THE IMPACT OF INFORMATION TECHNOLOGY IN THE SELECTED SECONDARY SCHOOLS OF OTHAYA DIVISION, NYERI DISTRICT KENYA

BY

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RESEARCH REPORT SUBMITTED TO THE SCHOOL OF OPEN AND DISTANCE LEARNING IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF BACHELOR OF EDUCATION (SCIENCES) OF KAMPALA INTERNATIONAL UNIVERSITY

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DECLARATION

I, **GICHIMU NJARAMBA CYRUS** declare that this project is my original work and has never been presented to any other university for award of any academic certificate or anything similar to such. I solemnly bear and stand to correct any inconsistence.

Signature: G.N.C

GICHIMU NJARAMBA CYRUS

(Student)

Date : 24/04/09

APPROVAL

This is to acknowledge that this Report has been under my supervision as a university supervisor and is now ready for submission.

Signature: .....

MS. NAKIRYA

(Supervisor)

Date.....

DEDICATION

This work is affectionately dedicated to my beloved wife and children for their support patience and understanding during this period of study not forgetting all those who constantly wished me success.

ACKNOWLEDGMENT

I owe a lot of appreciation to all those who assisted me in carrying out this research. I am grateful to my supervisor Ms. Nakirya who tirelessly went through my work and inspired me to dig deeper into the core of the matter. Her kind criticism, patience and understanding, assisted me a great deal.

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LIST OF ABBREVIATIONS AND ACRONYMS

ICT	-	Information and Communication Technologies
CSK	-	Computer Society of Kenya
CEPAK	-	Computer in Education Project n Kenya
IDRC	-	International Development Research Center
KENET	-	Kenya National Educational Network
UPE	-	Universal Primary Education

ABSTRACT

The purpose of this study was to examining the impact of ICT projects in the selected secondary schools in Nyeri District, Kenya.

The specific objectives of the study were to describe the current situation in selected secondary schools with regard to ICT usage, evaluate the ICT learning programmes for students and to assess levels of interest in and attitudes towards ICT among students, and to assess the positive impact of ICT exposure in the lives of students.

The methods used for data collection was questionnaires to the students in the school who were involved in the study.

In chapter four, the findings were presented and interpreted in relation to the study objectives and research questions. While linking to the existing literature, results included demographic characteristics, frequency and percentages. Based on the findings it was observed there was a positive impact to the learning of computers in secondary schools.

In chapter five, development of solutions to the problem, summary of the findings and conclusions were attempted. The findings suggested government that government should put up a policy that ensures all schools get asses to ICT. This will help school avail facilities for the setting up of computer labs.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Computer education in Kenya was introduced in 1998, although different government ministries have yet to coordinate their approach to ICT education (Adhola, 2004). Currently, the country has close to 270,000 fixed lines with a ratio of one telephone line for every 100 people. Only a small minority of Kenyans are able to make use of personal computers. The Computer Society of Kenya (CSK) puts the estimate at one computer for every 2,000 Kenyans — while the national power grid serves less than 15 percent of the population. According CSK quarterly report of 2003, the country is estimated to have 500,000 internet users, including those who access the web through cyber cafes. A more conservative estimate is that over 90 percent of Kenyans have no access to ICT — and the number of people who can access the internet is less than 500,000, out a population of 30 million (Adhola, 2004).

Outside the education system, individuals and nongovernmental groups have made efforts to provide technology services especially in the big cities like Nairobi. At the end of 2000, Kenya had 44 licensed Internet Service Providers (ISPs). By October 2002, there were over 70. The ISP sector is fairly liberalized and the country has eagerly embraced the Internet. Kenya is rated number four in Africa (After South Africa, Egypt, and Morocco in that order) in terms of dial up per capita connections to the Internet. The ISPs must rely on the unpredictable and unreliable "Jambonet" as the Internet gateway. Telekom Kenya had the monopoly until June 2004 to provide Internet backbone services. There are numerous Internet or Cyber Cafes spread primarily through all the urban centers in the country. They charge between 1 and 7 shillings per

minute for Internet access. In the last year this sub-sector has experienced strong competition with many cyber cafes having to close down due to declining earnings.

Nairobits, an NGO run by local staff and supported by Dutch and Irish computer experts, has developed a free e-learning program in computer skills for youths living in slum areas of the city. Twenty students, aged 17-20 from Nairobi's Math are Valley slum area were initially selected in 2000 and 100 have since passed through the organization's doors. Demand has increased to the point where the annual intake last year was 100 (Rowe, 2003). The original students have progressed from absolute beginners who had never touched a computer mouse to leaders of a small company making websites for local organizations and training their peers. Facilitating them is a group of international volunteers and there are now plans to expand into other parts of Kenya. The organization helps those who complete the course to set up computer centers in the slums. Such centers then offer business services and teach youngsters computer skills and social skills. This stops kids hanging around on street corners and getting into drug abuse.

In a 2002 UNU-INTECH survey among 10 Kenyan and Nigerian universities, Oyelaran-Oyeyinka found that high Internet costs continued to hinder access by academics to on-line data and teaching materials. He interviewed the 200 researchers and found that all of them were unable to make use of the Internet to plug into the knowledge base – a tool taken for granted by researchers in Europe, North America and many Asian countries.

The study focused on individual and institutional user levels. Using component extraction, the study categorized the main constraints of access and use into five categories namely: connectivity, infrastructure, skills and ease of use, costs, and perceived advantages of the Internet. In Kenya, connectivity to the Internet was ranked the most limiting factor followed closely by costs. The most

binding constraints were inadequate access points, connectivity problems as well as a lack of affordable computing accessories.

The language of content was not cited as a significant factor for the 200 respondents since Kenya, a former British colony, adopted English the predominant language on the Internet as a common language for instruction. The fact that the survey was carried out among university lecturers, who are, as a group, among the most privileged in terms of computer and Internet access underlines the magnitude of the problem. The study concluded that much stronger policy measures are needed to hasten Internet diffusion in Sub-Saharan Africa.

Although the poorest parts of Kenya seem light years away from the high-tech information superhighway, E-learning could be the answer to the hugely escalating demand for education in the developing world.

Kenya National Education Network (KENET) was set up on April 23 1999 following the signing of a memorandum of understanding between the governments of Kenya and the USA through USAID. The aim was to establish sustainable communication and networking among educational institutions in Kenya that facilitates wide use of Internet technology in teaching, research and sharing of other information resources to the general populace at an affordable cost. KENET's objectives include: setting up a cost-effective and sustainable private networks with high speed access to the global Internet; sharing teaching and learning resources; providing a platform and infrastructure for electronic teaching and learning; and collaboration in research and development for educational content. Unfortunately, KENET's initial efforts are centered at interconnecting all the universities and a selected number of tertiary institutions in the country, essentially excluding secondary schools.

1.2 Statement of the Problem

The incorporation of Information and Communication Technologies (ICT) into the educational curriculum has been promoted as a key step in bridging the digital divide. Despite considerable growth in the numbers of computers acquired by schools in Kenya in recent years and the sacrifices made to finance these, there has been little evaluation of their effectiveness. Consequently, this research seeks to redress this by examining the impact of ICT projects in secondary schools in Kenya.

1.3 Objectives of the Study

1.3.1 General objective

The general objective of the study was to examine the impact of ICT projects in the selected secondary schools in Nyeri District, Kenya.

1.3.2 Specific Objectives

1. To describe the current situation in selected secondary schools with regard to ICT usage;
2. To evaluate the ICT learning programmes for students and to assess levels of interest in and attitudes towards ICT among students, teachers and parents
3. To assess the positive impact of ICT exposure in the lives of students and the improving practices that have resulted;

1.4 Research questions

1. What is the current situation in selected secondary schools with regard to ICT usage?
2. What are the ICT learning programmes for students and what are the levels of interest in and attitudes towards ICT among students, teachers and parents?
3. What is the positive impact of ICT exposure in the live s of students?

1.5 Scope of the Study

The study was conducted in the selected secondary schools found in Othaya Division Nyeri District. The study took four months that is from August 2008 to December 2008 and was limited to the set objectives outlined in chapter one in regards to the topic of the study.

1.6 Significance of the Study

This study would benefit the following disciplines:

The study would become an instrument of change in the ways in which people and communities think about the education in information Technology in schools.

The study would help education planners to devise means of ensuring that all secondary schools teach information technology as a subject at school.

The government will be persuaded to budget for funds that will help invest in information technology at secondary schools in the country.

Head teachers, teachers and parents will be sensitized in buying the necessary equipment at schools for their students to learn computer.

CHAPTER TWO

LITERATUREREVIEW

2.0. Introduction

This chapter reviews literature as an account of the knowledge and ideas that have been established by accredited scholars and experts in the field of the topic of the study. It is guided by the objectives of the study outlined in chapter one.

2.1 Contribution of ICT to Development

Education is a prerequisite for achieving several development goals. Research has shown that education is positively associated with a wide variety of human welfare issues that are seen as development goals. For instance, Lockheed et al. (1980) found that in a modernising environment four years of education improved agricultural productivity by 10 percent. Education is crucial to effective poverty reduction strategies (World Bank, 1995, p.1). Tilak (2002, p.198) argued that there is much research to support the hypothesis that education and poverty are inversely related.

Education plays a vital role in improving the health and longevity of populations; even a basic education resulting in literacy and numeracy enables people to gain and employ potentially life-saving knowledge about nutrition, hygiene and sanitation. Health and education are mutually reinforcing; a study by the Global Campaign for Education (2004) suggested that if Universal Primary Education (UPE) is realised then an estimated 700,000 young people could be prevented from contracting HIV/AIDS. Indeed, they posited that education is the most effective weapon to fight the spread of HIV/AIDS.

The World Bank and UN agree that the social benefits alone of female education outweigh the costs without even considering the private benefits or

increased productivity and earnings (Todaro and Smith, 2003). Educating females has enormous potential to create a virtuous circle, as the children of educated mothers are more likely to receive an education. The benefits of educating mothers are invariably passed on to children. Glewwe (1999) studied health data in Morocco and found that mothers with numeracy and literacy skills attained through school possessed greater health knowledge and consequently had healthier children.

One of the dynamics of the lives of people in the grip of poverty is disempowerment – a lack of control over decisions made both by them and for them. ICT promises to go at least some way towards empowering them by removing barriers to the access to information. Prahalad and Hart (2002) considered that information poverty may be the single biggest roadblock to sustainable development. Commentators from diverse political persuasions are convinced that ICT offers a potentially valuable tool for development (Annan, 2001; Nulens et al, 2001, p.10 and Ya'u, 2004).

Appropriate use of ICT could enhance many aspects of life in developing countries from health to education to economic growth. Education is one area where ICT deployment and improved access to information promises to deliver tangible benefits. ICT lends itself to adopting a more people or learner-centred approach to education. Freire's liberation theory (1970) stresses the importance of a dialogical approach to education. ICT can facilitate a pedagogical shift entailing an educational interaction between teachers and learners. ICT, if used correctly, can encourage and support a meaningful two-way, informational flow between teachers and learners, moving away from the old "banking" method of teaching where knowledge is simply transferred from teacher to student without any space for critical analysis on the part of the learner. Using ICT in education to produce ICT-literate students and a versatile, adaptable workforce is also consistent with the human capital theory of education. Hawkins (2002, p. 39) states that workers must learn how to learn and quickly acquire new

skills. Augmenting the skills of the workforce in this way has the potential to benefit the economy at large and also improve the individual student's earning and employment potential.

In specific terms, there are several ways in which ICT can contribute to solving education problems in Developing Countries; some of the most pertinent of these problems include:

• Shortage of qualified teachers: GeSCI (2004) estimated that as many as 25% of teachers in sub-Sahara Africa are not adequately qualified; ICTs can accelerate teacher training and the Imfundo Report (Unwin, 2004) concluded that ICT in education has most potential in pre- and in-service teacher training.

• Low learning achievement: Introducing ICTs can help to counter some of the negative factors endemic in many schools in Developing Countries, such as high pupil: teacher ratios, shortage of basic instructional materials and poor physical infrastructure. Research on the Digital Education Enhancement Project in the Eastern Cape of South Africa (Leach, 2003) found that ICTs had a positive impact on pupil achievement and classroom practice.

• High drop-out rates: ICT can be used to make the school curriculum more interesting. Studies have verified that children enjoy learning using technology (Hepp et al., 2004; Osin, 1998).

This motivation may deter children from dropping out of school; Gómez and Martinez (2001) described how using the internet in education programmes for street children in Colombia enticed a higher than usual number back to learning.

• Lack of opportunities in remote areas: Distance learning can help to overcome the problems associated with geographical isolation and is invaluable for students in remote areas. Distance learning educational software also benefits from economies of scale increasing cost efficiencies. Recruiting teachers for the more remote regions is often difficult in Developing Countries; ICT serves to

counteract physical distance as teachers can maintain contact with family and friends through telephone and e-mail.

• Lack of study material and resources: Study and teaching materials are very sparse in many schools in Developing Countries; ICTs can play a significant role in providing teachers and students with access to educational content and up to date resources.

2.2 ICT in Education in Kenya

Although ICT in education in Kenya is a relatively new area of research, some useful publications are available, dating back to an evaluation of one of the earliest computer deployment projects in the country, the Computers in Education Project in Kenya (CEPAK). The latter project was launched as long ago as April 1983 but its evaluation in 1990 is particularly relevant to the present research.

At its pilot phase, with funding from the Aga Khan Foundation, a small number of computers were introduced into one secondary school in Nairobi. In the succeeding two years CEPAK was subjected to both in-house and external evaluations. As a consequence, additional funding was obtained from Apple Inc., the International Development Research Centre (IDRC) and the Rockefeller Foundation, and in mid 1986 a three-year Phase II was launched. Five more secondary schools, which included private and public schools distributed throughout Kenya were brought into the project and each received computers, software and teacher training. During the three year period of Phase II, this innovative project was studied and evaluated by an independent research team (Makau, 1990). Three educational researchers carried out this study, using a variety of research methods; these included examination of school records on the use of computers within the six participating schools, observation of classes (91 were observed, 65 of which were computer-assisted), and interviews with students, teachers and non-teaching staff.

Two sets of written questionnaires were administered to teachers and students in 1986 (baseline year) and in 1988. In total, 170 teachers responded to these questionnaires in 1986 and 110 in 1988. For the students, 1535 responded in 1986 while 2671 responded in 1988. Thus, this represented a large-scale study of the use of computers in secondary schools in Kenya.

The CEPAK evaluation found that most computer-assisted lessons were observed to be in mathematics and the sciences. However, this evaluation also found that in the majority of computer-assisted lessons teachers tended to be passive, thus leaving students to do whatever they chose. It found that some students regarded both formal and informal sessions on the computer as time for relaxation as opposed to serious learning (Makau, 1990, p.160). This approach to computer-assisted lessons was explained as being a result of the perception of the computer as the object of study, as more exciting and potentially more rewarding than integration of the technology into the existing curriculum (ibid. p.90).

The research also found that computer studies lessons were conducted in the computer laboratory, thus they seemed to have priority over computer-assisted lessons in other subjects. It would appear that, both practically and symbolically, computer science was receiving more emphasis than integration of the technology into the rest of the curriculum (ibid. p.91).

A second research project (Kenya SchoolNet, 2003) conducted in November 2002 was based on the findings of a questionnaire to which 69 secondary schools responded, coming from all provinces and 46 districts. This research reported that only 46.4% of the sampled schools had computers although there did appear to be a high level of awareness of the benefits of computers in schools (ibid. p.11). The research also reported that Internet and fax were rare in the schools (ibid. p.10). It was suggested that E-mail was yet to be recognised as a tool for collaboration among teachers as only one school had a

website and only two reported having networked all their computers to the Internet (ibid. p.20). It went on to assert that in those schools, access to the Internet was severely limited and when available, was only for administrative use (ibid., p.20).

A third research study (Ndiku, 2003) conducted more recently and based on the experience of managers and computer teachers in eight schools in Uasin Gishu District, western Kenya, focussed on the problems encountered in the implementation of educational ICT projects. The research identified the following as the most important factors in inhibiting the success of computer deployment projects: insufficient numbers of computers and peripheral devices; teachers' lack of knowledge; inadequate software for instruction and inadequate technical assistance (ibid, p.81). Computer teachers themselves were found to have the additional problems of integrating computer usage into the school curriculum and frustrations with out-dated computers which were not relevant to current needs (ibid. p.81).

These studies of ICT in education in Kenya have highlighted some of the issues specific to ICT deployment in schools. The present research now attempts to contribute to the research in this area with an evaluation of current practice in educational institutions in Kenya with a view to establishing best practice in educational ICT deployment projects.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter discussed the operational frame work within which the facts of the study were gathered. It covered sections on study design, study environment, the nature and composition of respondents, instruments of data collection, sampling design, data collection procedures and statistical treatment of data.

3.1 Research Design

This study is a descriptive cross section survey. The objective of descriptive research was to accurately portray a profile of persons, situations or events. It is not possible to access all the information in all the districts, so the researcher obtained information from a representative sample from Othaya Division.

3.2 Research Environment

The study was conducted in the selected Secondary schools found in Othaya Division located in Nyeri District Kenya.

3.3 Instruments of Data Collection

Questionnaires ware used to get the students and Teachers' perceptions and opinions.

A documentary review guide was also used.

The instruments was developed basing on the research questions.

3.4 Sample Size and Sampling Procedures

The research was purposive sampling for respondents. Teachers and students will be selected for this study.

3.5 Data Analysis

Data analysis was done using SPSS [Statistical package for the social scientists) for the quantitative data. Data was tabulated using frequency counts and percentages.

Qualitative data was analyzed basing on themes derived from objectives of study. The information got from the qualitative data was used to supplement and complement that which was obtained from quantitative data.

3.6 Statistical Treatment of Data

Quantitative analysis: Data was edited and categorized according to the research variables. Quantitative data generated from questionnaires ware computed into frequency courts and percentages.

Qualitative analysis: Data from semi structured observations and in depth interviews ware not standardized hence did not require categorization. Such data was presented in a descriptive form and was used to discuss the results of quantitative data.

3.7 Data Collection Procedures

After the research proposal is approved, the researcher obtained a letter of introduction from the faculty of social sciences to facilitate in the data collection exercise. The letter was presented to the town authorities before the questionnaires are administered. Participants ware assured of confidentiality. Questionnaires ware administered and interviews conducted. The data was sorted, categorized and analyzed. Conclusions and recommendations ware made.

CHAPTER FOUR

FINDINGS AND INTERPRETATIONS

4.0 Introduction

The purpose of this study was to examine the impact of ICT projects in the selected secondary schools in Nyeri District, Kenya. The specific objectives of the study were to describe the current situation in selected secondary schools with regard to ICT usage, evaluate the ICT learning programmes for students and to assess levels of interest in and attitudes towards ICT among students and to assess the positive impact of ICT exposure in the lives of students. This chapter is a presentation, interpretation and discussion of the field results. The results are presented in tables and in form of frequency counts and percentages. The results and discussions are centered on the set objectives of the study.

4.1 Demographic characteristics of respondents

The study covered 20 randomly selected respondents of whom 80% are male and 20% are female.

Table 4.1: Sex of Respondents

Sex	**Frequency**	**Percentage (%)**
Male	16	80
Female	4	20
Total	**20**	**100**

Source: Field survey 2008

From the above table, majority were male making 80%, and less were female composed of 20%

4.2 The current situation in selected secondary schools with regard to ICT usage

Makau, (1990) at its pilot phase, with funding from the Aga Khan Foundation, a small number of computers were introduced into one secondary school in Nairobi. In the succeeding two years CEPAK was subjected to both in-house and external evaluations. As a consequence, additional funding was obtained from Apple Inc., the International Development Research Centre (IDRC) and the Rockefeller Foundation, and in mid 1986 a three-year Phase II was launched. Five more secondary schools, which included private and public schools distributed throughout Kenya were brought into the project and each received computers, software and teacher training. During the three year period of Phase II, this innovative project was studied and evaluated by an independent research team.

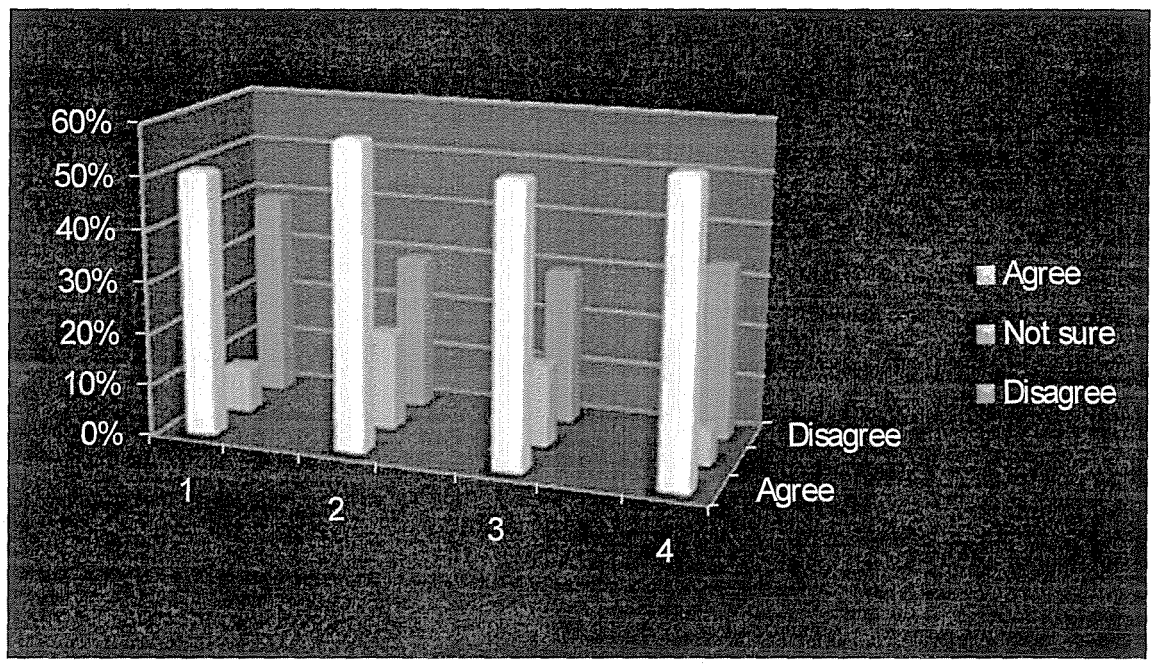
The results on the current situation in selected secondary schools with regard to ICT usage are summarized in the table below;

Table 4.2: Students' response showing the current situation in selected secondary schools with regard to ICT usage

	Item	Agree(%)	Not sure (%)	Disagree (%)
1	There are computers in the school but we do not have computer teachers	51	9	40
2	There are computers in the school but they are not working	59	19	30
3	There are computers in the school but there is no electricity supply for them to work	54	16	30
4	The computers in the school are not connected to the internet	57	7	34

Source: Field survey 2008

Figure 4.1: Response on students' response showing the current situation in selected secondary schools with regard to ICT usage



Source: Field survey 2008

Results from the table and chart I above indicate 59% of respondents are of the view that there are computers in the school but they are not working. On the other hand 54% of the respondents are of the view that there are computers in the school but there is no electricity supply for them to work, 51% the respondents are of the view that there are computers in the school but we do not have computer teachers.

The findings therefore indicate that the problem is not the provision of computers but the facilities like teachers, and physical facilities that enable the teaching of computers appropriately.

4.3 Levels of interest in and attitudes towards ICT among students, teachers and parents

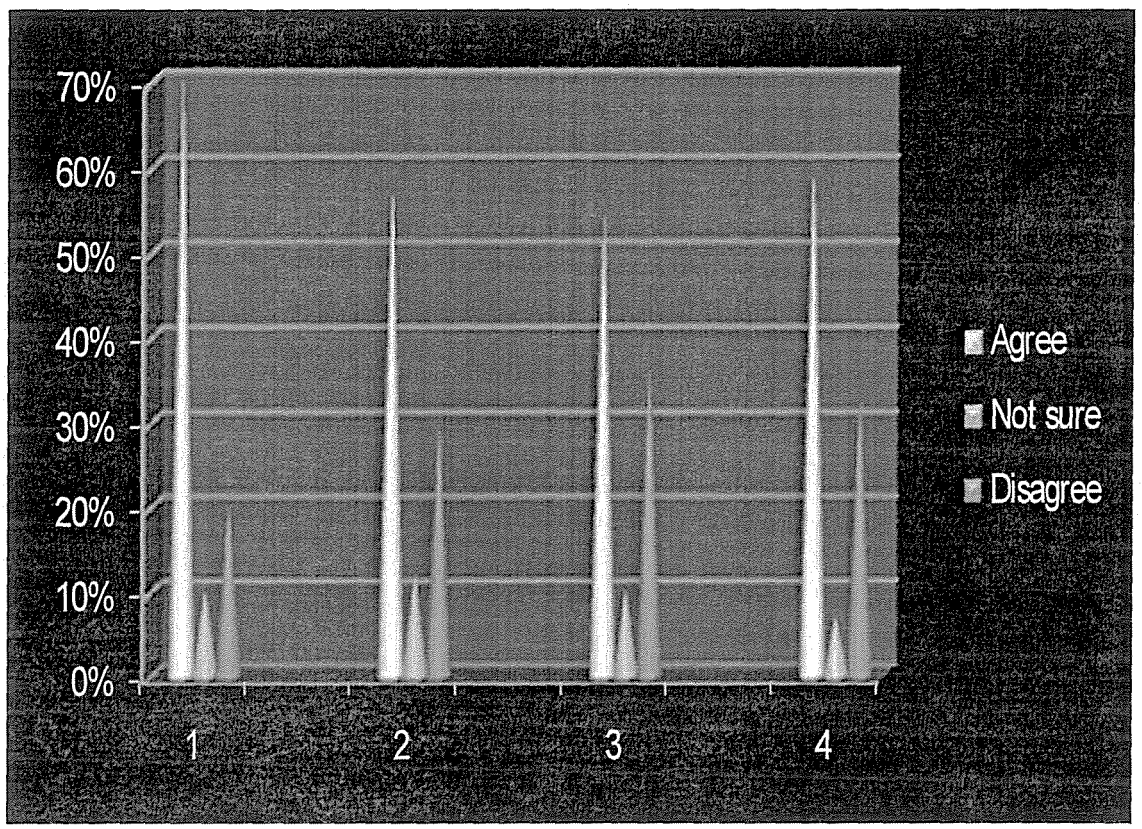
The results on the Levels of interest in and attitudes towards ICT among students, teachers and parents are summarized in the table below;

Table 4.3: Student Response showing the Levels of interest in and attitudes towards ICT among students, teachers and parents

	Items	Agree(%)	Not sure (%)	Disagree (%)
1	Students in the school do not want to learn computer lesions	70	10	20
2	Students are only interested in games in computer lesions	58	12	30
3	Parents do not encourage their children to study computer	54	10	36
4	Teachers are themselves computer illiterate and they do not take interest in learning.	60	7	33

Source: Field survey 2008

Chart 4.2: Student Response showing the Levels of interest in and attitudes towards ICT among students, teachers and parents



Source: Field survey 2008

The results from table III and chart II show that 70% of the respondents are of the opinion that Students in the school do not want to learn computer lesions. 60% of the respondents are of the view that Teachers are themselves computer illiterate and they do not take interest in learning. Further more 58% of the respondents are of the view that Students are only interested in games in computer lesions.

The findings therefore imply that students are interested in computer lesions for the wrong reasons and not for the purpose of becoming computer literate.

4.4 Student Response showing Positive impact of ICT exposure in the lives of students

According to Berkeley Seth and Dean Johnson (1991) ICT can be used to make the school curriculum more interesting. Studies have verified that children enjoy learning using technology. Study and teaching materials are very sparse in many schools in Developing Countries; ICTs can play a significant role in providing teachers and students with access to educational content and up to date resources.

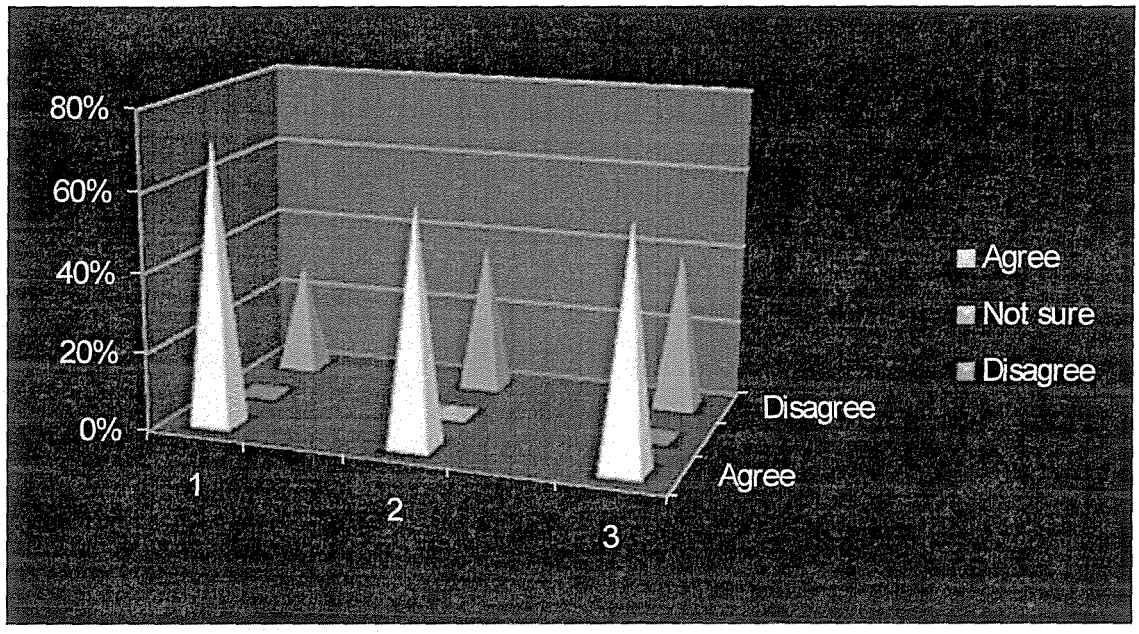
The findings on the Positive impact of ICT exposure in the lives of students are presented in table 4.5 below;

Table 4.5: Positive impact of ICT exposure in the lives of students

	Items	Agree (%)	Not sure (%)	Disagree (%)
1	Enhanced motivation and creativity when confronted by the new learning environments,	72	0	28
2	A greater disposition to research and problem-solving focused on real social situations,	60	2	38
3	More comprehensive assimilation of knowledge in the interdisciplinary ICT environment,	60	0	40

Source: Field survey 2008

Chart 4.3: Response showing Positive impact of ICT exposure in the lives of students



Source: Field survey 2008

Results from table IV and chat III above show that 72% of the respondents agreed with the statement that ICT leads to enhanced motivation and creativity when confronted by the new learning environments. Also 60% of the respondents agreed with the view that computers leads to greater disposition to research and problem-solving focused on real social situations. More still another 60% were also of the view that computer studies lead to a more comprehensive assimilation of knowledge in the interdisciplinary ICT environment.

The findings therefore mean that computer studies have a lot of advantages to the students and the community at large.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

The study looked at the impact of ICT projects in the selected secondary schools in Nyeri District, Kenya. In an attempt to achieve the above, three objectives were developed. This chapter presents the summary, conclusions and recommendations of the findings

5.1 Summary of the major findings

The first objective sought to investigate the current situation in selected secondary schools with regard to ICT usage. The findings revealed that 51% of the respondents agreed with the first statement, 59% of the respondents agreed with the second statement, 54% of the respondents agreed with the third statement, while 57% agreed with the fourth statement and 56% were in agreement with the last statement.

The second objective sought to evaluate the ICT learning programmes for students and to assess levels of interest in and attitudes towards ICT among students, teachers and parents. The findings revealed that 70% of the respondents agreed with the first statement, 60% of the respondents agreed with the second statement, and 58% of the respondents agreed with the third statement.

The third objective sought to assess the positive impact of ICT exposure in the lives of students The findings revealed that 72% of the respondents agreed with the first statement, 60% of the respondents agreed with the second statement, and another 60% also greed with the third statement and 56% of the respondents agreed with the fourth statement.

5.2 Conclusions

The findings indicated that most schools could get assess to computers but did not have the facilities to set up a computer laboratories and also lacked the teachers to teach the subject.

The findings also discovered that students had a positive attitude towards learning computer studies although they wanted to lean computers for the wrong reasons of having fan with computer games.

The findings finally discovered that there were a lot of benefits associated with learning computers especially to the students and teachers but also the community as well.

5.3 Recommendations

The government should put up a policy that ensures all schools get access to ICT. This will help school avail facilities for the setting up of computer labs.

The government should have a policy in place that ensures that computer studies teachers get all the training they need to teach the students professionally. The policy could be that all unqualified teachers should be availed an in-service course that will enable them acquire the services needed to teach the learners.

There school authorities should make sure that they have a reliable source of energy that facilitates the use.

The government to mobilize the donors to denote computers to the schools

To government to increase the number of public libraries which have computer labs where students will also have access to computers during holidays.

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APPENDIX I: Introductory Letter

KAMPALA INTERNATIONAL UNIVERSITY
EXCLORING THE HEIGHTS

Ggaba Road - Kansanga
P.O. Box 20000, Kampala
Tel: +256- 41- 266813 / +256-(0)-41-266676
Fax: +256- 41- 501974
E- mail: admin@kiu.ac.ug,
Website: www.kiu.ac.ug

OFFICE OF THE DIRECTOR
INSTITUTE OF OPEN AND DISTANCE LEARNING (IODL)

DATE: . . . . . .

TO WHOM IT MAY CONCERN:

Dear Sir/Madam,

RE: INTRODUCTION LETTER FOR MS/MRS/MR . . . . . .

The above named is our student in Institute of Open and Distance Learning (IODL), pursuing a Diploma/Bachelors degree in Education.

He/She wishes to carry out a research in your Organization on:

. . . . . .

. . . . . .

Case Study:. . . . . .

The research is a requirement for the award of a Diploma/Bachelors degree in Education.

Any assistance accorded to her regarding research will be highly appreciated.

Yours faithfully,

MR. MUHWEZI, JOSEPH
HEAD, IN-SERVICE

APPENDIX II: Questionnaire for Students

Dear respondent,

I am a student of Kampala International University carrying out an academic research on the topic "the impact of ICT projects in the selected secondary schools in Nyeri District, Kenya." You have been randomly selected to participate in the study and are therefore kindly requested to provide an appropriate answer by either ticking the best option or give explanation where applicable. The answers provided will only be used for academic purposes and will be treated with utmost confidentiality.

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

A) Personal Information

1. GENDER

Male ☐ Female ☐

2. AGE

14-16 ☐ 17-19 ☐

20 and abov ☐

2. CLASS

a) Form one ☐ b) Form two ☐

c) Form three ☐ c) Form four ☐

Evaluate the following statements using the following;

Not sure	Disagree	Agree
3	**2**	**1**

B) Current situation in selected secondary schools with regard to ICT usage

1	There are computers in the school but we do not have computer teachers	
2	There are computers in the school but they are not working	
3	There are computers in the school but there is no electricity supply for them to work	
4	The computers in the school are not connected to the internet	
5	There are only a few computers that the school administration can use	
6	The school completely has got no single computer	

C) Levels of interest in and attitudes towards ICT among students, teachers and parents

1	Students in the school do not want to learn computer lesions	
2	Students are only interested in games in computer lesions	
3	Parents do not encourage their children to study computer	
4	Teachers are them selves computer illiterate and they do not take interest in learning.	
5	Students have a positive attitude towards learning computer	

D) Positive impact of ICT exposure in the lives of students

1	Enhanced motivation and creativity when confronted by the new learning environments,	
2	A greater disposition to research and problem-solving focused on real social situations,	
3	More comprehensive assimilation of knowledge in the interdisciplinary ICT environment,	
4	Systematic encouragement of collaborative work between individuals and groups,	
5	Ability to generate knowledge,	
6	Capacity to cope with rapidly changing, complex, and uncertain environments,	

THANK YOU.