

**IMPLICAT OF SANITARY CONDITIONS ON STUDENTS ACADEMIC
PERFOMANCE IN SCHOOLS. A CASE STUDY OF
KIGANJO ZONE, THIKA DISTRICT, KENYA**

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DECLARATION

I declare that this research project has been made as a result of my personal effort, original work and has never been submitted to any university/institution for any award.

APPROVAL

This is to certify that this research has been submitted for examination with approval as university supervisor.

Supervisor's name TINDI SEJE
Signature
Date 1ST DEC 2008

DEDICATION

I would like to dedicate this research to my beloved son Wachira who has truly made an impact in my studies to my beloved parents who made an extra mile to ensure that their children are educated and have support in all aspect of life.

ACKNOWLEDGEMENT

I would like to acknowledge my supervisor MR *TWIDI SEJO* for her tremendous efforts in guiding me in this study. This guidance has enabled me to accomplish this work.

To my wife Lucy Wanjiru for her lasting support in every thing I do and to my son and daughters, Samuel, Purity, and Annabel for love, support, prayers and encouragement, God bless you abundantly.

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CHAPTER ONE

1.0 BACKGROUND OF THE STUDY

1.1 Introduction

The millennium development goals for 2015 and other global initiatives all aim at getting more children's in schools. The darker world education forum in 2000 pledged to ensure that by 2015 all children and particularly girls, children in difficult situations and these belonging to ethnic moralities- have access to free and compulsory primary education. Dakar recommended that developing countries increase the proportion of GNP spent on education from 3.9 % to 4.3%. The amount of estimated resources required is between \$9 and \$28 billion.

While there has been significant progress in the total enrollment rate in some developing countries in terms of numbers registered in the lower classes, the retention rate has not equally increased, efforts and resources in making sure that the school environment is conducted to learning is still lacking in most rural and urban schools. One of the contributing factors to school drops out especially for girl child.

A study conducted in 30 rural schools participating in the schools sanitation and hygiene education (SSHE) in four countries, Cameroon (10) Ghana (5) guinea Bissau (5) Kenya (10) analyzed, the underlying danger of inadequate facilities that lead to violence among and against children, in addition to examining the site and allocation and congestion rate of the facilities, taking into account the gender application, maintenance and hygiene related behaviors. It is against this background that this study seeks to investigate the implication of sanitary conditions in Kenya.

1.2 STATEMENT OF THE PROBLEM

While many countries are striving to achieve the universal primary education goal of ensuring all the boys and girls complete primary education by 2015, the school sanitation and hygiene goals may not be achieved. This goals call for government to educate 80% of primary children about hygiene and equip every school with adequate facilities for sanitation and washing by 2015.

1.3 OBJECTIVE OF THE STUDY

1.3.1 General; To determine the implications of sanitation and academic performance of schools in Kiganjo, Thika district, Kenya.

1.3.1 Specific

- **Determine the profile of respondents as to:**

1.1 Social demographic data

age, gender and academic level

- **Determine the relationship between sanitation and pupils academic performance of students.**

1.3.2. SIGNIFICANCE OF THE STUDY

- **Provide the information that can be used by ministry of education policy makers to make policies that can help solve the problem of poor sanitation condition.**
- **Increase awareness of head-teachers, SMC school management committee and teachers on the need to improve the sanitation of the schools.**

The learner will be sensitized on the need to keep good sanitary conditions.

- **The teacher will benefit in that they would teach learners who are living in clean and healthy environment. They would like to stay for long time in such an institution without the need of being transferred.**

CHAPTER TWO

2.0 REVIEW OF THE RELATED LITERATURE

2.1 Introduction

Education in Mauritius, both at the primary and secondary level has become a competitive that almost all students feel compelled to take private tuition, if they are to secure a place in the best secondary schools or in a university. Parents, too, conscious of the value of education are increasingly using private tutoring as a means of retaining a relative advantage for their children in the education race. At the same time, private tutoring has become a welcome opportunity to increase the income of formal school teachers, whose salaries have been seriously eroded over recent decades, and demand and supply factors are thus reinforcing each other, creating a real market for students coaching.

Private tuition, if given in small groups and clean classrooms, and if accompanied by the appropriate sanitary measures, certainly has a positive impact on the teaching-learning process. Nevertheless, if tutoring is provided in crowded groups or in unsuitable premises where sanitation services and hygiene do not always meet ideal standards, then it is bound to have negative effects on the growth, education and cleanliness of pupils, especially adolescent girls.

2.2 Implication of Lack of Sanitation on School Children

The phenomenon of private tuition lengthens the school day as many students attend classes in large groups and often in unsanitary, with the result that many problems crop up.^{2.3}

2.3 Lack of Water and Toilet Facilities

Whether private tutoring takes place before or after school hours, the daily healthful regimen for pupils is considered affected. While certain norms have been prescribed with

regard to the number of flush toilets and taps in school, the level of sanitary facilities falls dramatically outside school building. In such places which have not been designed to cater for a large number of students, sanitation services are often woefully inadequate with only one toilet or one tap. The students can consider themselves lucky if there is running water or if the toilet is in good conditions. This is because the water supply is often interrupted or the flushing system is malfunctioning or the toilet pads are blocked, added to this unhygienic state is the fact that the time available between the regular and tuition cases- usually 10-15 minutes is not always enough for all students to answer their natural calls or to wash their hands. The results is that most of the students do not or cannot satisfy their call of nature and have to wait for long hours to do it at their places.

2.4 Unsanitary Surroundings

The premises in which any teaching-learning process operates are extremely important in providing a healthful school day for pupils. Thus, clean and attractive surrounding contributes to a lot to a social schedule of work and play. Unfortunately many tuition have unsuitable surrounding where sanitation is not always satisfactory. At times the decomposing refuse near the renting room used for tuition may not have been collected for days and becomes a successful breeding place for houseflies and rodents. The floor of the class may not be disinfecting regularly and the yard may be muddy or dusty. Moreover, the garage or shed which was originally meant for teaching may not have the right degree of illumination required in different schools situations. The walls, with no attempt to avoid glare and sharp contrast between bright and dark surfaces, may not have the appropriate and children may have to stretch their neck to see the board or the teacher. But worst of all, the place may not be properly ventilated and there may be enough opening to allow fresh air inside.

In such situation the children are exposed to all sorts of diseases and inconveniences so that studying becomes very difficult

diarrhea and vomiting. Backaches long hours of schooling, interruption of water supply unavailability of clean food at school or tuition classes often mean that some children carry their own foods or bottles of water. Unfortunately, the pupils are already carrying a large number of books and exercise books with the results of additional load now becomes a health hazards to children who have a heavy bags on their shoulders and cannot walk straight. This can give raise to a number of ill defined ailment, such as backaches and doctors have predicted that 'the practice of children carrying book bags of 10 to 12 kilos will results in 10-15 years' time in most primary schools children suffering from scoliosis. (UNICEF, 1994, p.37).

2.7 Mental Problems

Studying for a whole day is already bad for children. But if tuition classes are held in large groups, in inappropriate premises, and in unhealthy conditions and if students can not go toilets which are clean or wash their hands properly, then their emotional, social and physical development is greatly impaired. They also suffer from stress and mental anguish. Psychiatrists, doctors and medical researchers are all unanimous in their condemnation of long hours of tuition under such conditions. Says one well known psychiatrist in Thailand, withyaya Nakkawatchala, "the phenomenon of students attending tutorial classes tend to make students tense and can result in mental and physical problem in the future. They suffer from headache tiredness and sometimes sleeplessness. The children also get irritated very easily. (The Nation, march 5, 1995)

Problems of adolescent girls.

While the above problems can very distressing to students in general, adolescent girls are those who suffer most. Indeed the first sign menses to girls is subjected to physical and mental torture demanded by an inexorable system f education combined with tuition is already traumatic. Such a girl needs to change her pads from time to time. But the inability to change sanitary napkins for long hours –because of the unavailability of clean toilet- can only increase the trauma of the girl. Girls of secondary schools suffer even more because they take tuition for long hours. One wonders how they can concentrate on their books or even remain clean when they have t retain in an uncomfortable state for hours

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Research Design

This Research will employ descriptive research design. The research allows investigation of possible relationship among variables correlation approach reveals with true and false relationships between variables. A multivariate correlation method will be used to study how these factors both singly and in combination, affect outcome variables such as academic achievement (Gall 1996). It also describes the degree to which two or more quantitative variables are related by use of descriptive statistics such as the person product moment correlation also known as person (Moore 1983, Fraenkel 1993)

3.2 Population and Sampling

The study will be carried out in Muhoho primary school of Kiganjo zone, Thika district, in Kenya. All teachers' boys and girls within adolescent stage and below would be included. At least 30 boys and 30 girls shall be interviewed.

3.3 Research Instrument

A researcher who provide a detailed account of development of Muhoho Primary over a period of five years as a case study. Through observation and face to face interview of valuables involved i.e. Age, Gender, and Academic level of valuables for immediate feedback.

3.4 Data Collection Procedures

A letter of introduction was picked from the University and this helped in a way that the interviewees were willing to give the researcher information.

The letter was introduced to the headmaster before questionnaires were distributed to the pupils and interviews held with the teachers.

3.5 Statistical Treatments of Data

The data collected using the case study was coded manually. The data was organized under different variables and then frequencies were established. Percentages and ratios were used to calculate so as to allow the use of descriptive statistics. Charts, tables, and bar graphs were used to compare girl's performance by school type and teacher's genders.

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

Formula

$$\text{Percentage (\%)} = \frac{F}{100}$$

Total number of respondents

Where F = number of respondents observed

Qualitative analysis; Data from semi-structural, observation, and in-depth interviews were standardized hence requiring categorization.

Such data was presented in a d descriptive form above and was used to discuss the results of quantitative data.

CHAPTER FOUR

4.0. FINDINGS AND INTERPRETATION

4.1 Introduction

This chapter is a presentation, interpretation and discussion of the field results. The results are presented in tables and in form of frequency counts and percentages. It focuses the relationship between sanitary conditions and academic performance of girls.

4.2 Background information

Table: 1 below shows the profile of the respondents

CATEGORY	FREQUENCY	PERCENTAGE
SEX		
Male	25	29%
Female	60	71%
Total	85	100%
Age		
11-12	25	30%
13-14	46	54%
15 and above	14	16%
Total	85	100%
Academic level		
Standard six	29	34%
Standard seven	30	35%
Standard eight	26	31%
Total	85	100

Source: field data

According to the table and chart 30(35%) strongly agree that they have access to water, 45(52%) agree while 3(5%) strongly disagree and 7(8%) disagree.

The teachers revealed that the students had access to clean and enough water to make them study comfortably in the school.

The respondents were asked whether lack of water in the school makes them fail to study well because of toilets and this was the response.

Table 3: We fail to study well because of dirty toilets due to lack of water.

Response	Frequency	Percentage
Strongly agree	60	71%
Agree	18	21%
Strongly disagree	2	2%
Disagree	5	6%
Total	85	100%

Source: Form field by researcher

According to the table above, 60(71%) strongly agree that lack of water makes the toilets dirty and therefore they cannot concentrate in class, 18(21%) disagree while 2(2%) strongly disagree and 5(6%) disagree.

The teachers revealed that the only time when the toilets are dirty is when the water disappears for a long time and they have to fetch it from far. However they revealed that it was rare for the water to disappear and therefore the toilets were clean.

The teachers also revealed that it was the pupils who cleaned the toilets and classes and this is done in turns of classes that I those who are old enough and according to the teachers this is a way to teach them to be clean.

The respondents were asked whether they had enough toilet facilities and this was the response.

Table 4: the school has enough toilet facilities

Response	Frequency	Percentage
Strongly agree	20	24%
Agree	25	29%
Strongly disagree	35	41%
Disagree	5	6%
TOTAL	85	100%

According to the table 20(24%) strongly agree that they have enough toilet facilities. 25(29%) agree while 35(41%) strongly disagree and 5(6%) disagree.

The teachers said that the school had enough toilet facilities that is water and toilet paper. However, the teachers complained that some pupils steal the toilet paper that is put for them to use which is dangerous because when they do not find toilet paper they come out without cleaning themselves and hence causes diseases and eventually affect academic achievements

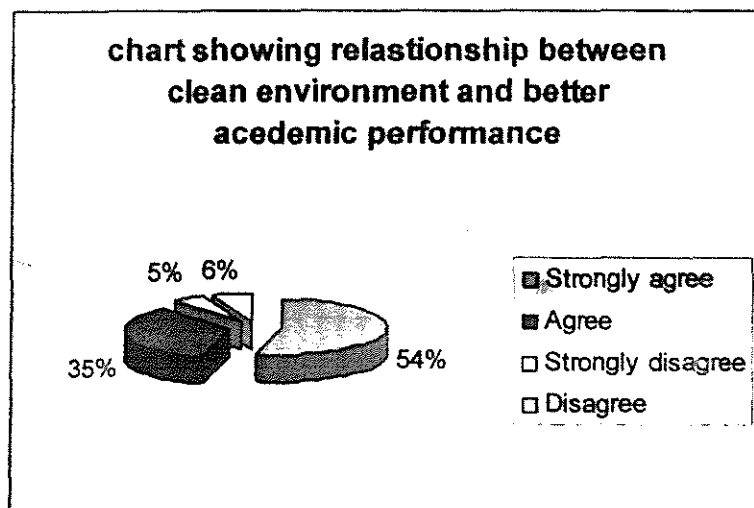
The respondents were asked whether they had enough water to clean their classrooms and this was the response.

Table 5: we have enough water to clean our classrooms

Response	Frequency	Percentage
Strongly agree	30	35%
Agree	25	29%
Strongly disagree	20	24%
Disagree	10	12%
TOTAL	85	100%

According to the table 30(35%) strongly agree that they have enough water to clean their classrooms, 25(29%) agree while 20(24%) strongly disagree and 10(12%) disagree. The teachers revealed that the pupils clean and wash their classes once every week however the classrooms are swept every day to maintain cleanliness.

Chart 2:



The table and chart illustrate that 46(54%) of the respondents strongly agree that a clean environment leads to better performance in the school, 30(35%) agree while 4(5%) strongly disagree and 5(6%) disagree.

All the teachers interviewed agreed that a clean environment leads to better performance in class especially girls.

“.....girls is the most affected when the environment did not clean therefore if the environment is clean it will make them comfortable and therefore perform well in academics.....” (Interview with a teacher in Muhoho primary school.

The respondents were asked whether their class and school environment are clean and this was their response.

Table 8: Our classes and school environment are clean

Responses	Frequency	Percentage
Strongly agree	38	45%
Agree	35	41%
Strongly disagree	2	2%
Disagree	10	12%
TOTAL	85	100

The table shows that 38(45%) of the respondents strongly agree that their school environment is clean, 35(31%) agree while 2(2%) strongly disagree and 10(12%) disagreed. The teachers revealed that the school environment was clean enough for pupils to be comfortable.

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

Table 9: Classes are crowded and therefore we cannot concentrate in class

Response	Frequency	Percentage
Strongly agree	41	48%
Agree	27	32%
Strongly disagree	8	9%
Disagree	9	11%
TOTAL	85	100

The table shows that 41(48%) strongly agree that their classes are crowded and therefore cannot concentrate in class, 27(32%) agree while 8(9%) strongly disagreed and 9(11%) disagreed. The teachers commented that the classes were crowded and therefore pupils did not get enough fresh air to enable them concentrate in class.

In an interview with the Headmaster he revealed that overcrowded classes was an issue of concern for the school and therefore they were building more classes to solve the problem that is pupils would be put in streams.

"..... We are trying to build more schools to create more space for the pupils so that they are comfortable....." (Interview with the headmaster in Muhoho primary school.)

The respondents were asked whether they had enough fresh air in class to concentrate well and this was the response.

Table 10: we do not have fresh air in class

Response	Frequency	Percentage
Strongly agree	40	47%
Agree	25	25%
Strongly disagree	6	8%
Disagree	14	16%
TOTAL	85	100

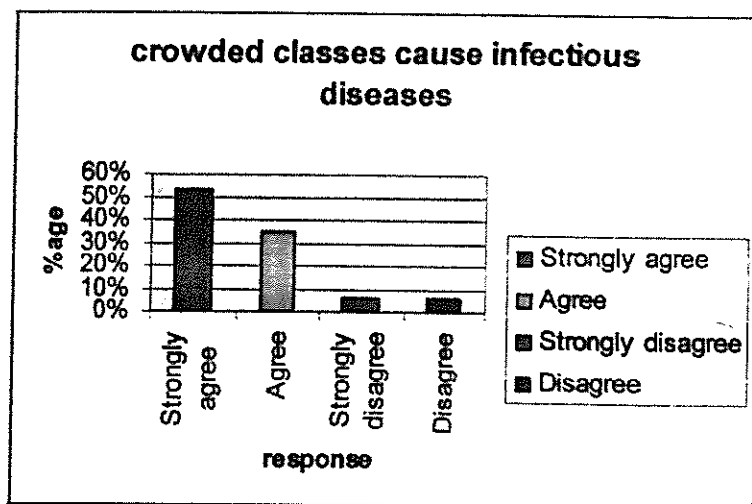
According to the table 40(47%) of the respondents strongly agree that they do not have enough fresh air to concentrate in class, 25(29%) agree while 6(8%) strongly disagree and 14(16%) disagree. It was established that the structure of the classes did not allow in fresh air.

The respondents were asked whether crowded classes spread infectious diseases and this was the response.

Table11: crowded classes spread infectious diseases.

Response	Frequency	Percentage
Strongly agree	45	53%
Agree	30	35%
Strongly disagree	5	6%
Disagree	5	6%
TOTAL	85	100

Chart 3:



According to the table and chart 45(53%) strongly agree that crowded classes spread infectious diseases, 30(35%) agree while 5(6%) strongly disagree and 5(6%) disagree. It was established from the headmaster that the main reason they were building more schools was to prevent the spread of diseases.

The respondents were asked whether the food they ate was clean and this was the response.

Table 12: the food we eat at school is well prepared and clean

Response	Frequency	Percentage
Strongly agree	22	25%
Agree	38	45%
Strongly disagree	15	18%
Disagree	10	12%
TOTAL	85	100

According to the table 22(25%) of the respondents strongly agree that the food they eat at school is clean and well prepared, 38(45%) agree while 15(18%) strongly disagree and 10(12%) disagree.

According to the teachers the food the pupils ate is clean and well prepared and they knew this because they are prepared by their parents and packed properly in their food packs.

The head teacher revealed that to ensure cleanliness of the food they had to inspect pupil's food everyday during lunch time.

The respondents were asked whether the food sold at school is inspected to make sure it is clean and well covered and this was the response.

Table 13: the food sold at school is inspected to make sure it is clean and well covered.

Response	Frequency	Percentage
Strongly agree	27	32%
Agree	30	35%
Strongly disagree	13	15%
Disagree	15	18%
TOTAL	85	100

The table shows that 27(32%) strongly agree that the food brought to school is inspected, 30(35%) agree while 13(15%) strongly disagree and 15(18%) disagree.

According to the headmaster the food that is brought in school is inspected and for one to bring food in the school he/she has to ask for permission and also ensure that the food brought in is safe for the children.

The respondents were asked whether dirty food can cause diseases and affect their academic performance and this was the response

According to the teachers the food the pupils ate is clean and well prepared and they knew this because they are prepared by their parents and packed properly in their food packs

The head teacher revealed that to ensure cleanliness of the food they had to inspect pupil's food everyday during lunch time.

The respondents were asked whether the food sold at school is inspected to make sure it is clean and well covered and this was the response.

Table 13: the food sold at school is inspected to make sure it is clean and well covered.

Response	Frequency	Percentage
Strongly agree	27	32%
Agree	30	35%
Strongly disagree	13	15%
Disagree	15	18%
TOTAL	85	100

The table shows that 27(32%) strongly agree that the food brought to school is inspected, 30(35%) agree while 13(15%) strongly disagree and 15(18%) disagree.

According to the headmaster the food that is brought in school is inspected and for one to bring food in the school he/she has to ask for permission and also ensure that the food brought in is safe for the children.

The respondents were asked whether dirty food can cause diseases and affect their academic performance and this was the response

Table 14: dirty food causes diseases.

Response	Frequency	Percentage
Strongly agree	50	59%
Agree	25	29%
Strongly disagree	1	1%
Disagree	9	11%
TOTAL	85	100

According to the table 50(59%) strongly agree that dirty food causes diseases, 25(29%) agree while 1(1%) strongly disagree and 9(11%) disagree. The teachers mentioned that dirty food cause diseases therefore affecting students performance.

The respondents were asked whether adolescent girls suffer the most in a dirty environment and this was the response.

Table 15: adolescent girls suffer the most in a dirty environment.

Response	Frequency	Percentage
Strongly agree	35	41%
Agree	30	35%
Strongly disagree	10	12%
Disagree	10	12%
TOTAL	85	100

According to the table 35(41%) of the respondents strongly agree that adolescent girls suffer the most in dirty environments, 30(35%) agreed while 10(12%) strongly disagree and 10(12%) disagreed.

The teachers revealed that girls who suffered the most were menstruating girls and therefore the teachers made sure the girls sat comfortably in class and also taught them health education.

According to the head teacher pupils drop out of school due to dirty environment especially adolescent girls that is when they start menstruating and do not have a clean

environment they stay at home until they finish and this leads to poor performance then repetition and eventually drop out.

The head teacher revealed that girls were assigned to help them cope with the school environment. The girls were also provided bathrooms for privacy.

The respondents were asked whether the school stresses them by teaching too much work that affects their mental status and this was their response.

Table 16: the school does not stress as much by teaching us too much.

Response	Frequency	Percentage
Strongly agree	25	29%
Agree	25	29%
Strongly disagree	15	18%
Disagree	20	24%
Total	85	100

According to the table 25(29%) strongly agree that the school does not stress them by teaching too much work, 25(29%) agree while 15(18%) strongly disagree and 20(24%) disagree.

According to the teachers the children are taught what is relevant to them that is they study sanitation and healthy education and cleanliness is emphasized. The head teacher revealed that the pupils are not stressed because they also do physical exercises to keep them fit and healthy.

The teachers and the head teacher suggested that schools should make sure that they teach the children the importance of sanitation.

CHAPTER FIVE

DISCUSSION CONCLUSION AND RECOMMENDATION

5.0 Introduction

The major purpose of the study was to determine sanitary conditions and academic performance. This chapter focuses on the discussion of findings, conclusion and recommendations. Finally the chapter ends with suggestion for further research.

5.1 Discussion

The study revealed that when there is no water at school the pupils suffer a lot more especially with the toilets and therefore do not concentrate in the class because they sometimes get diseases. Air polluted and its makes them feel uncomfortable with studying.

The study also revealed that when class are crowded, pupil do not have enough space and fresh air and therefore cannot concentrate in class and more so that they at risk of getting diseases. This supported by UNICEF/IRC 2001 that crowded classrooms where students carefully have no space to sit or breath can hardly be conducive to learning process to take place in such an atmosphere where there is no fresh air and where only one student suffering from a contagious diseases can contaminate everybody, including the teacher? (UNICEF/ IRC 2001)

When food is not clean and well prepared it can lead to diseases and therefore affect academic performance. According to UNICEF most food are never accompanied by bacteria and in any case have little nutrition.

The pupil may even be drinking water which is not clean. (UNICEF 2000)

Revealed from the study girls do not have to be stressed by teaching them too much so much so that their mental status is catered for. According to the Nation, March 5, 1995 the phenomenon of students attending long classes tends to make students tense and can result in mental and physical problems in the future --- they suffer from headache. tiredness and sometimes sleeplessness. The children also get irritated very easily.

Finally the study revealed that adolescent girls suffer 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 the inability to change sanitary napkins for long hours – because of the unavailability of a clean toilet- can only increase the trauma of the girl. Girls of secondary schools suffer even more because they take tuition for longer hours. One wonders how they can concentrate on their books or even remain clean when they have to remain in an uncomfortable state of hours.

5.2 CONCLUSION

The main purpose of the study was to investigate the relationship between sanitary conditions of girls and academic performance.

It was established that lack of water in school made it possible for toilets to be clean and therefore made it difficult to study especially girls the toilet also did not have enough facilities girls, the toilets also did not have enough facilities like toilet paper and this made it difficult.

Crowded class make it hard for pupils to concentrate in class because they do not get enough fresh air and air and more so diseases are spread making it difficult to study when sick.

Unsanitary conditions were very difficult for girls especially adolescents girls and in particular those who were menstruating.

Dirty and unsanitary conditions lead to diseases and therefore pupils falls sick which leads to missing classes and hence poor performance.

Girls drop out of schools due to sanitary reasons because when menstruating under poor sanitary and no privacy, they stay at home and until the cycle is complete which leads to poor performance, repetition of classes leading to class drop out.

5.3 Recommendations

1. The government should build conducive infrastructures for pupils at school especially girls for example toilets and bathrooms
2. Head teachers should ensure that the school environment is clean and conducive for pupils to study especially girls.
3. Health studies and sanitations should be included in the curriculum by the government so that pupils would know how to keep themselves and the environment they live in, clean.
4. Provision should be made by the school to help the adolescent girls because they suffer most when the environment is not clean especially menstruating girls.
5. Government should establish and implement policies to address identified water, sanitation and hygiene issues to ensure schools are environment t where student develop save hygiene behaviors and that block the spread of water and sanitation diseases.

5.4 Suggestion for further research.

More research should be done on sanitation and clean environment of school because it is important.

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Raffrick Foondun, principal Education Officer. Ministry of Education and Human Resource Development.

TRANSIMITTAL LETTER

TRANSMITTAL LETTER FOR THE HEAD TEACHER

December 14, 2007

To whom it may concern Dear
sir/madam

I am an undergraduate student at Kampala international university pursuing a bachelor in education. I hereby write to request you to allow me carry out my research in your institution. I am conducting a study on the implication of sanitary conditions and academic performance of schools in Kiganjo Zone Thika district Kenya.

I will be grateful for your permission and assistance in conducting this study.

Respectively yours,

Henry Chihi Wachira.

Interview guide schedule for the pupils

Questionnaire for the student

Dear respondent,

I am student of Kampala international university carrying out an academic research on the Implication of sanitary conditions and academic performance in schools in Kiganjo zone Thika District, Kenya as a case study. You have been randomly selected to participate in the study and are therefore kindly requested to provide an appropriate answer by either ticking the best option or give explanation where applicable. The answers provide will only used for academic purpose and will be treated with utmost confidentiality.

NB: do not write your name anywhere on this paper.

Personal Information

Sex

Male ☐

Female ☐

Age

13 and below ☐

14-18 years ☐

Class ☐

Are you a day school or boarder?

Day scholar ☐

Boarder ☐

Relationship between sanitation and academic performance

1) we have access to water

Strongly agree () agree ()

Strongly disagree () disagree ()

2) Lack of water in the school makes the toilets dirty and therefore we can not study well.

Strongly agree () agree ()

Strongly disagree () disagree ()

3) The school has enough toilet facilities.

Strongly agree () agree ()

Strongly disagree () disagree ()

4) We have enough water to clean our classes.

Strongly agree () agree ()

Strongly disagree () disagree ()

5) Girls have enough water and therefore they do not have problems.

Strongly agree () agree ()

Strongly disagree () disagree ()

6) A clean environment leads to students performing well in school.

Strongly agree () agree ()

Strongly disagree () disagree ()

7) Our class and school environment is clean

Strongly agree () agree ()

Strongly disagree () disagree ()

8) Our classes are crowded and therefore we do not concentrate in class.

Strongly agree () agree ()

Strongly disagree () agree ()

9) We do not have enough fresh air in class and therefore are not comfortable.

Strongly agree () agree ()

Strongly disagree () agree ()

10) Crowded classes spread infectious diseases.

Strongly agree () agree ()

Strongly disagree () agree ()

11) The food we eat at school is well prepared and clean.

Strongly agree () agree ()

Strongly disagree () agree ()

12) The food sold at school is inspected to take sure it is clean and well covered.

Strongly agree () agree ()

Strongly disagree () agree ()

13) Food that is dirty can cause disease and therefore affect academic performance.

Strongly agree () agree ()

Strongly disagree () agree ()

14) Adolescent girls suffer the most in a dirty environment.

Strongly agree () agree ()

Strongly disagree () agree ()

15) The school does not stress as much by teaching us too much work and therefore
our mentor status is catered for.

Strongly agree () agree ()

Strongly disagree () agree ()

Interview guide schedule for teachers

1) Do you teach healthy education in the school?

Yes () no ()

2) If yes what do you emphasis and if no, why?

3) How far has your school gone as far as cleanliness?

4) How can crowded classes affect a student academic performance?

5) As a teacher what have you done to emphasis cleanliness in the school?

6) Would you say that the school has enough toilets for the students?

7) Have you tackled the issue of clean toilets?

8) Who clean the school compound and toilets?

9) Comment on the statement that a clean environment leads to a students doing well in class.

10) How do you help adolescent girls?

11) What is the relationship between access to water and academic performance?

12) Explain whether the food the students eat is clean.

14) Do you allow students to pack food in school?

15) According to you, what recommendations can be made to tackle the issue of cleanliness in school?

The interview guide for head teachers.

- 1) How would you describe the environment of your school?
- 2) Who cleans the school?
- 3) Do you accept food in the school?
- 4) How do you ensure cleanliness and safety of the food?
- 5) How do you help students who are sick?
- 6) What policies have you put in place to ensure a clean environment?
- 7) Comment on the statement that unsanitary conditions lead to school drop out especially girls.
- 8) What provision do you usually have for adolescent girls especially those menstruating?
- 9) Do you have crowded classes? If yes, what have you done to solve the problems?
- 10) Is a study on sanitation included in the curriculum? If yes, what exactly do you emphasize?
- 11) As a head teacher, what do you recommend for schools to do to ensure a clean environment?

BUDGET

Items	Cost (Ug Shs)	Cost KShs
Stationary: pens and pencils	5,000	208
Ream of paper	10,000	416
Transport cost	35,000	1458
Miscellaneous expenses	100,000	4166
Typing and printing changes	100,000	4000
Total	300.000	10.250