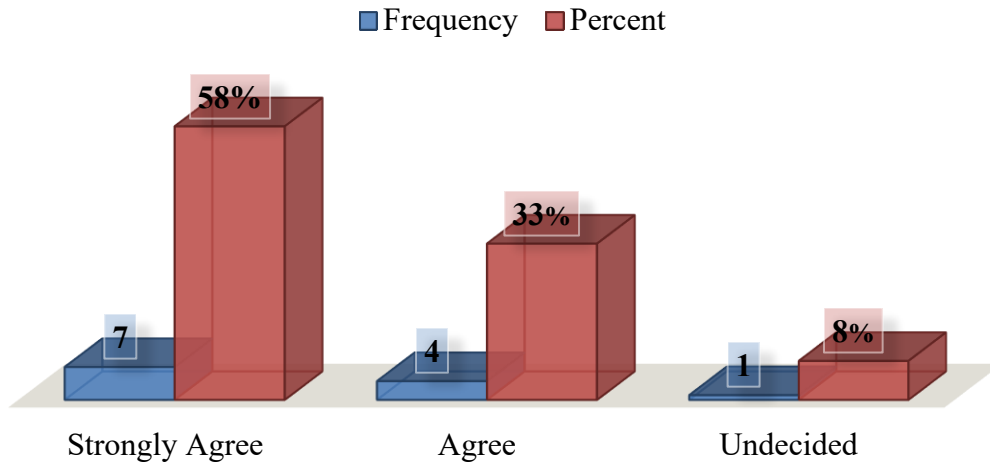


**Figure 9:** Showing Teachers Responses If Teaching Geography Is Easy.

On the question on whether Geography was the easiest subject to teach in secondary schools, 17% of teachers strongly disagreed to the statement, 33% disagreed, 8% were undecided while 42% agreed to the statement. The findings of the current study agreed with those of Roberts (2013) who found out that Geography teachers were able to teach geographical concepts successfully if they understood them thoroughly.

#### 4.5.3.3 Geography and the Location of Places

One of the importance of Geography is to locate places on maps through the use of latitudes and longitudes. The study sought to find out whether Geography helped Geography teachers to locate different geographical places. The findings were summarized in figure 9 below.

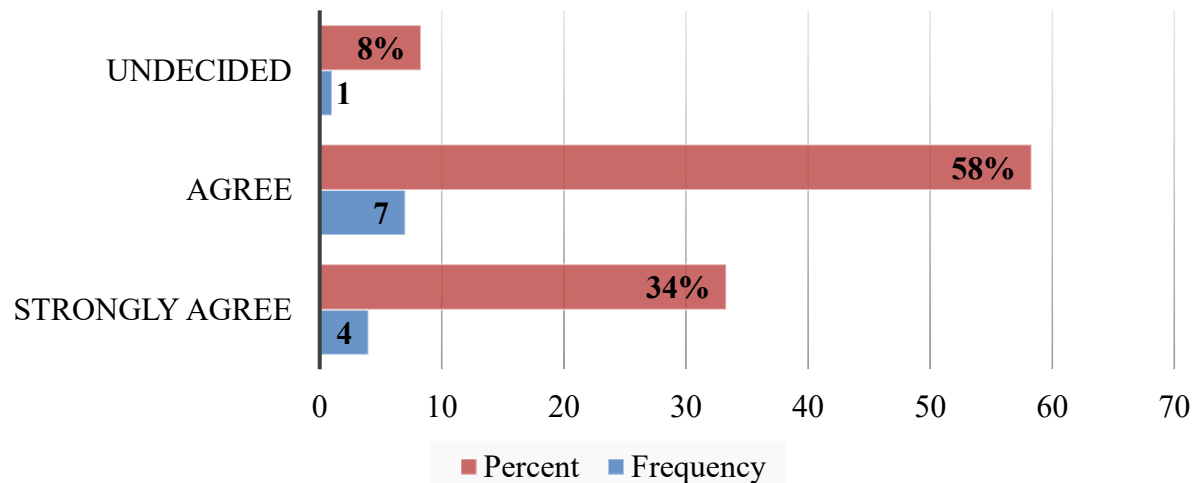


**Figure 10:** Showing Teachers' Responses on Geography Helping to Locate Places.

On the question whether Geography helped teachers to locate places 58% of teachers strongly agreed while 33% agreed to the statement. Only 8% were not sure hence they were undecided. The findings in the current study concur with Mukondeleli (2018) who found out that Geography teachers regarded Geography as significant because it helped them to locate various places in the world on maps. He concluded that when teachers had positive perception of Geography, they encouraged and persuaded learners to like the subject through their teaching process, hence improved the performance of students in the subject.

#### **4.5.3.4 Teachers' motivation and Geography Students**

Geography teachers were asked whether they motivate learners in the teaching and learning process. Their responses were indicated and summarized in figure 11.



**Figure 11:** Showing teachers' responses on motivating learners to like Geography

Figure 10 shows that 34% of teachers strongly agreed that they motivated learners in the classroom, 58% agreed and only 8% were undecided. These findings implied that most Geography teachers motivated their students during teaching and learning process. This coincided with the Goal theory by Anderman & Patrick (2012) which stated that when students are motivated, they obtain mastery goals which enable them to finish a project. Such students work hard even when faced with challenging concepts in the subject area. Their hard work is seen during assessments as they are likely to perform better than those who are not be motivated.

#### 4.5.3.5 Teachers' opinions on their perception of Geography

The researcher sought opinions of Geography teachers regarding their attitude towards Geography. The following were the findings;

Geography teachers were asked what contributed to poor performance in Geography. They stated that students were not awarded when they performed well in their previous tests thus demotivating them. They also indicated that most students did not understand Geography at the foundation stage thereby influencing their academic performance.

Geography teachers also stated that students' negative attitude towards the subject affected their academic performance. This negative attitude towards the subject bore fruits of laziness leading to poor preparation of the examinations. Majority of teachers also agreed that inadequate Geography teachers and teaching and learning resources affected students' academic performance. Most schools did not have adequate maps, books, and geography laboratory which affected students' preparation for the KSCE.

Geography Teachers also recommended the following points;

- That government should train more Geography teachers and deployed them in secondary schools.
- That government should motivate teachers in their teaching profession through promotions, in-service training, and increment of salaries among others. This would help teachers teach with enthusiasm and passion.
- They recommended sufficient teaching and learning resources such as textbooks, updated maps, and revision materials among others.
- That motivation speakers should be available in schools to motivate students towards various subjects including Geography.
- That ICT should be integrated in the teaching and learning of Geography. This would improve the retention rate of students hence improving their academic performance of Geography.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.0 Introduction**

This chapter outlined a summary of the study findings, recommendations and conclusion based on the research findings. Proposed areas for further research were also provided.

#### **5.1 Summary of the Findings**

The study investigated the influence of school-based factors on academic performance of Geography in Secondary Schools in Ngong Division, Kajiado County. The study was conducted in three mixed day Secondary Schools. Descriptive survey design was adopted in this study. This type of quantitative design helped the researcher to use questionnaires to collect data. The study targeted a total population of 200 participants. However, a total of 125 participated in the study from the three schools. Questionnaires were administered to all the students and Geography teachers in the study area.

The researcher then employed the Statistical Packages for Social Sciences (SPSS) to organize and analyze the data from the field. It was summarized and presented in form of frequency tables, graphs and pie-charts. The researcher also used thematic structure to analyze opinion questions which were asked to both Geography students and teachers. To achieve the research objective, the researcher analyzed data and came up with the following findings.

##### **5.1.2 Teaching and Learning resources of Geography in Mixed day Secondary schools in Ngong Division, Kajiado County.**

Majority of teachers and students indicated Geography resources such as maps, books, ICT equipment and geography laboratories were inadequate in their schools. The study also found out

that field trips were not employed by teachers. Therefore, majority of the students proposed for the provision of field trips by teachers and school administrators.

### **5.1.3 Adequacy of Geography Teachers in Mixed Day Secondary Schools in Ngong Division, Kajiado County.**

The study found out that most secondary schools in Ngong Division had few Geography teachers. This widened the teacher student ratio in the classroom. The study also found out that the replacement of Geography teachers was not immediate and therefore influencing the academic performance of students in the subject.

### **5.1.4 The Perception of Students and Teachers towards Geography in Public Secondary Schools in Ngong Division, Kajiado County.**

The study found out that there was a positive perception of Geography by both teachers and students. Majority of teachers and students indicated that Geography was an interesting subject to teach and learn. This was supported by 89% of students and 92% of Geography teachers. Further, the study found out that most students chose Geography because it offered career opportunities.

## **5.2 Conclusions**

The study established that adequate and updated teaching and learning resources were crucial for effective teaching and learning. Various stakeholders should ensure that secondary schools have enough and up to date teaching and learning resources to enable students perform well in their studies. School administrators should cooperate with parents, the community and other stakeholders to ensure the needed teaching and learning resources are provided to teachers and students. Teachers also need to improvise locally available resources to enhance the understanding of various Geographical concepts. The study found out that majority of students and teachers had a positive attitude towards geography. The study also found out that field trips



and the use of ICT was limited in the teaching and learning process. Field studies and the use of ICT have a positive influence to the academic performance of students.

### **5.3 Recommendations**

In order to improve the students' academic performance in Geography in Secondary Schools in Ngong Division, Kajiado County, the researcher recommended the following:

- ✓ Parents, Government, donors, teachers and other stakeholders should ensure that they provide adequate and up to date teaching and learning resources mainly maps, text books, geography laboratories to enhance effective teaching and learning in secondary schools.
  - ✓ Kenyan government should train and motivate teachers through promotions and incentives in their services.
  - ✓ School administrators, parents, guardians and government should extensively support geographical field trips to facilitate understanding of the abstract and complex geographical concepts among students.
  - ✓ Teachers should allocate sufficient time to topics that are perceived to be more difficult.
- Students should put more effort in their subjects in order to perform better during exams.

### **5.4 Suggestion for Further Research**

The study investigated the influence of school-based factors on students' academic performance of Geography in Secondary schools in Ngong Division, Kajiado County. The researcher, therefore, identified some areas and gaps that need to be studied further.

- The role of ICT in teaching and learning of Geography in secondary schools in Kenya.
- School based factors influencing students' academic performance of Geography in boarding secondary schools.
- The impact of Geography syllabus content on effective teaching and learning of Geography among secondary schools in Kenya.

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## APPENDICES

### APPENDIX I: QUESTIONNAIRES FOR GEOGRAPHY STUDENTS

Marist International University College,

P. O. Box 24450-00502,

Nairobi, Kenya.

Dear respondent,

I am Anderson Mphatso Kafatsa, student at Marist International University College (MIUC) doing Bachelor's Degree in Education. I am conducting a study on **the Influence of School-Based Factors on Students' Academic Performance of Geography in Secondary Schools in Ngong Division, Kajiado County, Kenya**. This is a requirement for my completion of Bachelor's Degree. I therefore request you to fill in the responses to the questions in the questionnaires as you positively contribute to my academic pursuit. The information given here will be treated with confidentiality. You may not need to write your name on the paper. Your contribution is highly appreciated.

Yours sincerely,

**Anderson Mphatso Kafatsa.**

**B. ED/498/18/19**

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#### Section A: Demographic information

This information requires you to provide personal and general information. Please answer by ticking (✓) in the space provided.

1. **Gender:** Female [ ] Male [ ]
2. **Age:** 11- 13 Years [ ] 14 – 17 Years [ ] 18 – 20 Years [ ] 21 years Above [ ]
3. **School Type:** Girls Secondary School [ ] Boys Secondary School [ ]  
Mixed Secondary School [ ]
4. **Year of study:** Form Three [ ] Form Four [ ]

**Section B: The Influence of Teaching and Learning Resources on Students' Academic Performance of Geography.**

**Instruction:** Please read each of the following statements and tick (✓) appropriately in the blank spaces provided.

1. Does your school have conducive learning environment for effective learning of Geography?

**Yes** [ ] **No** [ ]

2. Does your school have enough Maps for learning Geography? **Yes** [ ] **No** [ ]

3. Does your school have a well-equipped library with adequate and up to date Geography materials? **Yes** [ ] **No** [ ]

4. Does your school have Geography Laboratory? **Yes** [ ] **No** [ ]

5. Do you use internet for more geographical information? **Yes** [ ] **No** [ ]

**Section C: The influence of Inadequate Geography Teachers on Student's Performance of Geography.**

The following statements are formulated to imply the adequacy levels of Geography teachers in a school. Kindly indicate your level of agreement to the statements in view of adequacy of Geography teachers in your school.

Strongly Agree = **SA**, Agree= **A**, Undecided= **U**, Disagree= **D**, Strongly Disagree = **SD**

Number	Statement	SA	A	U	D	SD
1.	Our school does not have Geography teachers.					
2.	Geography teachers attend to our academic needs effectively.					
3.	We are taught by form four school leavers who got well in their KCSE.					

4.	We are few in our school therefore, Geography teachers have few students in the classroom.					
5.	There are regular teacher transfers in our school.					
6.	We do not learn Geography because we have few teachers.					

#### **Section D: The Influence of Learners' attitude towards Geography and performance of Geography**

Please read each of the following statements and tick (✓) where appropriate.

1. Do Geography teachers motivate you to like Geography? **Yes** [ ] **No** [ ]
2. Are Geographical concepts easy to understand? **Yes** [ ] **No** [ ]
3. Do you like Geography because it offers career opportunities? **Yes** [ ] **No** [ ]
4. Is Geography the easiest subject to pass in Secondary School? **Yes** [ ] **No** [ ]
5. Is Learning Geography interesting? **Yes** [ ] **No** [ ]
6. Does Geography help you to locate places of different geographical areas?

**Yes** [ ] **No** [ ]

7. Do you like Geography because of too many assignments? **Yes** [ ] **No** [ ]
8. Do you like Geography because of fieldtrips/tours? **Yes** [ ] **No** [ ]
9. What else motivates you to study Geography in your school?

.....

.....

10. What do you suggest can be done to improve the students' performance of Geography in your school?

.....

.....

## APPENDIX II: QUESTIONNAIRES FOR GEOGRAPHY TEACHERS

Marist International University College,

P. O. Box 24450-00502,

Nairobi, Kenya.

Dear respondent,

I am Anderson Mphatso Kafatsa, a student at Marist International University College (MIUC), a constituent College of the Catholic University of Eastern Africa (CUEA). I am pursuing Bachelor's Degree in Education. I am conducting a study on **the Influence of School-Based Factors on Students' Academic Performance of Geography in Secondary Schools in Ngong Division, Kajiado County, Kenya**. It is a requirement for my completion of Bachelor's Degree. I therefore request you to fill in the responses to the questions in the questionnaires as you positively contribute to my academic pursuit. The information given here will be treated with confidentiality. You may not need to write your name on the paper.

Your contribution is highly appreciated. Thank you in advance.

Yours sincerely,

**Anderson Mphatso Kafatsa**

**B. ED/498/18/19**

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### Section A: Demographic information

This information requires you to provide personal and general information. Please answer by ticking (✓) in the spaces provided.

1. **Gender:** Female ( ) Male ( )
2. **Age:** 20 – 24 years ( )      25 – 29 ( )      30 years above ( )
3. **School type:** Girls Secondary School ( ) Boys Secondary school ( )  
Mixed Secondary School ( )
4. **What is your teaching experience period?**  
4 years below ( )      5-9 years ( )      10-15 years ( )      15 years above ( )

5. **What is your level qualification level?**

Certificate ( )      Diploma ( )      Degree ( )      Masters ( )      PhD ( )

**Section B: The influence of Teaching and Learning Resources on Students' Performance of Geography.**

Please, read each of the statement provided in the table below carefully. Then indicate your agreement by (✓) ticking where appropriate.

1. Does your school have a conducive environment for teaching of Geography?

**Yes** [ ] **No** [ ]

2. Does your school have enough maps for teaching Geography? **Yes** [ ] **No** [ ]

3. Do you use internet to get more geographical information? **Yes** [ ] **No** [ ]

4. Does your school have a Geography Laboratory? **Yes** [ ] **No** [ ]

5. Do you have sufficient Geography Books for Teaching? **Yes** [ ] **No** [ ]

6. Does your school have a well-equipped library with adequate and up-to-date Geography materials? **Yes** [ ] **No** [ ]

**Section C: The influence of inadequate Geography Teachers on Student's Performance of Geography.**

The following statements are formulated to imply the adequacy levels of teachers in a school.

Please tick (✓) in the blank spaces provided appropriately.

1. I have many Geography students to attend to. **True** [ ] **False** [ ]

2. Our school is sufficiently supplied with teachers as per Curriculum. **True** [ ] **False** [ ]

3. We are very few Geography Teachers in our School. **True** [ ] **False** [ ]

4. The teacher-pupil ratio in our school is sufficient. **True** [ ] **False** [ ]

5. There are regular teacher transfers in our school by the TSC. **True** [ ] **False** [ ]

6. When teachers transfer from our school, we do not get immediate replacement.

True [ ] False [ ]

**Section C: The Influence of Teachers' Perception towards Geography on students' performance.**

Read each of the statement provided in the table below carefully. Then indicate the extent to which you agree or disagree with each statement by (✓) tick where appropriate.

Strongly agree: **SA**, Agree: **A**, Undecided: **U**, Disagree: **D**, Strongly Disagree: **SD**

Number	Statements	SA	A	U	D	SD
	Teaching Geography is interesting					
	Geography is the easiest subject to teach in secondary school					
	Geography helps to locate places of different geographical areas.					
	I do not like to teach Geography because it is complex.					
	I motivate my learners to like Geography.					
	I teach Geography for career opportunities					

7. What else do you think affects the students' academic performance of Geography during KCSE?

.....

8. What do you think can be done to improve the students' academic performance in Geography?

.....

.....

### APPENDIX III: LETTER OF AUTHORIZATION



**MARIST INTERNATIONAL UNIVERSITY COLLEGE (MIUC)**  
Constituent College of the Catholic University of Eastern Africa  
Langata Road, P. O. Box 24450 Karen, 00502, Nairobi

Phone: +254-20-2012787/2012797; Mobile: +254-725 071 089

Email: [dpacademic@miuc.ac.ke](mailto:dpacademic@miuc.ac.ke)

#### OFFICE OF THE DEPUTY PRINCIPAL ACADEMICS

Our Ref: MIUC/10/AL/03/21

10th September 2021.

#### TO WHOM IT MAY CONCERN

Dear Sir/Madam,

#### RESEARCH AUTHORIZATION:

**Re: Anderson Mphatso.**

I wish to confirm that the above-named student with the Matriculation No. B.Ed./517/18/19 is an undergraduate student at Marist International University College, studying in the Department of Education. He is expected to conduct research for his degree program entitled *"The Influence of School-based Factors on Students' Academic Performance of Geography in Secondary Schools in Ngong Division, Kajiado County"*.

The research is a mandatory academic requirement for the attainment of the Bachelor of Education Degree. Therefore, the findings of this study are not included for any other purposes or for public broadcast other than the reason stated above.

The above student will observe with utmost confidentiality any information to be obtained during this research from all offices and sources consulted.

Please, avail him any information and pertinent assistance he may request in this regard. Thank you in advance.

Yours faithfully,

**Rev. Br. Moses Fegher, Fms**  
Deputy Principal Academics.



**MIUC Core Values:** Love of God and neighbour, Respect for human life, lawful authorities and colleagues, Concern for the poor, Integrity, Generosity, Leadership, Patriotism, Love for work, Sensitivity to the environment, Self-discipline