

**CLASSROOM MANAGEMENT AND ACADEMIC PERFORMANCE
IN MATHEMATICS OF SELECTED STUDENTS IN KIMILILI
SECONDARY SCHOOL BUNGOMA
DISTRICT, KENYA**

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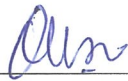


**A RESEARCH REPORT PRESENTED TO THE INSTITUTE OF
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OF REQUIREMENT FOR BACHELORS DEGREE OF
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DECLARATION

I NASIO LORNA declare that this is my own work and it has never been presented to any other institution apart from Kampala International University where I am presenting it for the first time.

Signature: 

Name: LORNA OSIMBO

Date : 12/9/08

APPROVAL

This Research Report has been approved by:

Signature: 

Name: Womuzumbu MOSES

Date : 12/09/2008.

DEDICATION

All of us have had lecturers whom we remember fondly and who were apparently good lecturers. I remember four.

Mr. Nabiso: a warm, friendly and understanding lecturer who was concerned more on cognitive development during his teaching. He appreciated learners' views and identified weak areas of his students.

Mr. Suleiman; a tough University lecturer who drilled the facts and enforced the rules to be applied during Mathematics lecture lessons. He emphasized students participation and all his lessons were student-centred.

Mr. Mundu: A young energetic good natured, quick witted lecturer with a booming excellent voice. He was slow but sure and aimed at good results.

ACKNOWLEDGEMENT

Many people contributed to the success of my research report writing. My appreciation goes to Professor E.O. Fagbamiye for enabling me to get the necessary guidelines and skills of writing a research report.

Special thanks go to my supervisor Mr. Omuzumbu Moses for the helpful comments, corrections and suggestions that enabled me to come up with my report.

I thank the Kampala International University Librarians for offering me a conducive environment and enabling me to use the library facilities to acquire information.

A part from that, special thanks goes to the students, teachers and education officers for providing me with conducive atmosphere and responding positively towards my questions and furnishing me with sufficient information during my study.

Finally, I thank my respective family for their love and support financially, patience and good humour. Not forgetting those who type-set for me my work in a well organized and presentable manner.

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CHAPTER ONE

THE PROBLEM AND ITS SCOPE

1.0 Introduction

1.1 Rationale of the study

Our Kenyan government values good performance in all curriculum subjects. As a teacher, I feel it is quite encouraging. The ministry has tried to establish and maintain the quality of teaching and learning by encouraging teachers to measure teaching and learning achievement by means of agreed performance indicators through motivation of teachers and students, introducing programs to improve teaching and learning but still mathematics as a subject performs poorly compared to other subjects. It is crystal clear that all stakeholders shy of their own efforts when the Kenya certificate of secondary education (K.C.S.E) results has been announced. This is so because, out of one hundred and twenty secondary schools in Bungoma District, only twenty schools attempt to get a mean mark of 50%. This is 16.7% of the total number of candidates who sit for national examinations in mathematics.

Furthermore, if this issue is not solved in time, it will threaten the future of our country. Mathematics is the backbone of our civilization as it leads to development of various subjects, vocations and technology.

This study will enable education officers, teachers, parents, students and other stakeholders to look into mathematics performance as the gate and key of sciences because it forms an integral part of modern culture and society (Roger Bacon). Hence produce successful mathematical thinkers and self-reliant citizens in future.

1.2 A statement of the problem

Classroom management as an independent variable closely contributes to academic performance in mathematics. The two variables go hand in hand for any success to be utilized that is why in the absence of one, the other variable becomes useless. This is so because academic performance is a dependent variable and depends on good classroom management by teachers and therefore without the two teaming up, no expectations in the performance of mathematics.

1.3 Objectives

General:

This study is to determine the classroom management and academic performance in mathematics in Bungoma District Kenya.

Specific:

The study seeks to

1. Determine the profile of the respondents as to
 - 1.1 Socio demographic data
 - 1.1.1 Sex
 - 1.1.2 Age
 1. Academic level
2. Determine the teaching techniques applied during the teaching, learning process in mathematics by teachers.
3. Determine the importance of setting, marking, evaluating and grading students' work in mathematics.
4. Determine if there is a significant relationship between motivation, class discipline and performance of mathematics
5. Determine if there is a significant difference in the teaching of mathematics and availability of physical facilities and teaching/ learning materials.

1.4 Research questions

1. What are teaching techniques to be applied during the teaching, learning process in mathematics by teacher?
2. Are they being used effectively as required?
3. What is the importance of setting, marking evaluating and grading students' work in mathematics?

4. Is setting, marking, evaluating and grading effectively done?
5. Is there any significant relationship between motivation, class discipline and the performance of mathematics?
6. Describe the significant difference in the teaching of mathematics and availability of physical facilities and materials

1.5 Scope of the study

This study was conducted in Kimilili secondary school, Kimilili division, Bungoma district, Kenya. Kimilili Secondary school is found in western province. It is located to the furthest end of Bungoma district bordering Uasin Gishu District towards the south. The big town near the school is Bungoma which is 15km from the district headquarters. The study was carried out between May 2008 and June 2008.

1.6 Significance of the study

The findings of the study will:

Provide important information to be used by the ministry of education to lay up strategies of updating teachers through workshops, insets, seminars and in-service course programs.

Help the education officer supervisors to carry out inspection on syllabus coverage, assessment and find proper ways of motivating performing teachers and students.

Increase awareness of teachers on ways of creating a classroom climate in which students feel a sense of acceptance, belonging and some degree of control and also set reasonable limits for classroom behavior

Sensitize the learners on the importance of the effective met-cognitive processes and beliefs towards the subject and their everyday life.

Help parents as immediate determinants of their children's education to offer guidance and counseling to their children and provide necessary materials. Encourage parents to inspect their children's books and set targets in the subject.

Help the stakeholders including the community, society and the politicians to find ways and means of funding the schools in order to get all the required materials which are necessary for fostering achievements.

CHAPTER TWO

REVIEW OF THE RELATED LITERATURE

Introduction

Continuously falling standards in mathematics has led to research for causes as well as remedial measures. This leads to the concept of educational accountability. Parents are compelled to look for private tuition for their children as that they can get good marks in mathematics

Teaching techniques

When applying the teaching techniques, a teacher is expected to consider age factor and level of the class **Geary (1994)** since a technique like self-study is not applicable at lower primary level. **Mayer (1999)** recommends homework to be given to students so that they are able to solve specific algorithms using correct manipulative procedures and do independently. Teachers avoid oral work which develops mental abilities, alertness and quick thinking of the students. **Fuson and Briars (1990)** recommends oral work for solving day-to-day problems in life. **Cooney (1991)** and **Leferre (1986)** say that teachers to give students written work so that they will be able to follow up the procedure learners have used in computing mathematical problems. Good techniques help in good delivery and understanding of concepts.

Setting, marking, evaluating and grading students.

Setting is very important as it enables a child to apply his cognitive ability to remember the knowledge learnt in the previous lessons. The teacher should set work from the areas he/she has covered to avoid embarrassment due to poor performance and frustrating students too. **Krathwol, Bloom's Masia (1964)** says evaluation helps to revise curriculum, determine the policies of promotion and provide guidance to pupils, on the basis of their evaluation. **Fuchs and Karns (1995)** say evaluation revises the curriculum. Tests also provide a means of determining the extent to which understanding and skills have been achieved. This provides important information to the pupils, teachers, parents and education authorities. This is by W.K.

Kimalat, MGH (1999)

According to **Masia (1964)** marking helps the teacher to understand where the learners may have not understood the concepts and hence plan for remedial. Grading according to

the **theory of goal setting and task performance by Locke E and Lathan G (1990)** helps to promote learners to the next level so long as they perform well. All the four techniques, setting, marking, evaluation and grading are quite important in the performance of mathematics as they help to understand the special educational needs of students, get immediate feedback and have a record for future use.

Motivation and discipline

Motivation and discipline are independent variables which act as one the opposite of the other. Without motivation, no performance and unlike without discipline no performance. According to **teachers' image (2005)**, the principal of Maseno high School, Kenya said that motivation is the best tool for performance in mathematics. **Maslow theory** also emphasizes the need for motivation to students and all workers, teachers inclusive while **Kolter and Kotter (1993)** reminds us that attending to students is a powerful tool for motivation. **Mc Queen (1992)** says that motivation maximizes students' attention to participate in the learning task. Therefore motivation energizes, directs and sustains behavior. It influences learning, focuses learners' attention on particular goals and instigates behavior, finally teacher needs are met.

According to **Esewo E (1983)** effective teachers create a classroom climate in which students have a sense of acceptance, belonging and some degree of control. During education day on 20th June 2007, the district Education officer Lugari, **Mrs. Celina Awour**, highlighted the importance of discipline and said that teachers should be role models as they control students. She emphasized on teachers setting reasonable limits for classroom behavior as frustrated students may want to go out of class whenever a teacher enters the class. Concepts and the ones on discipline help to create teacher-student relationship and helps in proper guidance of learning." A disciplined child always concentrates over a long period" says the principal of Maseno High school.

Physical facilities and teaching learning materials

Insufficient physical facilities for example classrooms and desks lead to rote learning especially where students learn under a tree and sit on the floor, this is by **American**

journal of education (Feb 1989). Lesson evading and lesson dissembling, strategies in the classroom. It may become difficult for the child especially at the end of the class to have good eye conduct with the teacher and the blackboard hence produce unwanted work. It also enhances poor relationship between the student and the teacher.

Lack of latrines and urinal pits leads to poor sanitation in school hence outbreak of diseases which promotes absenteeism leading to missing lessons in class. This is according to **Brigg H (1980)** and **Raju (1973)**. Lack of teaching materials makes learning difficult as students are not exposed to explore for themselves. **Mayer (1999)** emphasizes the use of relevant teaching learning materials for example textbooks, charts, models, visual aids to enhance learning of mathematics and for proper practice and making learning real.

CHAPTER THREE

RESEARCH METHODOLOGY

Introduction

This is the plan the researcher used for selecting sites and data collection, subjects, producers to gather information or responses to the researcher's questions.

3.1 Research design

The research was presented in both qualitative and quantitative design. Qualitative design helped the researcher to get a deeper meaning of the study while quantitative design helped in analyzing the numbers that were involved in the study. A descriptive survey design was used and this helped the researcher get a sample of variables than the whole population.

During investigation to the problem, questionnaires interview schedules, tables, charts and bar graphs were used as main elements. The researcher compiled questionnaires of students and made interview schedules for teachers, head teachers, education officers and parents.

The subject were interviewed and observed from their natural surroundings rather than artificially created experimental environment. The tables were used to collect profile of the respondents, level of academic performance and responses recorded from students. Bar graphs were used to collect marks for mathematics performance at Kimilili Secondary School both Kenya certificate of Secondary education mathematics performance from (2003 – 2006) and continuous Assessment tests for Form 2 – Form 4 respectively done at the end of term one 2008.

3.2 Environment, population and sampling

The research was carried out in Kimilili Secondary School in Kimilili Division, Bungoma district, Kenya. The case study school was selected because it is found within the researcher's reach hence cost effective to carry out investigations

The study did not cover all school due to time factor but special consideration on gender was put in mind. Boys and girls were randomly picked from different classes from form two – form 4. The target population of the study involved education officer, students, teachers and parents.

From Kimilili Secondary school, 20 boys and 20 girls, three teachers and one head teacher were sampled. The second head teacher came from a neighboring school, Kamusinga Secondary School. Two education officers and six parents randomly picked from the research environment were interviewed. A total of 53 of respondents were sampled by the end of the study.

Head teachers, mathematics teachers, education officers and parents were not exposed to questionnaires instead the researcher used a written interview schedule to probe responses from them.

3.3 Validity and reliability

The researcher instrument the researcher used was valid and reliable because it was gender sensitive and could be used by another person to carry out research and same results recorded. The questions had clarity, precise and clearly stating the purpose of the study. The instrument used was used by 40 respondents and hence saved time.

3.4 Data collection procedure

A letter of introduction was picked from the university and this made the respondents to respond positively as they were in safe hands. The latter was introduced to the head teacher before questionnaires were distributed to the students. Teachers gave the questionnaires to their students and guided them to fill and after which they collected them and gave them back the researcher.

The researcher took the initiative of administering verbal interview to three teachers and the head teacher of Kimilili Secondary School using guiding questions that the researcher had written. The researcher set a later date to interview parents and education officers; and the head teacher of Kamusinga Secondary School. During interview with the respondents, the researcher focused on words used by participants and their meaning and looked for internal consistency that checked shift in the opinion in order to determine clues that might explain the change.

The researcher also looked for frequency or extensiveness of comments and weight up the intensity of comments or depth of feelings.

The researcher also looked at words used, voice, tone, speed and emphasis on certain words to identify specific and based on experience responses rather than those vague and impersonal and gave up with proper findings of the participants too.

3.1 Statistical treatment of data

The frequency and percentage was used to determine the number of sample respondents that participated in the study and number that participated positively in the research

Formula;

$$\text{Percentage \%} = F/n \times 100$$

Where (F) is the number of respondents observed

(n) is the total number of respondents in the study.

Qualitative analysis:

Data from semi structural, observations and in depth interviews were standardized hence requiring categorization. Such data was presented in a descriptive form above and was used to discuss the results of quantitative data.



CHAPTER FOUR

DATA ANALYSIS AND RESULTS

Introduction

This chapter is a presentation, interpretation of the data and the results of the field basing on the research questions. The results are presented in tables and inform of frequency counts and percentages, pie charts and bar graphs. The results focused on the relationship between classroom management and academic performance of mathematics

4.1 Socio demographic data

Table

Category	Frequency	Percentage
Sex		
Male	20	50%
Female	20	50%
Total	40	100%
Age		
14-15 years	5	12.5%
16-17 years	15	32.5%
18 above	20	45%
Total	40	100%
Academic level		
Form2	8	20%
Form3	15	32.5%
Form4	17	47.5%
Total	40	100%

Source: field data

40 questionnaires were distributed to the students in Kimilili Secondary school and all were filled and returned. This represented 100% participation. the study covered 53 randomly selected respondents of whom 25 (47.17%) were male and 28 (52.83%) were females.

The age category of the pupils was divided into three categories between 14-15 years were 5 (12.5%) 16-17 years were 15(32.2%) while those above 18 years were 20 (45%) of the total number of students.

The academic level of the pupils was divided into three categories, that is form two 8 (20%), form three 15(32.2%) and for four 17 (47.5%) of selected students in the study

Three teachers were interviewed of which 2(66.7%) were male and 1(33.3%) was a female. All teachers had ATS certificates issued by teachers' service commission and all in the range of (26-35 years)

4.2 Teaching techniques in teaching learning of mathematics

The respondents were asked whether the teachers applied the correct teaching techniques for example oral work, homework, self study and others in the teaching of mathematics and this was the response

Table 2 teaches apply teaching techniques effectively.

Response	Frequency	Percentage
Strongly agree	5	12.5%
Agree	10	25%
Strongly disagree	15	32.5%
Disagree	10	25%
Total	40	100%

According to the table 5 (12.5%) strongly agree that teachers applied teaching techniques effectively 10 (25%) agreed, 15 (32.5%) strongly disagreed and 10 (25%) disagreed. Therefore the strong response with high percentage was 15(32.5%) where respondents strongly disagreed, with the fact that teachers use teaching techniques very effectively.

The teachers said that poor teaching techniques were used due to over-enrolment of classes caused by free secondary education which was introduced from 2003 and also time factor.

The education officer of Kimilili division Mrs. Rita Lubanga said that teachers had greatly relaxed due to poor payments. This was quoted when she said that “teachers can just work only that the government has not realized their efforts after giving them a heavy burden of students” The education officer also said that teachers were lacking education on modern ways of handling mathematics curriculum because the ministry could not sponsor teachers to attend in-service courses, insets, workshops and seminars.

The education officer promised to ensure that teachers were upgraded and updated on the new teaching techniques in the teaching of mathematics through workshops, insets and seminars.

4.3 Setting, marking, evaluating and grading students.

The respondents were asked whether the teachers set examinations, marked effectively, evaluated and graded students and this was the response.

Table 3 teachers set mark, evaluate and grade students

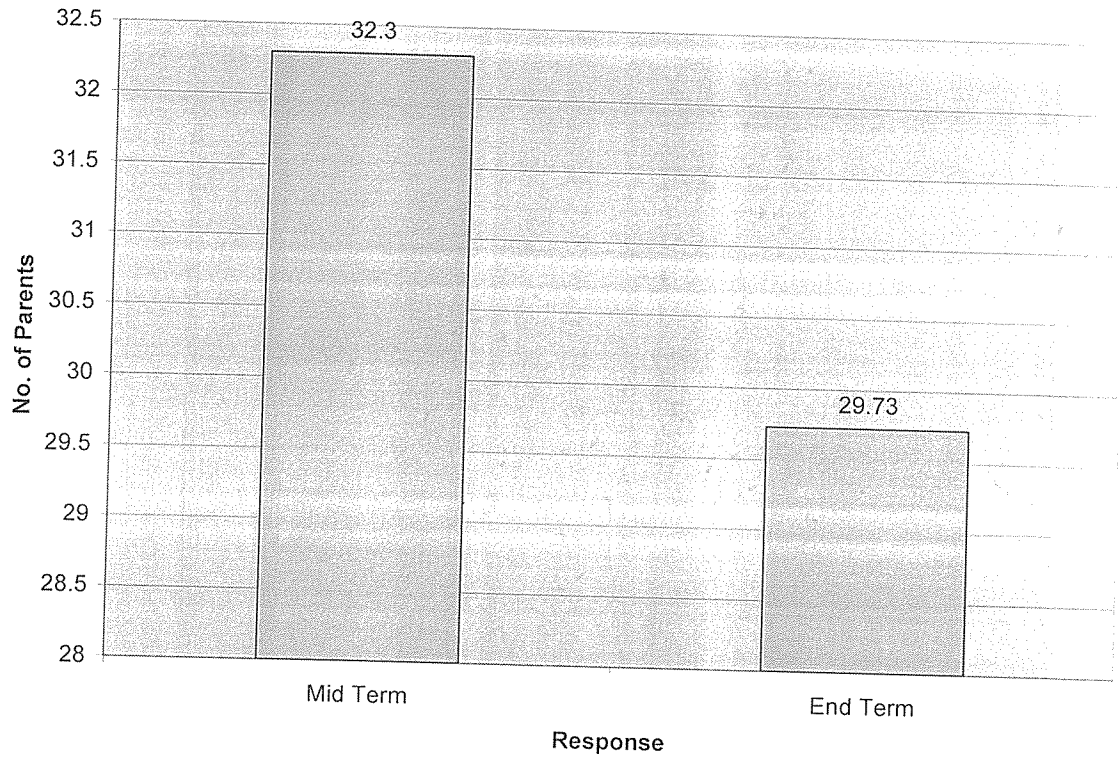
Response	Frequency	Percentage
Strongly agree	15	32.5%
Agree	10	25%
Strongly disagree	5	12.5%
Disagree	5	15%
Total	40	100%

According to the table 15 (32.5%) strongly agreed that teachers set, mark, evaluate and grade their students, 10 (25%) agreed, 5(12.5%) strongly disagreed and 5(12.5%) disagreed. From the students respondents 15 students out of 40 (32.5%) strongly agreed that teachers set, mark, evaluate and grade students. The number is not average therefore it implies that setting, marking, evaluating and grading was not 50% (averagely) done.

The teachers when interviewed revealed that they used commercial tests to evaluate students twice in a term due to lack of time to set examinations. They marked books for quick achievers due to over-enrolment in class and evaluated all students on the basis of

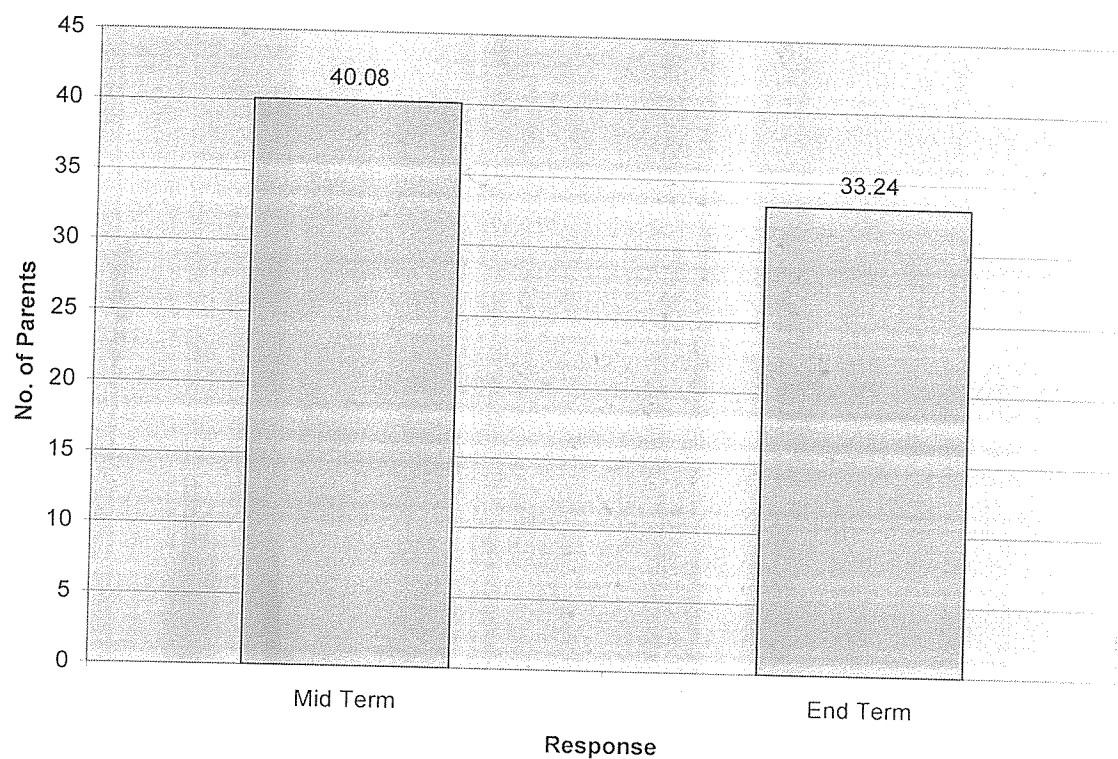
mid-term examination and end term examination and graded them using those two exams per term.

Bar graph 1 mathematics performance for form two term 1 2008



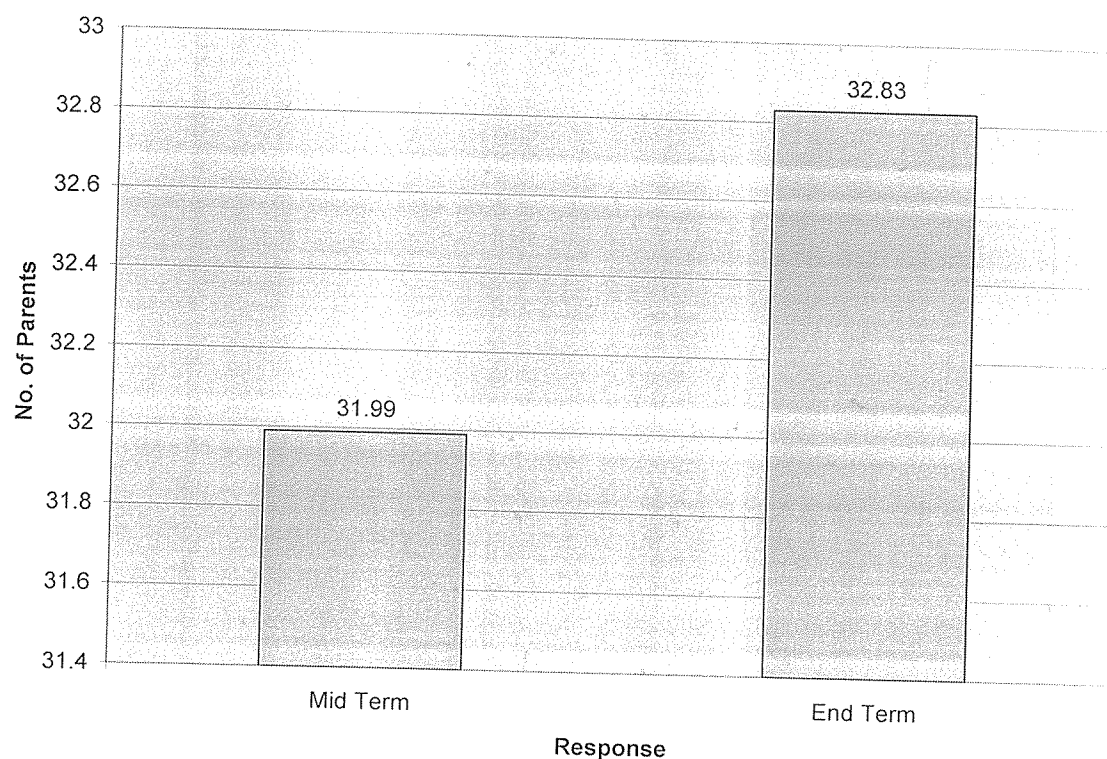
According to the bar graph 1 the standard form two students obtained a mean score of 32.30% in mid term examinations and 29.73% in end term examination of term one. On average it was 32.01 which were below average. This is reflecting the teachers responses when no frequent testing was done to give students plenty of practice to grasp mathematical concepts.

Bar graph 2 mathematics performance for form three term 1 2008



According to the bar graph 2, the form three students obtained a mean score of 40.08% in mid-term examinations and 33.24% in the end term examination of term one. On average it was 36.66% which was also below average.

Bar graph 3 mathematics performance for form four term 1 2008



According to the bar graph 3, the form four students got a mean score of 31.99% in the mid-term and 32.83% in the end term one examination. This was an average of 32.41% a mark below average. From the statistics above all classes got a mean score below 50% in both examinations, dropped in the second examination that is the end-term examination. Finally all classes have weak performance in mathematics as their mean scores were below 40%

The above results were given to the researcher by mathematics teacher of form 2, form 3 and form four of Kimilili Secondary school.

The head teachers' of both Kimilili and Kamusinga Secondary School said that, due to lack of sufficient funds, schools could not allow teachers to set examinations and type-set because of finance to buy material, pay secretary and process the examination. The head teachers said that they would in future allow teachers to proof-read the commercial examinations, delete unlearnt content before administering the exams to avoid embarrassment and discouraging learners, who could perform well in mathematics.

4.4 Significant relationship between motivation, class discipline and mathematics performance

The respondents were asked whether there was a significant relationship between motivation, class discipline and mathematics performance and this was the response

Table 4: significant relationship between motivation and class discipline

Response	Frequency	Percentage
Strongly agree	40	100%
Agree	0	NIL
Strongly disagree	0	NIL
Disagree	0	NIL
Total	40	100%

According to the table 40 (100%) strongly agreed that there was a significant relationship between motivation and class discipline in mathematics performance.

The teachers said that the school administration had lost control over students due to over enrolment. Though teachers were trying to curb indiscipline cases, the situation was out of their hands due to admission of over grown children since the introduction of free secondary education.

The two head teachers said that they were trying as much as possible to join hands together, work as a team administer guidance and counseling to students (interview with the head teacher of Kimilili secondary school and Kamusinga respectively)

The Education officer admitted that most schools had a problem as regards discipline due to over-enrolment against few teachers employed by teachers' service commission. The education officers said that there was need for teachers to step up discipline in their respective classes so that good performance could be realized.

The education officer promised to reward both performing teachers and students as this could be one way of motivation.

The respondents were asked whether teachers were promoted as required. The education officer had the following response.

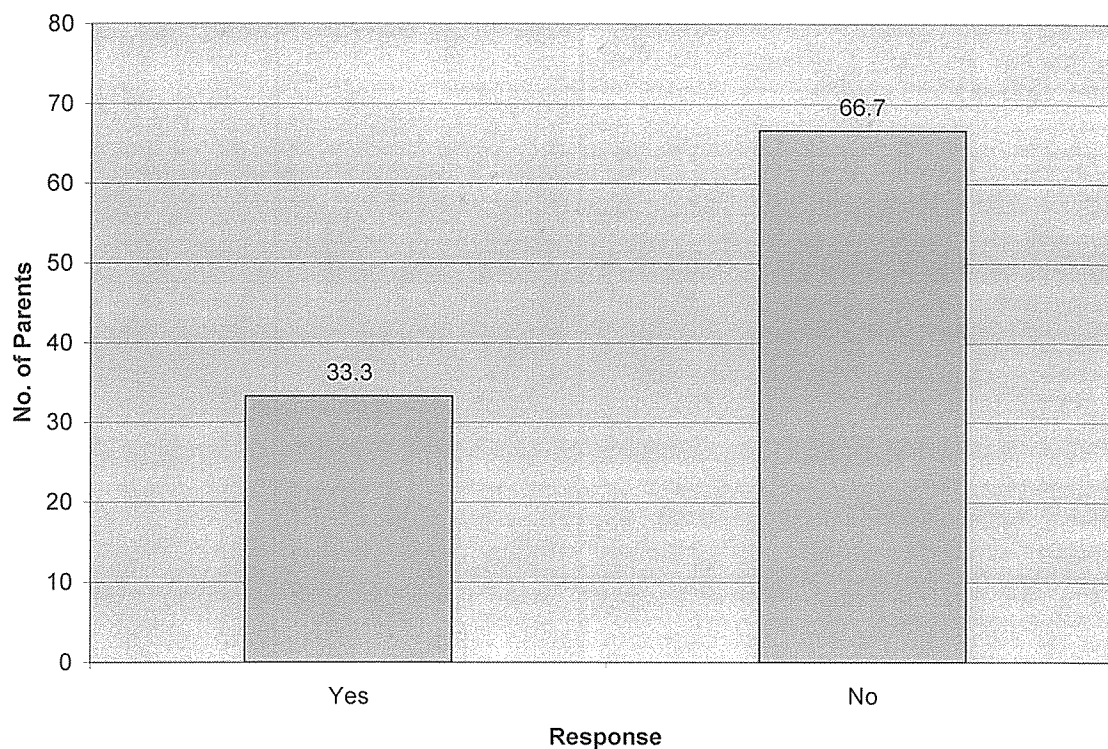
Table 5: Teachers are promoted as required

Response	Frequency	Percentage
Strongly agree	NIL	NIL
Agree	0	NIL
Strongly disagree	0	NIL
Disagree	2	100%
Total	2	100%

According to the responses above, the education officers gave a negative response (strongly disagree) on promotion of teachers. They said that teachers were promoted according to the policies laid down on scheme of service for teachers, where a teacher was to attend proficiency course in one week or go for further studies in order to be promoted from the following grades ATS IV ATS III ATS II and ATS I respectively.

Bar graph 4 motivation of students by parents

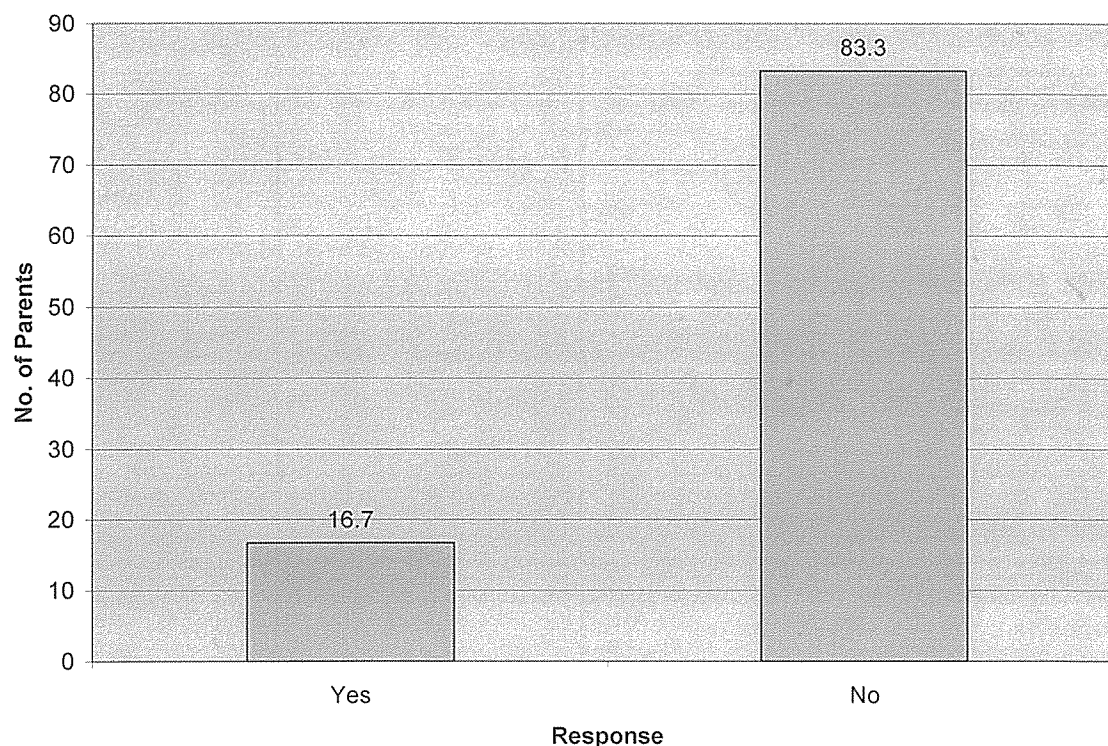
When the researcher interviewed parents whether they motivate their students or not, this was the response.



According to the graph 4, parents who do not motivate their children are 4 out of 6 of parents interviewed. This was 66.7% representation. From the respondents it was crystal clear that very few parents motivate their children and that is why performance in mathematics is very poor.

When the researcher interviewed parents whether they offer guidance and counseling on the importance of mathematics, this was the response.

Bar graph 5 parents offer guidance and counseling on the importance of mathematics



According to bar graph 5 parents with negative response were 5 out of 6 parents interviewed and only one with a “yes” response. Therefore 83.3% showed clearly that parents do not guide and counsel their children on the importance of mathematics in ones life while 16.7% gave a yes response.

The parents promised to reward both teachers and pupils who did well in mathematics and also step up guidance and counseling of their children on the importance of mathematics in ones life. “A disciplined child performs automatically well” one of the parents remarked

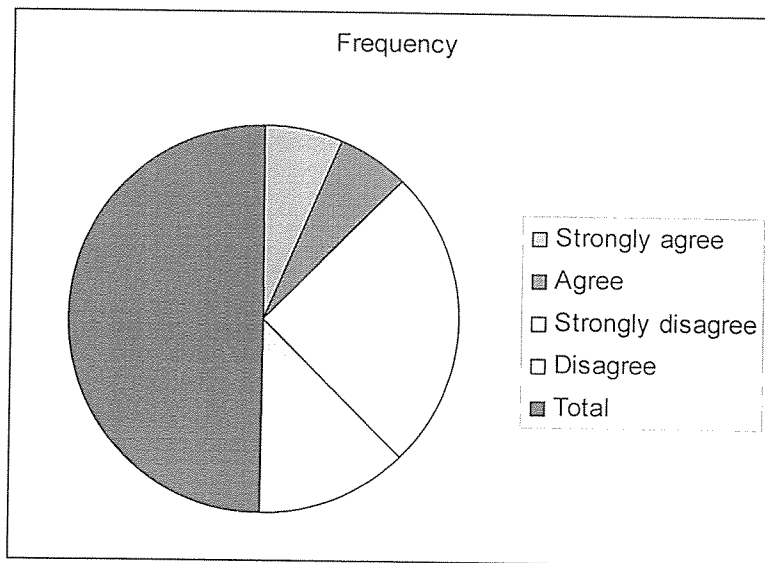
4.1 Significant difference in the teaching of mathematics and availability of physical facilitating and materials

Table 6: significant difference in teaching of mathematics and availability of physical facilities and materials

Response	Frequency	Percentage
Strongly agree	5	12.5%
Agree	5	12.5%
Strongly disagree	20	50%
Disagree	10	25
Total	40	100%

According to the table above 5 (12.5%) strongly agreed that, there is no significant difference in the teaching of mathematics and availability of physical facilities and materials and availability of physical facilities and materials. 5(12.5%) agreed 20(50%) strongly disagreed and 10(25%) disagreed. From the respondents response a half that is 50% of them strongly disagreed that there is significant difference in the teaching of mathematics and availability of physical facilities and materials

Pie chart 1 significance difference in teaching mathematics and physical facilities and materials



The respondents were asked whether their classes were crowded and therefore they do not concentrate in class and this was the response.

Table 7 classes overcrowded and no concentration in class

Response	Frequency	Percentage
Strongly agree	40	100%
Agree	NIL	NIL
Strongly disagree	NIL	NIL
Disagree	NIL	NIL
Total	40	100%

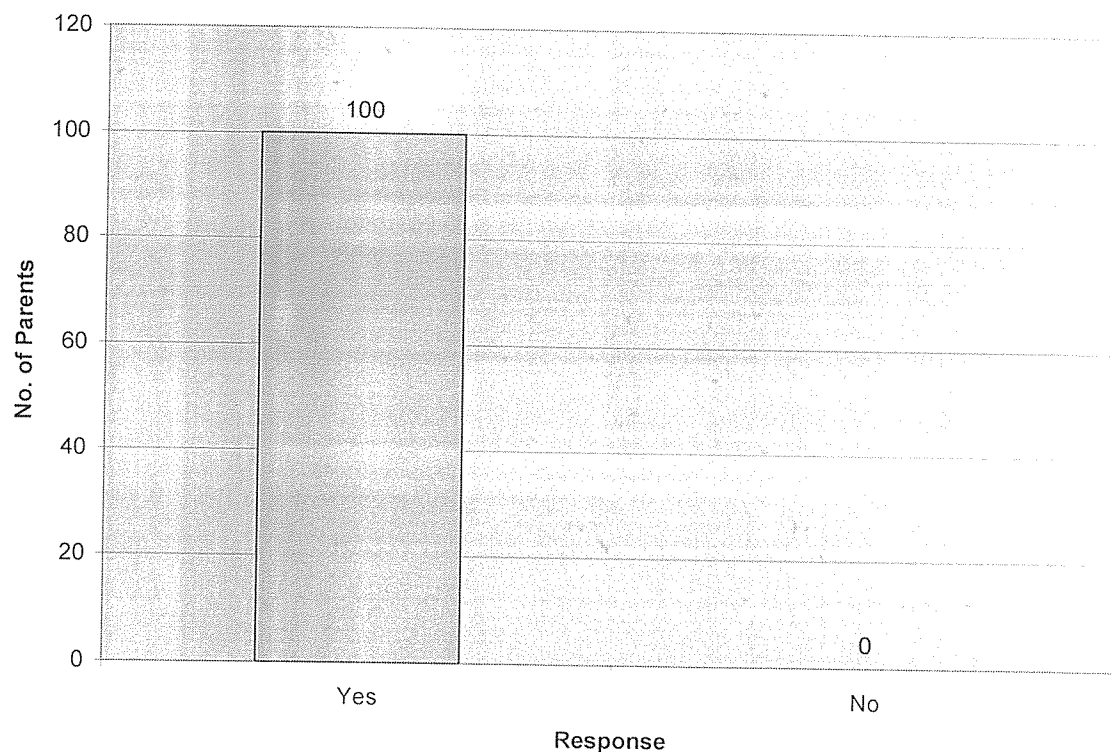
The table shows clearly that all the respondents agreed 100% that the classes were overcrowded and did not allow concentration in class

In an interview with the head master, he revealed that overcrowded classes was an issue of concern for the school and therefore they were putting up more classrooms to curb the situation.

“.....We are trying to build more classrooms to create more space for the students so that they are comfortable.....” (interview) with the head teacher of Kimilili Secondary school)

The respondents were asked whether lack of sufficient latrines spread infectious diseases and this was the response.

Bar graph 6 lack of sufficient latrines spread infectious diseases



According to the responses, all respondents agreed that lack of sufficient latrines causes spread of infectious diseases example cholera and dysentery.

The teachers revealed that physical facilities were inadequate due to high enrolment and this made students to learn from outside while others sat on the floors due to lack of enough desks. There was lack of concentration and therefore rote learning type recorded in the school. Materials are available but cannot be used in unwelcoming situations noted above. There was poor hygiene due to lack of insufficient latrines. “every latrine caters for not less than 100 students” (interview with a teacher from Kimilili Secondary school

The head teachers of both Kimilili and Kamusinga said that there was no big problem with instructional materials as the Kenya government had provided through “samba” accounts to facilitate the buying.

The head teacher of Kimilili Secondary school revealed that inadequate latrines and urinal pits in schools affected mostly girls who lacked privacy to help themselves during their menstruation periods. This affected the girls' performance in mathematics because during this period, they are forced to stay out of class for three to four days to avoid embarrassment

CHAPTER FOUR

DISCUSSION

Introduction

In this chapter the researcher indicated the major findings and highlighted the alignment with the previous findings. The major purpose of the study was to determine classroom management and academic performance of mathematics

5.1 Discussions

- ⇒ The study revealed that poor teaching learning techniques used by teachers contributed greatly to poor performance in mathematics as students were not given plenty of written work, home work and exercise to be done individually that is self study due to over enrolment. Teacher also feared marking many books at ago.
- ⇒ The study also revealed that commercial tests, inadequate work given and unmarked work could not allow teachers to know the strengths and weakness of the students though they tested students and graded them twice in a term. This was clearly reflected on the bar graphs of form two form four respectively.
- ⇒ According to the study motivation and class discipline are two variables which go hand in hand for better achievement. It was noted that discipline. Lacks in most schools especially the case study school Kimilili secondary. Due to indiscipline caused by large numbers of students in class, there was poor performance recorded in mathematics which made teachers and learners to give up in the subject claiming that it was difficult. Teachers were hardly motivated for any improvement recorded.
- ⇒ Finally from the study, it was also revealed that inadequate physical facilities for example classrooms, desks, and latrines contributed greatly to absenteeism due to risk of getting infectious diseases and this is supported by UNICEF/IRC 2001 that crowded classrooms with little breathing space can hardly be conducive to learning. How can the teaching
- ⇒ -learning process take place in an atmosphere where there is no fresh air and where only one student suffering from a contagious disease can contaminate

suffering from a contagious disease can contaminate everybody including the teacher? (UNICEF/IRC 2001).

⇒ Finally the study revealed that adolescent girls suffered the most in a dirty environment especially menstruating girls Curtis, V (1998). Such a girl needs to change her pads from time to time but due to sufficient latrines in schools forcing them to be out of class during such period and also lack of concentration of studies.

5.2 Summary

⇒ Good teaching – learning techniques in mathematics enable teachers to deal with concepts, students to learn special new skills and these techniques help in good delivery and understanding of mathematical knowledge and skills.

⇒ From the study, for mathematics to perform students and teacher should be motivated. Motivation energizes directs and sustains behavior. It influences learning, focus students' attention on particular goals and instigates behavior and teaches needs are made.

⇒ Discipline creates teacher – student relationship. If encouraged, teacher guide learning more effectively. It also enables the students to concentrate over a long period as mathematics needs the ability which is alert.

⇒ Physical facilities help students to concentrate if they are comfortable in the learning environment. It also makes learning real without poor record of absenteeism.

5.3 Implications for theory and research implications for practice

⇒ According to the theory of goals setting and task performance of Locke E and Lathan (1990) all stakeholders should put in more effort if mathematics is to perform well but that is not what is happening at present and that is why mathematics is not doing well

- ⇒ From the researchers' findings, the study revealed that examinations for students from the areas covered not to use commercial tests which cover the whole syllabus hence leading to poor performance. Teachers had failed their responsibility of setting, marking and evaluating students regularly. No proper meaning of testing and evaluating students seen.
- ⇒ The methods used for motivating both teachers and students and community had left teachers alone to struggle with large number of students in class. Hence poor discipline, no motivation and no results in mathematics.
- ⇒ Inadequate physical facilities promoted absenteeism. This implies that the government had failed its task of providing sufficient structures in schools and desks despite the fact that it had funded free primary education and there were enough instructional materials. Parents had also failed to construct more classrooms and latrines and buy desks for their children, putting a teacher at task to take up their responsibilities.

5.4 Conclusions

- ⇒ From the research findings, the education office, head teachers, teachers, students, and parents should take up their responsibilities depending on their roles to ensure mathematics performs well.
- ⇒ Teachers to use correct teaching – learning techniques for example oral work, written work, assignments, homework, self-study to enable students to learn special skills'
- ⇒ The ministry of education to ensure as much as instructional materials are being provided, there should be sufficient infrastructure for conducive learning

- ⇒ The head teacher and teacher to ensure that students are maximally disciplined, there is good class control and motivation to be cock sure of obtaining good marks in mathematics
- ⇒ The parents to ensure that, they provided their children with the necessary learning materials, check students work, praise and reward where necessary and finally guide and counsel their children on the importance of mathematics in ones life. The parents should participate in construction of classes and latrines
- ⇒ Finally the education officers should inspect teachers regularly, plan for workshops, seminars to update teachers on changes of mathematics curriculum and revisit the curriculum to find out why mathematics is not competing well with other subjects.
- ⇒ Last but not least, students to work hard in the subject through correlation with other quick achiever students and group discussions.

5.5 Suggestions for further research

More research should be done on classroom management classes in schools as it is important if a good performance in mathematics to be realized.

DEFINITION OF TERMS

Academic	- Level of someone's education standard
Assessment	- A task or piece of work given to do as part of studies
Classroom	- A place where learning takes place.
Conversant	- Familiar with
Counseling	- A professional advice about a problem
Data	- Information to be collected or obtained in the study.
Discipline	- The practice of training students to obey rules and order and punishing them if they do not.
Gender	- The fact of being male or female
Guidance	- Help or advice that is given by an older or more experienced person.
Hypothesis	- This is a tentative answer to problem
Interview	- A formal meeting at which questions are asked to see if they are suitable for a particular course of study.
Learning	- Is a process of acquiring knowledge through reading and studying
Management	- The act or skill of dealing with people or situations in a successful way
Mathematics	- A science that involves computing of numbers
Motivation	- Something that makes one to work hard
Objectives	- Something that you are trying to achieve
Performance	- How badly or well one does in class
Population	- Refers to the subjects of the study
Potential	- Strength of doing something well
Questionnaires	- A list of questions arranged systematically to guide the subjects
Reliability	- Refers to accuracy of the research instrument

- Soliciting - Collecting information
- Targets - What you intend to get
- Validity - The degree to which the research instrument measures

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APPENDIX A

TRANSMITTAL LETTER FOR THE HEADTEACHER

MAY 5, 2008

MR. WANDILI PATRICK

HEADTEACHER, KIMILILI

SECONDARY SCHOOL

P.O. BOX 4, KIMILILI, KENYA

Dear Sir,

I am a graduating student at Kampala International University, Registration Number BED/13438/61/DF in the Faculty of Education. I am undertaking a Resource Project that requires your input as part of a fulfillment for my completion of my programme of study. I kindly request you to accord me with all the necessary assistance.

Thank you,

Respectfully yours,

LORNA NASIO

Noted by:

Supervisor

Signature: _____

Date : _____

MR. GEOFFREY KASOZI

APPENDIX B

Questionnaire for student

This questionnaire is strictly for the purpose of soliciting responses from selected students from Kimili Secondary School and not for any other use for the purpose of my study at Kampala International University. Your answers will be treated in confidence.

Instructions:- Put a tick () where you deem fit

CLASS: _____ SEX: _____

1) Teachers apply good teaching techniques in teaching and learning of mathematics.

Strongly Agree

Agree

Strongly disagree

2) Setting, marking, evaluating and grading students is done effectively by teachers

Strongly Agree ☐

Agree ☐

Strongly disagree ☐

3) Mathematics performs well in Form Two, Form Three and Form Four

Strongly Agree ☐

Agree ☐

Strongly disagree ☐

4) There is significant relationship between motivation, class discipline and mathematics performance.

Strongly Agree ☐

Agree ☐

☐

Strongly disagree

5) There is no relationship between Mathematics performance and physical facilities and materials.

Strongly Agree ☐

Agree ☐

Strongly disagree ☐

Thank you for your cooperation.

INTERVIEW SCHEDULE

Education Officers

- 1) Are teachers promoted as required?
- 2) Do you reward performing teachers and pupils
- 3) Is the staffing of mathematics teacher adequate?
- 4) How best do you promote your teachers
- 5) Do you take the initiative of updating teachers on the changes in mathematics curriculum?

Mathematics teachers

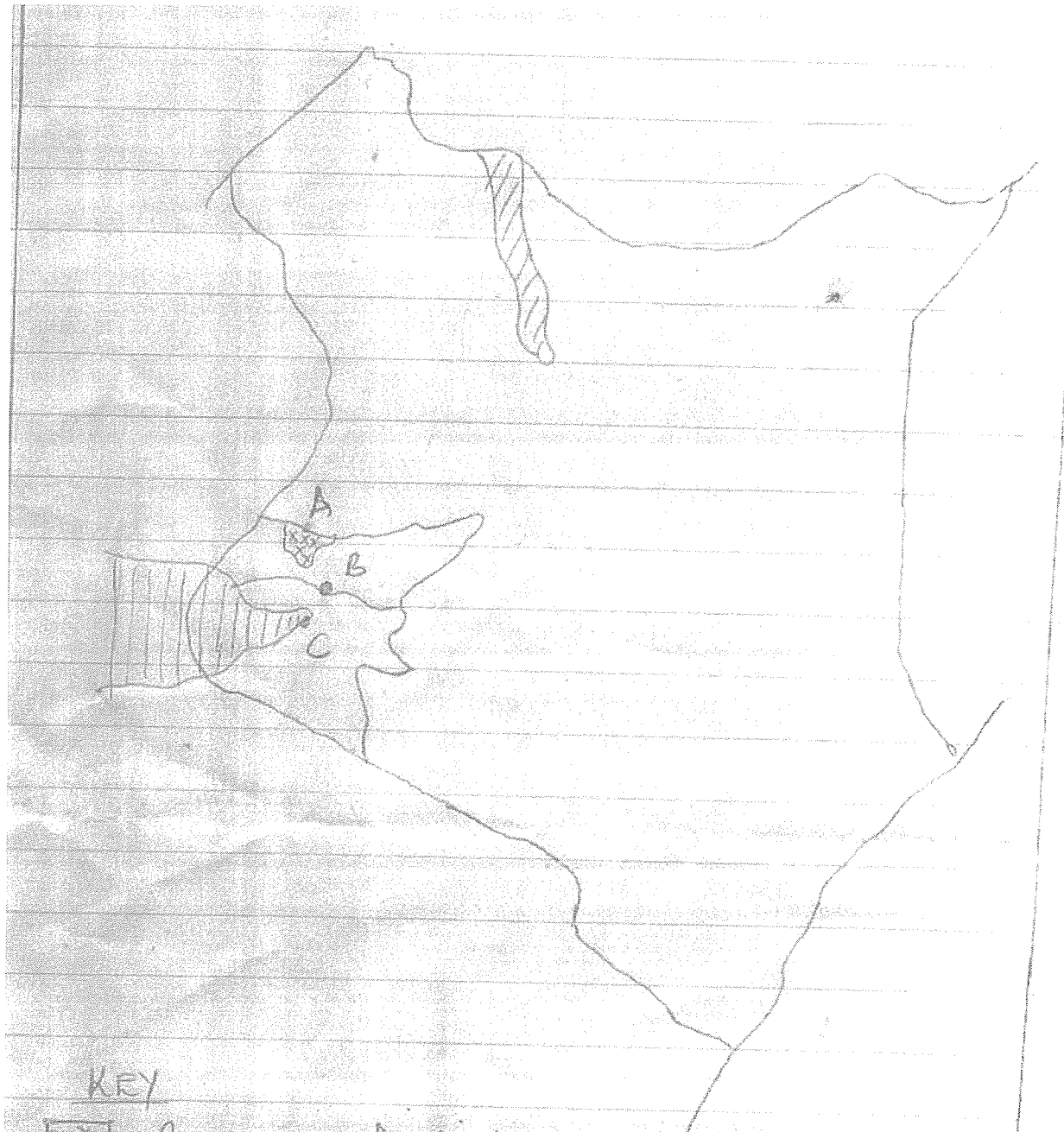
- 1) Do you show objectivity and fairness
- 2) Do you implement discipline among students in class
- 3) Do you use good grading, marking and setting system in evaluating students?
- 4) Do you Monitor the students progress through appropriate evaluation?
- 5) Do you employ valid teaching strategies in mathematics?

Head teachers

- 1) Do your schools have enough physical facilities?
- 2) Do you have sufficient mathematics teachers?
- 3) How often is mathematics tested and graded?
- 4) How do you motivate performing teachers?
- 5) Comment on discipline in your school. How is it?
- 6) What is the highest mean score recorded in school?

APPENDIX

A MAP OF RESEARCH AREA



KEY

-  Bungoma District
- B. Kakamega District
- C. Kisumu

