

**USE OF ELECTRONIC EQUIPMENT IN FACILITATING LEARNING AMONG
MEDICAL STUDENTS AT KAMPALA INTERNATIONAL UNIVERSITY SCHOOL
OF HEALTH SCIENCES:**

**A RESEARCH REPORT SUBMITTED TO THE FACULTY OF CLINICAL MEDICINE
AND DENTISTRY IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE
AWARD OF A BACHELORS IN MEDICINE AND A BACHELORS IN SURGERY OF
KAMPALA INTERNATIONAL UNIVERSITY -WESTERN CAMPUS**

BY

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BMS/0058/91/DU

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DECLARATION.

I declare that this research report has not been produced or submitted to any Institution for any purpose whatsoever. The whole work is original, all references have been acknowledged.

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DATE.....

SUPERVISOR’S APPROVAL

This research project titled “Assessment of the level of utilization of electronic equipment in facilitating teaching and learning at Kampala International university school of Health Sciences” has been done under my supervision & is ready to be submitted for examination with my approval.

.....

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Ass. Dean Faculty of Biomedical Sciences
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Signature.....

Date.....

ACKNOWLEDGEMENT

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“We treat but God Heals”

TABLE OF CONTENTS

DECLARATION.....	i
SUPERVISOR’S APPROVAL	ii
ACKNOWLEDGEMENT	iii
LIST OF TABLES	vi
LIST OF FIGURES	vii
LIST OF ABBREVIATIONS.....	viii
DEFINITION OF TERMS	ix
CHAPTER ONE: INTRODUCTION	1
1.1 INTRODUCTION	1
1.2 Statement of the problem.	2
1.3 Purpose of the study:.....	2
1.3.1 Broad objective	2
1.3.2 Specific objectives:	2
1.4 Research Question.	2
1.5 Justification:.....	2
CHAPTER TWO: LITERATURE REVIEW	4
CHAPTER THREE: METHODOLOGY.....	8
3.1 Study design.....	8
3.2 Study setting.....	8
3.3 Study population	8
3.3.1 Inclusion criteria	8
3.3.2 Exclusion criteria	8
3.4 Sample size determination	8
3.5 Sample size	9

3.6 Data collection tools	9
3.8 Data analysis	9
3.9 Ethical consideration.....	9
3.10 Dissemination of results.....	9
CHAPTER FOUR: STUDY FINDINGS	11
4.1 : Personal information.....	11
4.2 Ownership of a personal electronic gadget.....	12
4.3 Students without Personal electronic gadgets.....	14
4.4 Purpose of the Electronic gadget (for only those who have them and those who borrow from friends)	15
4.5 university Electronic facilities	16
4. 6 Opinion of students about electronic equipment use in learning	18
CHAPTER FIVE: DISCUSSION OF RESULTS:.....	19
5.1 In response to the Research questions:	19
5.2 Conclusions.....	21
5.3 Recommendations:.....	22
REFERENCES	23
APPENDIX I: CONSENT FORM AND QUESTIONNAIRE.....	24
APPENDIX II; MAP OF BUSHENYI DISTRICT SHOWING ISHAKA TOWN	26
APPENDIX II: LETTER OF INTRODUCTION FROM THE UNIVERSITY	27
APPENDIX IV: MORGAN TABLE FOR SAMPLE SIZE DETERMINATION	28

LIST OF TABLES

Table 1: Age Of Respondents	11
Table 2: Sex of Respondents.....	11
Table 3: Table showing courses pursued by students	11
Table 4: A table showing the different types of Electronic equipment possessed by students. ...	12
Table 5: Showing means used to access electronic services among those students without personal electronic gadgets	14
Table 6: Showing the purpose of the Personal Electronic gadget	15
Table 7 : Students use of the University's Computer Laboratory.	16
Table 8 : purpose of visiting the computer laboratory:.....	17

LIST OF FIGURES

Figure 1: Showing ownership of a personal electronic gadget.....	12
Figure 2: A figure showing the distribution of the different types of personal Electronic equipment among students.....	13
Figure 3: A figure showing the alternatives taken by students without personal electronic equipment to access Electronic services.	14
Figure 4: Figure showing the common uses of personal and borrowed electronic equipment....	15
Figure 5: Showing the frequency of visit to the University E-lab by students.....	16
Figure 6 : Figure showing distribution of the reasons for visiting the Computer laboratory.	17

LIST OF ABBREVIATIONS

KIU-WC Kampala international university-Western Campus

PC Personal Computer

E-Lab Electronics Laboratory

E-Learning Electronic Learning

DEFINITION OF TERMS

Electronic Equipment	Refers exclusively to the only those gadgets that can be used to access internet services and purposely used for Educational purposes. We particular refers to Smart Mobile phones, Laptops, Desktops, or mini computers (Smaller than a standard size of a laptop).
Computer laboratory or E-lab	Special room designated for computer related services at Kampala International university.
Smart phone	An advanced Mobile phone capable of performing most functions of a computer besides being used for communication services
E-learning	Setting where electronic devices like computers are used for educational purposes and exchange of ideas or information over the internet. It is used to send and share information over wide geographical area.
Local area network	An electronic system of interconnected electronic devices working over a limited area e.g. University premises.

ABSTRACT:

Aim

To determine the availability, utilization of electronic equipment for learning purposes among medical students.

Methods

In a survey involving 200 students from the Faculty of Biomedical Sciences of Kampala International University-Western Campus was done and a self-administered questionnaire was used to collect data.

Results:

It was found that majority of the students(86%) owned at least one electronic equipment and of those 35% owned more than one type of electronic equipment. Of the remaining 24% without personal electronic equipment, 40% preferred to borrow from a friend whereas 24% visited an internet café and 20% combined both options. Only 16% opted for the university E-lab. Many of the students (52%) admitted to use their electronics for learning purposes and course work whereas others (14%) used them for recreation (watching movies, listening to music and playing games). Though a large number(36%) combined most of the purposes few students (12%) gave attention to learning computer basics which are the basic guide for the proper use of electronic equipment. In their personal opinions about electronic equipment use in learning, students gave very positive comments and encouraged their use. Others expressed how beneficial computers are in learning and also expressed the need for improvement in the computer laboratory services of the university.

Conclusion:

Therefore the results revealed a fact that many students have electronic equipment of different types which they use for various purposes ranging from academic purposes to recreation and the positivity that they embrace use of electronics in learning.

It also revealed a gap in students' use of the university's E-lab reduced initiative of learning computer basics which would be fundamental in the proper use of electronics.

Recommendations:

The university gets to know that most students have personal means of assessing electronic services therefore help them put them to good use.

University initiates programs that will teach the students computer basics like periodical seminars since most students do not go back to the computer laboratory once their lessons are done in computer laboratories.

The university comes up with programs like electronic results, notes, and dissertations and other research programs, video conferences and correspondences to open up the students to the world wide networks for better exchange of educational ideas.

CHAPTER ONE: INTRODUCTION

1.1 INTRODUCTION

Computers are increasingly being incorporated into school curriculums. Teachers present processes and concepts using programs such as Power point, and students can utilize visual models and word processor to enhance their learning experience. Are Computers Effective at instructing students to retain information better? Some studies show a dramatic increase in performance while others show that CAI (Computer Aided Instruct has small to moderate-sized positive effects on achievement (Avrim, 2000). The exact implications of computers in the classroom are unclear, but one thing that is apparent is that the outlook of computers in education is promising.

The evidence of computer use in the modern times cannot be ignored yet the biggest question in our minds remains “Are they being used for the purpose they are meant for?”. Students are increasingly becoming beneficiaries from computer use ranging from academic purposes to research projects.

The current improvements in technology have presented computers in various kinds ranging from desktops in school libraries to mobile phones personally owned by students of all categories. But are they effectively using them for Academic purposes?

This therefore is the basis of this research project aimed at highlighting the rate of utilization of computers in facilitating teaching and learning among medical students at Kampala International University-Western Campus.

Results of this study will be used to guide University policy makers on better ways of using electronic equipment to facilitate teaching and learning. And also to choose which electronic equipment to encourage of incorporate in the academic curriculum of the institution.

1.2 Statement of the problem.

Computers and other electronic equipment are now widely available in various forms with advanced capabilities and can perform many tasks. But there is no available data on the actual use of computer for learning or teaching purposes.

1.3 Purpose of the study:

1.3.1 Broad objective

To determine the extent of utilization of Electronic equipment in teaching and learning of medical students.

1.3.2 Specific objectives:

To determine the preferred means of learning and information sourcing by medical students.

To determine the rate of utilization of the university's computer laboratory for learning purposes.

To assess the projector method of teaching over normal white board teaching.

To obtain student perspective about Electronic learning to guide university policy makers.

1.4 Research Question.

1. How many students have electronic equipment usable in learning?
2. What is the common type of electronic possessed by the student?
3. For what purpose do students use their electronic equipment for?
4. How often and for what purpose do students visit the University E-lab?
5. What is the student's opinion about E-learning?

1.5 Justification:

The current "dot.com world" has swept us off our feet. Though not assessed yet, there is extensive use of electronic media for various purposes to and extent that it is becoming part of

our everyday living yet its impact on our learning strategies has not yet been fully assessed. There is scanty data on what medical students use their computers for after acquiring them and the case is the same even in Kampala International University-Western Campus.

It is on this note that, I carry out this research to help the Education policy makers to find more comprehensive and formidable ways of incorporating computer education into education curriculum and exploit the vast capabilities of computers and internet for better education service delivery.

CHAPTER TWO: LITERATURE REVIEW

Introduction:

Computer usage has changed from pure equation processing technology, embodied by the MARK 1 at Harvard and the ENIAC at the University of Pennsylvania, to information processing technology. "To know... used to mean having information stored in ones memory. It now means the process of having access to information and knowing how to use it." . (Cooper & Ramirez, 2006). School boards and PTA's once dictated what was necessary in the classroom. Now education experts and IT gurus set the bar. (Cooper & Ramirez, 2006)

History of ICT application in some Ugandan Institutions.

According to the ministry of ICT the ministry's 2005-2006 Annual Review 7 reports an increase in ICT accessibility among tertiary institutions:

- E-mail addresses increased from 79 in 2004 to 97 in 2005.
- Institutions with Web sites increased from 34 in 2004 to 42 in 2005.
- The computer-student ratio in Makerere University has improved to 1:15 on average.
- Mbarara University for Science and Technology upgraded its connectivity bandwidth to enable access for all faculties.
- Kyambogo University finalized its policy document on ICT.

KIU has joined this list recently when it opened its western branch.

And the evidence above shows that a number of institutions are embracing and integrating use of computers in their school curriculums (Kaahwa, March 2013).

Relevance of Electronic learning in the Medical Education.

Medicine is such a wide subject to comprehend with many sub-specialties and with a vast field of research. Therefore a student should be well equipped to handle the workload ahead. Given the expensive nature of medical literature (text books, journals, pocket guides and other accessory materials) and the dire need for many references, it is inevitable that one has to have a cheaper and readily available source of information for quick reference. Therefore, a personal computer or electronic media comes in handy. (Carter, 2014)

Classroom computers open up a whole new world of telecommunication, allowing students to access national and worldwide educational websites. Immediate access to current materials enables students to respond, analyze, read and digest educational content that isn't available in most textbooks or at least hasn't made it to print yet. Video conferencing, multimedia presentations and electronic communication tools also give universities the ability to educate students, including those who are home sick or take online classes (Tucker, 2014).

Relevance of computer in the current Education.

The most important aspect of computers in education is that they provide drill and practice for the student. Unlike teacher instruction, which may become tedious over time, computers provide motivation to the student to continue learning (Leu, 2000).

Utilizing computers in education makes abstract concepts visible to students who may be discouraged from learning material (Plowman & Stephen, 2005). Such materials may include: Video demonstrations of hard to understand like Embryology, Cell physiology and biochemistry.

Visual of disease processes without necessarily having to see a patient with that kind of disease

The internet allows students to access monumental amounts of information, connect with many other educators, keep abreast with latest research advances and contains information on every topic imaginable. (Tucker, 2014)

Latest information on drug changes, new treatments and diagnoses can all best be obtained using electronic media.

A class website keeps channels of communication open between the teachers, parents and students (Tucker, 2014)

What students use computer for?

Given the so many uses of computers and other electronic equipment, it is very possible for students to get lost in its so many uses and forget the academic purposes which should be number one for a student. Though the main aim of computer acquisition to students is usually

academic, many times this purpose is diverted into other peripheral uses of the computer. Some of these vices include

Teachers must keep close tabs on classroom Internet use, ensuring that students aren't socializing, playing games or researching topics that don't have educational value (Tucker, 2014).

Brown (2012) has said that students should learn how to use computers because today's world runs on computers. She says that anyone who is computer illiterate is at a disadvantage in work, leisure and daily life. Barrus (2012) and Moss (2012), say that students must use computers in schools in order to prepare to enter the workforce. They also say that students perform better when computers are accessible.

When poorly used, a computer can be a major source of time wasting especially of the valuable academic time. It is therefore imperative that academic policy makers put this factor into consideration as computer can be also a source of poor learning especially if students using it are not well guided.

To others with no genuine interest, computer learning takes long and they adopt a feeling that after all computer knowledge is not worthwhile. This may lead to wastage of valuable computer resources.

What do teachers use computer for

Teachers are the key facilitators of learning. They should therefore be number one to get acquainted with Electronic learning in order to better guide students. A teacher who has not embraced computer technology, may not find it easy to encourage among students.

There are various ways teachers may use computers to facilitate education. Janelli (2012), says that innovative educators are harnessing the power of technology and putting it to good use. For example, videos can be used to help students retain information. Also spread sheet software can be used to automatically calculate attendance and the grades of the students.

In addition to the above, teachers are now finding it much to prepare presentations, display graphic images and or give and receive assignment of students via the internet (Tucker, 2014).

It is now a common place finding lecturers and other tutors giving students a list of references to look for on the website or particular assignments to be done with the help of the internet.

However, all is not a bliss given the fact that some lecturers still have problems with computer and internet use whereas others have replaced actual teaching with electronic copies of notes given to students to do personal learning. Therefore students leave the institution half baked.

When new technologies are integrated into the classroom both teachers and students need to become accustomed to it before they can fully reap the benefits. Because of this, "teachers' first technology projects generate excitement but often little content learning. Often it takes a few years until teachers can use technology effectively in core subject areas (Goldman, Cole, & Syer, 1999)." According to Woronov (1994), computers themselves do not automatically change the nature of teaching and learning, but that it is the way the teachers use the technology that creates a conducive learning environment.

Where is the problem?

Institution administrators tend to spend large amounts of money to integrate computers into schools when the effectiveness of programs on student's achievement is unclear yet if computers are not used effectively then students lose out on a promising educational experience.

CHAPTER THREE: METHODOLOGY

3.1 Study design

This will be a community based cross sectional study using both qualitative and quantitative methods for data collection.

3.2 Study setting

The study will be conducted at Kampala International University-Western Campus Ishaka-Bushenyi Municipality in Bushenyi district in Western Uganda.

3.3 Study population

The study will be conducted among Medical students from the Faculty of Biomedical Sciences of Kampala International university-Western Campus.

3.3.1 Inclusion criteria

All students from the Faculty of Biomedical Sciences that will be found in their classes and have consent to participate in the study.

3.3.2 Exclusion criteria

- Students who have not consented
- Those who are not medical students.
- Students not in class at the time of study.

3.4 Sample size determination

Simple random sampling will be used to obtain the representatives from each class, Based on the class list of each class, there are 4 classes in the faculty of Biomedicals and each class is to be visited by the investigator and only those students doing a medical course will be asked to participate. A total of 50 students will be picked from each class. After every one student, five will be picked until all the 50 have been picked. And these will constitute the participants from each class to be included in the study.

3.5 Sample size

The sample size will be calculated using the Morgan table (appended at the end of this document). A population size of approximately 400 students in the faculty of biomedical sciences corresponded to 196 students which was approximated to 200 students as the representative sample for the rest of the group.

3.6 Data collection tools

A questionnaire will be developed and pre-tested before actual data collection. The pre-tested questionnaire will be used to collect data on the various questions. The questionnaires will be administered to students who will fill them and return them to the investigator. The students will be asked in the different areas, their use of electronic media, use of University computer services and the projector method of teaching.

3.8 Data analysis

Data will be processed and analyzed using SPSS and EXCEL Microsoft programmes. It will be presented by use of tables, pie charts and histograms for easy interpretation and analysis.

3.9 Ethical consideration

An introductory letter will be obtained from (Faculty of Clinical Medicine and Dentistry). Permission will be sought from the Faculty Dean of the Faculty of Biomedical Sciences. Before the study is conducted, the objectives and procedures will be explained to the participants in order to obtain informed consent.

3.10 Dissemination of results

The results will be disseminated to the Faculty of Clinical Medicine and Dentistry and the KIU Research committee as a requirement of partial fulfillment for the award of Bachelors of Medicine and a Bachelor of Surgery.

3.11 Study Limitations;

Resources Were Not Enough To ASSESS all students in the medical school. Therefore what was obtained is a representative sample.

CHAPTER FOUR: STUDY FINDINGS

4.1 : Personal information.

Which included: Age, sex, year of study and course pursued.

Table 1: Age Of Respondents

Age range in years	Frequency	Percent (%)
16 - 20	67	34
21 - 25	96	48
26 - 30	19	9
31 - 35	9	5
36 - 40	5	2
41+	4	2
Total	200	100.0

It was noticed most students were between 21-25 years (96, 48%) whereas others were over 40 years.

Table 2: Sex of Respondents

sex	Frequency	Percent (%)
MALE	146	73.0
FEMALE	54	27.0
Total	200	100.0

More males (146, 73%) participated in the study than the females.

Table 3: Table showing courses pursued by students

Course pursued.	Frequency	Percent (%)
BMS	132	66
DCM	65	32
DMLT	3	2
Total	200	100.0

BMS: Bachelor of Medicine and Bachelor of Surgery

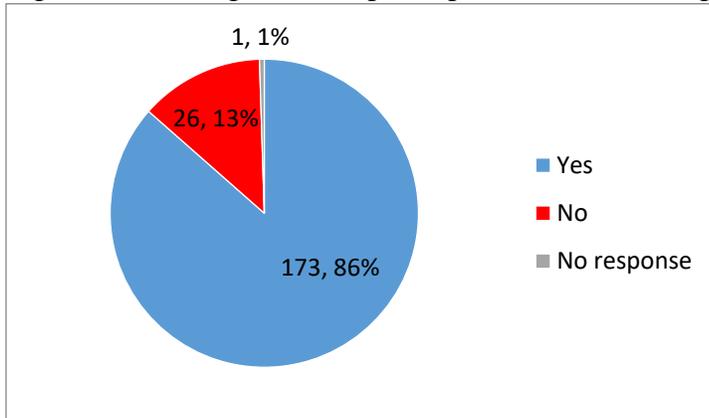
DCM: Diploma in Clinical Medicine

DMLT: Diploma in Medical Laboratory Technology

As expected, more BMS students participated in the study.

4.2 Ownership of a personal electronic gadget.

Figure 1: Showing ownership of a personal electronic gadget



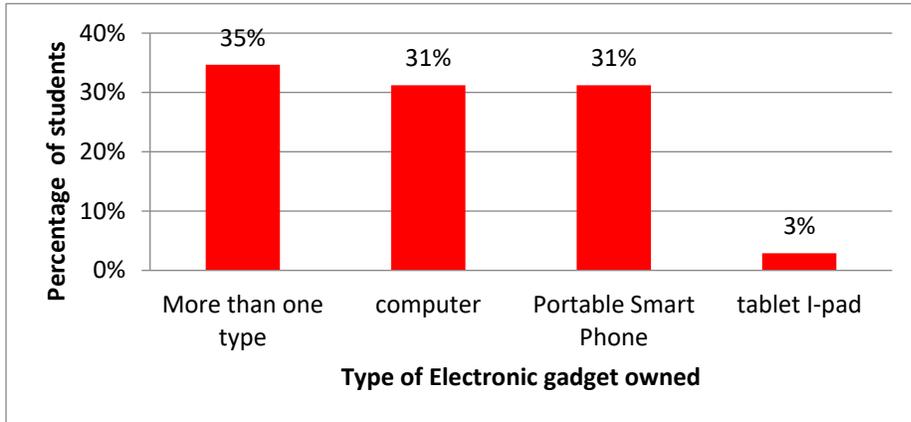
The figure above shows that Most students(173,86%) owned electronic equipment that can be used in learning.

Table 4: A table showing the different types of Electronic equipment possessed by students.

Type of electronic equipment.	Frequency	Percentage (%)
COMPUTER(laptop, min computer, desktop)	54	31
TABLET/I-pad	5	3
PORTABLE SMART PHONE	54	31
MORE THAN 2 TYPES	60	35
Total	173	100.0

The table above further reveals that a number of students (60,35%) had more than one type of electronic equipment, 54 (31%) had a computer and 54 (31%) had a portable smart phone as the means for accessing internet and other Electronic services.

Figure 2: A figure showing the distribution of the different types of personal Electronic equipment among students.



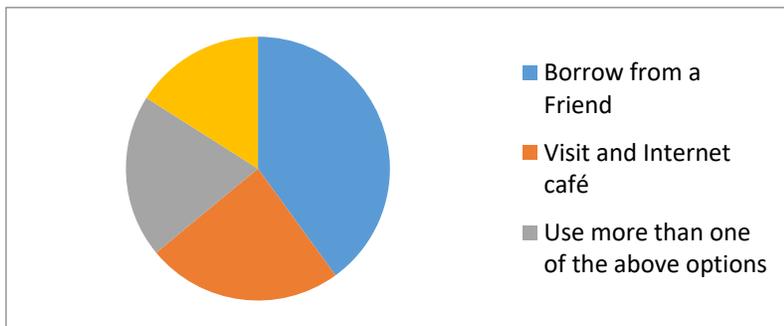
The graph further shows that computer and portable smart phones (54%) have equal distribution among students. This means that even without a computer, a student can still access internet and other electronic services. Few students (3%) had more advanced type i.e. I-pad/Tablet.

4.3 Students without Personal electronic gadgets.

Table 5: Showing means used to access electronic services among those students without personal electronic gadgets

Means used to access Electronic services.	Frequency	Percentage (%)
University E_lab	4	16
Borrow from a friend	10	40
Visit an internet cafe	6	24
More than one of the of the above	5	20
Total	25	100.0

Figure 3: A figure showing the alternatives taken by students without personal electronic equipment to access Electronic services.



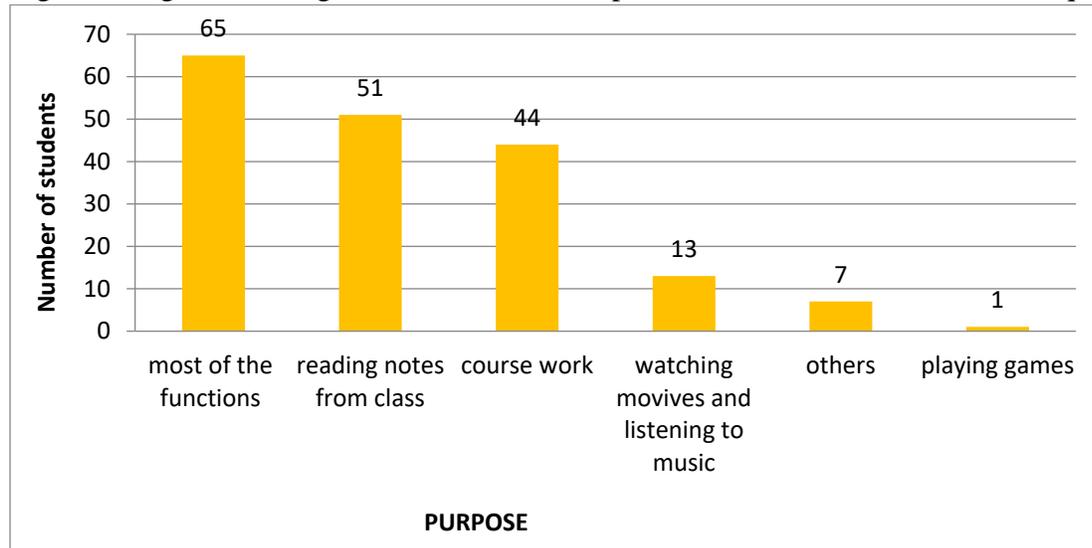
The table and figure above revealed that even without a personal electronic gadget, students always find alternatives of accessing Electronic services and borrowing from a friend (10,40%) was the commonly adopted option. 6(24%) would just visit an Internet Café, 5(20%) used a combination of options whereas University computer laboratory seemed to be the least used option at only 16%.

4.4 Purpose of the Electronic gadget (for only those who have them and those who borrow from friends)

Table 6: Showing the purpose of the Personal Electronic gadget

Purpose of the Electronic gadget owned by the students.	Frequency	Percent (%)
COURSE WORK	44	24
READING NOTES FROM CLASS	51	28
WATCHING MOVIES AND LISTEN TO MUSIC	13	7
PLAYING GAMES	1	1
MOST OF THE FUNCTIONS MENTIONED ABOVE	65	36
OTHERS	7	4
Total	181	100.0

Figure 4: Figure showing the common uses of personal and borrowed electronic equipment.



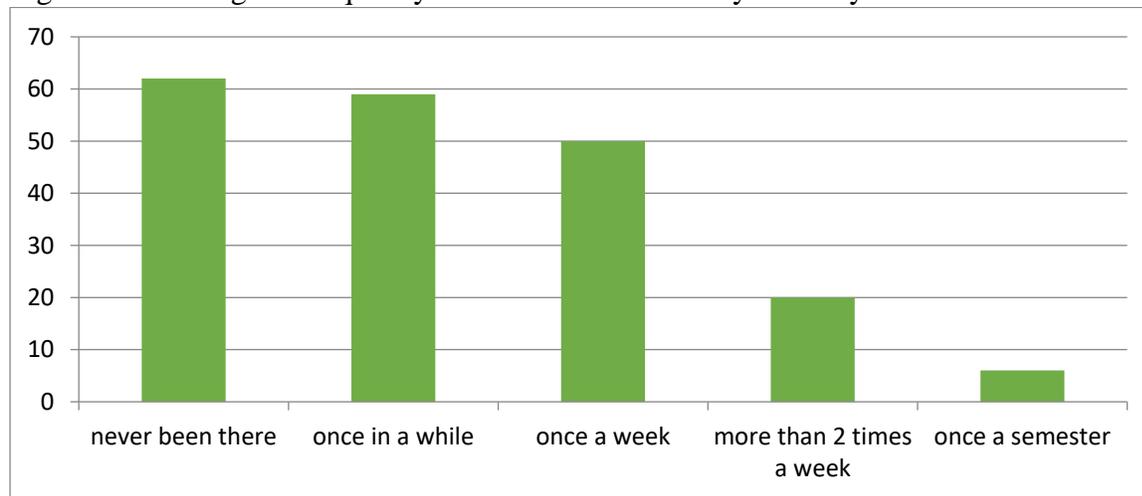
More students used their electronic equipment for more than one purpose (65, 35.9%). For academic related purposes still the number was (course work and reading notes from class).

4.5 university Electronic facilities

Table 7 : Students use of the University’s Computer Laboratory.

Usage of the University Computer Laboratory.	Frequency	Percent (%)
ONCE A WEEK	50	25
MORE THAN 2 TIMES A WEEK	20	10
ONCE A SEMISTER	6	3
ONCE A WHILE	59	30
NEVER BEEN THERE	62	31
Total	197	99
No response	3	1
Total	200	100.0

Figure 5: Showing the frequency of visit to the University E-lab by students

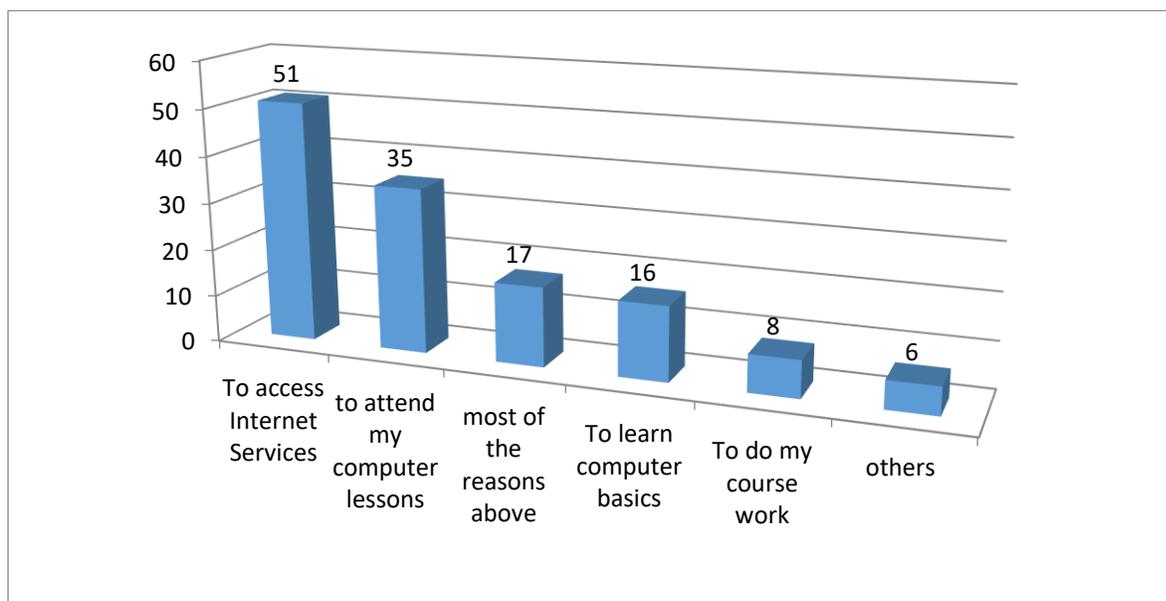


The table and figure above reveal that many students 62(31%) have not visited the university E-lab whereas those who visit it once in a while are also many 59(30%). Those who visit it frequently are few i.e. more than two times a week are very few 20(10%). This is probably explained by the high number of students with personal computers.

Table 8 : purpose of visiting the computer laboratory:

Purpose of visiting the computer laboratory.	Frequency	Percent (%)
TO ACCESS INTERNET SERVICES	51	38
TO DO MY COURSE WORK	8	6
TO LEARN COMPUTER BASICS	16	12
TO ATTEND MY COMPUTER LESSONS	35	26
MOST OF THE REASONS ABOVE	17	13
OTHERS(SPECIFY)	6	5
Total	133	100.0

Figure 6 : Figure showing distribution of the reasons for visiting the Computer laboratory.



The table and figure above reveal that most students who visit the E-lab go there to access internet services 51 (38%) followed by those who go there to attend their computer lessons 35(26%). Those who visit the E-lab for academic related purposes(i.e. learning computer basics and doing course work) are fewer at 24(18%).

4. 6 Opinion of students about electronic equipment use in learning

Students' Opinions about electronic learning though not included in this research because they were many, were in support of the use of Electronics in learning with various reasons which included;

- Computers and internet save the precious time of going to the library.
- Computers have made research easy to do.
- Computers and other electronics make access to information easy, affordable and instant therefore time and energy saving.
- Computers save the expenses of buying expensive text books.

Computers store a lot of information therefore saving the student the load of carrying many textbooks to class. Rather a student can carry a whole library of information in just a single computer

CHAPTER FIVE: DISCUSSION OF RESULTS:

5.1 In response to the Research questions:

1. What type of electronic equipment do students possess?

The biggest percentage of students 60(35%) were found to have more than one type of electronic equipment (I.e. Laptop, desktop, smartphone) whereas those with laptops were as many as those with smart phones at 54 (31%). More sophisticated I-pads or tablets were the least possessed 5(3%). The trend clearly shows that as technology advances, more flexible and easily accessible means of accessing computer and internet services are preferred by students.

From the data above, it was found that about 99% of the respondents were found to use electronics at least for a learning purpose or internet services. Even those without found other means to access electronic services. Therefore we may conclude that students have embraced the technology in learning.

2. What is the use of the electronic equipment in learning.

More than one academic purpose topped the list with more than half of the respondents using their electronics for academic work. This included a variety of purposes ranging from doing classroom course works to more advanced purposes like Research and share of information.

According to the research, recreation was the least purpose for which electronic equipment are used for. However this does not rule out the fact some students may tend more to the recreation side than academic purposes.

Though electronics are multi purpose, students proved that their major purpose of acquiring them is academic related.

As technology is improving, electronics are gaining momentum and acquiring a broad range of functions. It is therefore a collective responsibility of both the teachers and students that this technology is put to good use.

3. Use of the University E-Lab.

The research revealed that a big number of students did not actually use the university computer laboratory 62(31%). This may be explained by the large number of students who have personal electronic equipment. Though the E-Labs are set up with more academic oriented purposes. This implied that if not well guided in the use of their electronic gadgets, students were likely to miss out on the unlimited capabilities in such university facilities equipped with such academic knowledge.

Even those who had been there, their use of the E-lab was not regular as seen by the high numbers of students who use the E-Lab once in while.

The number of students who frequent the E-lab i.e. More than two times a week was low at 20 (10%).

There is need to find other causes of the low motivation of students to use the University E-lab besides many of them owning their personal electronics.

Taking a critical look at the purpose of the visit to the E-lab, it was noticed that many students 51(38%) go there for internet services whereas other academic oriented purposes like doing course works or learning computer basics was low.

The research also reveals that most students 35(26%) visited the E-Lab for their computer lessons. Which is understood since such lessons are compulsory. Otherwise the personal initiative to visit the computer laboratory for student oriented learning projects was low.

Though there are people who have never been to the computer laboratory, even those who go there have not fully utilized the services it can offer.

4. Students opinion about electronic learning:

Most students expressed a positive attitude towards electronic learning, and gave many opinions in support of electronic learning which included ;

- Computers and internet save the precious time of going to the library.
- Computers have made research easy to do.

- Computers and other electronics make access to information easy, affordable and instant therefore time and energy saving.
- Computers save the expenses of buying expensive text books.
- Computers store a lot of information therefore saving the student the load of carrying many textbooks to class. Rather a student can carry a whole library of information in just a single computer.

These and so many others dominated the list whereas other students urged the university to improve on its electronic services like

The wireless internet services which in most have poor network and also to improve on the computer laboratory by putting services that will encourage students to make good use of it.

5.2 Conclusions

From the research data above, it is evident that students not only possess electronic gadgets but they have also made an effort to use them for academic purposes. And even those without them, they have found means to use access electronic services. The results also revealed the low rate of utilization of the university Electronic services.

However, electronic purposes being multipurpose and their use increasing day by day, caution should be taken not to mask their role in education.

Though in developing countries like Uganda technological advancement has just started growing, the roots are in the universities and other institutions of higher learning. Therefore it is at this level that emphasis should be put in order to benefit more from this powerful tool of knowledge acquisition, dissemination and information sharing.

5.3 Recommendations:

Since many students have access to electronic services and the majority own personal electronic gadgets, the university should ensure that these are put to good use through projects like research and offering online education services.

Strengthening wireless internet services accessible to almost all students who can access them.

Incorporating periodical educative seminars about proper computer and electronic use to guide students put their personal gadgets to more academic purposes.

Improving the university's E-lab services and providing more electronic materials and making general university awareness of the existence of such services.

Other recommendations like students results and tuition accounts can be posted on the university's local network to make it easier for students utilize such services and reduce overcrowding in areas of services like the finance office.

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APPENDIX I: CONSENT FORM AND QUESTIONNAIRE

I am Ssembuya Henry a 5th year medical student of Kampala International University doing a research to determine the level of utilization of electronic equipment in facilitating teaching and learning in KIU school of health sciences.

I declare that the information given here will be kept confidential and that names of respondents are not needed.

There is no coercion for one to participate in this research and feel free to withdraw from the exercise in case you have become inconvenienced or have doubts. Explanations will be given to you.

Incase there is anything you have not understood in the research feel free to seek an explanation. Research results will be availed to you on request incase you need to know the findings.

No monetary, material or any other form of motivation will be given to you for your participation.

The research is done not for financial or material gain, but to try and help both the policy makers and students gain more from the current technological advancements.

The research has been approved and endorsed by the KIU Research Review Board and Ethics committee.

QUESTIONNAIRE:

a) Demographics:

1. Age:
2. Sex:

b) Personal information:

3. Course pursued:
4. Year of study:

c) Personal electronic gadgets.

5. Do you have a personal electronic gadget?

Yes No

A) If yes, which type

- a) Computer(laptop, min computer, desktop)
- b) Tablet

c) Portable smart phone

B) If No, what means do you use?

a) Use university E-lab,

b) Borrow from a friend

c) Visit an internet café

d) Others (Specify).....

6. What do you mostly use your electronic gadget for?

a) Course work

c) Watching movies and listening to music

b) Reading notes from class

d) Playing games

e) Others

(Specify).....

d) University Electronic- facilities

7. How often do you visit university computer lab?

a) Once a week,

d) once a semester,

b) More than 2 times a week,

e) Never been there

c) once a month,

8. For what reason do you visit the computer laboratory?

a) To access internet services,

b) To do my course work,

c) To play some games,

d) To learn computer basics,

e) To attend my computer lessons

f) Others

(specify).....

THANK YOU SO MUCH FOR YOUR PARTICIPATION

APPENDIX II: LETTER OF INTRODUCTION FROM THE UNIVERSITY



**KAMPALA
INTERNATIONAL
UNIVERSITY**

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E-mail: admin@kiu.ac.ug * Website: <http://www.kiu.ac.ug>

**OFFICE OF THE DEAN
FACULTY OF CLINICAL MEDICINE & DENTISTRY**

27/10/2014

TO WHOM IT MAY CONCERN

Re: SEMBUYA HENRY (BMS/0058/ 91/ DU)

The above named is a student of fifth year at Kampala International University pursuing a Bachelor of Medicine, Bachelor of Surgery (MBChB) programme.

He wishes to conduct his research project in your hospital.

Topic: Use of electronic equipment in facilitating learning among medical students at Kampala International University school of health sciences:

Any assistance given will be appreciated.

S-o. Surat
Dr. Akib Surat
Asso. Dean, FCM &D



"Exploring the Heights"

APPENDIX IV: MORGAN TABLE FOR SAMPLE SIZE DETERMINATION

N*	S*	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	311	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	100000	384

N* is Population size S* is sample size

Source: R.V Kvejcic and D.W.Morgan (1970). Determining sample size for research activities Education and Psychological measurement, 30, PP.607-10.