EFFECTS OF TEACHER-STUDENT CLASSROOM INTERACTION ON STUDENTS' ACADEMIC PERFORMANCE IN PUBLIC SECONDARY SCHOOLS IN NGONG SUB-COUNTY KAJIADO COUNTY

By: Moffat Phiri

MATRIC NUMBER: B.Ed/428/15/16

A research project submitted to the Department of Education in partial fulfilment of the requirements for the award of the Degree of Bachelors of Education.

MARIST INTERNATIONAL UNIVERSITY COLLEGE (MIUC)

Constituent College of the Catholic University of Eastern Africa (CUEA)

NAIROBI- KENYA

JULY, 2020

DECLARATION

This research project is my original work and it has never been submitted in any University for the award of a degree on any Higher Education level.

…………………………………….   DATE ………..………………………….

MOFFAT PHIRI

SUPERVISOR

This research project has been submitted for examination with my approval as the University College Supervisor.

…………………………………...   DATE..………………………….

DR. ANNA KULA

HEAD OF EDUCATION DEPARTMENT

This project has been accepted by the Head of Department of Education.

……………………………………   DATE…………………………

DR. EVERLYN OLUOCH - SULEH

DEDICATION

I dedicate this project to my late dear Father, James Rodgers Phiri, my late Mother, Christina Mwila Mulenga, my dear grandmothers late Ellinala Mwale and Edwidge Mwelwa, my Aunt Veronica Mtewa, my relatives and all the members of my religious family.

ACKNOWLEDGEMENTS

Table of Contents

LIST OF FIGURES

LIST OF TABLES

LIST OF ABBREVIATIONS

MIUC   Marist International University College

MOE   Ministry of Education

SPSS   Statistical Package for Science

ABSTRACT

Teacher-student classroom interaction is an important aspect that reinforces and regulates the teaching and learning process. This study, therefore, investigates its effects on students' academic performance. This study aimed to establish how classroom, interactive teaching methods and conducive classroom environment influences students' academic performance.

The researcher used the survey design. The study was conducted in public secondary schools in Ngong Sub-County Kajiado County**.** The instruments used to collect data were questionnaires for both students and teachers. The study used a sample which was 30% of the whole population and which was selected randomly. The sample size of 147 respondents comprising of 141 students and 6 teachers was used. The researcher then analysed data using SPSS (version 21). The analysed quantitative data was presented using frequency tables, percentages, bar graphs and pie charts. Qualitative data was as well used so as to give the back born to the study.

The interpretations and recommendations were based on the research findings and the research objectives. The findings showed that classroom interaction facilitates easy learning in students and boost student's academic performance. Teaching methodology used in the classroom should be a means that fosters and nurtures learning through interaction and development of students' academic performance. The conducive classroom environment is essential for any effective classroom interaction to take place. The attitude of both students and teachers play a vital role in creating a conducive classroom interaction.

CHAPTER ONE

1.0. Introduction

This chapter gives the problem under study, which distillates on effects of teacher-student classroom interaction on students' academic performance. This chapter stretches on the background of the study, statement of the problem and the research objectives. It also addresses the delimitation of the study, conceptual framework and operational definition of important terms and conclusion.

1.1. Background of the Study

Teacher-student classroom interaction is a practice that enhances the development of the two very important language skills which are speaking and listening among the learners. To achieve this, the teacher has to have the skill to initiate student participation (Nasimbi, 2003). Education theorists recognize that speaking and listening are fundamental to classroom interaction and that teachers and students are linked in a system of reciprocal communication.

Camerone (2001) emphasizes that teaching is a process to construct learning opportunities and to help the students take advantages of them. In a teaching and learning process, the teacher should be able to help the students in constructing an understanding of the lesson through classroom interaction. Interaction has been said to be a process whereby two or more people engage in reciprocal action (MOE, 2001). The type and quality of classroom interaction may determine not only the effectiveness of the learning situation but also the attitude, interest and to some extent, even the personality of a student. Interaction in the classroom is an essential part of the teaching process, this action may be verbal or nonverbal. According to the Ministry of Education (MOE, 2001), the interaction between the teacher and students occurs every day in various classroom activities.

In a classroom, the psychological condition found inside is of extreme importance in shaping the character of the students and determine the efficiency with which learning takes place. The atmosphere is mainly determined by the teacher who can make a classroom a conducive place for students to learn through using pupils as a rich source of enthusiasm (Piaget, 1964).

Wright, (2014) recommended that the method of teaching must involve actions on the part of the students, this implies that students' needs have to be catered for, to facilitate a healthy physical and mental development. He stressed that student-centred learning is paramount to any kind of learning. This can be done by involving students in various activities in the classroom. Educators are called upon to enhance a favourable classroom setting to motivate students into performing well in their academics.

Although there might be several aspects which determine the teacher effectiveness in the classroom, one of the most important probably, is classroom-teacher-student interaction. Effective teaching and learning may be determined by the type and quality of classroom interaction between the teacher and the students (Fenstermancher & Solits, 2004).

The type and quality of classroom verbal interaction may determine not only the effectiveness of the learning situation but also the attitude, interest and even the personality of the students. The concept of classroom interaction has been of great importance since the idea of interaction is regarded as a social system. It is also important to note that classroom interaction is built on the model that knowledge can be created within a population where students actively interact by sharing experiences and take balanced roles (Kumpulainen & Wary, 2012).

Cheon and Reeve (2015) assert to the understanding that personal needs rare motivational characteristics representing tendencies to move in the direction of certain goals.

Classroom organization is also one of the vital roles that facilitates meaningful classroom interaction. According to Kekare (2015), learners perform better when their classrooms are well organized to give enough space to the learners and provide an arrangement of starting points for their ideas.

The traditional view of classroom activity assigns learners the role of passive recipients of facts, and the teachers as the presenters of factual knowledge (Bobis, 2016). Education theorists maintain that learners are responsible for their learning. They also condemn teaching which reduces learners to empty vessels into which the teacher pours content and expect them to pour it back at the testing time (Camerone, 2001).

The relevance of a method for a particular lesson depends on several factors, among them; the age and developmental level of the student. What students already know and what they need to know, the subject-matter content, the objective of the lesson, time, space and material resources available are essential for determining the method to be employed (Gichumba, 2009). In this regard, the understanding on the teacher effectiveness in class is seen in the fact that there is no right method for interactive teaching and learning except for Parten that can help a teacher make the best possible classroom interaction (Kekare 2015).

Wright (2014), observes that the involvement of students in the classroom gives them a sense of ownership in their learning. It is easier to keep most of them engaged in the lesson when discussions, questioning and answer sessions, group demonstrations, and other student-centred activities. When involved, students create their respectful classroom interaction with the teacher and other students. When a teacher becomes a model of respectful behaviour, then the students understand how to respect him or her as well as one other, fellow student as well among themselves. Despite the effort to keep the students engaged in the lesson and improve their performance, classroom interaction in Kenyan secondary schools has shown persistent

challenges facing both the teachers and learners in as far as teaching and learning is concerned. According to Aanila, (2011) the success and failure of the school depended on the smooth running of the classroom. Chieng and Minyafu (2009) observed that educational plan has paid less attention to the influence of classroom interaction on education. Chieng and Minyafu (2009), further asserted that education is established out of the everyday efforts of teachers and students in their classroom. Thus, the present study explains what it means to create an interactive classroom setting that has not been dealt with in other studies.

To enhance classroom interaction teachers may have to monitor their attitude towards a class, as well as their entry behaviour in the classroom among others. These aspects are vital for classroom interaction (Bennet, 2001). The attitude of the teacher may contribute positively or negatively to effective classroom interaction. Kennedy (2008) added that Classrooms where teachers assess the learner's involvement, follow them up in their studies and monitor closely with great concern the progress of each student, likely to increase the performance.

According to Kennedy (2008), the classroom environment is a social context in which students learn social lessons, such as friendship, cooperation and appropriate behaviour. Therefore, the classroom environment is very significant and it can influence the students positively or negatively as they interact with one another. The learning environment consists of many factors that enhance good classroom interaction such as textbooks, charts and even physical facilities such as desks among others. An effective classroom interaction encourages the development of social and emotional needs of the students which in turn build up their academic performance. Classroom interaction in teaching and learning process is encouraged, globally. There is a need for class interaction in promoting learner-centred education in teaching and learning process.

1.2. Statement of the Problem

Teacher-student classroom interaction is an important aspect that reinforces and regulates the teaching and learning process. This may be influenced by both internal and external aspects that can start, sustain, strengthen or daunt the students. Classroom interaction can improve the performance of students at all levels of education within the education system of Kenya. Researchers have mostly, investigated the factors that influence students' academic performance in secondary schools. This work seeks to explain the effects of teacher-student classroom interaction on students' academic performance in public secondary schools in Kajiado County.

1.3. Objectives of the Study

This study aimed at achieving the following objectives to:

  I.   Investigate the role of students' classroom participation in their academic performance.

 II.   Determine teaching methodologies that enhance classroom interaction.

III.   Establish the role of conducive classroom environment on teacher-student interaction.

1.4. Delimitation

The study was restricted to secondary schools in Ngong Zone in Kajiado Sub-County, where data was collected. The study investigates the relationship between Teacher-student classroom interaction and students' academic performance in public secondary schools. Several approaches were scrutinized on the students' attitude towards classroom interaction. Therefore, it is important to note that the data is collected only from secondary schools in Ngong Zone in Kajiado Sub-county; the findings may not be applicable in other areas except in Kajiado Sub County.

1.5. Significance of the Study

The study identified some challenges facing teacher-student classroom interaction in achieving educational goals. The research can assist the secondary school Quality Assurance and Standard officers in their day to day monitoring of learning in secondary schools to lay more emphasis on the appropriate classroom interaction when advising secondary school teachers. The findings can enable secondary school teachers to appreciate the importance of classroom interaction. Policymakers can be helped to formulate policies that can address the problems on teacher-student classroom interaction and provide necessary resources for conducive learning. Students will be the main beneficiaries of this study, especially those who find it hard to interact freely in the classroom. They will be also able to know the importance of full engagement and participation in the classroom and society as a whole.

Finally, the research can also act as the base for future researchers who may find the research relevant.

1.6. Conceptual framework

A conceptual framework is a research instrument which helps the researcher to bring up awareness and understanding of the situation under investigation. Mugenda and Mugenda (2003), define Conceptual framework as a hypothesized model identifying the concepts under study and their relationship. It is the researcher's map in perusing the investigation. A conceptual framework is, therefore, a useful tool that aids a researcher to make meaningful findings. The independent variables of this study include Teaching methodologies, Communication Skill and Conducive classroom environment. The dependent variable is the Students' Academic Performance in Secondary Schools.

1.7. Relationship between Independent and Dependent Variable.

INDEPENDENT VARIABLES   **DEPENDENT VARIABLE**

```
┌─────────────────────────────────┐
│      Classroom Participation    │
│   • Social behaviour            │
│   • Teacher-student relationship│
│   • Observations                │
└─────────────────────────────────┘

┌─────────────────────────────────┐
│    Interactive Teaching methods │              ┌──────────────────────┐
│   • Questioning & answering     │              │  Students' academic  │
│   • Group discussions           │ ───────────► │   performance in     │
│   • Class debates               │              │  secondary schools   │
│   • Brainstorming               │              └──────────────────────┘
│   • Presentations               │
└─────────────────────────────────┘

┌─────────────────────────────────┐
│  Conducive classroom environment│
│   • Disruptive behaviour        │
│   • Dynamic classroom           │
│   • Attitude                    │
└─────────────────────────────────┘
```
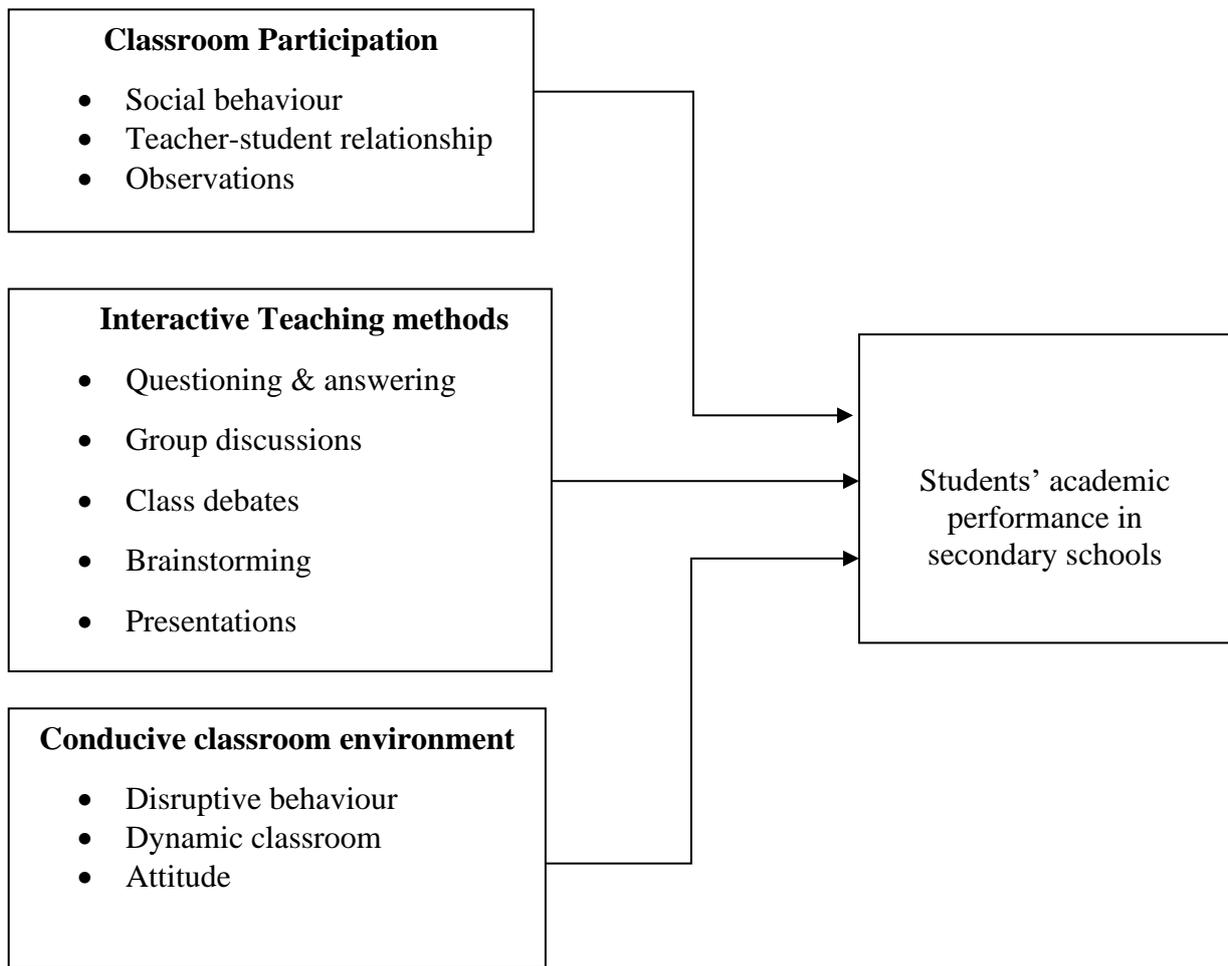
Figure 1.1. Conceptual Framework

Source: Field (2019).

1.8. Theoretical Framework

Vygotsky (1978), suggested that knowledge is constructed amid human interactions with each other and shaped by the skills and abilities valued in a particular culture. Bandura (1977) on the other hand emphasized that social learning theory explains how children learn from direct experience or observation and modelling. These theories suggest that viewing and interacting make people more likely to act in real life, these facilitate easier learning in students.

This study adopts the social learning theory in that it is a suitable learning theory related to classroom interaction in the teaching and learning process. Social learning theories help in understanding how people learn in the social context (learn from each other) and enlightens us on how teachers, construct active learning communities (Jones, 2007). Vygotsky suggested that learning takes place through the interaction students have with their peers. Humans learn through discussions, collaboration, and feedback. Vygotsky (1962) argued that culture is the primary decisive factor for knowledge building. The human learns through the cultural lens by interacting with others and following the rules, skills and abilities fashioned by our culture.

Teachers need to provide the chance to students for an achieved discussion about their learning. Knowledge building occurs within a social situation that comprises of student-student and expert-student association on tangible world problems or tasks that build on each person's language, skills, and experience shaped by each culture.

1.9. Definitions of Key Terms

Academic: Academic refers to the scholarly activity of a school or university such as classroom studies or projects or research.

Classroom Interaction: This is a relationship between teacher and students in the classroom.

Disruptive behaviour: This is when a student is uncooperative and prevents themselves and other students in class from working.

Dynamic classroom: This is the way the people within a class interact with each other.

Effects: Effects are changes which are as a result or consequence of an action or other cause.

Learning: Learning is a process of acquiring new, or modifying existing, knowledge, behaviour, skills, values or preferences. The ability to learn is possessed by humans and animals.

Student: This is a person who learns or studies about a particular subject in secondary school.

Teaching: Teaching is a process of imparting knowledge skill and value into learners.

Define dynamic classroom

1.10. Conclusion

This chapter outlined the study background, the problem under study and the research objectives delimitation of the study, conceptual framework and the definitions of the keywords and how the study is organized. The following chapter gives a review of related literature to the current study.

<center>**CHAPTER TWO**</center>

LITERATURE REVIEW

2.0. Introduction

This chapter presents a review of existing literature intending to identify the gaps. Therefore, the researcher in this chapter deals with the following sub-topics: Classroom participation, teaching methodologies and conducive classroom environment.

2.1. The role of classroom participation on students' academic performance

Teacher-student classroom interaction involves classroom participation which allows students to build on their knowledge, demonstrate they have understood the content, develop confident and apply theory, this teaches students to think critically (Fafunwa, 1976). Money, (2015) in her research paper conducted on The Impact of teacher-student relationship added that where there is a positive relationship between a teacher and a student there are few occurrences of classroom disruptions. This relationship also helps in clearing areas that may have not been understood which is helpful to students' academic outcome. However, this study above left a gap in that it discussed the impact of student relationship while the current study will focus on the impact of teacher-student classroom interaction on students' academic performance.

This is supported with a study conducted by Aziz et al (2018) on factors behind Classroom participation of Secondary school Students (A gender-based analysis) in Pakistan. The study randomly selected from 19 boys and 21 girl's government high school in Lhore city sampling process consisted of two stages. In the first stage, 10% sample size was calculated which led to a random selection of 4 schools from each at the second stage, 500 students were purposively selected from 1689 students, 250 each cohort. A self-respondent questionnaire (FBCPS) was used to collect data. The study concluded that students exhibit a significant level

<center>10</center>

of classroom participation. The study further, shows that boys participated more as compared to girls while internal and external factors behind their classroom participation were the same though the degree to which they influence was different. Girls were influenced by motivation in their classroom participation as compared to boys. Boys' participated more due to high self-esteem. The study also showed a significant negative factor which lies behind classroom participation and both genders were influenced by it in the same way.

The study observed that students can be brought actively into the teaching process and facilitate teaching by their participation in the classroom. The study concluded that students' classroom participation makes them more motivated, support their learning to improve their communication and promotes higher order of thinking skill. This study was an intention to investigate the levels of secondary school students' classroom participation and to identify the underlying factors that contribute to it.

The study recommended that teachers should employ the maximum participation of students individually and collaboratively, also to strive to create a conducive classroom interactive atmosphere to assist students' academic performance. The reviewed study left a literature gap as it was an intention to investigate the levels of secondary school students' classroom participation also the study used 10% sample size which seems to be too small for the study. Therefore, this current study will focus on teacher-student classroom interaction in public secondary schools and the researcher intend to use a 30% per cent sample size.

It is, however, imperative to note that classroom interaction is likely to be determined by students' attitude towards a subject. Attitude can distort the perception of information and affect the degree of their retention. This attitude can, however, be meaningfully improved by teachers by way of enhancing the classroom interaction. This is evident from a study that was carried out by Guido (2013) in Philippines Rizal technology University on Attitude and

Motivation towards Learning Physics. The finding of the study suggested that a positive attitude influences expected achievement and is heavily influenced by the attitude towards science. As would be expected, positive heavily influenced by attitudes towards science also lead to better results on achievement influencing attitude.

Negative Attitude can distort the perception of information, affect classroom participation and disturb the degree of students' retention. In this study, the researcher added that in classroom participation and learner motivation in learning is affected by their attitude towards learning the subject. The relation between motivation and attitude has been considered to be a prime concern in learning. The motivation in learning is thought to be determined by the student's attitudes towards others in a group where participation is more expected to take place. The findings of the study suggested that most of the students find that they feel good when they are successful in physics, they feel that they are fully succeeded in the subject if this endeavour becomes fruitful. This also confirms that attitude and motivations determine one's classroom participation.

The study, however, left a gap in that it focused on the students undertaking sciences subjects while the current study addresses teacher-student classroom interaction in a secondary school in general Based on an investigation of 446 engineering and technology students and it did not clearly show the sampling procedures used and the instrument used in carrying out such an investigation. The current study, therefore, is necessary to fill the knowledge gap.

Further, classroom interaction is a promoter to positive students' academic performance. This is was established by a study carried out by Fouts and Myers (2010) on the classroom environment and middle school students' view of science subject. The study established that classroom environment and middle school students' view of science subject which had high levels of students' involvement, teacher support, group affiliation, order,

organisation and teacher innovation and involvement reported improved students' positive attitudes towards science that resulted to a better grade in the subject. A stratified random sample of 3 junior high school science classrooms from 10 schools. Data were collected from 192 Students also completed a demographic questionnaire this study did not include the responses of the teachers.

Another research conducted by Verga, (2017) on The Effects of Teacher-Student Relationships on Academic Engagement of Students at Goucher College. The researcher discussed the perception and personal characteristics and then examined the effects of the teacher-student relationship on education and how the teacher and student behaviours affect educational outcomes. The purpose of the research was to determine if improving relationship and students would decrease off-task behaviour during class.

The intervention involved four weeks of initiatives focused on developing improved teacher-student relationships. The overview of the research concluded with how to develop positive relationships, teacher expectations, attitude, familiarity, and communication all play a role in cultivating relationship in the classroom environment. The researcher used the sample population which included twelve boys, six from of the 3 selected classes.

 The researcher used behavioural designed he also used observations chart. However, this study left a gap which the current study is determined to fill in that, the above study discussed the relationship of teacher-student on academic engagement in a college while the current study will draw its focus on the teacher-student classroom interaction and its effects on students' academic performance in public secondary schools the sample size and method used were not adequate to determine the result of the study.

The analysis of classroom interaction patterns of Kenyan secondary school chemistry teachers (2016) indicated that the teachers in both urban and rural areas some teachers used

fewer praises, rewards, and encouragements during their classroom interaction. However, the analysis demanded more effort to obtain a more comprehensive picture of teachers' interaction and their undesirable behaviours with the students in the classroom.

2.2. Teaching methodologies that enhance classroom interaction on students' academic performance.

Aanila (2011), observed that teaching is a continuous process that involves bringing about desirable changes in learning through the use of appropriate methods. Teaching methods work most effectively if they suit learners' needs. These methods include questioning and answering, presentations, discussions and brainstorming. Interactive brainstorming is mostly performed in group sessions. The process is useful for generating creative thoughts and ideas. Brainstorming helps students learn to work together, and above all, learn from each other. This is because every learner interprets and responds to questions in a unique way. As such, alignment of teaching methods with students' needs and preferred learning influence students' academic performance. There is an emphasis on getting students to participate in the classroom, this is the methodology that invokes classroom interaction and influence students' performance.

Teacher sensitivity is very important when interacting with students, this will enable students to feel that they have an accessible teacher, has time for them, is genuinely concerned about them, enthusiastic, listening to and consider their concerns. Therefore, teaching methodology must influence and communicate what is required, otherwise insensitive to what methods to be used will frustrate students and hinder their classroom interaction with the teacher or among students themselves (Ahn and Class 2011).

Schreiner and Louis (2011) noted that there are many ways of defining methodology and according to Piaget in one of his learning theories advocated for the constructivist

methodology of teaching approaches. He believed in the importance of human and physical manipulation in gaining students' performance in secondary schools. He, therefore, added that teaching methodology used in the classroom should be a means that fosters and nurtures learning through interaction and development students' academic performance in secondary schools in Ngong Division Kajiado, County.

This study on the teacher and learner interaction method was carried out with the sole purpose of understanding the collaborative behaviour and impact of different individuals on classroom interaction. The study further analysed the suitable method of improving and maintaining a good learning environment. The administration of the questions is the best method apart from observing and interviews among other approaches to effectively analyse classroom interaction. The researcher observed the impact of communication, behaviour and attitude in the learning environment (Fraser 2012). Classroom interaction can influence the students' academic performance directly or indirectly. This study did not discuss the impact of teacher-student classroom interaction on student academic performance in public secondary schools there the current research will fill in that gap.

A study conducted by Jepkete et al (2015) on Teachers' Classroom Strategy for enhancing Students' Performance in Public Secondary Schools in Nandi County, Kenya. The researcher found out that improving student's performance depended on the strategies teachers' use in teaching students in the classroom, handing of student discipline and feedback from students assessments. The main objective of the study was to determine how teachers' classroom strategy enhances student performance in public secondary schools in Nandi County.

The study used descriptive survey design; researcher used (30%) as the population sample size for the public secondary schools. The findings of the study established that students

continue to perform poorly in academics in some public secondary schools. It was further found out that strategies used by teachers to manage their classrooms including the teaching methods employed, involving student's interaction in class. The study reinforces the existing studies that have shown that the quality of education sought by a school and country at large is due to strategies teachers apply intending to improve students' performance. Therefore, teachers should engage students in varieties of teaching activities to prevent students' engagement in disruptive behaviour that would disconnect interaction between the teacher and the students in the classroom.

This study was carried out in Nandi, the participants for this study were 3 teachers from one elementary school and 6 classes in the same school of which (age: 6 – 7 years). in as much as this study handled the topic being reviewed the sample size used was too small and the age of the student involved in the study was not mature enough to respond to the questions. Therefore, the current study will fill in the gap that this study left in that it will deal with a more mature student in secondary schools. And also, the study will be done in Kajiado Ngong Sub County.

2.3. The role of conducive classroom environment on teacher-student interaction on students' academic performance.

The dynamism of a classroom environment makes the classroom a conducive place for teacher-student interaction in the process of learning. This is backed up with a study carried out by Raj (2016) on the Influence of the physical learning environment in students' behaviour and social relations. The researcher noted that physical learning environments are composed of a set of dimensions: access to social spaces, presence of digital connection, friendly design, flexible spaces that foster creativity, among others. The researcher added that to understand the space as an environment it is important to understand the relationship between human and the

16

environment in which they participate and the environment becomes a dynamic space stimulating and thoughtful, both for learners and for teachers.

Dynamic classroom interaction is always generated and organised by teachers who in the process incorporate students. This involves planning the activities, actions aimed at achieving the objective of learning by students. One of the challenges was of education found by the researcher was the promotion of active learning interaction and participation in the classroom. Therefore, this work aimed to investigate the physical design factors that influence the learning environment in social relations and the behaviour of students to help professionals regarding the design and management of educational spaces. This study, however, left a gap which the current study is going to fill in that the reviewed study focused on Influence of physical learning environment in students' behaviour and social relations while the current study will be conducted to determine the effect of teacher-student classroom interaction on the students' academic performance.

The conducive classroom environment is essential for any effective classroom interaction to take place. Classroom interaction encompasses a broad range of good classroom atmosphere such as; educational concepts, the physical setting, psychological environment created through social contexts, and numerous instructional components related to teaching characteristics and behaviours. Classroom environment affects the motivation and attitude of the students interact, both physical space and the dynamic of routines, activities and people within the classroom, have an impact on performance and behaviour ((Fraser, 2012). A teacher also plays an important role in the classroom when it comes to creating an interactive environment. Students often mimic a teacher's actions, if the teacher prepares a warm, happy environment, students are more likely to be happy. An environment set by the teacher can be either positive or negative. If the students sense the teacher is angry, students may react negatively to that and therefore, learning can be impaired. Teachers are responsible for the

17

social behaviour in their classrooms therefore, this behaviour is primarily a reflection of the teachers' action and the environment he or she sets.

The relationship between conducive classroom environment and student's interaction was drawn from the study done by Patrick (2013) on the dimensions of the classroom social environment at Purdue University. The study addressed measures of the classroom social environment or student's perception about how they are encouraged to interact with and relate to others. The classroom social environment is an important educational context that is related to a wide range of adaptive student learning-related beliefs and behaviours. The study focused on the four separate dimensions of class social environment: (1) teacher support, (2) promoting mutual respect, (3) promoting student task-related interaction, and (4) promoting performance goal.

The study represents evidence from separate samples (two of them longitudinal) showing that measures of these four dimensions are psychometrically sound when used with students from fifth through eighth grades specifically; the study shows that the balances are consistently internally reliable, and these results present a range of evidence indicated construct validity on the class environment and its emphasis on students wide interaction to bring about desired academic results. However, this study left a gap in that it did not deal directly with teacher-student classroom interaction which the current study aims at discussing.

Further, Hutchinson and Reisis (2009) added that a positive social environment has been linked to enhancing students' classroom interaction, academic achievement, and motivation. It also has a positive impact on the formation of students' attitudes and behaviours in many key areas like decision making, equality and justice, caring, sensitivity and discipline of a student. This is supported by a study conducted by Shamaki (2015) on the influence of the learning environment on student academic performance in Mathematics in Nigeria. The study

investigated some components of the learning environment and their possible influence on students' academic performance in Mathematics. This study indicates that beyond physical arrangement of a classroom a psychological environment is also paramount on the interaction players in the classroom namely students and teachers. The researcher used a sample size of 320 representing (20%) of the entire population was chosen, also used statistical technique or tool(s) for data analysis. The result of this study showed that there is a significance difference between the mean performance students taught in an ideal learning environment and that of students taught in a dull learning atmosphere.

This study indicated that improving classroom learning environment significantly improves students' academic performance therefore among the ways of such improvement is the ideal of classroom interaction that creates the base for a smooth learning environment. However, the above studies had gaps that needed to be filled by the current study. This study, for example, was carried out in Nigerian while the current study is being carried in out in Kenya. This reviewed study also focused only in mathematics while the current study addresses teacher-student classroom interaction in general While the current study will use (30%) of the entire population using questionnaires for both students and teachers.

Another study which was carried out by Persad (2016) on the relationship of the classroom environment, teacher and student satisfaction and student self-concept concerning classroom interaction in Canada. The model of learning environment organisation and classroom interaction is still focused on teacher cannon and the individual work of students. Power relations are inscribed in certain spaces within the classroom, for example, the situation of the teacher's desk which is a symbol of power and surveillance point. Therefore, the general hypothesis of this study was that different classroom environments would relate differently to teacher and student satisfaction to student self-concept. The subjects were 215 students at William G. David's senior Public school, and the nine core teachers who taught these students.

The measures obtained from the students were: perception of the classroom environment, satisfaction with dimensions of the classroom, and the classroom interaction activities like debates question and answer sessions.

The measure obtained from the teachers was satisfaction with different dimensions of the classroom. Results were analysed utilising a variety of multivariate statistics. The result was supportive of the general hypothesis. Stepwise regression analysis revealed that a warm, organized classroom was significantly positively related to peer self-concept and student satisfaction with teacher and peers. The result of this study were discussed in terms of their implications for existing educational theories and practices and the creation of growth-producing environments in the classroom. The above study dealt with classroom satisfaction among the classroom players which leaves the gap that the current study will fill in that it did not handle the result of teacher-student classroom interaction about the students' academic performance.

2.4. Summary of Literature Review and Analysis of Knowledge Gap

The literature review highlighted some of the effects of teacher-students classroom interaction on students' academic performance. Even though matters of teacher-student interaction have been greatly deliberated on, limited studies have been carried out in Kenya Ngong sub-division, Kajiado County, to determine how precisely such interaction affects students' academic performance. Much of the literature found was from outside Kenya. It is therefore paramount to carry out this study to establish how teacher-student classroom interaction affects students' academic performance.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.0. Introduction

According to Kothari (2014) methodology is a method of systematically solving the research problem. This explains how the research is done scientifically. The essence of this chapter is to provide a clear description of the research design and the methodology which was used to produce responses required for the research. The elements discussed in this chapter, therefore, include the research design, target population, sample and sampling procedures, data collection procedures, research instruments, data analysis procedures as well as ethical considerations.

3.1. Research Design

Durrheim, (2004) defines research design as a tactical outline for action that aids as a bond between the research question and the execution, or execution of the research strategy. Kombo, (2006), state that research design is a selection of conditions for collection and analysing data in a way that combines their relationship with the purpose of the research to the economy of the procedures.

In this study, the researcher used the survey design. Survey design is a method of collecting data or information by administering questionnaires to a sample of individuals or through the interview (Orodho, 2009). The survey design was used to carry out this study because it enables the description of the characteristics of a group as well as individuals. This was done to explore the effects of teacher-student classroom interaction on students' academic performance in public secondary schools in Ngong Division, Kajiado County.

3.2. Area of the study

Ngong is an urban area situated near the Ngong Hills along the Great Rift Valley within Kajiado County, located in the southwest of Nairobi, in southern Kenya. The area was suitable in expressing the views about the effects of teacher-student classroom interaction as it as a good number of secondary schools and many teachers and students on whom the study was conducted.

3.3. Target population

Mugenda and Mugenda (2006) define a population as the aggregate of all that conforms to a given specification, on the other hand, Waples and Gaggiotti (2006) define a population as a set of people of the same classes that live together in the area of adequate size that all necessities for production, survival and migration can be met. According to Vogesh (2009), a target population is any group of people or objects that have at least one characteristic in common. The target population for this study is all public secondary schools in Ngong Zone, Kajiado sub-county. Therefore, the researcher targeted Form 3s and Form 4s in three public secondary schools identified as: School A, School B and School C, with the total population of 467, of which 141 was the (30%) of the target population. 6 teachers were also selected, 2 from each school.

The teachers were selected because they are the ones who are involved in teaching using and have more experience on the effects of classroom interaction in teaching and learning due to the number of years of teaching so that they can give necessary information needed in this research. Form three and four students were selected due to the period of their stay in the school and interactions they have made with the teachers during the classroom, hence they could easily give the needed information compared to form ones and twos who had not stayed longer in the school. The (30 %) was used because it is the Central limit theorem which justifies the use of normal distribution if the sample size is large enough.

3.4. Sample Size and Sampling Techniques

3.4.1. Sample

Ordho and Kombo (2002) define a sample as a part of the target or accessible population that has been procedurally selected to represent it. On the other hand, a sample is a part of the statistical population whose properties are studied to obtain information about a whole. Sampling techniques is a description of the strategies which the teacher uses to select representative respondents from the target or accessible population (Oso and Onen, 2009).

The study focused on the teachers and the students to obtain a sample size. Three schools were selected to constitute the sample. From these three selected schools, 6 teachers and 141 students were selected. The sample size of the sample public secondary school was done of (30%) of the total population. A sample was drawn from each school as shown below:

Table 1. Sample Size

Schools		Total Population	30% sample	Teachers
School A	Form Threes	72	22	
	Form Fours	68	20	2
School B	Form Threes	59	18	
	Form Fours	71	21	2
School C	Form Threes	102	31	
	Form Fours	95	29	2
Total		**467**	**141**	**6**

Source: field study (2019).

3.4.2. Sampling Procedure

According to Kombo and Tromp (2006) sampling is the act, process or technique of selecting a suitable sample or a representative part of a population. The researcher used simple random sampling where the schools were sampled. The researcher used a simple random sampling technique for this study where the schools were sampled first and secondly the respondents were sampled. Simple random sampling was also be used to come up with three public secondary schools, which represented the seven public secondary schools in Ngong Zone.

The names of the schools were written on small pieces of paper and were mixed. The paper of the school picked at random, became part of the sample in the study. From the selected school, all teachers and students constituted the population. Simple random sampling gave each individual an equal chance to be part of the sample. All form three and four students were assemble bled together and then the researcher made use of folded papers with 141 written 'yes' and the rest with 'no', to sample student respondents. Teachers sampled from the three schools were purposively selected.

3.5. Description of Research Instruments

A research instrument is a tool used to collect data from the sample to solve a research problem (McLean 2013). In order to realize the objectives of the research, the researcher utilized questionnaires both for teachers and students in order to obtain data from the sample population.

3.6. Questionnaires for students

The questionnaire for students had three sections in which section A comprised of demographic information about learners. Section B sought information regarding the influence

of teacher-student classroom interaction on students' academic performance, and section C enquired from learners about their views about teacher-student classroom interaction.

3.7. Questionnaires for teachers

The questionnaires for teachers were divided into four sections: section A covered demographic information of teachers, section B investigated the teachers' perception and attitude towards teacher-student classroom interaction on students' academic performance, section C focused on the methods used by the teachers that may or may not enhance teacher-student classroom interaction, section D contained challenges faced by teachers while interacting with students in the classroom environment in teaching and learning in Public Secondary Schools.

3.8. The validity of the instruments

Mugenda and Mugenda (2003) define validity as to how accurate the data obtained represents the variable of the study. According to Orodho (2009), is the degree to which the empirical measure or several measures of the concept, accurately measure the concept. Therefore, the validity of the research tools used in this study enhanced through consulting research experts and more importantly by the guidance given by the supervisor which provided a great impact on this study.

3.9. Reliability of the Instruments

Mvumbi and Ngumbi (2015) assert that reliability is the extent to which a test or procedure produces similar result under constant conditions on all occasions. To determine that the questionnaires were reliable, instead of pilot testing, the researcher took the questionnaires to the supervisor who is an expert for scrutiny and clarification.

3.10. Methods of Data Analysis

The researcher organized the responses categorically according to the research questions. The data was analysed descriptively using frequencies, percentages and presented using Tables and Charts. Each category was worked out using Statistical Package for the Social Science (SPSS version 21). Therefore, the data was summarized using the quantitative method and presented in relevant figures and tables. Qualitative(opinion) data was grouped and as well used to support them and give a back born to the study.

3.11. Ethical Considerations

Ethics refers to the correct rules and the procedures of conduct that are necessary when conducting research (Mugenda & Mugenda 2006). In this regard, the researcher adhered to all the ethical procedures required in the research of this nature. Therefore, official permission to conduct this research was sought from the relevant authorities was submitted to the institutes where the research was done. Equally, the respondents' consent to participate was sought directly from them. Confidentiality of the respondents and the information given was taken into account. To avoid plagiarism, the whole source of information concerning the study was branded as regards to academic honesty. Hence the researcher ensured that all the sources consulted are cited, referenced and acknowledged as required in any scholarly piece of work. In addition to that, the results of this study were only used for academic purposes

CHAPTER FOUR

PRESENTATION, INTERPRETATION AND DISCUSSION OF THE FINDINGS

4.0. Introduction

This chapter deals with the analysis, presentation and interpretation of raw data collected from the field, on the effects of teacher-student classroom interaction on students' academic performance. The research was based on three major objectives from which the questionnaires were formulated. The researcher administered 147 questionnaires: 141 for students and 6 for teachers all of them were returned. The researcher used the Statistical Package for Social Science (SPSS) to help in analysing the data and the statistical descriptive methods to illustrate the presentations using frequency tables, graphs, percentages, figures and charts.

4.1. Questionnaires Return Rate

According to the table, the researcher distributed 147 questionnaires to three schools for both teachers and students. All 147 (100%) questionnaires were received back. The response above shows that the data collected by the researcher was reliable because all the respondents returned the questionnaires.

Table 4.1. Distribution of questionnaires and Return Rate

Respondents	Distributed Questionnaires		Returned Questionnaires	
	f	*%*	*f*	*%*
Students	141	100	141	100
Teachers	6	100	6	100
Total	147	100	147	100

Source: Field Data (2020).

4.2. Demographic information

The respondents were asked to provide their demographic details in terms of gender, age, year of study, work experience.

4.2.1. Gender of the participants
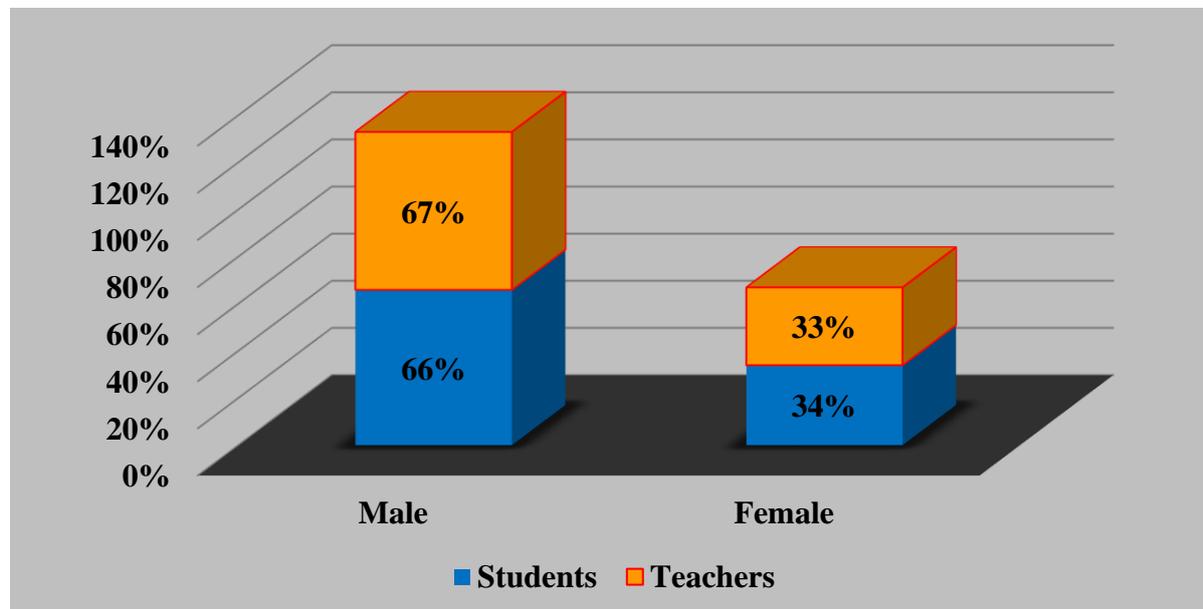
Source: field (2020).

Figure 4.1. Gender Distribution of Students and Teachers

The researcher sought to find out gender difference among the respondents the participants

were asked to indicate their gender. Figure 4.1. shows that (66%) were male students while (34%) were female students. Figure 4.1. also shows that (67%) were male teachers while (33%) were female teachers. This implies that the majority of the respondents were male students and male teachers. However, the difference in the numbers of respondents did not affect the outcome of the study.

4.2.2. Age of Students
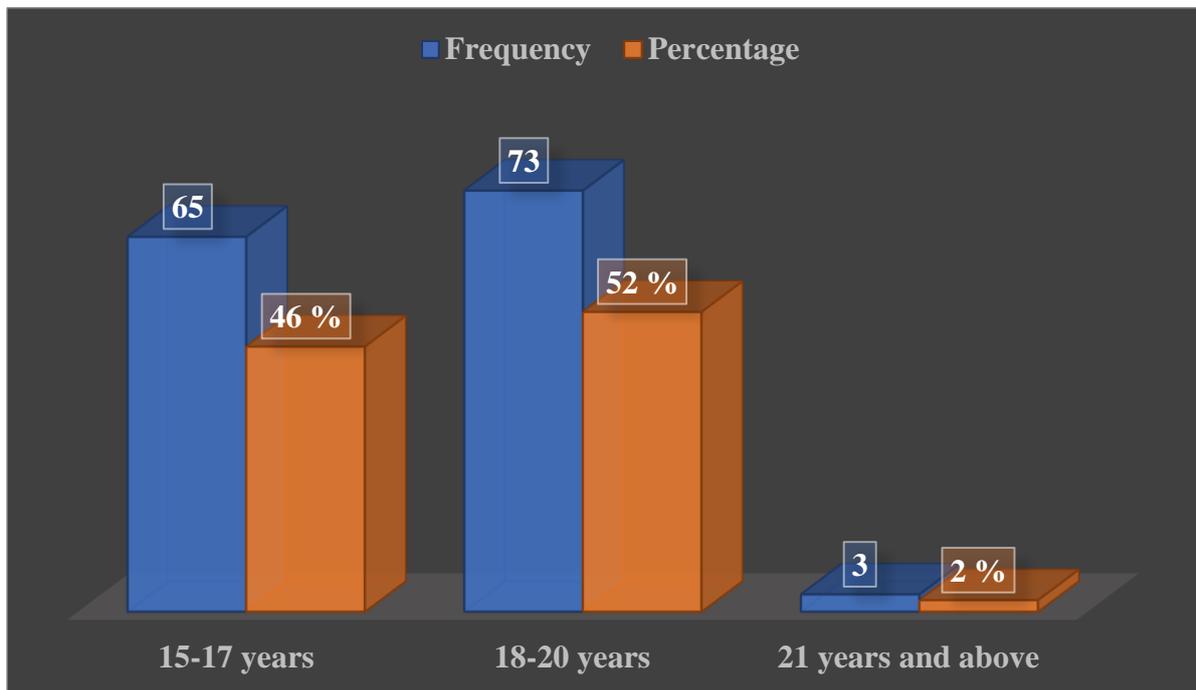
Source: field (2020).

Figure 4.2 Students' Age

The study sought to establish the age of the respondents, figure 4.2 indicates that 65 (46%) of the student respondents were aged ranging from 15-17 while 73 (52%) of the respondents were students with ages ranging from 18-20, and 3 (2%) of the students were at the age range of 21 and above. This variation of students' age indicates that the majority of students were adolescents (52%) whose age is the majority in secondary school and to whom teacher-student classroom influences on. This demonstrates that there was relatively same age

group among the student and that as age mates they would freely interact, also the variation of students' age indicates that the samples of students respondents were not of the same age and all of these students were of the age that had the potential to reason out well, appreciate and critic the matters associated with classroom interaction. Hence mature persons provided credibility within the current research.

4.2.3. Year of Study
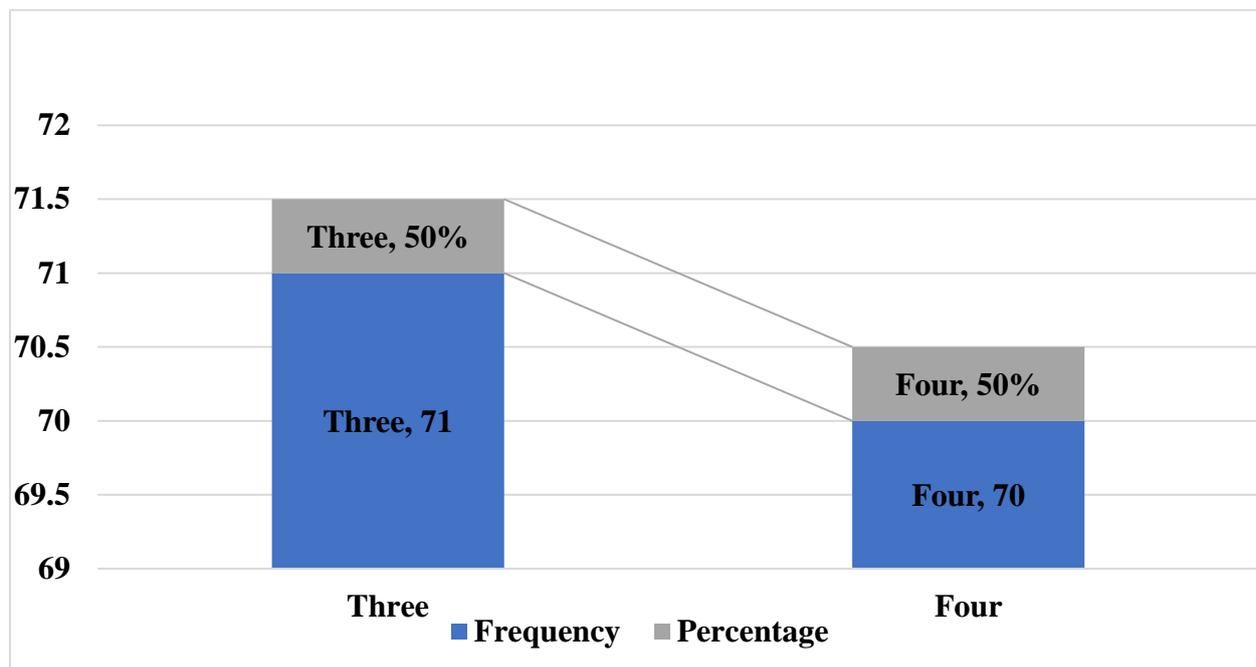
Source: field (2020).

Figure 4.3: Students' Year of Study

The student respondents were asked to indicate their year of study. Figure 4.3 shows the distribution of the year of study of the students. It indicates that 70 (50%) were in form four while 71 (50%) were in form three. This means that the researcher gave equal opportunity to both the form fours and form threes in determining the effects of teacher-student classroom interaction on students' academic performance. The researcher included both forms three and four in the study since these are the students who have stayed longer in the school and have more experience in classroom interaction.

4.2.4 Year (s) of Teaching Experience

Figure 4.4: Period of teaching experience
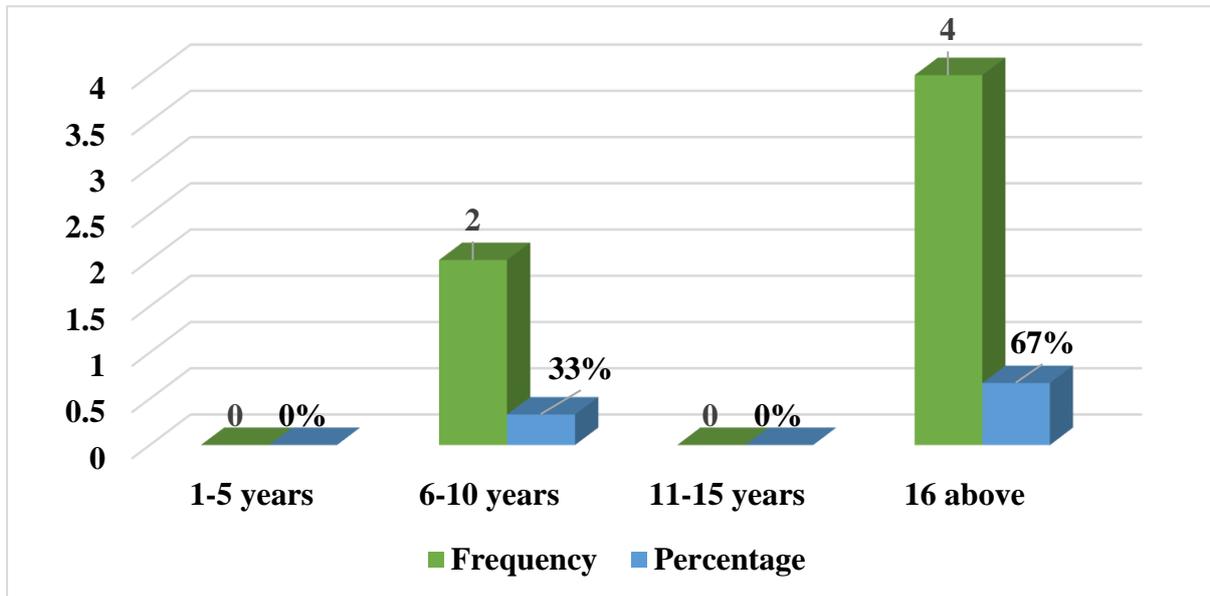
Source: field (2020).

Teachers were required to show the number of years they have taught. Figure 4.4 presents data on the years of teachers' teaching experience. The figure shows that (67%) of teachers have taught for 16 years and above while, (33%) of teachers have taught for 6-10 years.

This is an indication that all teachers included in the current research were experienced had adequate skills necessary to fully interact with the students in the classrooms due to their teaching experience. The respondents explained that played an important role in classroom interaction. This is agreeing with Zhang (2008) who said that teacher education level and experience are a representation of teacher knowledge and skills about how to teach and interact effectively.

4.3. The role of classroom participation on students' academic performance

Classroom participation is essential as far as learning and students' academic performance are concerned. It is therefore important that there is maximum participation in class the aim was to find out whether classroom interaction indeed had any effects on students' academic performance. Many items were set to gather information.

4.3.1. Students participation

Table 4.2. Students participate more if put in group

	Students		Teachers	
	F	*%*	*f*	*%*
Strongly Agree	66	47	4	67
Agree	44	31	2	33
Undecided	12	9	0	0
Disagree	14	10	0	0
Strongly Disagree	5	4	0	0
Total	141	100	6	100

Source: field (2020).

Table 4.2 accounts the opinion of the respondents among students 66(47%) Strongly Agreed, 44 (31%) agreed, 1 2(9%) were undecided, 14 (10%) disagreed and 5 (4%) strongly disagreed. Equally, teachers responded that (67%) Strongly agreed and (33%) agreed. According to the responses of the two groups, there is high participation of students when put in groups hence group discussions help the student to have such free interaction. This is in line with the study conducted by Wright (2014), who noted that involvement of students in the

classroom gives them a sense of ownership in their learning by engaging them in discussions, questioning and answer sessions, group demonstrations, and other student-centred activities.

4.3.2. There was a good relationship between teachers and students in the classroom
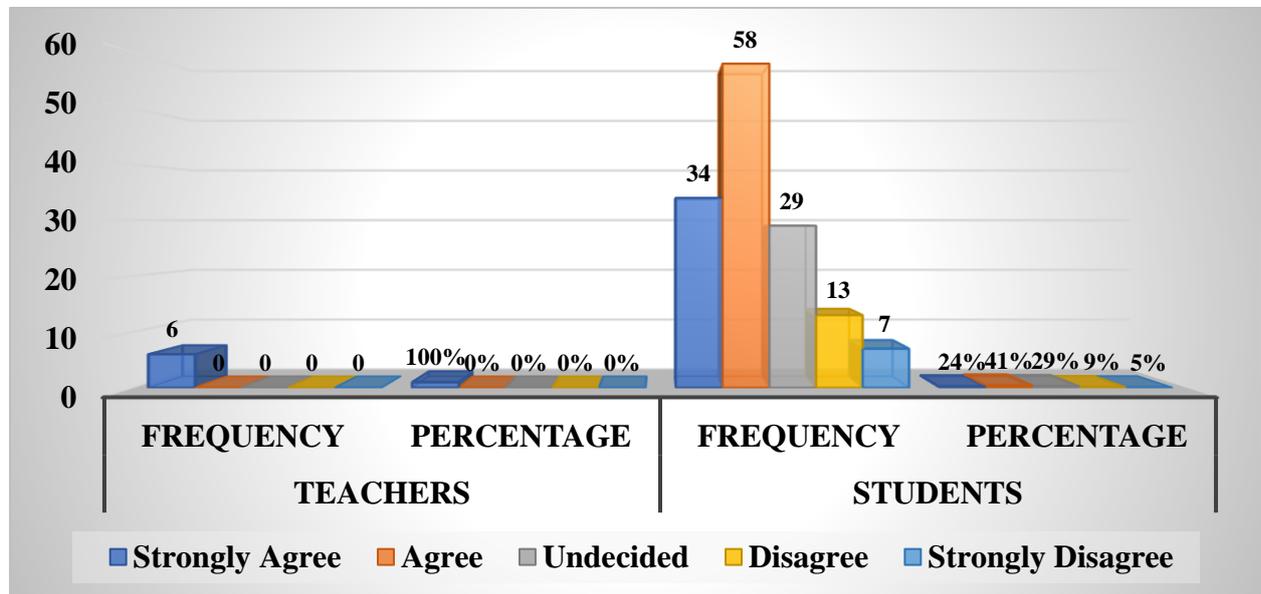
Source: field (2020).

Figure 4.5. Good relationship between teachers and students in the classroom

The researcher sought to find out whether a good relationship between teachers and students play a role in in-class interaction. The figure 4.5 above indicates that 34 (24%) students and 6 (100%) teachers strongly agreed, 58 (41%) students agreed, 29 (21%) students were undecided, 13 (9%) students disagreed and 7 (5%) students strongly disagreed.

It is evident from the overwhelming response of the respondents who agreed that Good relationship between teachers and students in the classroom play a vital role in in-class interaction. These findings agreed with the opinion of Money (2015), who says that "where there is a positive relationship between a teacher and a student there are few occurrences of classroom disruptions."

4.3.4. There was cooperation among students during group assignments

Table 4.3. Cooperation with other students during group assignments.

	Students		Teachers	
	f	%	*f*	%
Strongly Agree	76	54	1	17
Agree	45	32	5	83
Undecided	9	6	0	0
Disagree	6	4	0	0
Strongly Disagree	5	4	0	0
Total	141	100	6	100

Source: field (2020).

The researcher wanted to know whether there was cooperation among students during group assignments. Table 4.3 shows that 1 (17%) of teachers strongly agreed, 5 (83%) of teachers agreed. Responses among students were that 76 (54%) strongly agreed, 45 (32%) agreed. 9 (6%) undecided, 6 (4%) disagreed, 5 (4%) strongly disagreed. Majority of the respondents gave a positive response to the idea of students' cooperation during class assignments. which implies that there was a high level of interaction among students. This agrees with Kennedy, (2008) that classroom environment is a social context in which students learn social lessons, such as friendship, cooperation and appropriate behaviour. Students 'cooperation creates the excitement of accomplishing the assignment.

4.3.5. Participation improves performance
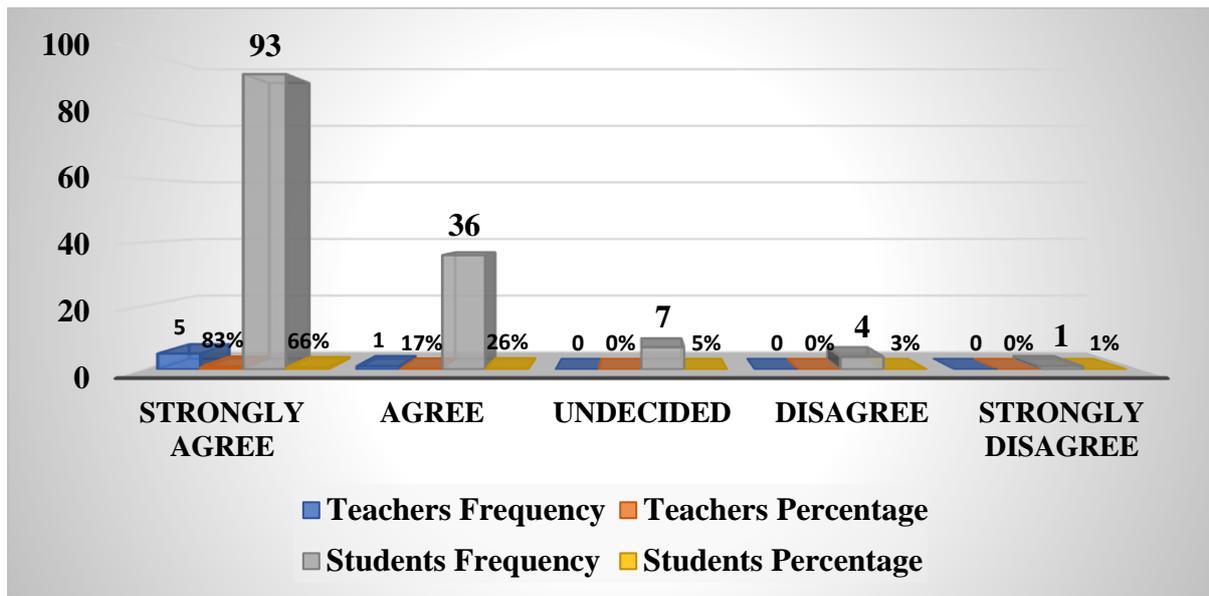
Source: field (2020).

Figure 4.6 Participation improves performance

Students' participation in class determines how they integrate the content given to them. The researcher sort to find out from the respondents whether students who participate in class easily understand concepts and their performance is improved. Figure 4.6 indicates that 5 (83%) of teachers strongly agreed, and 1 (17%) agreed, and among students 93 (66%) strongly agreed, 36 (26%) agreed, 7 (5%) were undecided, 4 (3%) disagreed and 1 (1%) strongly disagreed.

The findings indicate that many respondents strongly agreed that class participation improves academic performance. Majority of the respondents explained that participation in class enhances memory since what they do stick to their memory. This concurs with Aziz et al (2018), who states that classroom participation makes students more motivated, support their learning, improve their communication and expands their thinking of thinking ability.

4.4. Teaching methodologies that enhance classroom interaction on students' academic performance

Interactive learning is a hands-on method for helping students become more engaged and retain more material. Interactive learning helps students strengthen problem-solving and generates good academic performance. The researcher wanted to know Teaching methodologies that enhance classroom interaction on students' academic performance.

4.4.4. Students asking questions

Table 4.4 Students who ask questions often interacts more in classroom

	Students		Teachers	
	f	%	f	%
True	91	64	4	67
False	50	36	2	33
Total	141	100	6	100

Source: field (2020).

As demonstrated in *Table 4.4.* 91 (64%) of the students and 4 (67%) of the teachers affirmed that it is true students who ask questions during lessons often interact more and 50 (36%) of the students and 2 (33%) of the teachers declined the above statement to be true. This show that when students ask more questions in class tend to interact more with their teachers, which might result in good academic performance. The respondent explained that students' participation makes them more of the items taught. This is in line with Almeida et al (2009) who said that students' questions serve useful functions for learners, they are also helpful to teachers in prompting reflective thought and student-teacher engagement.

4.3.5. Classroom discussion

Table 4.5. Student's classroom discussion helps them to express themselves thereby improving academic performance.

	Students		Teachers	
	f	*%*	*f*	*%*
True	91	64	4	67
False	50	36	2	33
Total	141	100	6	100

Source: field (2020).

Table 4.5. indicates that 91 (64%) of the student respondents and 4 (67%) teacher respondents said yes to the statement that students classroom discussion helps them to express themselves fully and improves thereby improving their academic performance, however, 50 (36%) of the student respondents and 2 (33%) teacher respondents respectively said false to the above statement. The researcher, therefore, concluded that from the findings, the majority of the respondents agreed that group discussion helps students to interact and express themselves

This allows students to demonstrate creativity and knowledge and help them to go outside the constraints of classroom interaction and this may have a positive effect on students' academic performance. The respondents also explained that students can be creative and come up with illustrations. This is in line with the statement made by Aanila (2011) that, "teaching methods work most effectively if they suit learners' needs".

4.4.7. Students who shy off from answering questions
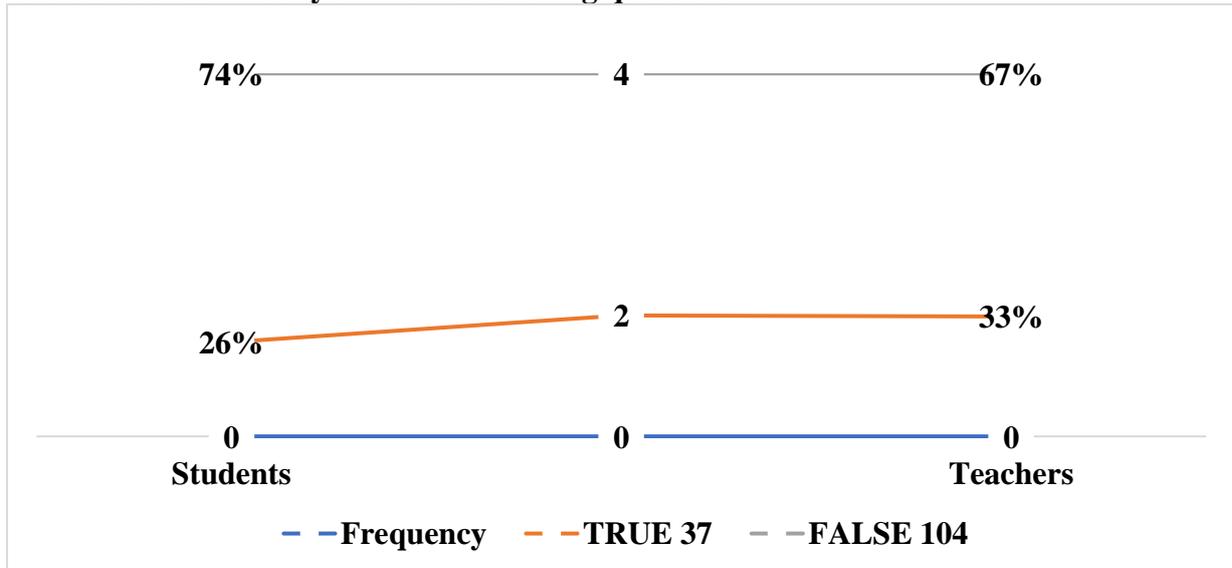
Source: field (2020).

Figure 4.7 Students who shy off from answering questions during class do not perform well in exams

Figure 4.7 shows that 104 (74%) of students and 4 (67%) of teachers said "False" while 37 (26%) of students and 2 (33%) of teachers responded "True". These responses indicate that the majority of the respondents did not agree to the statement that students who shy off from answering questions during class do not perform well in exams. This indicates that in as much as classroom interaction is essential to students' academic performance shying off may not directly affect students' academic performance. They explained that this will only enable students to be open in doing extra work and research through such questioning.

4.3.8. Students' time to ask questions
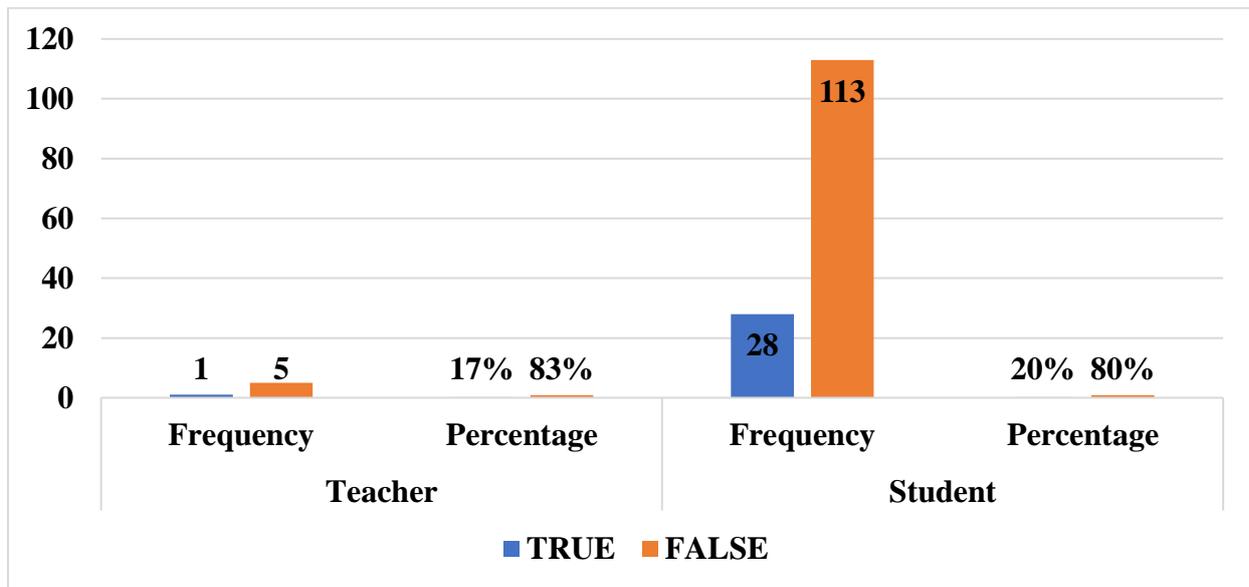
Source: field (2020).

Figure 4.8 Teachers give students time to ask questions during lesson

As specified in figure 4.8. 5 (83%) of the teachers and 113 (80%) of the students agreed that students are given time for questions during lessons while 1 (17%) of the teachers and 28 (20%) of the students did not agree that students are given time to ask questions during the lesson. Therefore, to enhance teacher classroom interaction there is a need for students to ask questions this is affirmed by the majority of the respondents who agree to this fact in their response. This was in line with Fraser (2012) who noted that administration of the questions is the best method apart from observing and interviews among other approaches to effectively analyse classroom interaction.

4.3.6. Teachers' explanation

Table 4.6. Teachers explain everything without involving students

	Teachers	
	f	*%*
True	0	0
False	6	100
Total	6	100

Source: field (2020).

The researcher wanted to know the opinion of the respondents on whether teachers explain everything without involving students, 6(100%) teachers who responded did not support the statement, this means is that teachers provided opportunities to students. The researcher found out that the teacher acts as a facilitator. Since students do not always spontaneously interact well with one another they hence need encouragement. This was supported by Camerone, (2001) who condemn teaching which reduces learners to empty vessels into which the teacher pours content and expect them to pour it back at testing time.

4.4. The role of conducive classroom environment on teacher-student classroom interaction on students' academic performance

A conducive classroom environment is essential for any effective classroom interaction to take place. The aim was to find out whether conducive environment on teacher-students classroom interaction has effects on students' academic performance.

4.4.9. Teacher-student classroom interaction increases positive outcome
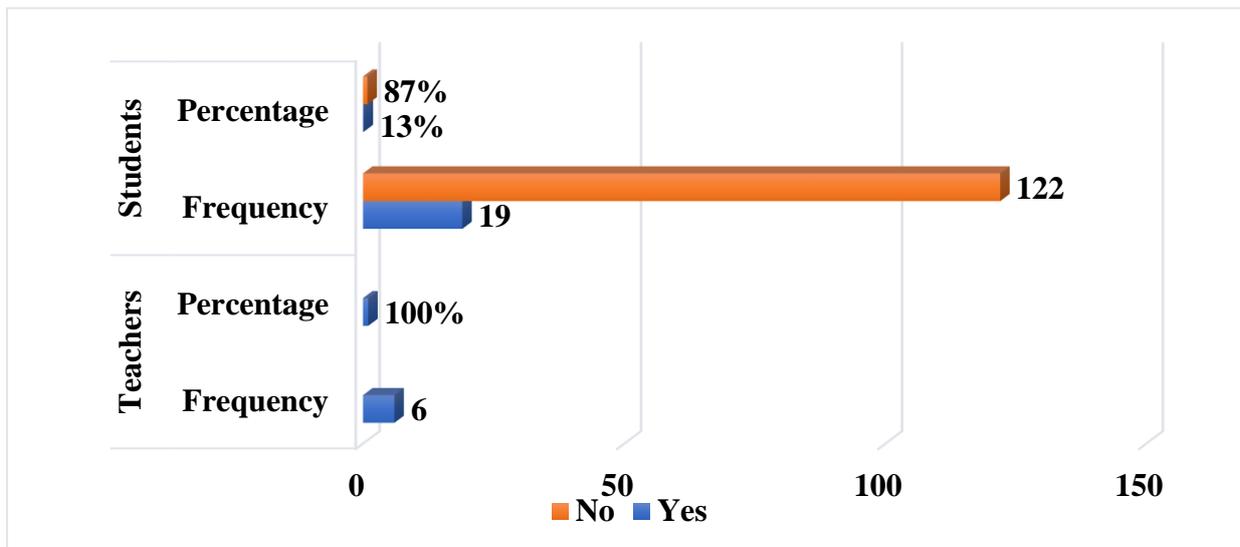
Source: field (2020).

Figure 4.9 Teacher-student classroom interactions

On this question, the researcher wanted to know whether classroom interaction increases positive outcome. The responses demonstrated in figure 4.9show that, 6(100%) teacher respondents and 122 (87%) student respondents said yes to the question while 19 (13%) student respondents said no. This shows that classroom interaction between teachers and students bring about good performance. These findings are in the same line with Fouts and Myers (2010), on classroom environment and middle school students' view of science subject, the study established that "classroom which had high levels of students' involvement, teacher support and group affiliation reported improved students' positive outcome."

4.4.10. Disruptive behaviour among students interrupt the learning process and reduce instruction time
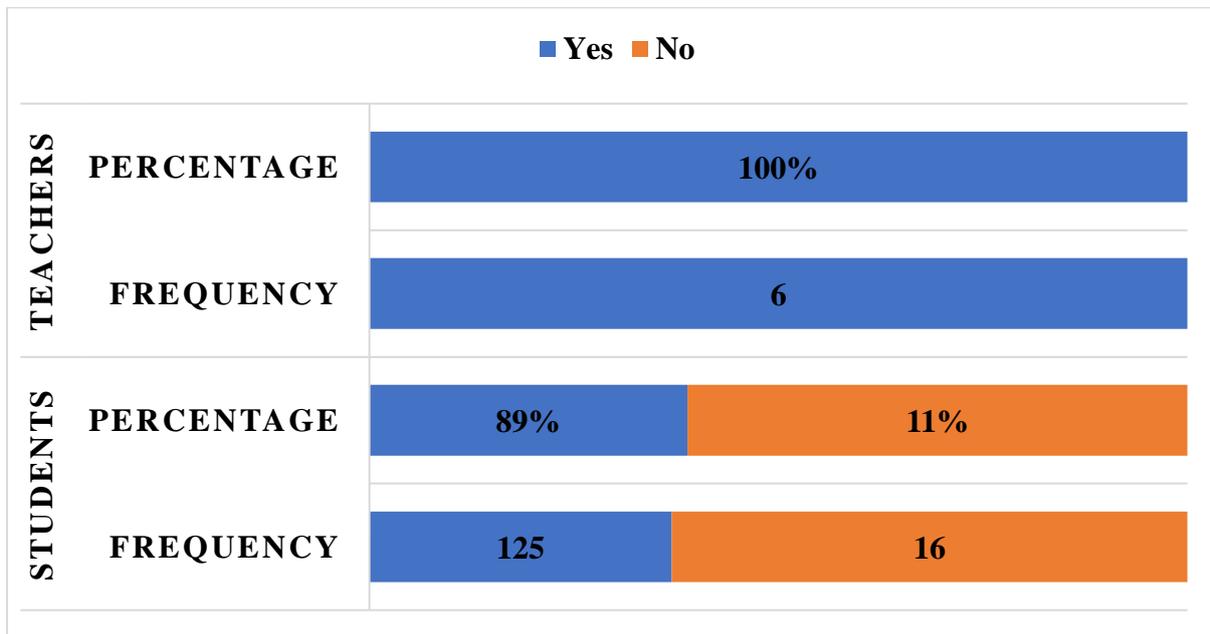
Source: field (2020).

Figure 4.10 Disruption interactive behaviours among students

The researcher wanted to find out whether disruptive interactive behaviours among students interrupt the learning process and from figure 4.10 above teachers' responses were that 6 (100%) said "Yes". The students responded that 125 (89 %) said Yes" and 16 (11%) students said "No".

According to the findings it was noted that disruptive classroom interaction interrupts learning process therefore to have an interactive classroom the environments must be free from all disruptive behaviours that may slow down the learning process. These findings concurred with the finding of Robichaux, 2016 who argued that poor classroom management has been linked to an increase in disruptive behaviour problems and a decreased focus on academic performance.

4.4.11. Students Classroom Satisfaction
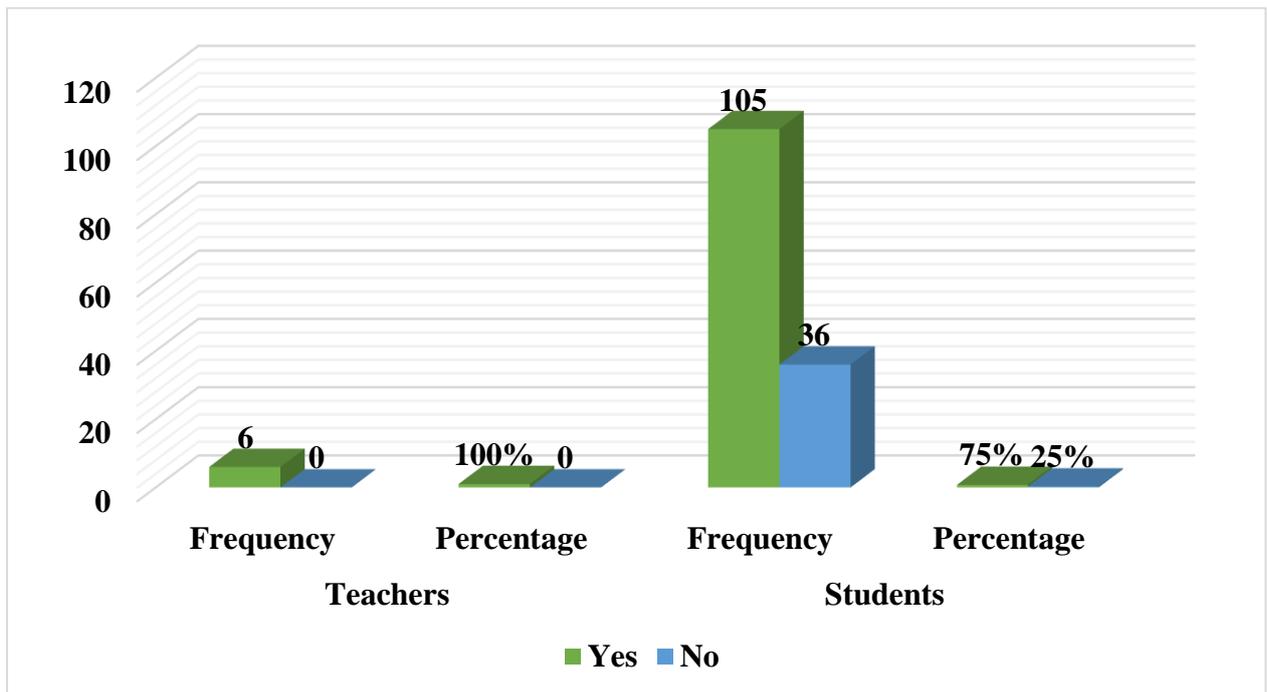
Source: field (2020).

Figure 4.11 satisfaction with classroom environment improve student's academic performance

Figure4.11. highlights students and teachers' and students' views on whether satisfaction with the classroom environment improves their academic performance. Among teacher respondents, 6 (100%) said "Yes" 105 (75%) students said "Yes" while 36 (25%) student respondent said "No". Majority of both students and teachers asserted to that fact that classroom satisfaction improves students' academic performance this is in line with Persad (2016), on the relationship of the classroom environment, teacher and student satisfaction and student self-concept concerning classroom interaction. The result of this study was discussed in terms of their implications for prevailing educational concepts and practices and the construction of positive academic outcomes.

4.4.7. Strict teachers

Table 4.7. Strict teachers limit students' freedom of participation during the lesson

	Students		Teachers	
	f	*%*	*f*	*%*
Yes	114	81	4	67
No	27	19	2	33
Total	141	100	6	100

Source: field (2020).

Table 4.7 demonstrates that 114 (81%) students responded "Yes" showing their affirmation that strict teachers limit students' freedom of participation during the lesson while 27 (19%) students said "No". On the side of teachers, 4 (67%) affirmed that strict teachers limit students' freedom of participation and 2 (33%) said "No" to the above question. This implies that strictness was seen to be draining element of students' confidence and zeal for classroom participation.

4.4.12. Teacher-Student attitude
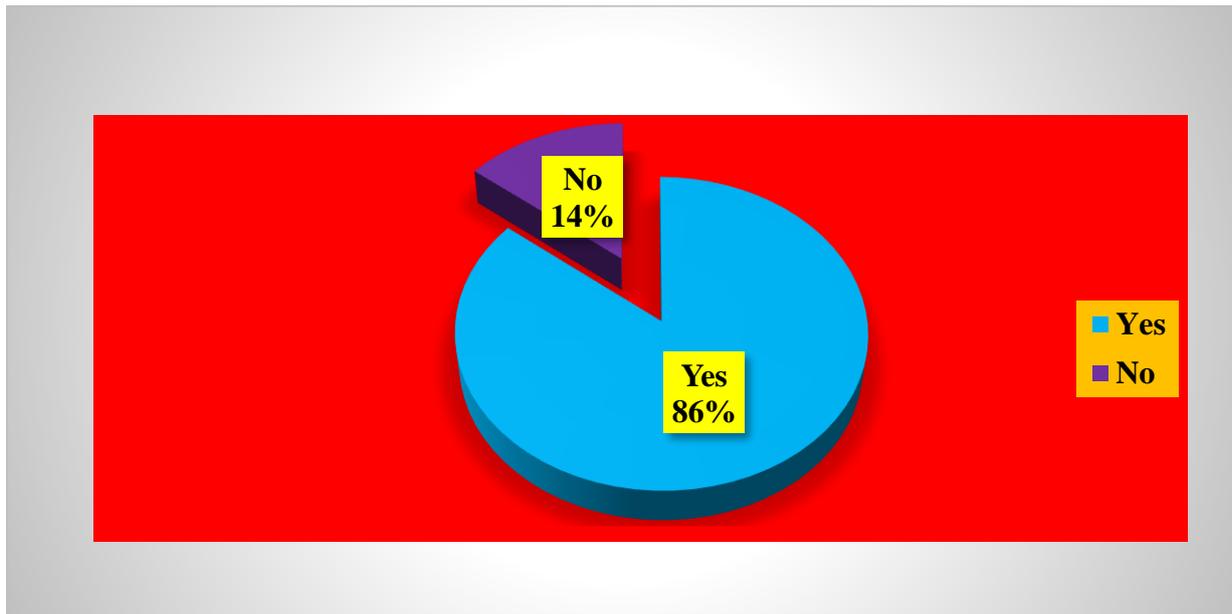
Source: field (2020).

Figure 4.12 teacher-students attitude affect teaching and learning process

The researcher wanted to know whether teacher-students attitude affects teaching and learning process, the responses are shown in Figure 4.5 above shows the student despondences (86%) said "Yes" while (14%) said "No". Students often mimic a teacher's actions. If the teacher prepares a warm, happy environment, students are more likely to be happy. An environment set by the teacher can either be positive or negative.

This was in agreement with Hutchinson and Reisis (2009), who asserted that a positive social setting has a relationship with enhancing students' classroom interaction, academic achievement, and motivation. It also has a positive impact on the students' attitudes and behaviours in numerous important areas like decision making, the discipline of a student and renders positive performance.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The purpose of the study was to find out the Effects of teacher-students classroom interaction on students' academic performance in public secondary schools in Ngong Sub-county, Kajiado County. In this chapter, the summary of the study was presented followed by the conclusions and the recommendations.

5.2 Summary of the Study

The data collected for this study has been analysed, interpreted and findings are presented in chapter four. The study intended to find out the effects of teacher-student classroom interaction of students' academic performance in Public Secondary Schools in Ngong Zone. The research objectives used in this research as a guide are as follows;

i. To investigate the role of classroom participation on students' academic performance.

ii. To determine teaching methodologies that enhance classroom interaction.

iii. To establish the role of conducive classroom environment on teacher-student interaction.

To achieve these objectives, the researcher sampled 141 Forms three and four students from three public secondary schools located in Ngong, using the simple random technique. The students from forms Three and Four were selected due to the period of their stay in the school and the interactions that they made with the teachers when learning, hence they could easily give the needed information as compared to the form ones and twos who have not stayed longer in the school.

The researcher also involved 6 teachers who were sampled purposively from the same three schools. The teachers were selected because they are the ones who are key factors in as far as classroom interaction is involved. 147 respondents were sampled to respond to the questionnaires, all the students and 6 teachers returned the questionnaires.

The findings indicated some elements associated with teacher-student classroom interaction. The study shows the academic performance of students depends on the effectiveness of teachers in teaching them. Student can learn effectively if teachers interact with them and get actively involved in the learning process. Teaching and learning are determined by the type and quality of classroom interaction between the teacher and the students (Fenstermancher & Solits, 2004). Positive teacher-student interactions produce good learning outcome and encourage student interaction among them. This relationship between teachers and students also helps in tackling areas that are not understood thereby improving academic outcome. Therefore, class participation is an effective means for students' improved performance.

The researcher also found out that students' satisfaction is also essential in bringing about good academic performance. The study also established that the use of interactive methods of teaching will bring about classroom interaction even among students you may find it hard to participate in such methods such as group discussions. The findings show that students participate less under strict guidance nevertheless also create a conducive environment that will prevent disruptive interactive behaviour in the classroom.

5.3. Conclusion

With the findings on the teacher-students classroom interaction, the following conclusions were made: Classroom interaction rouses the student participation in the classroom. It drives student motivation and helps the students see the importance of teachers' subject. It increases involvement as all students participate. The interaction can be between the teacher and the students as well as student and student's interaction. This form of classroom interaction gives the chance to everyone to give their contribution. The researcher also found out classroom interaction can allow the student to learn and understand how to work with partners. It develops and improves the skills of teamwork. It improves peer relationship and positive academic outcome.

5.4. Recommendations

The results and conclusions of this study on the effects of teacher-students classroom interaction on students' academic performance in Public Secondary Schools in Ngong Zone, Ngong Sub-County, Kajiado County, made the researcher indorse the following:

Teachers

Teachers are recommended to have a positive attitude towards students as they enter the classroom. Teaching and learning environment should include active learning experiences, teacher-student and student-student interaction.

Teachers should acquire improved behaviour to enable them to identify disruptive in the classroom. Effective learning is generally likely to take place if students are actively involved in a variate of learning activities.

Teachers are recommended to use different teaching methods that would engage students to interact actively such as small group discussion, quiz, debate even drama. The

strictness of the teachers should not instil fear of participation among students. Teachers should take

along during classroom shy students those who can hardly participate and interact with others by engaging them. Teachers to have evaluations on how best they interacted with the students in the classrooms during lessons.

Students

Students are encouraged to actively interact in a class by asking questions and answering questions in class. Avoid disruptive behaviour in class. Avoid developing a negative attitude toward the teachers and the subjects. Take great interest to interact with one another and seek clarification where possible.

Ministry of Education

The ministry of education should ensure that the curriculum developers put into curriculum more lessons that will actively make teachers and students interact.

The ministry of education should emphasis on the teaching methodologies that will promote teacher-student classroom interaction in the curriculum. The ministry should advocate for school-based workshops where participants will share various ways of building up their skill on how to have effective classroom interaction with students.

5.5. Suggestions for further research

The study was restricted to Ngong Sub-County. The study concentrated on the effects of teacher-student classroom interaction in public secondary schools. However, the researcher has not been exhaustive on the effect of teacher-student classroom interaction in public secondary school due to scope and delimitation, time and resources. The researcher in this

regard, suggests that the studies be carried out in another much larger area. Therefore, the researcher suggests the following areas for further studies:

a) An investigation on the rate of classroom participation between male and female students.

b) Challenges facing students understanding of concepts in group discussions.

c) Effects of teacher-student classroom attitude on students 'academic performance.

References

Aanila, F, S., 2011. The need and importance of field trip at higher level in Karachi, Pakista.

International Journal of Academic Research in Business and social sciences. 2(1), 3039.

Achieng, A & Minyafu, R.A (2009). *Principles of teaching and Communication.* Nairobi:

Kaswanga and consultancy Ltd.

Ahn, R. & Class, M. (2011). Student- Centred Pedagogy: Co-Construction of Knowledge

through Student Generated Exams. International Journal of teaching and Learning in

High Education, 23, (2), 269-281.

Almeida, P. & Neri de Souza, F. (2009). Patterns of Questioning in Science Classrooms. In .

Muñoz and F. Ferreira (Eds.). Proceedings of the IASK (International Association for

the Scientific Knowledge) International Conference "Teaching and Learning 2009".

Aziz, F., Quaraishi, U., & Kaz, A. (2018). factors behind classroom participation of the

Secondary school student, (A Gender Based Analysis) University Journal of

Educational Research 6(2): 211-217, 2019 DOI 10.13189/Ujer.2019 060201.

Htt://www. Hrpub.org

Bandura, A. (1977). *Self-efficacy. Toward a unifying theory of behavioural change*.

Psychological Review, 84(2), 191-215.

Bell, J. (2000) *Doing your research project*. A guide for first time researchers in education,

health and social sciences.

Bennet, C. (2001). *The relationship between classroom climate and student achievement*.

Desertion for Doctor of Education. (Education Administration). Texas: University of

North Texas.

Brown, H. D. (2000). Teaching by Principles: *An interactive approach to language*

Englewood Cliffs, New Jessey: Prentice Hall Regents.

Cameron, L. (2001). *Teaching language to young learners.* Cambridge: Cambridge

University.

Durrheim, K. (2004). Research design. In M. Terre Blanche, & K. Durrheim (Eds.), *Research*

in practice: Applied methods for the social sciences (pp. 29-53). Cape Town:

University of Cape Town.

Fafunwa, A. (1976) *New perspective in African education.* London: Macmillian Education

Limited.

Falsario, H. N., Muyong, R, F., & Nuevaespana, J.S. (2014). *Classroom climate and*

academic performance of education students. Manila: Dela salle University.

Fenstermacher. G., D & Solits, J. F., (2004) *Approach to teaching fourth edition.* New York.

Teachers College Press. https://books. google. Ke/books?isbn=080774484

Fouts, J. T., & Mayers, R.E. (2010). Classroom environments and middle school students

Views of science. Htt://dx. Dio.org/10.1080/00220671.1992.9941138

Fraser, B.J. (2012) *Classroom Learning Environments*: Retrospect, Context and Prospect. In:

Fraser, B.J., Tobin, K.G. and McRobbie, C.J., Eds., The Second International

Handbook of Science Education, Springer, Dordrecht, 1191-1239.

http://dx.doi.org/10.1007/978-1-4020-9041-7_79

Getzel, J., & Thelen, H. (1960). *The classroom as a unique society system*. National society

for the study of Education year book 59, 53-81

Gichumba, C et al. (2009). *General Methods of teaching young children and material*

Development. Nairobi: Sasasema publishers.

Guido, R.M.D. (2013). *Attitude and Motivation towards Learning Physics.*

International Journal of Engineering Research & Technology (IJERT) Vol. 2

Rizal Technological University ISSN: 2278-0181

Hutchinson, C J.; Reiss, E. (2009) On Improving School Climate: Reducing Reliance on

Rewards and Punishment Hoffman, Lorrie L.; Journal Articles; Reports.

Jepketer, A., Kombo, K., & Kyalo, D. N. (2015). *Teachers' Classroom Strategy for*

Enhancing Students' Performance in Public Secondary Schools in Nandi County,

Kenya. IOSR Journal of Humanities and Social Science Volume 20, PP 61-73 (IOSR-

JHSS) DOI: 10.9790/0837-20726173

Jones, L. (2007). *The Student- centered classroom.* Cambridge: Cambridge University Press.

Kekare, S.H. (2015). Classroom physical environment and academic achievement of

students. *The international Journal of Indian Psychology,* 3(2), 116-120.

Kennedy. K., J. (2008). Classroom Management Creating a positive learning Environment.

Hong Kong University Press.

Kombo, D. A. (2006). *Proposal and thesis writing*: An introduction. Nairobi: Paulines

Publications Africa.

Kombo, D.J., & Tromp, D.L.A. (2006). Proposal for and thesis writing: *an introduction.*

Nairobi: Pauline's publications Africa.

Kothari, C.R. (2004). *Research methodology:* Methods and Techniques, Second edition.

Daryagnji: New Age International Ltd.

Kupulainen, K & Wary, D (2012). *Classroom interactions and social learning from Theory*

to Practical. Canada: Routledge.

Krugar. A. G., & Schalkwyk, O.J. (1993). *Classroom Management*: Pretoria.

Lightburn, M.E., & Fraser B.J. (2007). Classroom environment and student outcomes among

Student using anthropometry activities in high-school science. *Research in science &*

Technological Education, 25(2), 153-166.DOI: 10.1080/02635140701250576

Marzono, R. (1992). *A different kind of Classroom. Alexandrian*, VA: ASCD.

Mayers, M.D. (2009). Qualitative research in business management. London: sage

Publication Ltd.

McLean, D. (2013). Research Methods and instruments. Michigan: Michigan University

Press.

Ministry of Education (2001). *Teaching and learning in Primary Classroom.* Nairobi:

Jomokenyatta foundation.

Money. J., N. (2015). Pilot study: Student behaviour inter- city schools: The impact of

teaching teacher student relationship. A Dissertation presentation presented to faculty

of the Education Department. Carson Newman University.

Mugenda. M., & Mugenda. G. (2006). *Research methods: Quantitative and qualitative*

Approach. Nairobi: Act press.

Murray, H. (1938). *Exploration in personality.* New York: Oxford University Press.

Mvumbi, F.N & Ngumbi, E. (2015). *Companion to research methodology: Focus on*

Humanities, education and social sciences. Nairobi: CUEA Press.

Nasimbi, M. W. (2003). *Instructional Methods: teaching across curriculum.* Nairobi:

Strangwall Africa.

Ogula, P., & Onsongo, J.K (2009). *Handbook on teaching and learning*. Nairobi: CUEA

Press. https//books.google.co.ke/books? id

Orodho, J. (2003). *Statistics made friendly for educational and social science research.*

Nairobi: Maseno publishers.

Patrick, H. (2013). Identifying Adaptive Classrooms: Analyses of Measures of Dimensions of

the Classroom Social Environment Purdue University Paper prepared for the Positive

Outcomes Conference, For Indicators of Positive Development Conference March 12-

13, 2003.

Perkins, D.N. (1991). Educating for insight. Educational Leadership, 49(2), 4-8.

Persad, S. (2016). (Thesis and Dissertations) Relationship of classroom Environment,

Teacher and student satisfaction and student self-Concept. Wilfrid Laurier University.

Piaget, J. (1964). *Development and learning, journal of research in the science teaching*.

2(3), 176-186.

Raj, K. (2016). Influence of Physical learning Environment in students Behaviour and social

relations faculty of Education, University of Coruna Giace. File//ID:/class%20

Environment/physical/%20 Learning %20 Environment.

Shamaki, T.A. (2015). Influence of learning environment on students' academic achievement

in Mathematics: A case study of some selected secondary schools in Yobe State-

Nigeria. Journal of Education and Practice, 6(34), 40-44.

University of Nairobi research Archive Analysis of Classroom interaction patterns of Kenya

Secondary 2016, Nairobi.

Varga, M. (2017). The Effect of Teacher-Student Relationships on the Academic

Engagement of Students Submitted in Partial Fulfilment of the Requirements for the

Degree Master of Education Graduate Programs in Education Goucher College.

Vigostsky, L.S. (1978). *Mind in society development of Psychological process. Cambridge,*

Mass.: Harvard University press.

Waples R. S., & Gaggiotti, O. E. (2006). What is a population? An empirical evaluation of

Some genetic methods for identifying the of gene pools and their degree of

Connectivity. Molecular ecology, 15, 1419-1439. Doi:10.1111/j.1365

294x.2006.02890.x

Wasanga, P. M. (2016). An analysis of classroom interaction patterns of Kenyan secondary

School. chemistry teachers and their undesirable behaviours.

Zhang, D. (2008). The Effects of teacher education level, teaching experience and, teaching

behaviours on student science achievement. Utah State University.

APPENDIX I: QUESTIONNAIRE FOR STUDENTS

Dear respondent,

RE: Data Collection

I am a student at Marist International University College (MIUC), which is a constituent College of Catholic University of Eastern Africa (CUEA). I am carrying out a research *on "Effects of Teacher-Student classroom interaction on students' academic performance in secondary schools".* which is the requirement for the completion of my Bachelor's degree in education. You are kindly requested to fill the given questionnaire. Be assured that the information will be treated with confidentiality and will be exclusively used for academic purpose. Your cooperation will be highly appreciated.

Thank you in advance.

Section A: Demographical Information

Instructions: Please put a tick **[√]** in the box in front of the most appropriate response where explanation is required kindly use the space provided.

1. Gender: Male [ ]   Female [ ]

2. Age: 15-17 years [ ]   18-20 years [ ]   21 years and above [ ]

3. Form: Three [ ]   Four [ ]

Section B: The role of classroom participation on students' academic performance

Put a tick [√] in the most appropriate space to indicate your level of agreement using the scale given below: Strongly agree (**SA**) Agree **(A)** Undecided **(U)** Disagree **(D)** Strongly

 Disagree **(SD)**

STATEMENT	SA	A	U	D	SD
4. Students participate more if put in groups.					
5. There is good relationship between teachers and students in the classroom.					
6. I cooperate with other students during group assignments.					
7. Students participation in classroom activities make lesson interesting and less tiresome.					
8. When I participate in class, I easily understand concepts and my performance improves.					

Section C: Teaching methodologies that enhance classroom interaction on students' academic performance.

Indicate by placing a mark **[√]** in the box space provided whether it is **True** or **False** in the following questions

STATEMENTS	True	False
9. Students who ask questions in class often perform well in exams.		
10. Student's classroom discussion helps students to express themselves there by improving academic performance.		
11. Students who shy off from answering questions in class do not perform well in exams.		

12. Teachers normally give us time for questions during lessons.		
13. Participation in class does not contribute to good performance.		

Section D: The role of conducive classroom environment on teacher-students interaction on students' academic performance.

Put a mark **[√]** in the most appropriate space to indicate your level of agreement as proposed bellow

14. Do you think teacher-student classroom interaction increase positive outcome?

Yes ( )　　　　　No ( )

15. Do disruptive interactive behaviors among students interrupt the learning process?

Yes ( )　　No ( )

16. Do students' satisfaction with the classroom environment improve their academic performance? Yes ( )　　No ( )

17. Do you think strict teachers limit students' freedom of participation during the lesson? Yes ( )　　No ( )

18. Do teachers and students' attitude affect teaching and learning process?

Yes ( )　　　　　No ( )

The following questions will require you to write your opinion in the spaces provided

19. In your opinion, how else do you think teaching methods enhance teacher-student classroom interaction?

i. …………………………………………………………………………………………

ii. …………………………………………………………………………………………

20. Explain in your opinion, how classroom participation can influence the students' academic performance?

i. ....

ii. …………………………………………………………………………………………

21. In your opinion, how else do you think conducive classroom environment enhances teacher-student interaction?

i. …………………………………………………………………………………………

ii. …………………………………………………………………………………………

APPENDIX II: QUESTIONNAIRE FOR TEACHERS

Dear respondent,

RE: Data Collection

I am a student at Marist International University College (MIUC), which is a constituent College of Catholic University of Eastern Africa (CUEA). I am carrying out a research *on "Effects of Teacher-Student classroom interaction on students' academic performance in secondary schools".* which is the requirement for the completion of my Bachelor's degree in education. You are kindly requested to fill the given questionnaire. Be assured that the information will be treated with confidentiality and will be exclusively used for academic purpose. Your cooperation will be highly appreciated.

Thank you in advance.

Section A: Demographical Information

Instructions: Please tick in the box [√] in front of the most appropriate response where explanation is required kindly use the space provided.

1. Gender: Male [   ]   Female [   ]

2. Year (s) of teaching experience:

    1-5 years [   ]   6-10 years [   ]

    11-15 years [   ]   16 years and above [   ]

Section B: The role of classroom participation on students' academic performance

Put a mark [√] in the most appropriate space to indicate your level of agreement using the scale given below: Strongly agree (**SA**) Agree **(A)** Undecided **(U)** Disagree **(D)** Strongly

Disagree **(SD)**

STATEMENT	SA	A	U	D	SD
3. Students participate more if put in groups.					
4. There is good relationship between teachers and students in the classroom.					
5. Teachers allow students' feedback during lesson.					
6. There is cooperation among students during group assignments.					
7. Students who participate in class are likely to grasp concepts and perform well.					

Section C: Teaching methodologies that enhance classroom interaction on students' academic performance.

Indicate by placing a mark [√] in the box space provided whether it is **True** or **False** in the following questions

STATEMENTS	True	False
8. Students who ask questions in class often perform well in exams.		
9. Teachers give time for questions to the students.		
10. Students who shy off from answering questions in class do not perform well in exams.		
11. Teachers explain everything without involving students.		

Section D: The role of conducive classroom environment on teacher-students interaction on students' academic performance.

Put a mark [√] in the most appropriate space to indicate your level of agreement as proposed bellow

13. Do you think teacher-student classroom interaction increase positive outcome?

 Yes ( )   No ( )

14. Does disruptive behavior among students interrupt the learning process and reduce instruction time? Yes ( )   No ( )

15. Does student satisfaction with the classroom environment improve their academic performance? Yes ( )   No ( )

16. Do you think strict teachers limit students' freedom of participation during the lesson?

Yes ( )   No ( )

17. The following questions will require you to write your opinion in the spaces provided

Yes ( )   No ( )

18. In your opinion, how else do you think teaching methodologies enhance teacher student classroom interaction?

 iii.   ………………………………………………………………………………

 iv.   ……………………………………………………………………………….

19. Explain in your opinion, how classroom participation can influence the students' academic performance?

 iii.   ....

 iv.   ……………………………………………………………………………….

20. In your opinion, how else do you think conducive classroom environment enhances teacher-student interaction?

iii.   …………………………………………………………………………………

iv.   …………………………………………………………………………………

Your questionnaires have open ended questions whose data analysis did not feature in your chapter 4.