

**INFRASTRUCTURE AND INFORMAL DIMENSION
LEARNING IN SECONDARY SCHOOLS
KAMPALA DISTRICT**

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RESEARCH REPORT SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENT OF THE AWARD OF THE DEGREE
OF MASTERS OF EDUCATION IN POLICY, PLANNING AND
MANAGEMENT OF KYAMBOGO UNIVERSITY

JANUARY, 2010

DECLARATION

I ALIGUMIKIRIZA JOYCE, hereby declare that this Research Report is my own original work and has not been presented to any institution for any kind of award.

Signed .....

Date: 25/1/10.....


APPROVAL

This Research Report has been under my supervision and is ready for submission to Kyambogo University with my due approval as a University supervisor and that of the Faculty of Postgraduate Committee.

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Signed

.....

Date:

25/01/2010

DEDICATION

This Research Report is dedicated to my mother Mary Nakazi, because she has been an inspiration to me, Mr.Okware.A.John, my children Kugumikiriza Elijah, Mufubenga Esmart, Kirabo Erias and Dawn Martha Awino, who have been there for me. Thank you for accommodating my inconveniences when I would not tolerate it.

ACKNOWLEDGEMENTS

I express sincere appreciation to all those who have helped me to produce this Report. I am particularly grateful to my supervisor, Sr. Dr. Kaahwa M.G. Ateenyi (DST) of Kyambogo University.

I thank the Head teacher Lakeside College Luzira, Mr. Nyende Jimmy and the school organization for the financial support.

My gratitude goes to Ms. Nakitende Mariam for typing this work and Mrs. Sarah Nyende for her advice in editing. God bless you!

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ACRONYMS

MOES	-	Ministry of Education and Sports
MOE	-	Ministry of Education
ESA	-	Education Standards Agency
USA	-	United States of America
KCC	-	Kampala City Council
GH	-	Green Hill
AK	-	Aghakan
BK	-	Bishop Kihangire
LS	-	Lubiri Secondary
MC	-	Makerere College
CH	-	City High
LS	-	Lake Side
KI	-	Kabira International
KN	-	Katwe Noor
KM	-	Kazo Mixed
NS	-	Namungona Secondary

ABSTRACT

The study aimed at finding out the impact of the school Infrastructure on Informal Dimension in Secondary Schools of Kampala. It categorized the schools into affluent, middle and working, depending on the level of infrastructure used by the schools. This was used to make correlation easy. The categories were borrowed from K.C.C (2004) report on schools. Observation and the rating scale type of questionnaire in focus groups were used to collect data. The study emphasized that infrastructure in schools make significant contribution to informal dimension of learning, but the type of infrastructure used in the school, affects the grade of informal dimension learning. The rush to provide academics has tended to lower the standard of infrastructure provided in Secondary Schools. Save affluent schools, middle and working schools had temporary, congested and have adjusted infrastructure from what the M.O.E and K.C.C recommended for the schools at the beginning. The study was conducted in 12 Secondary Schools, and had targeted to use 360 respondents, but the questionnaires returned were 281. Therefore, the data analysis and discussions, the conclusions and recommendations have been made basing on 281 respondents from 12 schools.

CHAPTER ONE

1: INTRODUCTION

1.1 BACKGROUND OF THE STUDY

School infrastructure is important in creating optimum informal dimension learning (Musaazi, 2006). The end of the twentieth century saw a rapid increase in Secondary School population worldwide. Many schools were built and existing ones expanded to accommodate the high population. The emphasis was to provide academics and co-curricular to the high population. They downplayed the informal dimension ability that would be acquired from infrastructure built (Burley, 1990).

Infrastructure are School facilities installed as permanent plant to facilitate the running of the school; for example; classroom, main gate, pit for garbage, playground and lanes (Dewey, 1920)

Informal dimension has several definitions from various scholars; Informal dimension are hidden abilities acquired as pupils interact with the school facilities without formal teaching by the teacher for example classrooms, dinning hall and planned compound (Gocher, 2000).

According to Kerry (1968)"Informal dimension is hidden curriculum. It refers to those things pupils learn at school because of the way in which the work of the school is planned and organized but which themselves are not overtly included in planning or even in the consciousness of those responsible for school arrangement."

Kagoire (2003) shows informal dimension as part of the curriculum and defines it thus as guided aspect of the informal

learning by interacting in the school environment. For example pupils learn to be clean as a result of living in a clean school environment.

According to Harambos, (1991) 'curriculum has two dimensions: the formal dimension and informal dimension. The formal is what the teacher directly teaches the pupil. The informal is coincidental learning within the school environment.'

By 1980 Secondary Schools in urban areas of Uganda had exorbitant populations where each class was divided into five streams of forty students each. Kampala had unique schools like Old Kampala and Kampala High School which had twelve streams per class. This kind of population explosion necessitated double shifting or part time schooling. Some students attended in the morning and others attended in the afternoon. This was due to the shortage of infrastructure for classroom, (MOES. 1999). These conditions in Secondary Schools attracted private individuals who responded to the high demand for secondary education by establishing schools. There was a rush to establish Secondary Schools by missions and private individual.

Else where in the world similar situations had already occurred. For example, in USA public schools with infrastructures meant for 2000 students exploded to numbers of 4,000. France had a similar trend; infrastructures meant for 1500 students, the population rose to 3500. In Canada infrastructures meant for 800 students, the population rose to 3000 students (Williams, 1984).

Williams (1984) posed very many questions when schools were mushrooming in USA such as what is the education programme

and plan for school construction? What could society benefit from new school infrastructure? Are school buildings only meant for housing learners? Are academics the end benefit to the learners out of the use of school infrastructure? These questions arose when he was lamenting the fact that the trend of construction of new schools had taken a direction which did not recognize other values learners acquire as they used infrastructure in schools.

Radal (1976) shows education of an all round child produces total quality learners. He indicated that adequate school infrastructures cater for both informal and formal dimension learning. The child acquires all round education in the head, heart and hand if the school planners mastermind the building programme by including values of informal and formal dimension learning. Radal (1976) noted that there should be serious planning for the adolescent age in the Secondary School because this is the time when any knowledge provided to them will either be opted or accepted. The opting and acceptance of knowledge depends on the impression the school teacher and facilities used offer informally to the learner.

In Uganda, the rush to establish Secondary Schools to cater for the rising demand wedged on throughout 1990s up to now. Secondary Schools were opened up in infrastructures meant for shops, homes and coffee stores by low-income earners (Balfour, 1995). Missions and strong investors opened up schools in their private plots. Old Secondary Schools expanded their premises to make boarding schools or planned with the old premises to expand. By 1999 Secondary Schools in Kampala had developed a fashion of Ordinary Level and Advanced Level Day and Boarding on very small space. This is evident on their signposts with labels of 'O' and 'A', Day and Boarding.

In 2001, the government through the Ministry of Education and Sports (MOES) issued the minimum standards of education which included the guideline to infrastructure requirements in Secondary Schools. The document spells out that its aim was to caution school proprietors to cater for the education with total quality and appropriate plans for school infrastructure, (MOES, 1999, 2001). The minimum infrastructure standards include; a fence, clear sign post showing direction to the school, access road to the school, clearly demarcated paths in the compound or lanes, waste disposal pits, flower gardens, office structure, staff room, a general store, laboratory, library, typing room, book store, pit latrines separate for staff, female students and male students.

Kagoire (2003) noted that the increasing number of students in Uganda who require secondary education had drastically forced educators to shift attention from constructing buildings which cater for both informal and formal dimensions to providing housing for teaching the formal curriculum. Before Kagoire (2003), Hydin (2001) had noted that the school curriculum as a whole is not for a classroom teacher. He added that the school curriculum was not a rigid framework within which there is no flexibility to let the learners interact in its environment in order to acquire informal learning.

Upcoming schools in many parts of Kampala have left out many important aspects of informal learning. The small space used to accommodate high population has left Secondary Schools with only classroom space and a small space for the latrine. Some infrastructures are used before completion, some school buildings are temporary shelters, some schools lack fences and a main gate

but they have a small inlet into the class room block. Land in some schools is hired and monthly rent is paid to the landlords. As a result space for the compound is limited due to high costs of rent (Education standards Agency 2003)

Stenhouse, (1975) in his works to show infrastructure requirements for upcoming schools, said that the use of neat and well furnished school infrastructure teaches neatness, cleanliness and smartness. A signpost and well planned lanes teach obedience and orderliness to the learners. Use of a main gate entrance to the school inculcates punctuality if opened and closed at specified intervals. A school fence adds value to what security a learner needs by showing the learner that he is special and there is value in what he gets inside the school boundaries which requires its own privacy and security. Leadership skills are imparted when some students are given roles to control and guide the rest in the use of the infrastructure, Games and sports facilities when they are used inculcate obedience and transform the body to become physically fit and swift.

In the early twentieth century Dewey came up with a study from the public Secondary Schools of Southern USA in which he indicated that patterns of untaught knowledge in the classroom developed among students in public Secondary Schools of America.

He related his idea to the pro-democratic perspectives which gave students responsibility over school facilities which made them accomplish roles where they acquired untaught knowledge for example cleaning the school compound, orderliness at the chef and movement in school lanes which kept the grass green.

Fierr (1990) explored various school facility plans which had great effect on performance of the student. He observed that student

interaction with school facilities offered hidden knowledge which is manifested in students' behavior immediately or later in society. Meighan (1981) had already observed that informal dimension is taught by the school setting and not by the teacher in classroom. Something comes across to the pupils as they use the school facility.

Insufficient infrastructure noted in Secondary Schools of Kampala has been related to a high mobility of students from school to school. Students search for satisfaction in the informal dimension learning as they use the infrastructure to acquire the formal dimensions. For example; school, laboratory and library, comfort in classes where the child enjoys enough space as he/she uses the classroom and the facility in the dormitory. Therefore there is low development of the idea of pride in one's school as students fail to belong to one system. This causes low development of the spirit of treasuring property. Evidence is lack of old students association. Where they exist they are formed when students are invited for an important occasion.

There is general lack of punctuality in Secondary Schools due to lack of a main gate and a fence. Students wear uniform of the same colour but with different fashions in many schools. There is no proper infrastructure which would bring them together to render them into the hands of school keepers due to lack of a main gate. The teachers are made to engage students from morning to evening because schools lack space and infrastructures where the students can relax.

1.2 STATEMENT OF THE PROBLEM

Secondary Schools in Kampala give little consideration to the value proper school infrastructure offers in teaching all round education. There is a rush to construct buildings on limited piece of land to cater for the high population. Urban schools keep large population and adjust the infrastructure from what KCC and the Ministry of Education approved. There is rampant use of incomplete infrastructure for classroom. Infrastructure like playground, dining, rubbish pit and lanes don't exist in many schools. The school planners seem to be providing infrastructure for academics. Infrastructures in place give less opportunity to informal dimension learning.

1.3 THE JUSTIFICATION OF THE STUDY

The study was made to enlighten school managers in Kampala District that appropriate school infrastructure, recommended by the MOES must be ensured, in order to provide all round education.

1.4 PURPOSE OF THE STUDY

This study aimed at describing the type of infrastructure used in secondary schools and show how it influences informal dimension learning of the students.

1.5 OBJECTIVES OF THE STUDY

This research specifically had the following objectives to investigate in secondary schools of Kampala from 2000 to 2007.

1. To identify the types of infrastructure and their perceived use through which the learners acquire informal dimension abilities.

2. To show the contribution the perceived use of infrastructure gives to student's informal dimension learning.
3. To correlate the perceived use of infrastructure with informal dimension learning.

1.6 HYPOTHESIS

There is no relationship between the perceived use of infrastructure and informal dimension learning for students in secondary schools of Kampala 2000 – 2007.

1.7 THE SIGNIFICANCE OF THE STUDY

The study shows the Secondary School managers and planners that infrastructure is not only meant to provide the perceived use of academics but informal dimension learning as well. The rationale of planning infrastructure is to cater for both the formal and informal learning in order to provide all round education.

1.8 LIMITATIONS OF THE STUDY

The geographical area of study involved a lot of expenses and transport. It required a lot of stationary for the exercise. A budget for the research was made in order to plan for the expenditures. Some private schools had suspicion about what actually were the intentions

1.9 THE SCOPE OF THE STUDY

Geographical Scope

The study was conducted in Kampala District in Schools selected from the following divisions: Kampala Central, Kawempe North, Lubaga North, Makindye East and Makindye West.

Conceptual Scope

The study was based on Education Planning specifically on the perceived use of infrastructure of schools at secondary level. It was meant to show that recommended infrastructure raise great impact on informal dimension learning as the students use them for formal learning.

Content Scope

- (a) The study focused on the perceived use of school infrastructure. The selected school infrastructures included in the study were; classrooms, main gate and fence, walking lanes, toilets, rubbish pits, play ground and a dining hall.
- (b) The perceived uses of the infrastructure included in the study were ; lessons in classrooms, security at the main gate and fence, walking in lanes, sanitation for toilets, dumping garbage for the rubbish pit, sports and games in the playground, meals in the dining halls.
- (c) The Informal dimension studied included; punctuality, orderliness, smartness, obedience, swiftness movement, confidence, leadership cleanliness and relationship.

Time scope

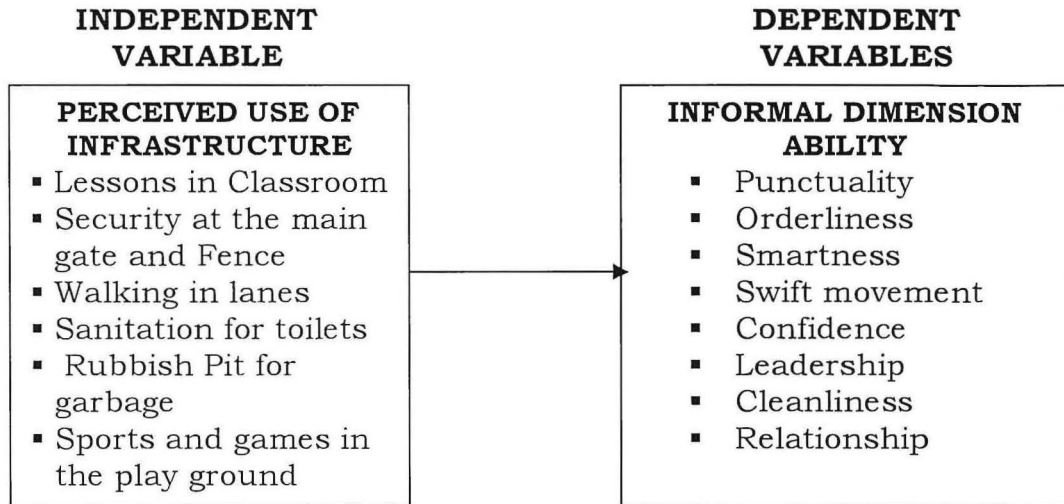
The study took one year, from August 2007 to August 2008.

1.10 THE THEORETICAL FRAMEWORK

The primary consideration in planning education infrastructure is not to “put a roof over the heads” of the client students or to protect them from the weather elements but to provide them with the best possible environment in which formal and informal teaching-learning process concurrently take place (Musaazi, 2006).

**THE CONCEPTUAL FRAME WORK:
THE PERCEIVED USE OF INFRASTRUCTURE AND INFORMAL
DIMENSION IN SECONDARY SCHOOLS**

Figure 1: Conceptual Framework



The framework explains that the perceived use of school infrastructure affects both the formal and informal dimensions. The principal objective is to show the impact, the perceived use of infrastructure makes on informal dimensions learning. The perceived use of school infrastructure is the independent variable and informal dimension is the dependent variable. As learners use infrastructure for the formal dimension learning, they acquire informal dimension learning too.

1.11 DEFINITION OF TERMS

In this study the following terms will carry the meaning specified below;

Formal dimension Learning: Abilities acquired from the teaching of the teacher. It includes the curricular and co-curricular abilities.

Infrastructure: School facilities installed as Permanent plant to facilitate the running of the school; for

example; classroom, main gate, pit for garbage, playground and foot paths.

Informal dimension learning: Hidden abilities acquired as student interact with the school facilities for example infrastructure, without the effort of formal teaching by the teacher.

Upcoming School: Schools founded from 2000 – 2008.

Functions of infrastructure: The work which the building Serves as intended by the school plan.

School environment: Physical areas within the school boundaries.

Informal Structures: School buildings which do not have properly approved plans from Kampala City Council.

Make Shifts: Temporary shelters in schools made of timber to work as classes, kitchen, e.t.c.

Part-time schooling; Daily attending of school for about six hours out of a day twelve hours, of the day time.

Perceived Use: What ought to be the intended purpose of the infrastructure.

CHAPTER TWO

2: LITERATURE REVIEW

2.0 INTRODUCTION

This Chapter has literature review of the type of infrastructure used to acquire informal dimension learning, the contribution of the perceived use of infrastructure to on informal dimension learning and the impact of the perceived use of infrastructure on informal dimension learning. The discussion was made under the following headings; the type of school infrastructure and the perceived uses through which learners acquire informal dimension abilities; the contribution of the perceived use of infrastructure to informal dimension learning of students; and, The significance of the perceived use of infrastructure on informal dimension leaning.

2.1 The type of school infrastructure and their perceived uses through which learners acquire informal dimension abilities

Balfour (1995), Secondary School facilities in Kampala were viewed in the following categories with their corresponding percentage proportions. Sixty percent were classes, five percent laboratory, five percent outer compound, 1.8% fence and main gate, 1.2% makes the latrine or toilets, one percent was space for garbage and the thirty percent is a temporary play ground where development like dormitories could extend to. Over 52% of Secondary Schools in Kampala didn't have laboratory structures. 70% didn't have an effective drainage system. 61% had no electricity. Original government schools have much of the infrastructure requirements but in depreciating values.

Balgour (1998), survey showed that there was little exploitation of the infrastructure to develop an all round learner. Classes offered

shelter for academic formal subjects, but had no signs for informal dimension. An example is where a teacher in one class could be heard in two other classes next to him. This was an unconventional classroom plan which showed lack of order.

Infrastructure in Secondary Schools was further observed under the status of each school. This was based on their infrastructure developments which could be put into three categories; affluent schools, middle schools; and working schools (KCC 2004). The characteristics of each of these categories are shown below;

According to K.C.C (2004), affluent schools are international schools with infrastructure plans on international standards meant to cater for the all round education of the learner. Kampala has five schools of this standard; including Kabira International School, Muyenga International School, Agakhan Secondary School and St. Lawrence Citizens School. The schools are located on large land of about ten acres on average. They have strong and well protected fence, a main gate to cater for security and value of the institution. Every aspect of the formal curriculum and most aspects of the informal curriculum have infrastructure. Sixty percent of the school is outside the classroom environment including; play ground, planned compound, swimming pool, waterborne toilets for boys, girls and staff and a leisure park. These schools have spacious dormitories and a dining hall. The population of students in these schools is proportional to the facilities in the schools. Their populations do not rise above five hundred students on average (ESA 2005). The ideology of "all around development of the learner"? Is evident in these schools given their infrastructure plan. However, they are very few and they attract only the children from the rich families.

Middle Secondary Schools include majority of government Secondary Schools, mission schools and a few schools which belong to wealth entrepreneurs. They are old schools. Their infrastructure has been changing in the last ten years due to high population. More classes have been constructed through horizontal expansion. Toilets have been restructured; many unused old toilets still stand on the compound. Space for garbage has disappeared and many use bush around them or city council containers put at the main gates to dam garbage. The original class structures have depreciated due to low maintenance.

Middle Schools are congested with infrastructure. Some of these schools have maintained the netball and football play ground and others have built on them, others do not have. This category of schools include thirty six schools nine of which are Private schools (KCC 2005). Example of middle schools in Kampala include; Mengo S.S, Lubiri SS, Kyambogo College School, Lubaga Girls, Nsambya St. Josephs, Kawempe Muslim S.S, Nabisunsa Girls School and Bishop Cipriano Kihangire. It is a threat that this category of schools are part of the super grade schools in academic results but the status of their infrastructure is a threat to informal dimension learning thus affecting the all round development of the learner. The schools have populations between 1500 – 2000 students in the original space planed for population of less than 1000 students. Due to the limited space day schools of this category have adopted double shifting to cater for a large population admitted through Universal Secondary Education in the day section. This system reduces the time students have in school, (Williams 2006). It would be right to comment that the amount of time students have within the school for developing informal dimension abilities is limited.

The third category of Secondary Schools in Kampala is the Working schools. They are either government or private schools. Many exist in rented infrastructures. They include schools which were evicted from Asian premises like Nakasero S.S, Kampala High School, Kololo High School, Katwe Noor S.S, Namungona and Kazo Mixed S.S. The schools are located in slum areas with very high population. The major infrastructure is the classroom block. There is no room for co-curricular infrastructure. They provide education to students from low income families. Another infrastructure is a toilet with very few stances. In many of the schools with rented structures the toilet is the one that stands on school permanent land. The schools that exist near community play ground pay an annual fee to use these grounds. Others which do not have access to play ground do not practice co-curricular. There is no laboratory in many of working schools but there are laboratory requirements kept in a store. The kitchen is a small wooden structure where students line up and get food (ESA 2006). Such complex environments may prevent the learner from developing the desired informal abilities.

2.2 The Contribution of the Perceived Use of Infrastructure to Informal Dimension Learning Of Students

M.O.E.S (2001), spelt out the minimum standards of schools including their function. The policy document gives the following list of infrastructures. Classrooms used for academic lessons. A fence and main gate used for security of the students and school property. Toilet stances for girls separate from those of boys for which KCC (2001) shows that one stance should be for every 30 students. The Laboratory for science subjects and play grounds for games and sports. Schools in Kampala have taken on a dual responsibility of educating and accommodating students.

Classroom structures have been converted into dormitories and classroom activities have been transferred into temporary wooden structures. This is always done after a school has secured registration certificate as a day school, (ESA 2008).

The inspectors warned in their report of M.O.E.S (2006) that schools which have flouted the education regulations would be closed. The inspectors of schools noted the congested infrastructure, and need to create more space to accommodate students in schools like Kololo SS, Kololo High School and Nakasero Secondary School in Kampala. It should be noted that ample infrastructure in a school is shown by the amount of informal learning a student displays KCC (2006). The study therefore will have to exhibit this ideal later in the different schools of Kampala

2.3 The significance of the perceived use of infrastructure on informal dimension leaning of students.

Informal dimension skills for a learner is what he/she exhibits and is referred to as educated or cultured (Musaazi 2006). Secondary Schools in Kampala have the burden of managing high population on limited space. Schools administrators have been tempted to mind about coping with high population and ignored the rationale for which school infrastructure planning is done. Several schools in Kampala portray a slum community, disorderliness, and irregularity in school attendance. This is shown by a high number of students dressed in school uniforms who are observed roaming in the community (Godfrey 2006). Kampala has the strongest reputations of good performance in academics but there is need to study its education output in the abilities of orderliness, consistence and association. Learners who exhibit these informal

dimensions give evidence that all round education talks place in school, Musaazi (2006).

Many Secondary School infrastructure plans in Kampala are informal and illegal. They seem not to be capable of meeting the education of an all-round learner, Nyakaana (2007). It should be pointed out that in spite of the physical planning by-laws and regulations that have been in place for a long time Secondary Schools in Kampala have not followed the rationale behind infrastructure plans advocated for by KCC and the Ministry of Education and Sports. In some places it is difficult to access the schools due to lack of proper road networks in the informal neighborhoods of the rented school structure, Lwasa (2006). The record of respect of people's privacy among students is lost where boys and girls and staff share the same latrine stances.

2.4 The relationship between the perceived use of school infrastructure and informal dimension learning

Samples of the relationships between infrastructure and informal dimension have been drawn from UNICEF, Ministry of Education and a related study from a scholar;

Ministry of Education and Sports together with UNICEF launched a program to impart life skills through infrastructure development in urban Secondary Schools. This was to be attached to lessons of guidance and counseling. The infrastructure targeted for Kampala was water borne toilets with separate stances for male and female students. The objective was to control early pregnancies for schools in the slum areas. The learners have shown value in the use of the toilets in places like Kalerwe and Bwaise; boys do not use the female stances and girls too do not use the boys side (UNICEF 2004). Though it was not the objective for the construction but an informal dimension skill of respecting each others sex has been

developed. This gives the idea that if Secondary Schools in Kampala developed formal physical structures there would be constructive development of the informal dimension skills. The analysis of this part showed a gap between infrastructure and informal dimension, which this study was to analyze in detail.

Sanna (2005), gives significant advantage games and sports infrastructure offer to students in the area of informal dimension. Co-curricular exercises in schools which have infrastructures instill abilities of discipline, patience, determination, persistence, swiftness, association and orderliness for the learner. It is the unseen base on which learners continue to participate in sports and games at university and their after to build their physical fitness. On the contrary students who have not gone through schools with co-curricular infrastructures would lack these abilities. Hence this study has a lot to show in connection between infrastructure and informal dimension learning.

M.O.E.S (2002), Curriculum Review Document showed that there is need to work towards an outcome based curriculum. Learners needed more opportunity to engage in their learning. There was need to improve on infrastructure planning in Secondary Schools in order to match student study choices of the curriculum. The analysis of this document showed a gap between infrastructure and informal dimension learning provided by secondary schools. It was the intention of this study to look at that gap by discovering the impact of infrastructure on informal dimension in secondary schools of Kampala.

CHAPTER THREE

3. METHODOLOGY

This chapter describes the research design used in this Research Project. It includes the research design; the targeted population, sample size and sampling techniques, research instruments and research procedures, data analysis and presentation method

3.1 THE RESEARCH DESIGN

This research used both qualitative and quantitative methods. Qualitative descriptive research methods were used to describe the type of infrastructures used by the secondary schools.

To a greater extent the quantitative method was used in this study. It was used to show the impact of infrastructure on informal learning and their correlation. The rating scale questionnaire was given to students and their responses to each item were quantified as accounts which were used in the calculations for the analysis of this study.

3.2 TARGET POPULATION

The area of study had a population of 109,143 students, with 60,142 girls and 49,001 boys M.O.E.S (2007).The study targeted emerging and expanding schools registered by Kampala City Council and the Ministry of Education and Sports. The emerging and expanding schools had a total of 36,000 students. These were students from 47 Secondary Schools which were fully registered between 2000 and 2007 (KCC, 2006). The targeted population was 36,000 students from 47 schools.

3.3 SAMPLE SIZE AND SAMPLING TECHNIQUES

Purposive sampling was used to select 12 schools out of 47 schools of the targeted population.. This was guided by the proposed grading of schools into affluent, middle and working (KCC 2004).The proposed grading was based on the efficiency of the infrastructure recommended by the Ministry of Education and Sports.

The schools of each category were further divided into two groups; those with a population below 500 students, and above 500 students. One school was selected by the researcher for every 5 schools at random. 30 students from each school were randomly selected as respondents basing on the guideline of Amin (2005) as the best figure for descriptive research. The total student sampled was 360 from twelve schools.

The student's samples were divided into three groups; Group I Senior 1 and 2, Group II Senior 3 and 4 and Group III Senior 5 and 6. Each group had 10 respondents. Of the 10 respondents of each group, 5 were female and 5 were male. This was done to avoid bias. This information was summarized in the table below.

Table 1. Summary of Sampling Procedures

Status of schools	Group (depends on total number of students)	Total schools	Emerging and Expanding schools	Targeted Schools Registered emerging and expanding	Sample size of schools	Sample size of students
Affluent	Group 1 Population (500 and below students).	6	4	4	1	30
	Group 2 Population above 500	10	6	6	2	60
Middle Class	Group 1 Population (500 and below students)	49	10	10	2	60
	Group 2 Population above 500	38	14	14	3	90
Working Class	Group 1 Below 500 students	62	40	6	2	60
	Population above 500 students	42	28	9	2	60
Total	Affluent, middle, working schools	207	102	49	12	360

3.4 RESEARCH INSTRUMENTS

The following research instruments were used;

Observation checklist; it was a list of specific infrastructures and their uses the researcher had to see naturally in the field. It was used to study the independent variable in the field and relate it with the information in the literature review. The list had thirteen sections of items to be observed.

A questionnaire; this is a list of question items which were given to the respondents to present their feelings about the subject of the study. The rating scale questionnaire was used. It had values reducing from 4 to 1 showing; 4 for very good, 3 for good, 2 for fair

and 1 for not at all. These values were used by students to indicate the rate of informal dimension leaning which had taken place as a result of using the infrastructure in the school. The questionnaire had 71 items to respond to.

Focus group discussions; these were groups of 10 respondents that were used to discuss and identify infrastructure and informal dimension relationships in school before filling the questionnaire.

3.5 THE VALIDITY OF RESEARCH INSTRUMENTS

The validity of the instruments was determined with content Validity. The observation checklist and the questionnaires were presented to the supervisor to verify the relevancy of the content. The questionnaire was used in four classes in a pilot study at Luzira secondary school to verify the consistence of the expected answers whether the respondents could understand the language and the content. The instruments were then presented to the Faculty Postgraduate committee to confirm the validity of the content. The checklist and the questionnaire were finally edited and recommended by the supervisors. The questionnaire yielded coefficient of 0.8 from 20 respondents and 1420 total items.

3.6 RESEARCH PROCEDURE

The researcher presented a letter from the Department of Education Planning in the Faculty of Education to the schools and she got permission to carryout research in the schools from the Head teachers.

Natural observation of the type of school infrastructure was made with the guidance of the head teacher or any teacher delegated to the researcher by the head teacher.

Focus groups were mobilized and discussions held. To every group rating scale questionnaires were issued to relate the use of infrastructure with informal dimensions. The questionnaires were issued to the respondents after three days of the focus group discussions.

3.7 DATA PRESENTATION METHOD AND ANALYSIS

Information from the questionnaire and observation checklist was sorted, edited and analyzed. It was put into summaries of tables and diagrams to make descriptions easy and the SSPS software was used for calculating data. The Pearson Product Moment Correlation index was used to test the significance and the correlation between the use of infrastructure and informal dimension learning.

CHAPTER FOUR

FINDINGS AND DISCUSSION

4.0 PREVIEW OF THE CHAPTER

This chapter presents the findings, analyzes data from the field and contains the results based on the demographic information, objectives and the hypothesis. All the variables were covered in the study and were used as the basis of the analysis and discussion. The findings, analyses and discussions in this chapter have been made under the following headings; the type of school infrastructure and the perceived uses through which learners acquire informal dimension abilities; the contribution of the perceived use of infrastructure to informal dimension learning of students; and, The correlation of the perceived use of infrastructure with informal dimension leaning.

4.1 DEMOGRAPHIC DATA

This section describes the demographic characteristics of the respondents who took part in the study including their schools, sex, class and age.

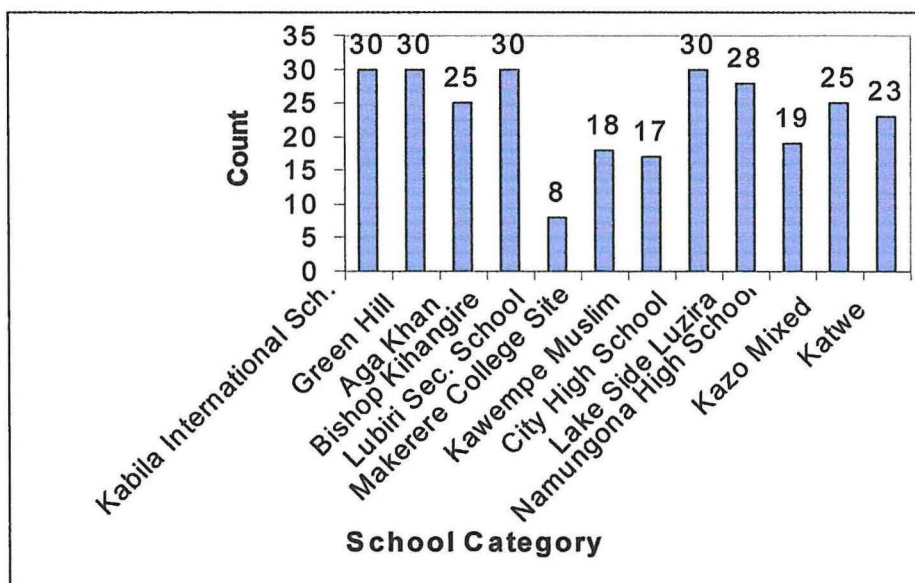
Table 2: Shows the Demographic Data

School Category	Name of the School	Count	Col %
Affluent	Kabila International Sch.	30	10.6%
	Green Hill	30	10.6%
	Aga Khan	25	8.8%
Middle	Bishop Kihangire	30	10.6%
	Lubiri Sec. School	8	2.8%
	Makerere College Site	18	6.4%
	Kawempe Muslim	17	6.0%
	City High School	30	10.6%
Working	Lake Side Luzira	28	9.9%
	Namungona High School	19	6.7%
	Kazo Mixed	25	8.8%
	Katwe	23	8.1%
Total		283	100.0%
Sex	Male	150	53.2%
	Female	132	46.8%
Total		282	100.0%
Class	Senior 2	87	30.9%
	Senior 3	48	17.0%
	Senior 4	59	20.9%
	Senior 5	48	17.0%
	Senior 6	40	14.2%
	Total		282
Age	13	21	7.6%
	14	32	11.6%
	15	30	10.8%
	16	50	18.1%
	17	53	19.1%
	18	26	9.4%
	19	28	10.1%
	20	24	8.7%
	21	9	3.2%
	22	2	.7%
	23	2	.7%
Total		277	100.0%

Schools included in the study

The schools included in the study were grouped into three in order to get away to comparing the infrastructures in different grades of schools. the categories were affluent, middle AND working schools; in the study along with the respondents who showed commitment to the questionnaire were the affluent category, they were Kabira International School with 30 (10.6%) respondents, Green Hill SS had 30 (10.6%) respondents, and Agakhan SS had 25 (8.8%) respondents; Middle school category were Bishop Cipriano Kihangire SS had 30 (10.6%) respondents, Lubiri SS had 8 (2.8%) respondents, Makerere College School had 18 (6.4%) respondents, Kawempe Muslim SS had 17(6.0%) respondents, and City High School had 30 (10.6%) respondents; Working schools were Lakeside College Luzira had 28 (9.9%) respondents, Namungona High School had 19 (6.7%) respondents, Kazo Mixed SS had 25 (8.8%) respondents and Katwe Noor SS had 23 (8.1%) respondents. The proportion of the respondents is presented in figure 2 below.

Figure 2: A Bar Graph Showing Respondents from each School



Sex composition of the respondents

The composition of the respondents has been presented in the pie chart in figure 3; Out of the total respondents of 283 frequency of 150 (53.0%) were male. The frequency of 133 (47%) was female. The male were more than the female by 6%. This implies that there was a negligible bias of male to female by 6%.

Respondents per class

The responses were from S.2 up to S.6. The proportion of respondents included in the study per class is presented on the pie-chart below.

Responses per Class

Respondents of S.2 were 87 (30%), respondents of S.3 were 48 [17%), those of S.4 were 59 [20.8%), S.5 respondents were 41 (14.5%) and the respondents of S.6 were 41 (14.5%).

Apart from S1, which in many schools had not yet settled and admissions were still going on all classes in every school, were represented.

Age of the respondents

The age of the respondents was from 13 to 23 years.

Those of 13 year were 21 (7.4%), respondents of 14 years were 32 (11.5%) those of 15 years were 30 (10.6%), respondents of 16 years were 50 (17.7%), 17 years were 53 (18.7%), 18 years respondents were 26 (9.2%), respondents of 19 years were 28 (10%) ,those of 20 years were 24 (8.5%). Respondents of 21 years were 9 (3.2%), 22 years were 5 (1.8%) and 23 years were 5 (1.8%). The age of all the students who had stayed in the schools at least for a year was represented.

4.2. THE FINDINGS OF THE STUDY

4.2.1 The type of school infrastructure and the perceived uses through which learners acquire informal dimension abilities.

The type of infrastructure used in Secondary Schools of Kampala is shown in the findings below. They were observed in the proportions indicated using the observation checklist. The school infrastructure studied were; classrooms, main gate and fence, toilet, pit, dining and the play ground. This section followed that arrangement to present the findings.

Classrooms

In an open and participatory natural observation the researcher came up with the following findings; twelve schools were included in the study. They were categorized into three and the observations were made according to affluent, middle and working schools. There was observation of total classrooms, population in school and the ratio between them. Their figures were presented in the table made from the record of the observation.

Table 3: Total Classroom and population in school and Ratio by 2007

School Category	AFFLUENT			MIDDLE					WORKING			
	AG	GH	KI	BK	MC	LS	CH	KM	LC	KN	KX	NS
Population of students in the school	400	800	600	2031	1640	2128	1640	1600	1870	370	400	2000
Number of classes in school	20	22	27	36	29	38	36	28	28	6	6	25
Ration of Students percent	1:20	1:36	1:22	1:56	1:57	1:56	1:63	1:57	1:67	1:61	1:67	1:80

(a) Affluent Schools

The following observations were made of schools of the affluent category. Aghakan had 400 students, 20 class rooms and the ratio of students per class was 1:20, Greenhill population was 800students, 22 classrooms and the ratio was1:36 and Kabira International had 600 students,27 class rooms and the ratio was1:22. The schools displayed the plan for the school campus on the notice board either in the Head teacher's or on the administration block. The plans were approved by Kampala City Council and the Ministry of Education. All the classes were set up for construction at once. The school plans were made to satisfy at best the interests of students at international standards. The classes are well equipped with clear blackboards.

The students sit comfortably in their permanent classrooms every year. Affluent schools have plans for repair of classrooms. It is enriched with questionnaire filled by students every year.

(b) Middle Schools

Middle schools included Bishop Cyprian Kihangire, Makerere College School, Lubiri SS, City High School and Kawempe Muslim. The observation checklist came up with the following population and number of classes as shown by table 3. Bishop Cipriano Kihangire total student population 2031, total classrooms are 36 rooms making a ratio of 1:56 student per class. Makerere College School has a total population of 1640, 29 classrooms and a ratio of 1:57 students per classroom.

Lubiri SS has 2128 students, 36 classrooms a ratio of 1:56 students per classroom. City High School has a total of 1640 students a total of 26 classrooms and a ratio of 1:63 students per classroom. Kawempe Muslim has a total of 1600 students, 28 classrooms and ratio of one classroom to students was 1:57.

Some approved building plans were observed on the display at the school notes board. Bishop Cyprian Kihangire has two plans one for the old infrastructures and another for the ongoing construction which includes extension of the classroom block, the school, hospital and classroom. Makerere College has both new and old plan but the observation checklist shows an extension of the old school infrastructure which had on evidence of approved plan but arrangements were underway to legalize the plan. Lubiri SS has old and new plan for the classroom. Kawempe Muslim has one plan but incomplete. This made the school to use some infrastructure intended for classroom as dormitories awaiting dormitory construction. As a result temporary infrastructure is used for classroom. City High School has both old plan and new plan for classroom. New plan is to be done in phases. The middle schools have adopted plans for new classroom plan and unplanned structures because of the high populations admitted into the

schools. Most of these schools have gone beyond their original planned population capacities. Apart from Bishop Cyprian Kihangire government secondary schools in Kampala were planned for a population of 800 to 1000 students many of these schools have populations beyond their capacities, E.S.A (2006).

(c) Working Schools

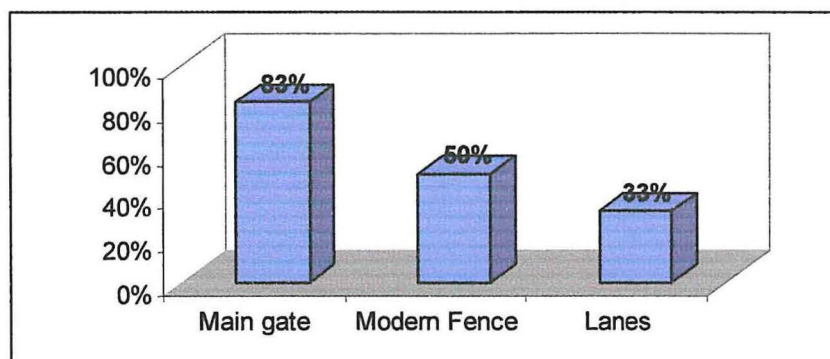
They included Lakeside College Luzira, Katwe Noor, Kazo Mixed School and Namungona SS. According to Table 3, the observation checklist came up with 1870 students for Lakeside College Luzira, 28 classrooms and ratio of class to students at 1:67 Katwe Noor had a total population of 370 students, 6 classrooms and a ratio of class to student of 1:61. Kazo Mixed Secondary School had 400 students, 6 classrooms and a ratio of students to one class is 1:67. Namungona Secondary School had 2000 students, 25 classrooms and the ratio of students to one class was 1:80.

Two of the affluent schools' classrooms could easily be observed whether they were on plan or not. They had roughly half the school on plan and half of the classrooms were wooden blocks. What was meant to be classes were made dormitories and offices .New plans are in place to construct dormitories and more classrooms, according to the Head teachers an oral discussion for part II of the questionnaire.

Main Gate, Fence, and school lanes

The main gate, fence and lanes are administrative infrastructures. This part of the study included main gate, fence, and lanes. The observed results of the administrative infrastructure were presented in the graph below.

Figure 3: Graph Showing Percentage of Schools with Administrative infrastructures in percentages



According to the graph, the observation checklists showed 10(83%) of the schools in the study had a main gate. Schools with a modern fence were 6(50%). Schools with Lanes and Green were 4(33%).

Toilets Facilities

The study investigated the number of stances schools had and the way they are used to benefit students. The observation checklist from the study has the following tabulated result from the survey.

Table 4: Showing Toilet stances and the ratio to a number of students in the school.

School	AFFLUENT			MIDDLE SCHOOLS					WORKING SCHOOL			
	AG	GH	MI	BK	MC	LS	CH	KM	LC	KX	KN	NS
Girl Population	210	230	307	1009	898	1150	860	870	980	242	190	1232
Boy Population	190	270	293	932	742	978	780	730	890	158	180	728
Total Pit Latrines	-	-	-	28	10	16	20	-	10	20	10	25
Total Waterborne Toilets	20	20	28	32	20	16	10	44	48		-	-
Boys' Stances	8	8	12	28	13	14	14	20	28	8	5	10
Girls' Stances	8	8	12	28	13	14	14	20	30	8	4	11
Staff Toilets	4	2	4	4	4	4	2	4	4	2	1	4
Ratio Boys	1:24	1:34	1:24	1:33	1:57	1:70	1:56	1:37	1:32	1:20	1:36	1:73
Ratio Girls	1:26	1:29	1:25	1:36	1:69	1:82	1:61	1:44	1:33	1:30	1:48	1:112

The minimum standards of education emphasize a stance for every 30 students, MOES (2002). City Council of Kampala education policies emphasize this policy and enforces it in schools to ensure the health of the children is safe by a necessary cleanliness and right ratio and a trained cleaner. Schools which do not fulfill the minimum standard are supposed to be sued to city council courts if the situation fails to change they are closed, KCC (2001).

According to the table and graph affluent schools have a ratio close to the minimum requirements. Observed were 1:24 for boys and 1:26 for boys in Aghakan. Greenhill had 1:34 for boys and 1:29 for girls. Kabila International had 1:24 for boys and 1:25 for girls.

In middle schools Bishop Cyprian Kihangire had 1:33 for boys and the ratio for girls was 1:36. It was not far from the minimum requirement. Other middle schools had very high ratios for every stance. Makerere College School had 1:57 for boys and 1:69 for girls. Lubiri Secondary had 1:70 for boys and 1:82 for girls. City High School had 1:56 for boys and 1:61 for girls. Kawempe Muslim had 1:37 for boys and 1:44 for girls.

Working schools had ratios some which are below others were higher than the required standard. Lakeside College had 1:32 for boys and 1:33 for girls. Kazo Mixed had 1:20 for girls and 1:30 for boys. Katwe Noor had 1:36 for boys and 1:48 for girls.

Namungona had high ratios of 1:73 for boy's stances and 1:112 stances for girls.

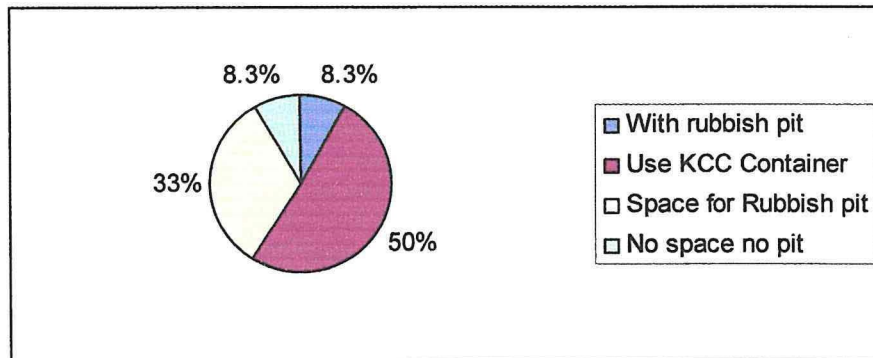
Some toilet stances are pit latrines and some are waterborne. All affluent schools have waterborne toilets. Middle schools have both pit latrines and waterborne toilets apart from Kawempe Muslim which has waterborne toilets all through. Working schools have pit latrines apart from Lakeside College Luzira which has both.

(a) Rubbish Pit

The observation checklist produced the following results.

With rubbish pit	1(8.3%)
Use KCC container	6(50%)
Space for rubbish pit	4(33%)
No space no pit	1(8.3%)

Figure 4. A Pie Chart showing schools with rubbish pit



According to the observation checklist schools produce a lot of rubbish in form of paper which have to be disposed off.

The discussion of the head teacher's questionnaire in affluent schools indicated the following. Affluent schools do not have rubbish pits but have arrangements with Kampala City Council to carry away rubbish from their schools. Makerere College School, City High School and Lakeside College Luzira too use the same system making a total of 6(50%) schools. According to the head teachers this system prevents accumulation of rubbish on the compound. Kampala City Council containers were observed near kitchens and dormitories and outside the gate for City High School. The schools instead of pits they have provided permanent dustbin structures on the compound which workers empty whenever they are full and carry the dustbin to the KCC container.

One school has a rubbish pit and that is Lubiri SS. This makes 8.3%. There are some schools with space for rubbish but no rubbish pit they are 4(33%). They include;

Bishop Cyprian Kihangire, Kawempe Muslim Namungona SS and Kazo Mixed. Rubbish is gathered and burnt at one space on the compound. One school of the working category, Katwe Noor has no space and no pit for dumping rubbish gathered on the school compound. The school takes advantages of the behaviors of disposing rubbish in the community around it to dump rubbish. Rubbish is dumped at the bush or sometime when the city council container is brought it helps. The researcher noted that in this school generating of informal dimension skill for environmental protection may not be very easy.

4.5 KITCHEN AND DINING

The study took observation survey of the kitchen and dining infrastructure and came up with a summary of that type in the following table about these facilities.

Table 5: Showing Kitchen and Dining Facility

Type of Facility	No. of Schools which has	% of Schools which have
Permanent Kitchen and Dining	5	41.7%
Permanent Kitchen no Dining	1	8.3%
Temporary Kitchen no Dining	5	41.7%
No kitchen no dining	1	8.3%
Total Schools	12	100%

According to the table observation checklist showed that 5(41.7%) schools have permanent modern kitchen and dining they include Greenhill Academy, Aghakan Secondary School, Kabira International School, Bishop Cyprian Kihangire and Kawempe Muslim Secondary School. One school which makes 8.3% has a

permanent kitchen and the dining hall has been claimed for other uses. This is Makerere College School. Some schools have temporary kitchen and no dining they are 5(41.7%) they include City High School, Lubiri SS, Lakeside College Luzira, Namungona S.S, Kazo Mixed School. Apart from Kazo Mixed the rest of the schools have plans to build dining halls according to the head teacher's discussion of the questionnaire interpretations with the researcher. One school had no kitchen and no dining on the school compound. This is Katwe Noor. Students in this school either go back home for lunch or those who can afford buy something from the nearby shops to eat. There is also a temporary canteen where some students buy what to eat at break and lunch and they eat from within any convenient space on the school compound.

Playgrounds

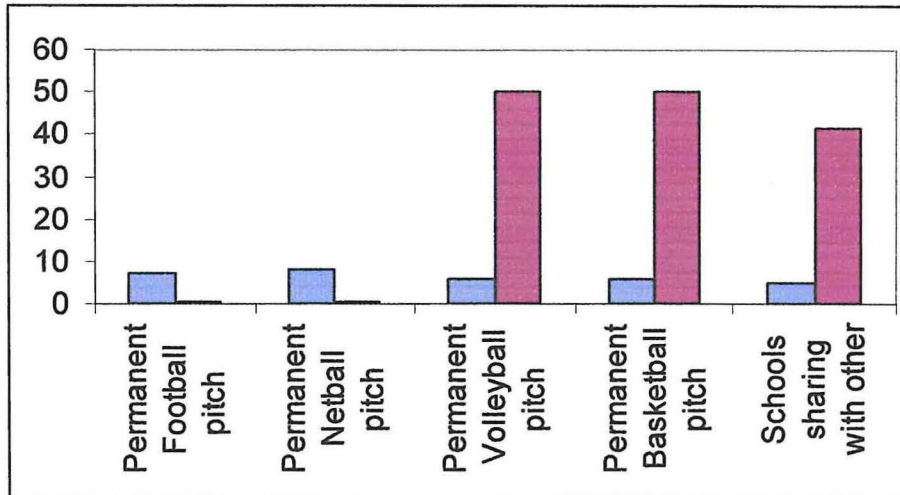
The study looked at football, netball, basketball and volley ball play grounds. They are the common co-curricular infrastructure used in schools. The type of co-curricular infrastructure in the schools under the study were shown in the observation checklist and tabulated as shown below;

Table 6: Schools with Playgrounds

Type	No. of Schools that have	Percentage
Permanent Football pitch	7	58%
Permanent Netball pitch	8	66%
Permanent Volleyball pitch	6	50
Permanent Basketball pitch	6	50
Schools sharing with other	5	41.7

This information has been presented on a bar graph for the benefit of visual impression.

Figure 5: Schools with Playgrounds



Of the twelve schools included in the study 7(58.3%) have permanent football pitches, 8(66.7%) have permanent netball pitches, 6(50%) have permanent volleyball pitches, 6(50.3%) have permanent Basketball pitches, 5(41.7%) corporate with the neighboring institutions.

Schools with both football and netball pitches observed were Aghakan Secondary School, Greenhill Academy, Muyenga International School, Bishop Kihangire, Lubiri SS, City High School, Kawempe Muslim SS. Their netball and football fields are enclosed inside the school fence.

The Contribution of the Perceived Use of Infrastructure to Informal Dimension Learning of Students

The variation of informal dimension acquired by students as they use the infrastructure was analyzed and presented as shown in the tables explained below. The informal dimension learning included

in the research were; orderliness, smartness, association, punctuality, obedience, confidence, cleanliness swiftness and leadership. They were rated using very good, good, fair and not at all. The weight of each rating is given below.

Very good; Very strong impact of infrastructure on informal dimension learning.

Good; Reasonable impact of infrastructure on informal dimension learning.

Fair; Weak impact of infrastructure on informal dimension learning.

Not at all; No impact of infrastructure on informal dimension learning.

Perceived use of Infrastructure and Orderliness;

There was very strong impact between the perceived use of infrastructure and orderliness with 117 (41.6%) counts for very good. There was a reasonable impact with 106 (39.9%) for good and a weak impact with 50 (17.8%) counts for fair. 2 (0.7%) respondents realized no impact of infrastructure on their informal dimension learning.

Table 7. Orderliness

			Orderliness				Total
			Not at all	Fair	Good	Very good	
School Category	Kabila International	Count	0	1	17	12	30
		% within Orderliness	.0%	2.0%	15.2%	10.3%	10.7%
	Green Hill	Count	0	0	12	17	29
		% within Orderliness	.0%	.0%	10.7%	14.5%	10.3%
	Aga Khan	Count	0	2	8	15	25
		% within Orderliness	.0%	4.0%	7.1%	12.8%	8.9%
	Bishop Kihangire	Count	1	2	9	18	30
		% within Orderliness	50.0%	4.0%	8.0%	15.4%	10.7%
	Lubiri Sec. School	Count	0	4	4	0	8
		% within Orderliness	.0%	8.0%	3.6%	.0%	2.8%
	Makerere College site	Count	0	4	7	6	17
		% within Orderliness	.0%	8.0%	6.3%	5.1%	6.0%
	Kawempe Muslim	Count	0	9	7	1	17
		% within Orderliness	.0%	18.0%	6.3%	.9%	6.0%
	City High	Count	0	4	8	18	30
		% within Orderliness	.0%	8.0%	7.1%	15.4%	10.7%
	Lake Side Luzira	Count	0	5	13	10	28
		% within Orderliness	.0%	10.0%	11.6%	8.5%	10.0%
	Namungona High School	Count	0	8	10	1	19
		% within Orderliness	.0%	16.0%	8.9%	.9%	6.8%
	Kazo Mixed	Count	0	3	4	18	25
		% within Orderliness	.0%	6.0%	3.6%	15.4%	8.9%
	Katwe Noor	Count	1	8	13	1	23
		% within Orderliness	50.0%	16.0%	11.6%	.9%	8.2%
Total		Count	2	50	112	117	281
		% within Orderliness	100.0%	100.0%	100.0%	100.0%	100.0%

toilets; they have strong and well protected modern gate and fence which are used by students. For this reason they yielded very good response to orderliness in the analysis. The status of infrastructure in middle schools reduces to a mixture of modern and temporary infrastructure. This has led to their response to orderliness lay between good and very good. Working schools had their response to orderliness inclined to good and fair. This meant reasonable and weak impact. These results may be due to the nature of their

infrastructure which is not well planned, temporary and the space is very limited. Some of their infrastructures are rented and they have very small rooms.

Perceived use of infrastructure and Smartness The respondents' reactions towards infrastructure use on smartness indicated a high response with 106 (37.9%) counts for good, this is a reasonable impact. It was followed by a weak impact of 104 (37%) counts and a very strong impact of only 63 (26.7%) counts for no impact of infrastructure on informal dimension learning.

Table 8: Smartness

C

			Smartness				Total
			Not at all	Fair	Good	Very good	
School Category	Kabila International	Count	0	4	15	11	30
		% within Smartness	.0%	3.8%	14.2%	17.5%	10.7%
	Green Hill	Count	0	3	13	14	30
		% within Smartness	.0%	2.9%	12.3%	22.2%	10.7%
	Aga Khan	Count	0	9	10	6	25
		% within Smartness	.0%	8.7%	9.4%	9.5%	8.9%
	Bishop Kihangire	Count	0	4	14	12	30
		% within Smartness	.0%	3.8%	13.2%	19.0%	10.7%
	Lubiri Sec. School	Count	0	3	4	1	8
		% within Smartness	.0%	2.9%	3.8%	1.6%	2.9%
	Makerere College site	Count	0	8	8	1	17
		% within Smartness	.0%	7.7%	7.5%	1.6%	6.1%
	Kawempe Muslim	Count	1	15	1	0	17
		% within Smartness	14.3%	14.4%	.9%	.0%	6.1%
	City High	Count	1	7	17	5	30
		% within Smartness	14.3%	6.7%	16.0%	7.9%	10.7%
	Lake side Luzira	Count	2	8	14	4	28
		% within Smartness	28.6%	7.7%	13.2%	6.3%	10.0%
	Namungona High Sch	Count	2	13	2	1	18
		% within Smartness	28.6%	12.5%	1.9%	1.6%	6.4%
	Kazo Mixed	Count	0	13	4	8	25
		% within Smartness	.0%	12.5%	3.8%	12.7%	8.9%
	Katwe Noor	Count	1	17	4	0	22
		% within Smartness	14.3%	16.3%	3.8%	.0%	7.9%
Total		Count	7	104	106	63	280
		% within Smartness	100.0%	100.0%	100.0%	100.0%	100.0%

Affluent schools had the frequency about smartness between good and very good, which was both a reasonable and very strong impact. It should be noted that reputation in affluent schools depends on what service they provide. According to KCC (2004) affluent schools have low populations, which march their infrastructure it is easy to monitor such behavior as smartness. The frequency for the middle and working schools was between fair and good, a weak and reasonable impact; 7counts were for not at all. This assessment has a relationship with the limited

infrastructure; limited space and a high population of students whose level of smartness becomes had to monitor and develop in insufficient levels of infrastructure (KCC 2007)

Perceived use of infrastructure and Association

The respondents' reactions towards infrastructure use on association indicated reasonable impact with 114 (51.6%) counts for good, a weak impact with 85 (30.5%) counts for fair, a very strong impact of 73 (26.2%) counts for very good, 7 (2.5%) counts for not at all, meaning nothing had been got out of infrastructure as regards the ability of association.

Table 9: Infrastructure and Association

C

			Association				Total
			Not at all	Fair	Good	Very good	
School Category	Kabila International	Count	0	0	10	20	30
		% within Association	.0%	.0%	8.8%	27.4%	10.8%
	Green Hill	Count	0	3	7	20	30
		% within Association	.0%	3.5%	6.1%	27.4%	10.8%
	Aga Khan	Count	0	9	13	3	25
		% within Association	.0%	10.6%	11.4%	4.1%	9.0%
	Bishop Kihangire	Count	2	8	12	8	30
		% within Association	28.6%	9.4%	10.5%	11.0%	10.8%
	Lubiri Sec. School	Count	0	3	4	1	8
		% within Association	.0%	3.5%	3.5%	1.4%	2.9%
	Makerere College site	Count	0	8	9	0	17
		% within Association	.0%	9.4%	7.9%	.0%	6.1%
	Kawempe Muslim	Count	0	12	5	0	17
		% within Association	.0%	14.1%	4.4%	.0%	6.1%
	y High	Count	0	8	13	8	29
		% within Association	.0%	9.4%	11.4%	11.0%	10.4%
	Lake Side Luzira	Count	0	12	13	3	28
		% within Association	.0%	14.1%	11.4%	4.1%	10.0%
	Namungona High Sch	Count	1	9	8	0	18
		% within Association	14.3%	10.6%	7.0%	.0%	6.5%
	Kazo Mixed	Count	1	5	10	9	25
		% within Association	14.3%	5.9%	8.8%	12.3%	9.0%
	Katwe Noor	Count	3	8	10	1	22
		% within Association	42.9%	9.4%	8.8%	1.4%	7.9%
Total		Count	7	85	114	73	279
		% within Association	100.0%	100.0%	100.0%	100.0%	100.0%

Apart from Agakhan the rest of the affluent schools had a very good response which meant a very strong impact of infrastructure on the ability of association. The response for middle and working schools was between fair and good which referred to weak and reasonable impact. KCC (2004) shows that middle and working schools use unplanned, temporary and incomplete infrastructure. This may be the reason for the response between fair and good in the analysis. On contrary infrastructure observed in affluent schools were modern planned and well maintained which may be the cause for a

very strong impact.

Perceived use of Infrastructure and Punctuality

The respondent's reaction towards infrastructure use on punctuality showed reasonable impact with 105 (38.2%) counts for good. It was followed by very strong impact with 83 (29.8%) count for very good, and a weak impact with 82 (29.4) counts for fair, then 11 (3.9%) count for no impact.

Table 10: Punctuality

C

			Punctuality				Total
			Not at all	Fair	Good	Very good	
School Category	Kabila International	Count	0	2	9	19	30
		% within Punctuality	.0%	2.4%	8.6%	22.9%	10.7%
	Green Hill	Count	0	3	8	19	30
		% within Punctuality	.0%	3.7%	7.6%	22.9%	10.7%
	Aga Khan	Count	0	3	16	6	25
		% within Punctuality	.0%	3.7%	15.2%	7.2%	8.9%
	Bishop Kihangire	Count	0	7	14	9	30
		% within Punctuality	.0%	8.5%	13.3%	10.8%	10.7%
	Lubiri Sec. School	Count	0	4	4	0	8
		% within Punctuality	.0%	4.9%	3.8%	.0%	2.8%
	Makerere College site	Count	0	4	9	4	17
		% within Punctuality	.0%	4.9%	8.6%	4.8%	6.0%
	Kawempe Muslim	Count	0	15	2	0	17
		% within Punctuality	.0%	18.3%	1.9%	.0%	6.0%
	City High	Count	2	6	12	10	30
		% within Punctuality	18.2%	7.3%	11.4%	12.0%	10.7%
	Lake side Luzira	Count	1	14	11	2	28
		% within Punctuality	9.1%	17.1%	10.5%	2.4%	10.0%
	Namungona High Sch	Count	3	8	6	2	19
		% within Punctuality	27.3%	9.8%	5.7%	2.4%	6.8%
	Kazo Mixed	Count	3	3	7	12	25
		% within Punctuality	27.3%	3.7%	6.7%	14.5%	8.9%
	Katwe Noor	Count	2	13	7	0	22
		% within Punctuality	18.2%	15.9%	6.7%	.0%	7.8%
Total		Count	11	82	105	83	281
		% within Punctuality	100.0%	100.0%	100.0%	100.0%	100.0%

The counts for fair and not at all majored in working schools. Working schools in the analysis were related to complete absence of proper infrastructure like a fence and main gate where the value of punctuality is most emphasized.

Perceived use of Infrastructure and Obedience

The respondent’s reaction towards infrastructure use on obedience indicated a great impact of infrastructure with 94 (33.5%) counts for very good, a reasonable impact with 88 (31.3%) counts for good,

a weak impact with 80 (28.5%) count for fair and no impact with 18 (6.4%) counts for not at all. The affluent schools and Bishop Cyprian Kihangire ratings of obedience lay between good and very good.

Table 11: Obedience

C

			Obedience				Total
			Not at all	Fair	Good	Very good	
School Category	Kabila International	Count	0	1	6	23	30
		% within Obedience	.0%	1.3%	6.8%	24.5%	10.7%
	Green Hill	Count	0	1	11	18	30
		% within Obedience	.0%	1.3%	12.5%	19.1%	10.7%
	Aga Khan	Count	1	6	13	4	24
		% within Obedience	5.6%	7.5%	14.8%	4.3%	8.6%
	Bishop Kihangire	Count	0	2	13	14	29
		% within Obedience	.0%	2.5%	14.8%	14.9%	10.4%
	Lubiri Sec. School	Count	0	3	4	1	8
		% within Obedience	.0%	3.8%	4.5%	1.1%	2.9%
	Makerere College site	Count	0	6	6	5	17
		% within Obedience	.0%	7.5%	6.8%	5.3%	6.1%
	Kawempe Muslim	Count	5	9	3	0	17
		% within Obedience	27.8%	11.3%	3.4%	.0%	6.1%
	City High	Count	1	13	7	9	30
		% within Obedience	5.6%	16.3%	8.0%	9.6%	10.7%
	Lake side Luzira	Count	3	8	12	5	28
		% within Obedience	16.7%	10.0%	13.6%	5.3%	10.0%
	Namungona High Sch.	Count	3	11	3	2	19
		% within Obedience	16.7%	13.8%	3.4%	2.1%	6.8%
	Kazo Mixed	Count	4	7	2	12	25
		% within Obedience	22.2%	8.8%	2.3%	12.8%	8.9%
	Katwe Noor	Count	1	13	8	1	23
		% within Obedience	5.6%	16.3%	9.1%	1.1%	8.2%
Total		Count	18	80	88	94	280
		% within Obedience	100.0%	100.0%	100.0%	100.0%	100.0%

(2001). The ability of obedience is therefore included in the rationale of the school infrastructure plan. The high number of weak counts for fair and no impact from the middle and working schools relate to the unplanned infrastructure. Nyakana (2007) referred to such infrastructure as illegal. This is a sign of disobedience which is born in the plan of the infrastructure before learners start using them.

Perceived use of Infrastructure and Confidence

The respondents' reaction towards infrastructure use on confidence. The affluent schools had their score in very well and good which implied strong and reasonable impact. The modern infrastructure gives learners the confidence in themselves and their school at a large. Insufficient infrastructure only house learners and does not develop cultured, responsible and confident learners (Musaazi 2006).

Table 12: Confidence

			Confidence				Total
			Not at all	Fair	Good	Very good	
School Category	Kabila International	Count	1	5	9	15	30
		% within Confidence	6.3%	5.2%	10.8%	18.1%	10.8%
	Green Hill	Count	0	5	5	20	30
		% within Confidence	.0%	5.2%	6.0%	24.1%	10.8%
	Aga Khan	Count	0	5	11	8	24
		% within Confidence	.0%	5.2%	13.3%	9.6%	8.6%
	Bishop Kihangire	Count	0	9	9	11	29
		% within Confidence	.0%	9.4%	10.8%	13.3%	10.4%
	Lubiri Sec. School	Count	0	3	2	3	8
		% within Confidence	.0%	3.1%	2.4%	3.6%	2.9%
	Makerere College site	Count	0	5	7	5	17
		% within Confidence	.0%	5.2%	8.4%	6.0%	6.1%
	Kawempe Muslim	Count	3	12	2	0	17
		% within Confidence	18.8%	12.5%	2.4%	.0%	6.1%
	City High	Count	1	14	9	6	30
		% within Confidence	6.3%	14.6%	10.8%	7.2%	10.8%
	Lake side Luzira	Count	2	13	11	2	28
		% within Confidence	12.5%	13.5%	13.3%	2.4%	10.1%
	Namungona High Sch.	Count	4	8	4	1	17
		% within Confidence	25.0%	8.3%	4.8%	1.2%	6.1%
	Kazo Mixed	Count	1	5	8	11	25
		% within Confidence	6.3%	5.2%	9.6%	13.3%	9.0%
	Katwe Noor	Count	4	12	6	1	23
		% within Confidence	25.0%	12.5%	7.2%	1.2%	8.3%
Total		Count	16	96	83	83	278
		% within Confidence	100.0%	100.0%	100.0%	100.0%	100.0%

Perceived use of Infrastructure and Cleanliness

The respondents' reactions towards infrastructure on cleanliness indicated a weak impact with 100 (36%) counts for fair, reasonable impact with 86 (31%) counts for good, it was followed by very strong impact with 79 (26.4%) counts for very well and no impact had 15 (5.4%) counts for not at all. Affluent school had their highest response in very good and good. The literature review and observation checklist have it that affluent schools had modern and neat infrastructure, which lead to abilities like cleanliness. Working schools had their highest response to cleanliness in fair and good about cleanliness. The mixture of modern and temporary incomplete Infrastructure coupled with high populations observed by the researcher during the study, may not accurately yield proper cleanliness habits.

Perceived use of Infrastructure and Swiftness

The respondent's reaction towards the use of infrastructure on swiftness indicated a weak impact of 92 (32.9%) counts for fair, a reasonable impact of 83 (29.6%) counts for good, very strong impact with 54 (19.35%) for very good, and 51 (18.2%) counts for no impact at all

Table 13: Swiftness

C

			Swiftness				Cleanliness
			Not at all	Fair	Good	Very good	
School Category	Kabila International	Count	1	3	13	13	30
		% within Swiftness	2.0%	3.3%	15.7%	24.1%	10.7%
	Green Hill	Count	1	4	7	17	29
		% within Swiftness	2.0%	4.3%	8.4%	31.5%	10.4%
	Aga Khan	Count	2	11	10	2	25
		% within Swiftness	3.9%	12.0%	12.0%	3.7%	8.9%
	Bishop Kihangire	Count	6	7	7	9	29
		% within Swiftness	11.8%	7.6%	8.4%	16.7%	10.4%
	Lubiri Sec. School	Count	0	4	4	0	8
		% within Swiftness	.0%	4.3%	4.8%	.0%	2.9%
	Makerere College site	Count	3	9	4	1	17
		% within Swiftness	5.9%	9.8%	4.8%	1.9%	6.1%
	Kawempe Muslim	Count	9	8	0	0	17
		% within Swiftness	17.6%	8.7%	.0%	.0%	6.1%
	City High	Count	5	11	11	3	30
		% within Swiftness	9.8%	12.0%	13.3%	5.6%	10.7%
	Lake side Luzira	Count	5	13	9	1	28
		% within Swiftness	9.8%	14.1%	10.8%	1.9%	10.0%
	Namungona High Sch.	Count	7	7	4	1	19
		% within Swiftness	13.7%	7.6%	4.8%	1.9%	6.8%
	Kazo Mixed	Count	4	8	6	7	25
		% within Swiftness	7.8%	8.7%	7.2%	13.0%	8.9%
	Katwe Noor	Count	8	7	8	0	23
		% within Swiftness	15.7%	7.6%	9.6%	.0%	8.2%
Total		Count	51	92	83	54	280
		% within Swiftness	100.0%	100.0%	100.0%	100.0%	100.0%

Swiftness is mainly built from sports and games carried out in the play ground and a well planned compound with lanes where students do not walk with laziness. The high counts in fair and not at all were from middle and working schools. KCC (2004) in its suggestion to categorize these schools as middle and working had supervised them and discovered that they miss some of the crucial infrastructure like play grounds and their compound lack lanes. Sanna (2005) in his thesis said that insufficient play ground lead to lazy students.

Perceived use of infrastructure and Leadership

Majority of the respondents on the use of infrastructure and the impact it makes on leadership indicated no impact at all with 152 (54.1%) counts. It was followed by 57 (20.3%) counts for fair, which was a weak impact and 45 (16%) counts for good a reasonable impact. Very good had 27 (9.6%) counts showing a very small number with a strong impact.

Table 14: Leadership

C

			Leadership				Total
			Not at all	Fair	Good	Very good	
School Category	Kabila International	Count	15	8	4	3	30
		% within Leadership	9.9%	14.0%	8.9%	11.1%	10.7%
	Green Hill	Count	17	1	5	7	30
		% within Leadership	11.2%	1.8%	11.1%	25.9%	10.7%
	Aga Khan	Count	4	6	8	7	25
		% within Leadership	2.6%	10.5%	17.8%	25.9%	8.9%
	Bishop Kihangire	Count	11	4	8	6	29
		% within Leadership	7.2%	7.0%	17.8%	22.2%	10.3%
	Lubiri Sec. School	Count	5	1	1	1	8
		% within Leadership	3.3%	1.8%	2.2%	3.7%	2.8%
	Makerere College site	Count	6	7	4	0	17
		% within Leadership	3.9%	12.3%	8.9%	.0%	6.0%
	Kawempe Muslim	Count	12	4	1	0	17
		% within Leadership	7.9%	7.0%	2.2%	.0%	6.0%
	City High	Count	18	7	3	2	30
		% within Leadership	11.8%	12.3%	6.7%	7.4%	10.7%
	Lake side Luzira	Count	22	4	2	0	28
		% within Leadership	14.5%	7.0%	4.4%	.0%	10.0%
	Namungona High Sch	Count	12	4	3	0	19
		% within Leadership	7.9%	7.0%	6.7%	.0%	6.8%
	Kazo Mixed	Count	14	7	3	1	25
		% within Leadership	9.2%	12.3%	6.7%	3.7%	8.9%
	Katwe Noor	Count	16	4	3	0	23
		% within Leadership	10.5%	7.0%	6.7%	.0%	8.2%
Total		Count	152	57	45	27	281
		% within Leadership	100.0%	100.0%	100.0%	100.0%	100.0%

4.4 CORRELATION BETWEEN THE PERCEIVED USE OF INFRASTRUCTURE AND INFORMAL DIMENSION

The correlation between the use of infrastructure and informal dimension was tested using the Pearson Product Moment Correlation Index. It was used to measure the degree of significance and the hypothesis. The analysis was presented in the table below;

Table 15: The Correlation of the Perceived Use of infrastructure with informal dimension using the Pearson coefficient at probability 99% at 2-tailed.

		Correlations							
		Orderliness	Smartness	Association	Punctuality	Obedience	Confidence	Cleanliness	
Lessons in classroom	Pearson Correlation	1	.604**	.576**	.431**	.497**	.610**	.553**	.657**
	Sig. (2-tailed)	.	.000	.000	.000	.000	.000	.000	.000
	N	270	249	254	247	256	250	234	233
Security at the main gate and fence	Pearson Correlation	.604**	1	.611**	.494**	.511**	.668**	.541**	.657**
	Sig. (2-tailed)	.000	.	.000	.000	.000	.000	.000	.000
	N	249	259	251	240	250	244	229	226
Walking in lanes	Pearson Correlation	.576**	.611**	1	.614**	.650**	.673**	.762**	.698**
	Sig. (2-tailed)	.000	.000	.	.000	.000	.000	.000	.000
	N	254	251	265	246	254	248	232	228
Use of toilets	Pearson Correlation	.431**	.494**	.614**	1	.569**	.520**	.563**	.591**
	Sig. (2-tailed)	.000	.000	.000	.	.000	.000	.000	.000
	N	247	240	246	258	249	239	227	229
The use of a rubbish pit	Pearson Correlation	.497**	.511**	.650**	.569**	1	.520**	.618**	.635**
	Sig. (2-tailed)	.000	.000	.000	.000	.	.000	.000	.000
	N	256	250	254	249	266	248	235	233
Sports and games in the playground	Pearson Correlation	.610**	.668**	.673**	.520**	.520**	1	.709**	.696**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.	.000	.000
	N	250	244	248	239	248	260	232	227
Use of the dining hall	Pearson Correlation	.553**	.541**	.762**	.563**	.618**	.709**	1	.742**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.	.000
	N	234	229	232	227	235	232	244	216
Informal dimensions	Pearson Correlation	.657**	.657**	.698**	.591**	.635**	.696**	.742**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.
	N	233	226	228	229	233	227	216	240

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

Hypothesis

H₀; There is no relationship between the perceived use of infrastructure and informal dimension in Secondary Schools of Kampala from 2000-2007.

With reference to the analysis in Table 15, the correlation between perceived use of infrastructure and informal dimension had the following results; Correlation between security at the main gate and fence has a critical value of 0.000 for orderliness, smartness, punctuality, obedience and confidence. It shows the alternative side of the hypothesis?

Correlation between walking in lanes and orderliness, smartness, association, punctuality, obedience, confidence, cleanliness and swiftness had a critical value of 0.000 and a P-value of 0.01. It shows the alternative side of the hypothesis.

Correlation between use of toilets and orderliness, smartness, association, punctuality, obedience, confidence, cleanliness and swiftness had a critical value of 0.000 and a P-value of 0.01. . Which shows the alternative side of the hypothesis? It shows the alternative side of the hypothesis.

Correlation between use of rubbish pit and orderliness, smartness, association, punctuality, obedience, confidence, cleanliness and swiftness had a critical value of 0.000 and a P-value of 0.01. It shows the alternative side of the hypothesis.

Correlation between Sports and games in the playground with orderliness, smartness, association, punctuality, obedience, confidence, cleanliness and swiftness had a critical value of 0.000 and a P-value of 0.01. It shows the alternative side of the hypothesis.

Correlation between use of dining halls and orderliness, smartness, association, punctuality, obedience, confidence, cleanliness and swiftness had a critical value of 0.000 and a P-value of 0.01. It shows the alternative side of the hypothesis.

Therefore the null hypothesis; There is no relationship between the perceived use of infrastructure and informal dimension was rejected and the alternative hypothesis was taken. It states; there is a relationship between the use of infrastructure and informal dimension. Therefore infrastructure plays a big role in taming learners to acquire the informal dimension abilities. I

4.5 DISCUSSION OF THE FINDINGS

Type of School Infrastructure and the perceived uses through which learners acquire informal dimension abilities.

The type of infrastructure used varied with the status of the school. In affluent schools, modern and approved infrastructures which were maintained regularly were being used. In middle schools modern and temporary infrastructures were observed and there was a high rate of increase of the number of infrastructure built to accommodate the big numbers of learners enrolled.

Classroom

The students' in affluent schools during the focus group discussion liked their classes. They are spacious, new all the time, this implied regular painting, and they liked the neatness and cleanliness of their classes and above all a permanent position in the classroom throughout the year. This can be evidence of hidden knowledge being passed on.

The condition of classrooms in affluent schools can be related to Musaazi (2006) theory that 'school infrastructure is integral in creating optimum learning environment. This relationship comes about due to absence of complain about the classrooms in these schools by all the respondents.

The students instead appreciate the conditions in the classrooms.

In middle schools, response from the students about the classrooms indicated dislikes and likes. Students during the focus group discussion showed they liked the neat and wide blackboards, clean classes, the ample lighting in some schools and the storage new buildings. Students however, showed dislike of congestion in class, old floors worn-out with holes and dust, few windows, too much heat on a hot day and little light when there is change of weather. Generally the S.5 and S.6 student's comments showed that in middle schools 'A' level science students enjoy fixed population for a subject and class, which is proportional to the equipments available in the laboratories. "Those ones do not suffer the problems we face in the Arts" commented a girl student in Makerere College School during a focus group discussion recorded. These comments prove that the perceived use of classrooms in middle schools leaves a gap in the hidden curriculum not satisfied.

Among the working schools, students in Lakeside College and Namungona appreciated the construction of new classroom which was going on in their schools, though in one of the schools they commented that the new classrooms are small in area. The students however, made many negative comments about the classrooms in working schools which included congestion, old floors, incomplete classrooms, dirty and dusty classes , former residential houses, smoke from the neighborhood enter classes,

for meals. However, they recognized that the long line while waiting to be served needs the discipline of patience.

In schools with a kitchen and no dining students complained of food thrown around the compound especially in the field at lunch. Some students of the boarding section live dirty plates in class and everywhere in the dormitories which inconvenience some students and they develop anger and quarrels sometime among students. Many of these students showed no gain from the kitchen and the dining. Majority that showed a positive response indicated that they only learnt to be punctual. One student during the discussion commented that he is ever punctual in order to get good food. So it became difficult for the researcher to consider this type of punctuality as a positive behaviour acquired from the existence of the dinning.

Play grounds

Students in these schools indicated positive and negative responses about the way they use and benefit from the use of these play grounds. In the affluent schools during the focus group discussion students appreciated school maintenance of the fields and the standard equipment. Students of Aghakan, and Greenhill indicated they have instructors who have enforced appropriate standards for the fields to be done by the school. They indicated that at the field they follow the instruction of the instructors. Given the list of this study this is a training for obedience and orderliness which are informal dimension and skills. However, some students indicated negative expressions especially in City High School and Lubiri SS. They complained of the reducing grass on the field, they complained about the many students who need to use the field, they complained about the

bent and worn out netball and football goal posts. They complained about the worn-out basketball pitches. Some students complained about food thrown around the field, paper littered in play grounds during lunch and break-time periods. So despite the presence of the fields students in these schools do not enjoy free use. Students avoid the use of the field and chances of developing informed dimension are minimized.

The observation checklist showed schools without fields and they included four working schools, and Makerere College School shares with Makerere University the play ground. Makerere college school is affiliated to the university because it was established on its compound for the benefit of developing secondary education for the children of workers at the university. The rest of the schools without playgrounds were Lakeside College Luzira, Katwe Noor, Kazo Mixed, Namungona SS, Lakeside College Luzira hires the field from Uganda Prisons Luzira and sometimes uses the field for Luzira SS the rest of the schools use fields which belong to the village community through arrangements the schools make with local councils.

The students from the schools without play grounds had ideas which appreciate the fact that the schools have endeavored to get for them fields where to carry out the co-curricular. In the focus group discussion they indicated that some liked the idea because they get time to do exercise, relax their bodies, interact and compete in social group arrangements of schools. These are informal dimension benefits. However, some students indicated during the discussion that they were dissatisfied with the idea of not having their own fields when they said that; there is

competition at the field with other parties who use the field. Some fields require walking distances and crossing-roads with heavy traffic. Many students do not go or hide according to the student discussion because they consider moving to those fields as an inconvenience.

The discussion of findings for the contribution of the perceived use of infrastructure to informal dimension learning

According to the literature review schools could be divided into affluent, middle and working schools KCC (2004). This grading emphasized that affluent schools had modern infrastructure which are according to the minimum standards of education, MOES (2001). In the findings affluent schools were observed with modern structures for classroom, toilets, lanes, main gate, play ground, dinning hall and fence. The analysis also presents the infrastructure of affluent schools with very good and good impact on informal dimension. This can be related to Fierr (1990) idea in the literature review that proper school facility have great effect on student performance and offer hidden knowledge which is manifested in student's behaviour.

Middle schools according to the findings had both modern and temporary infrastructure. Many buildings that had been accredited by the Ministry of Education were adjusted to accommodate the large population of students in the school. Some buildings meant for classroom have been made dormitories and temporary structures have been raised to serve as classrooms. The theory on which this study is based emphasized that infrastructure in school is not meant to provide a roof on the head of the learners or protect them from bad weather but to provide them with the best possible environment in which the formal and informal dimension teaching

- learning process can take place, Musaazi(2006).

In the literature review the education report of KCC (2004), middle schools were described as schools with high population and with infrastructure that has been diverted from its original use. For example construction of classes on the play ground, wooden buildings for classes, dinning hall is for lessons and housing learners during exams instead of meals. Some classroom blocks were expanded to cater for the big population of students.

Baglour (1995) survey had noted that there was little exploitation of infrastructure in secondary schools to develop an all round learner. He added that classes offered shelter for academics but had no signs for informal dimension. This is in agreement with the findings of the study that infrastructure yielded counts between average and little impact. This showed that the type of infrastructure provided by the school may increase or reduce on the informal learning.

Working schools had many temporary infrastructure and some infrastructures required for an average school were completely missing. The literature review had expressed this from KCC (2004) Education Report. Balgour (1995) report too had shown that these schools have unconventional classroom plans which showed lack of order. This can be related to a situation where the teacher in one class could be heard in two other classes because of incomplete walls.

The research analysis related the analysis results in these schools to average; little and no impact at all. The improper type of infrastructure in these schools therefore has denied the learners of

the chances to acquire informal dimension learning in its right way.

The discussion of correlation of Infrastructure and Informal Dimension Learning

In general the impact of infrastructure on informal learning in the findings depended on the standard of the infrastructure.

Nyakana (2007) in the literature review showed that many school infrastructures in Kampala are informal and illegal. In spite of the physical planning bi-laws and regulations that have been in place for long, many secondary schools in Kampala have not followed the rationale behind it. The use of incomplete and informal infrastructures had yielded low informal dimension standard. Infrastructures have high counts of students who feel there is quite a lot of informal abilities they have acquired from the use of infrastructure. However, the test of the hypothesis shows that for whatever infrastructure there is informal dimension acquired though it keeps on varying from school to school due to the variation in the type of infrastructure.

At least each infrastructure provided has some ability it provides and this resulted into the findings showing that there is a significant impact of infrastructure on informal dimension. But the goodness of the ability varies with the standard of infrastructure provided.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 INTRODUCTION

The summary of the findings, conclusion and recommendations of the study are presented in this chapter. The study investigated the perceived use of infrastructure and informal dimension in Secondary Schools of Kampala from 2000 – 2007. To guide the study, objectives and hypothesis stated in chapter one were formulated.

5.1 SUMMARY OF THE FINDINGS

The type of school infrastructure and the perceived uses through which learners acquire informal dimension abilities

The type of infrastructure used varied with the status of the school. In affluent schools, modern and approved infrastructures which were maintained regularly were being used. In middle schools modern and temporary infrastructures were observed and there was a high rate of increase of the number of infrastructure built to accommodate the big numbers of learners enrolled.

Some infrastructures in middle and working schools were not yet accredited by M.O.E.S, but they are used. In working schools, modern and temporary infrastructure exists. Despite the accreditation given by the Ministry of Education and Sports the infrastructure used in working and middle schools have been adjusted to accommodate more students that are enrolled.

The contribution of the perceived use of Infrastructure to the Informal Dimension

The study of the use of infrastructure showed informal dimension abilities which are acquired as learners use infrastructure. Whatever infrastructure there is in the school, students acquire informal dimension abilities as they use it. However, the degree of the abilities acquired depends on the type of infrastructure used. Infrastructure in affluent schools showed that it yields strong impact on informal dimension learning. Infrastructure in working and middle schools was dominated by reasonable impact, weak and not at all. This was evident where respondents selected very good and good relations in affluent schools and good and fair and not at all in working and middle school. However, the results of weak and fair impact were too low to influence change in the results.

Correlation between the perceived use of Infrastructure and Informal Dimension learning.

The test for the significance of the use of infrastructure on informal dimension using Pearson correlation coefficient index also proved that the use of infrastructure by the students has a big impact on informal dimension. The test for the hypothesis also confirmed significant impact of infrastructure on informal dimension.

5.2 CONCLUSION

There was strong positive correlation between infrastructure and informal dimension learning. As learners use infrastructure for formal learning, informal dimension learning takes place, but, the quality of the ability acquired depends on the type of infrastructure the learner uses. With appropriate and recommended infrastructure in affluent schools there was a very strong impact

on informal dimension of the learners. Failure of the middle and working schools to provide the appropriate infrastructure has led to weak and sometimes completely no informal dimension learning for the learners.

5.3 RECOMMENDATIONS

Given the rush with which schools are found education planners should sensitize schools that infrastructure is not for formal learning only, but it impacts on informal dimension learning as well. Therefore, adequacy of the infrastructure must be ensured before exposing them to the learner for use. This would raise the standard of infrastructure and informal dimension learning.

According to the findings about the significance of the perceived infrastructure at least any infrastructure present would yield some ability of informal dimension. Schools with appropriate infrastructure however, had their respondents with very good and good abilities developed. This leads to the recommendation that Planning and construction of secondary school infrastructure should aim at the desirable informal dimension learning of the students would get as they use the infrastructure for formal learning.

Many school managers of working schools, during the study mistook informal dimension to mean co-curricular so they do not give consideration to informal dimension during planning. Therefore Curriculum designers should give recognition to informal dimension learning of the students by relating it to the perceived use of infrastructure during planning. School managers and teachers must be sensitized about the meaning of informal dimension learning and how the infrastructure in school impacts

on it.

School managers should be furnished with the social demand approach of education planning. It emphasizes that the objective of education policies for infrastructure is to meet the need of the consumers who are the parents and pupils. In this study it implied provision of the right infrastructure to develop the formal and informal dimensions.

Schools must be shown the difference between co-curricular and informal dimension learning by the curriculum implementers. This would save the situation where schools take it that encouraging co-curricular is the only way informal dimension learning takes place. This cleared; schools will be encouraged to provide the recommended infrastructure.

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APPENDICES

Appendix A: Budget

No.	Item	Amount
1.	Stationery	57,000/=
2.	Secretarial Work (Typing & Binding)	470,000/=
3.	Transport	300,000/=
4.	Airtime	40,000/=
	Total	867,000/=

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EDUCATIONAL PLANNING AND MANAGEMENT

Our Ref:

Your Ref:

Date: 31ST MARCH, 2008

TO WHOM IT MAY CONCERN

This is to certify that ~~Mr/Mrs/Rev./Miss~~ Aligumikiriza Joyce.....
is a student in our department. ~~He~~/she is carrying out research as one of the
requirements of the course. ~~He~~/she requires data and any other information on this topic.

INFRASTRUCTURE AND INFORMAL DIMENSION
LEARNING IN SECONDARY SCHOOLS, KAMPALA DISTRICT.

Any assistance accorded to him/her is highly welcome. He/she is strictly under
instructions to use the data and any other information gathered for research purposes
only.

Yours faithfully,



EDITH MBABAZI
HEAD OF DEPARTMENT

APPENDIX C: Questionnaire for Students

Section A: Demographic Data

Please fill in the correct data.

- 1. Class:..... 2. Age:.....
- 3. Sex:
- 4. What made you to join this school?
.....
.....
- 5. For how long have you been in this school?
.....
.....

Section B: Please put a tick against your preference out of the alternatives 4,3,2,1.

- 4. Very good
- 3. Good
- 2. Fair
- 1. Not at all

LESSONS IN CLASSROOM

Attending lessons in classrooms has helped me to acquire the following:

- 6. Orderliness.....4 3 2 1
- 7. Smartness..... 4 3 2 1
- 8. Association..... 4 3 2 1
- 9. Punctuality.....4 3 2 1
- 10. Obedience.....4 3 2 1
- 11. Confidence..... 4 3 2 1
- 12. Cleanliness.....4 3 2 1
- 13. Swiftiness..... 4 3 2 1

14. Leadership..... 4 3 2 1

SECURITY AT THE MAIN GATE AND FENCE

Security at the gate and proper fence has helped me to acquire the following values;

15. Orderliness..... 4 3 2 1

16. Smartness..... 4 3 2 1

17. Association..... 4 3 2 1

18. Punctuality..... 4 3 2 1

19. Obedience..... 4 3 2 1

20. Confidence..... 4 3 2 1

21. Cleanliness..... 4 3 2 1

22. Swiftness..... 4 3 2 1

23 .Leadership..... 4 3 2 1

WALKING IN LANES

Walking in lanes on the school compound has helped me to acquire the following values;

24. Orderliness..... 4 3 2 1

25. Smartness..... 4 3 2 1

26. Association..... 4 3 2 1

27. Punctuality..... 4 3 2 1

28. Obedience..... 4 3 2 1

29. Confidence..... 4 3 2 1

30. Cleanliness..... 4 3 2 1

31. Swiftness..... 4 3 2 1

31. Leadership..... 4 3 2 1

TOILETS FOR SANITATION

Use of toilets for sanitation in school has helped me to acquire the following values;

32. Orderliness..... 4 3 2 1

33. Smartness.....	4 3 2 1
34. Association.....	4 3 2 1
35. Punctuality.....	4 3 2 1
36. Obedience.....	4 3 2 1
37. Confidence.....	4 3 2 1
38. Cleanliness.....	4 3 2 1
39. Swiftiness.....	4 3 2 1
40. Leadership.....	4 3 2 1

RUBBISH PIT FOR GARBAGE

Dumping rubbish in the rubbish pit has helped me to acquire the following values;

41. Orderliness.....	4 3 2 1
42. Smartness.....	4 3 2 1
43. Association.....	4 3 2 1
44. Punctuality.....	4 3 2 1
45. Obedience.....	4 3 2 1
46. Confidence.....	4 3 2 1
47. Cleanliness.....	4 3 2 1
48. Swiftiness.....	4 3 2 1
49. Leadership.....	4 3 2 1

SPORTS AND GAMES IN THE PLAYGROUND

Playing games and sports in the ply ground has helped me to acquire the following values;

50. Orderliness.....	4 3 2 1
51. Smartness.....	4 3 2 1
52. Association.....	4 3 2 1
53. Punctuality.....	4 3 2 1
54. Obedience.....	4 3 2 1
55. Confidence.....	4 3 2 1

- 56. Cleanliness.....4 3 2 1
- 57. Swiftmess.....4 3 2 1
- 58. Leadership.....4 3 2 1

MEALS IN DINING HALLS

Taking meals in the dining hall has helped us to acquire the following values;

- 59. Orderliness.....4 3 2 1
- 60. Smartness.....4 3 2 1
- 61. Association.....4 3 2 1
- 62. Punctuality.....4 3 2 1
- 63. Obedience.....4 3 2 1
- 64. Confidence.....4 3 2 1
- 65. Cleanliness.....4 3 2 1
- 66. Swiftmess.....4 3 2 1
- 67. Leadership.....4 3 2 1

Appendix D: Observation Checklist

INTRODUCTION

School:-----

1. School Category: Day
 Boarding
 Day & Boarding
2. School Status: -----
3. Population of students: Boys: -----Girls: -----
4. Estimated area covered by the school: -----

12. Kitchen and dining infrastructures

Modern Kitchen: Yes No

Modern dining: Yes No

Other comment-----

13. Co-curricular

The following are present or not

Football pitch: Yes No

Comment-----

Netball pitch Yes No

Comment -----

Volley ball pitch Yes No

Comment-----

Basket ball pitch Yes No

Comment-----