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# Monitoring and Evaluation of electronic resources in Academic and Research Institutions in Kenya

Nasra Gathoni

*Aga Khan University*, [nasra.gathoni@aku.edu](mailto:nasra.gathoni@aku.edu)

Evan Njoroge

*Kabarak University*

Agatha Kabugu

*University of Nairobi*

Damiana Kiilu

*United States International University*

Felicita Ratanya

*Egerton University*

*See next page for additional authors*

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**Authors**

Nasra Gathoni, Evan Njoroge, Agatha Kabugu, Damiana Kiilu, Felicitas Ratanya, Jane Gikandi, and Eddah Wasike

# MONITORING AND EVALUATION OF ELECTRONIC RESOURCES IN ACADEMIC AND RESEARCH INSTITUTIONS IN KENYA

## APPENDICES

- Appendix 1** Full report
- Appendix 2** Online survey questionnaire
- Appendix 3** Quotes and comments from service users
- Appendix 4** Institutional visits: interview questionnaires
- Appendix 5** Summary of interviews and observations
- Appendix 6** Photographs of the peer review and visits

## APPENDIX 1 FULL REPORT

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  - *University of Nairobi*
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#### *Group 1*

- *Evan M Njoroge, Kabarak University (Group 1 Leader)*
- *Eddah Wasike, International Centre of Insect Physiology and Ecology*
- *Felicitas Ratanya, Egerton University*
- *Jane Gikandi, Jomo Kenyatta University of Agriculture & Technology*

#### *Group 2*

- *Nasra Gathoni, Aga Khan University (Group 2 Leader)*
- *Damiana Kiilu, United States International University*
- *Agatha Kabugu, University of Nairobi*

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## ACRONYMS AND ABBREVIATIONS

**AGORA** - Access to Global Online Research in Agriculture

**AIM** - African Index Medicus

**AJOL** - African Journals Online

**AKU** - Aga Khan University

**EU** - Egerton University

**HINARI** - Health InterNetwork Access to Research Initiative

**ICIPE** - International Centre of Insect Physiology and Ecology

**INASP** - International Network for the Availability of Scientific Publications

**JKUAT** - Jomo Kenyatta University of Agriculture and Technology

**KABU** - Kabarak University

**KENET** - Kenya Education Network Trust

**KLISC** - Kenya Libraries and Information Services Consortium

**MEDLINE** - Medical Literature Analysis and Retrieval System Online

**MEERU** - Monitoring and Evaluation of Electronic Resource Usage

**M&E** - Monitoring and Evaluation

**OARE** - Online Access to Research in the Environment

**PERii** - Programme for the Enhancement of Research Information

**UoN** - University of Nairobi

**USIU** - United States International University

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## 1.0 INTRODUCTION

The revolution of Information Communication and Technology has brought a great change in the way libraries are providing services. Libraries have continued to embrace these technologies vis-à-vis Internet thus seeing the introduction of electronic resources to the library collection and services. The availability of good internet connectivity is essential in the provision of electronic resources. Kenya has had internet since 1996 (Mutula, 2001) and over the years there has been great effort to improve connectivity such as the recent introduction of fibre optic cable in 2009. The need for good internet connectivity has also been supported by initiatives such as Kenya Education Network (KENET) whose aim is to enhance internet access for Kenya Universities (Odero-Musakali & Mutula, 2007).

With the advent of internet and subsequently an emergence of electronic resources, libraries have encountered a myriad of challenges ranging from collection management, cost of the resources, marketing of these resources, training users on how to use these resources among others. These are some of the challenges that saw libraries in Kenya come together in 2002 to discuss concerted efforts to overcome these challenges. In response to this, Kenya Libraries and Information Services Consortium (KLISC) was formed in 2003. Cost being a major challenge for sustainability of electronic information resources (e-resources) which continue to inflate every year, KLISC's main objective therefore was cost sharing and capacity building (Ouma, 2007). According to a survey carried out by (Ouma, 2007) KLISC has made great strides in alleviating these challenges and this has translated into better services offered by KLISC member libraries.

### 1.1 ELECTRONIC RESOURCES (E-RESOURCES) IN KENYA

There have been a number of e-resources initiatives available for Kenyans. Some have been free and others offered at subsidized costs through support from funders. Some of the initiatives that Kenyans have been able to exploit over the years include: HINARI, OARE, AGORA, AJOL, AIM, Medline, and PERii among others. It is known that donor funded projects could come to an end once the donors stop funding and therefore the consortium has been a very important model for sustainability of such resources.

### 1.2 THE STUDY

As earlier pointed out, the provision of e-resources does come with a lot of challenges. One way to identify these challenges and also identify ways to improve these services is through Monitoring and evaluation (M&E) (Rosenberg, 2008). M&E is an important tool for decision making and also for the purpose of evaluating the impact of these resources on user population. The advent of e-resources has also seen the need for libraries to re-strategize services such as training and marketing. Monitoring and evaluating the impact of such services on e-resources is therefore vital.

Three Monitoring and Evaluation of E-Resources and Usage (MEERU) workshops provided through the collaboration of KLISC and INASP: PERii have since been conducted in Kenya, and attended by nominees from different institutions countrywide. Though a few libraries have made an attempt to evaluate the utilisation of e-resources through in-house data from the reference desk and the publishers' statistics data, there has not been a single national survey

conducted to measure the use of electronic resources or assess factors hindering its usage. As a result very little if any, is known on usage, the users or factors influencing its usage

The focus for this study was agreed during the initial meeting of a KLISC and INASP: PERii collaborative M&E capacity enhancement project. Selected in order to address an evident lack of hard evidence, the project aimed to evaluate the extent of usage of electronic resources and the impact of marketing and training activities on the usage. The survey was also designed to give users the opportunity to give their perspectives on use of the resources and the challenges they encounter in doing so. The survey aimed at answering the following questions:

1. *What is the extent of usage of e-resources?*
2. *What is the impact of training on the usage of e-resources?*
3. *What is the impact of marketing on the usage of e-resources?*
4. *What challenges do users encounter when using e-resources?*



## 2.0 METHODOLOGY

### 2.1 SURVEY DESIGN

The study used a mixed method design to evaluate the access and use of electronic resources at academic and research libraries in Kenya. Open ended and structured questionnaires were used together with an interview schedule and observation.

### 2.2 POPULATION

7 KLISC member institutions were selected for this study carried out between November 2010 and February 2011. Table 1 provides a list of the institutions.

Table 1: Institutions that participated in the survey

NAME	
Aga Khan University	AKU
Egerton University	EU
Kabarak University	KABU
International Centre of Insect Physiology and Ecology	ICIPE
Jomo Kenyatta University of Agriculture and Technology	JKUAT
University of Nairobi	UoN
United States International University	USIU

Management staff, Faculty, non-teaching staff, researchers, scientists, postgraduates and undergraduates students formed the target population. The study used a variety of tools including questionnaires (online), interviews and personal observation to collect both qualitative and quantitative data

### 2.3 SAMPLE SIZE

The survey adapted the purposive/convenience sampling method to select the respondents. Approximately a thousand emails were sent out via respective institution's broadcast mail list to all students and staff. Through purposive sampling technique one Librarian, 1 Administrator, 1 faculty, 1 staff and 10 students (postgraduate and undergraduates) were selected to be orally interviewed.

### 2.4 SURVEY INSTRUMENTS

An online questionnaire with both closed and open ended questions was used for data collection. An interview schedule for the administrator, librarian, faculty and staff and students was prepared.

Both research tools were aimed to collect data on;

- i. Resources used in the library
- ii. Access and awareness of the electronic resources
- iii. Frequency in use of the PERii resources
- iv. Training in use of resources

- v. *Marketing and promotion and*
- vi. *Challenges and suggestions to enhance access and use of the e-resources*

The survey was designed using Survey Monkey, an online survey tool. It was administered by sending emails to the respondents with an enclosed link to the online survey, posted on the Library's Social media channels and use of flyers.

## **2.5 DATA COLLECTION PROCEDURES**

The survey used primary data collected from various categories of users via an online open and closed ended questionnaire and interview schedule. Through a link from the Survey Monkey online research tool, the questionnaire was emailed to the respondents and responses were automatically collected. Other selected participants were visited and interview conducted.

## **2.6 DATA ANALYSIS**

Survey analysis was done using the online Survey Monkey research tool and Microsoft Excel. Results were downloaded and presented in bar graphs, tables and pie charts for easy interpretation

This report provides main findings from the survey.

## 3.0 FINDINGS AND DISCUSSIONS

### 3.1 DEMOGRAPHICS

The following institutions participated in this study:

Table 2: Number of participants for the online survey

Name	Sample size
AKU	59
EU	164
KABU	108
ICIPE	28
JKUAT	124
UoN	214
<b>TOTAL</b>	<b>697</b>

Table 3: Number of participants interviewed

Institution	Administrator	Library Administrator	Library Staff	Teaching Staff	Students	TOTAL
AKU	1	1	2	1	7	12
EU	1	1	3	10	10	25
KABU	1	1	4	1	15	22
ICIPE	1	1	3	1	3	9
JKUAT	1	1	3	3	10	18
UoN	0	1	3	1	7	12
USIU	1	1	3	1	7	13
	6	7	21	18	59	111

The following were the responses according to their categories:

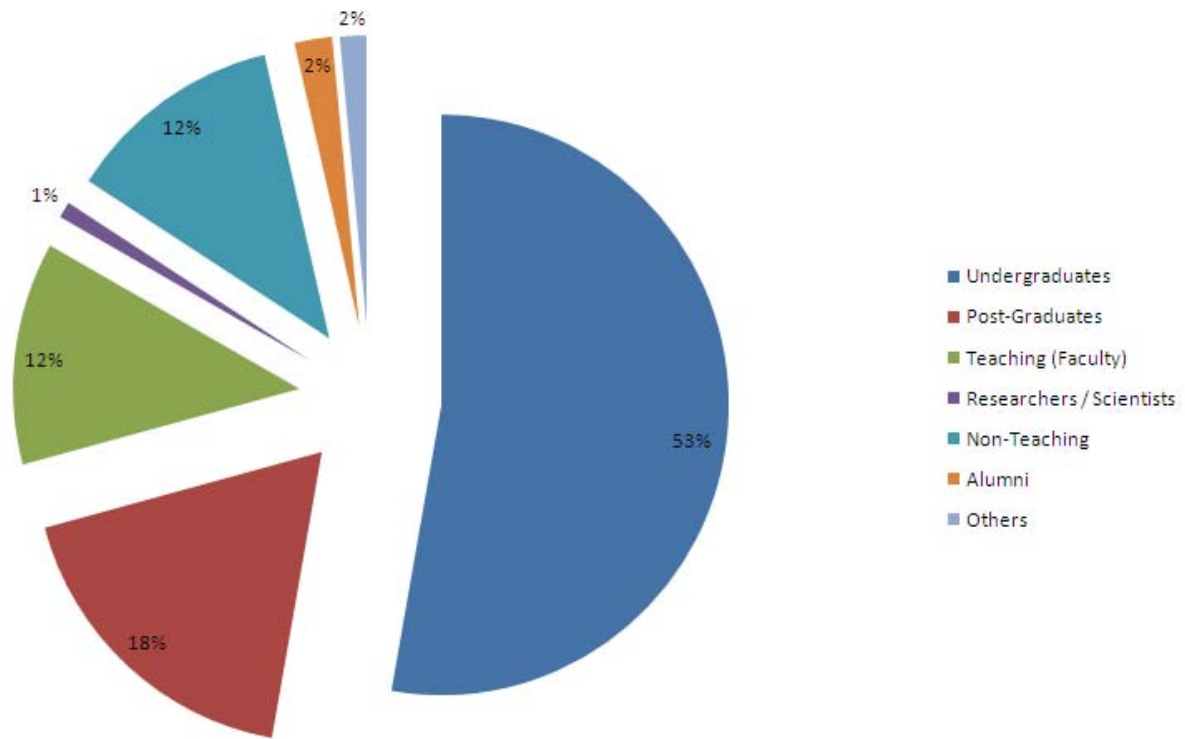


Figure 1: Response rate by category

The data here indicates that the majority of respondents were under-graduate students; probably because they form the majority population or they are easily available on campus as compared to the other groups.

### 3.2 FINDINGS ON THE EXTENT OF USAGE

The respondents were asked to choose their favorite resources from a choice of print and non print resources. Across the 6 institutions, print materials appeared to be very popular. These could be attributed to the problems highlighted later in the report with regard to access, facilities and skills.

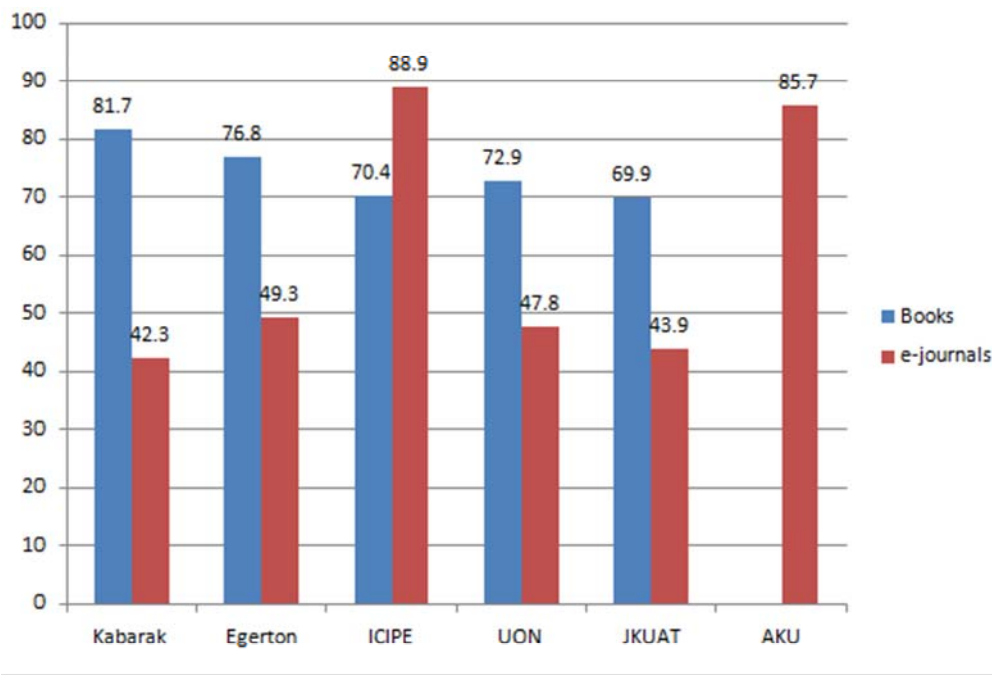


Figure 2: Comparing Books and e-Journals usage

Further investigation on electronic journals (e-journals) usage indicated that 84% of respondents have used them (see figure 5).

#### What does the popularity of books to e-resources suggest?

Having indicated that access to computers as a major hindrance to access to e-resources; it is no wonder that print books were popular. Electronic resources require ICT infrastructure which includes steady and reliable internet connectivity and computer terminals; which in this case were not put in place.

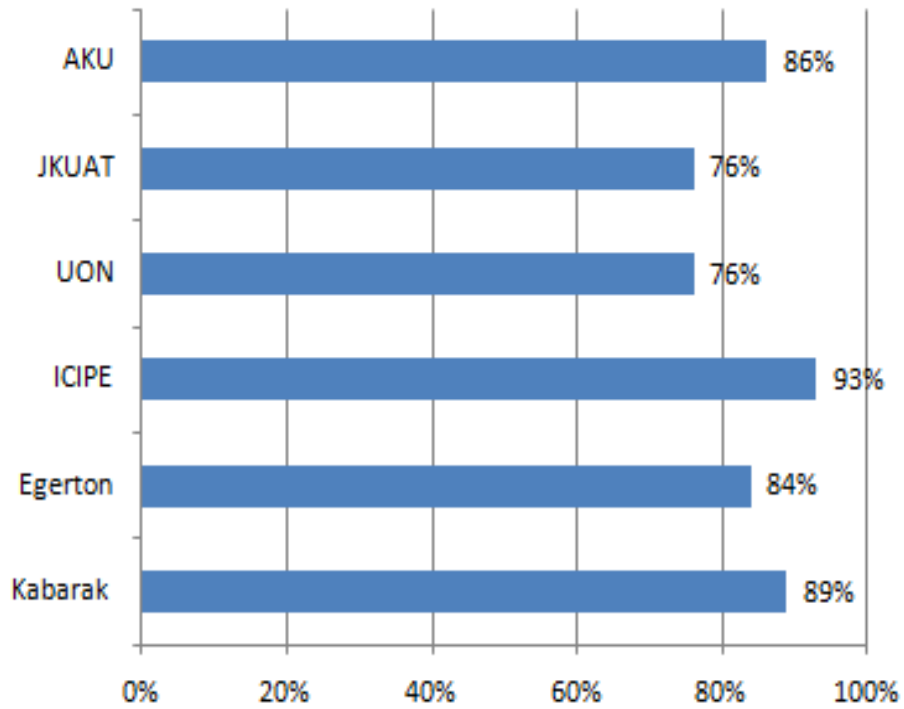


Figure 3: e-Journals usage

The survey revealed that even though some usage is recorded, most respondents were not aware of the full range of electronic resources offered in the institutions (18%). It identified a number of barriers to usage of electronic resources; 6 common reasons were highlighted for not using e-resources and are captured in the following graph.

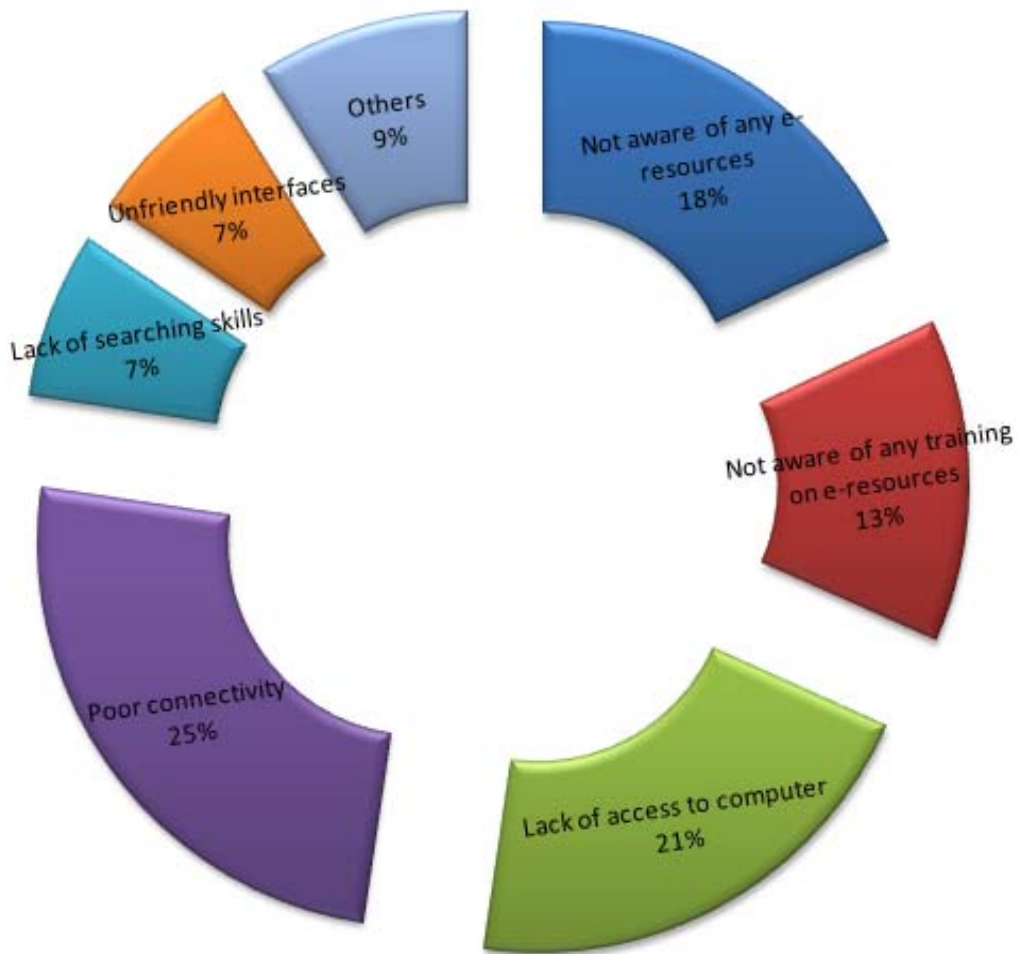


Figure 4: Common barriers to usage of e-resources

From the data, it appears that lack of access to computers workstation and poor connectivity are the most common hindrances to usage of e-resources. These seem to have played a great role in low usage of e-resources.

Although not analyzed to establish correlation in this study, from the feedback collected it is apparent that the level of institutional support invested in the library and the level of ICT services available varies considerably across the respondent institutions.

## Usage as per the Kenya PERii databases

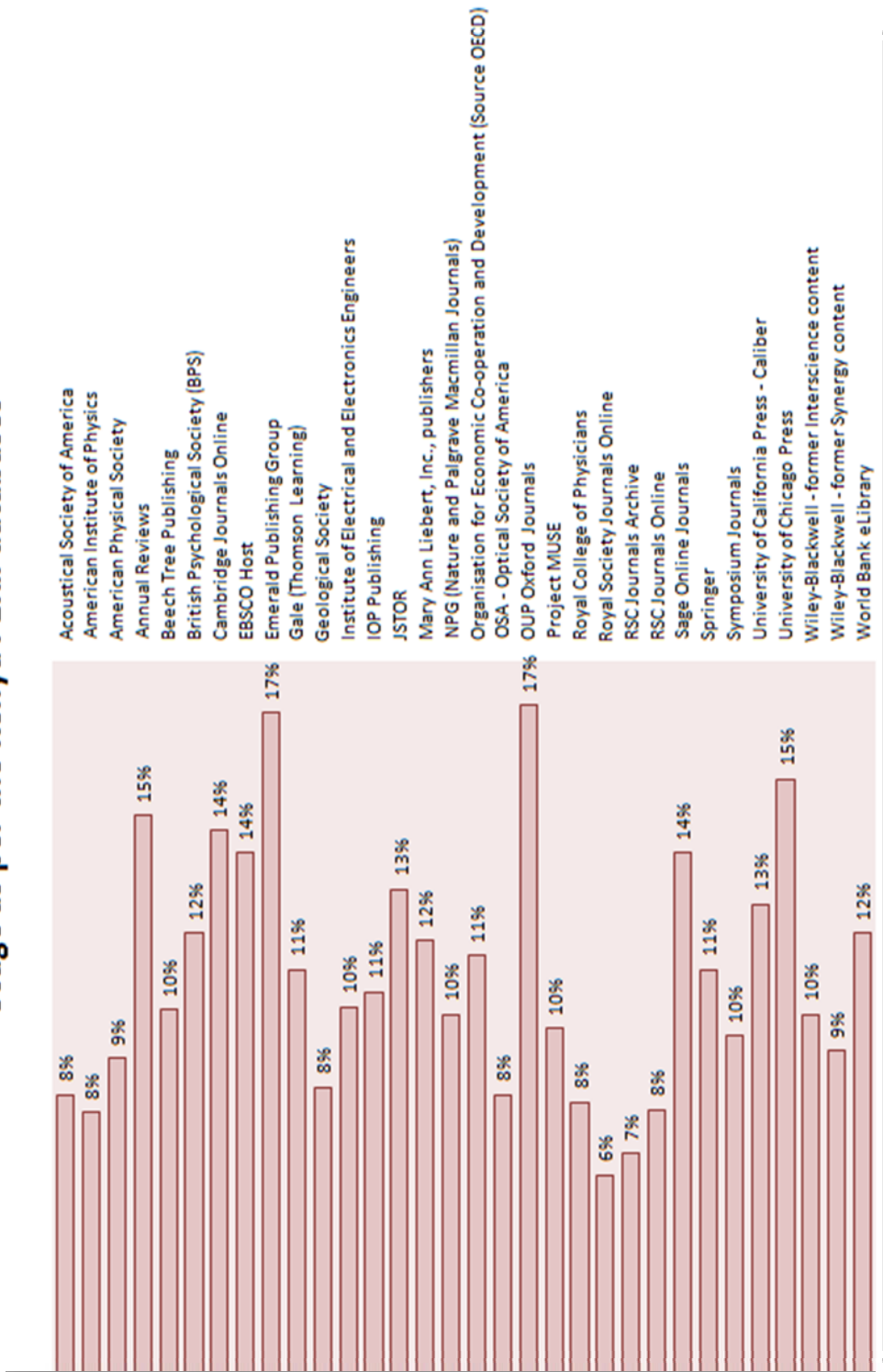


Figure 5: PERii Kenya databases usage by survey respondents



Oxford, JSTOR, Cambridge, Emerald appeared to record high usage (17%, 13%, 14% and 17% respectively), while specialized databases were least used and in some of the institutions never used. An interesting but predictable trend can be identified here, with the least used databases and or publishers being specialized databases. We can conclude majority of users at the level of respondents to be more interested in the generic (multi-disciplinary) database and for libraries to proportionally emphasize generic databases in their promotional activities'. This would however first require further analysis at an institutional level as majority of respondents not yet studying at a post doctoral level of specialization and focus of the individual institutions not linked to this study.

### 3.3 FINDINGS ON HOW TRAINING IMPACTS ON USAGE OF E-RESOURCES

The researcher sought to know if the respondents have ever been trained on use of electronic resources. Searching skills are vital for effective use to be registered; 55% indicated they had received training, while 73% who had not been trained cited lack of awareness as the prime reason as to why they have never attended to any training programmes. Others reasons given for not being trained includes:

- *No trained personnel in my opinion, lectures aren't committed*
- *Got a good background in access and use of electronic resources*
- *Have not been given the opportunity*
- *The e-resource could not be accessed through the egyptnet (intranet)*
- *Not in our curriculum, not aware of training sessions, it is not incorporated in our course*
- *Training not available*
- *Self learning*
- *Lack of advertisement*
- *Already familiar with use*
- *Not informed on availability of resources*
- *When and where are these trainings done?*
- *Interested but I have never been given the opportunity*
- *Self trained*
- *Didn't know where to get the training*
- *This is very basic knowledge from where I come from*
- *I'm fairly competent*
- *My class was not interested, though I was*
- *No one ever announced such a training*
- *"Sijapata nafasi ya kwenda to the library (I haven't gotten time to visit the library) to get informed about the electronic resources available"*
- *Taught myself*
- *Should be mandatory to new students*
- *Our entire class of MBA evening class was never informed*
- *Resources self explanatory on the website*
- *Attended similar training elsewhere*

Majority of the respondents (66%) alluded that training had enhanced their access and retrieval skills, were thus able to do it with much ease. 45% thinks that as a result of trainings their

academic outputs have greatly improved. Electronic resources training has also facilitated better referencing skills according to 42% of the respondents.

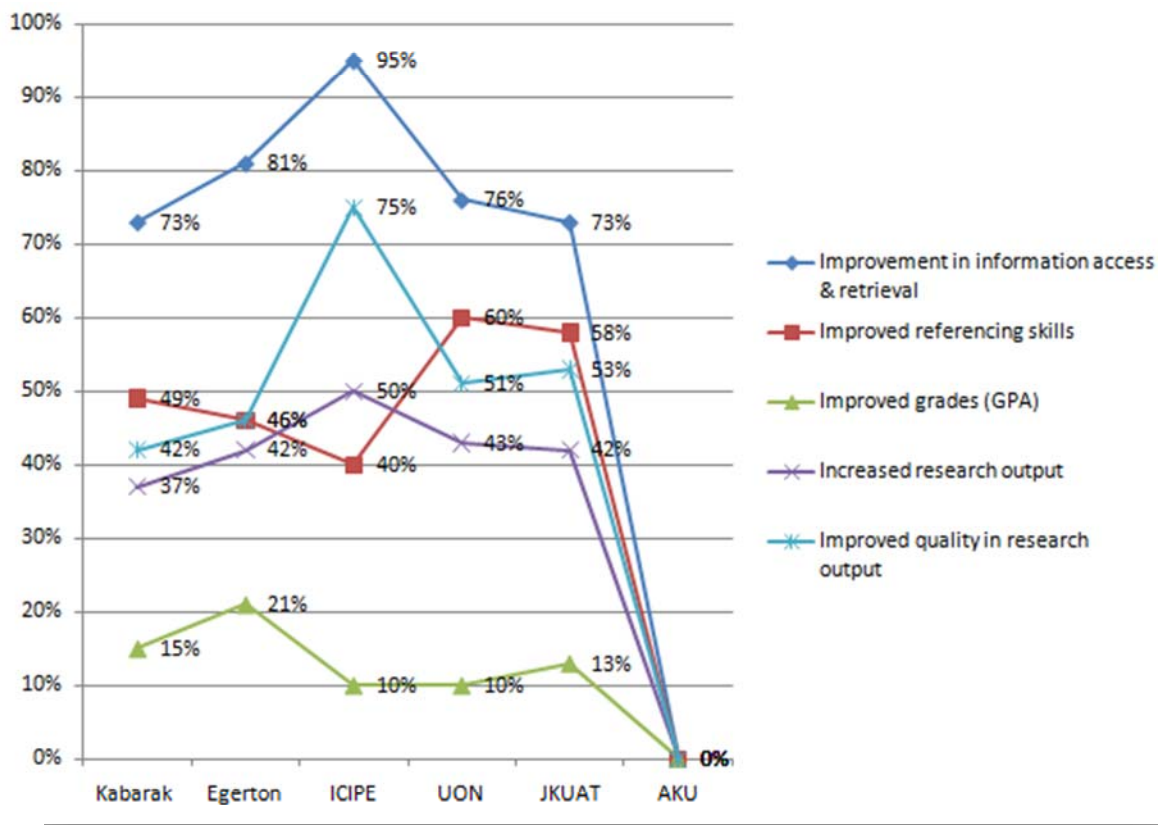


Figure 6: The training impacts on usage of e-resources

It is interesting to note that when the respondents were asked which mode of training was most effective, a majority rated trainings by librarians very highly.

### Can this tell of the level of confidence library users have on the librarians?

The data suggests “yes”. This is evident from the following comments from respondents:

*“Improved my ability to network with professional colleagues”*

*“Able to assisting users”*

*“Led to efficiency in my work performance”*

Holistic training programme depends on other factors like content, searching skills, citation and referencing, facilitation, facilities and schedules. Interestingly enough, the respondents were much concerned with availability of facilities when asked what areas they would want improved or initiated than even the content or schedules, a 52% response attest to this. The other concern was the levels of searching skills. 47% indicate the need for such skills to be imparted.

## **Does it mean that formalized training sessions should be put in place to enhance the use of electronic resources?**

The data suggests 'yes". The analysis suggested that regular trainings need be introduced and if possible have Information literacy entrenched in the curriculum. The respondents showed confidence in the librarians' training; thus they (librarians') needs to put more effort towards this end. During our interviews with the respondents, they (students) showed keen interest to attending the next training session organized.

This clearly indicates that training activities must form part and parcel of the service in order to make it more effective as opposed to reactive approaches taken by most libraries.

### **3.4 FINDINGS ON HOW MARKETING AFFECTS USAGE**

The findings revealed that most respondents found out about e-resources from the traditional orientation sessions held for new members to the institution. Some respondents indicated that were hearing of the electronic resources for the first time through the survey, some learned from colleagues, a few from the library web portal/web site, during orientation, from library notices through seminars, word of mouth, from university Open days and exhibitions.

The respondents were asked to suggest ways to improve the marketing of electronic resources. A significant number of respondents were concerned about the inadequate marketing (awareness) aspect; while others believed the answer is in provision of more trainings.

Respondents acknowledged the need for more promotion of e-resources as evident from the number of responses. They suggest the following as ways to improve in marketing:

- *Involvement of all stakeholders*
- *Improve on orientation*
- *Online advertising/ promotion*
- *More awareness creation in all university campuses*
- *Being proactive*
- *Motivation of marketers*
- *Liaison with IT department and management for provision of the access point of the electric resources, i.e. computers, internet and intranet*

### **3.5 CHALLENGES EXPERIENCED IN ACCESSING E-RESOURCES**

These are some of the significant challenges experienced by the users:

- *Inadequate computer in the library*
- *Poor internet connectivity*
- *Delays in downloading information*
- *Poor lighting (ergonomics)*
- *Lack of support facilities, e.g. printers, limited access rights to some articles*
- *Lack of skills / training*
- *Portal not readily accessible. By the way, how do you get to the portal??*
- *Bulletins and brochures are only available if one physically frequents the library - lots of information*
- *Doesn't get through*

- *Brochures and bulletin require time to read. Time is a scarce resource in the hectic schedule of a doctor*
- *Resident (no off campus access)*
- *I could be wrong but I think access to the Library portal is via HN intranet, which limits accessibility*
- *The library portal is difficult to find the items you want - not user friendly*
- *I have never received any email stating the updates of library, apart from this one today*
- *Not aware that there was training available*
- *Never had any Emails concerning availability and use of facility*
- *Have not received/seen any other than one bulletin*
- *We rarely get any bulletins or brochures, please send them via email*
- *Not readily available*
- *There should be an orientation lecture to all the new students admitted ...*
- *It's hard to get what you want on the portal and the links*
- *Be more interactive and occasionally enquire from users what problems they encounter and find out who requires further assistance or training*
- *Access to rights protected journals and back-files*
- *Referencing tools*
- *Access to compendiums*

In summary the major issues highlighted by the respondents are lack of awareness, poor internet speeds, poor and or inadequate searching skills, inadequate facilities (computer workstations), power surges and off-campus access. Data also provides

## 4.0 CONCLUSION AND RECOMMENDATIONS

### 4.1 CONCLUSION

This report will surely make a big difference now and onwards on the Library's monitoring and evaluation programme. It is the first comprehensive report on usage and access to be undertaken since the library started subscribing via PERii for electronic resources. It is evident that usage is enhanced where awareness levels are high, in this case; data has suggested that the Library needs to do more marketing and or improve its marketing strategies so as to be able to reach out to all its clientele.

The study has shown that training programmes currently in place may not be adequate. Orientation sessions done at the beginning of the semester may not be enough and a great deal of the respondents seems to suggest scheduled, regular trainings be organized.

Despite the need for more online resources the need for the library as a space is still appreciated as users requested for more computers and also more quiet reading space, the data affirms so with a sizeable number picking the Library as the site of choice for access; while some indicated the librarian as the most trusted source of training.

Though there have been notable initiatives to improve internet connectivity in Kenya, the survey shows that connectivity still remains the major challenge. This calls for concerted effort from all stakeholders and policy makers to work towards improving connectivity and the necessary infrastructure.

### 4.2 RECOMMENDATIONS

In view of this study, the following recommendations are suggested for efficient utilization of electronic resources:

- There is need to design effective marketing and promotion strategies, that should be regular and scheduled to take care of all the target groups
- There is need to design and implement a structured Information literacy programme that targets various user groups that can be integrated in the university curriculum
- Efforts be made towards upgrading and increasing the existing infrastructure (computers, internet bandwidth and skilled staff) for better connectivity
- Concerted efforts be made towards developing and or adopting a federated search application that will enhance searching for the novices to experts
- A sustainable system of monitoring and evaluation be devised so as to make this a day to day work rather than a one off activity. Regular monitoring and evaluation should be

conducted to establish the effectiveness of the electronic resources in meeting user needs and satisfaction

- Increase awareness levels by working with all stakeholders to maximize the usage of these resources
- Increase the number of computer in library and departments to facilitate access to electronic resources.

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## APPENDIX 2 ONLINE SURVEY QUESTIONNAIRE

### 1. Data on library use

Thank you for choosing to complete this short questionnaire. The feedback you provide will help us in identifying how we can best support you the user of our library services.

#### 1. Please choose from the following categories to describe your group?

- Research Scientist       Non Teaching Staff       Postgraduate student  
 Teaching Staff       Undergraduate student       Alumni

Other (please specify)

#### 2. What is your field of interest / Research areas

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Agriculture, Aquaculture & Food Science   | <input type="checkbox"/> Earth & Environment      | <input type="checkbox"/> Medicine                         |
| <input type="checkbox"/> Architecture & Planning                   | <input type="checkbox"/> Humanities               | <input type="checkbox"/> Nursing, Dentistry & Health care |
| <input type="checkbox"/> Art & Applied Arts                        | <input type="checkbox"/> Law & Criminology        | <input type="checkbox"/> Physical Sciences & Engineering  |
| <input type="checkbox"/> Business, Economics, Finance & Accounting | <input type="checkbox"/> Life Sciences            | <input type="checkbox"/> Social & Behavioral Sciences     |
| <input type="checkbox"/> Computer Science & Information Technology | <input type="checkbox"/> Mathematics & Statistics | <input type="checkbox"/> Veterinary Medicine              |

Other (please specify)

#### \* 3. How often do you use the library?

- Daily       Weekly       Monthly       Infrequently       Never

### 2. RESOURCES USED

#### 1. Which library resources do you use?

- Print books       Print journals       Electronic books  
 Audiovisual materials       Electronic journals

Other (please specify)

#### \* 2. Do you use electronic resources?

- Yes       No

### 3. ACCESS and AWARENESS

**1. From which location do you access electronic resources?**

- Office PCs                       Library PCs                       Mobile Phone
- Computer Labs                       Cybercafe'
- Home                       Campus Wifi (Wireless)

Other (please specify)

**2. If you are not using any of the above resources, please state the reasons.**

- Not aware                       Poor connectivity                       Unfriendly interfaces
- Lack of access to computer                       Lack of searching skills

Other (please specify)

**4. ELECTRONIC RESOURCES - DataBases**



### 1. How often do you use the following e-resources?

	Daily	Weekly	Fortnightly	Monthly	Never
Acoustical Society of America	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
American Institute of Physics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
American Physical Society	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Annual Reviews	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Beech Tree Publishing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
British Psychological Society (BPS)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cambridge University Press - Cambridge Journals Online	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
EBSCO Host	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Emerald Publishing Group Limited	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gale (Thomson Learning)- Academic ASAP and Health & Wellness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Geological Society	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Institute of Electrical and Electronics Engineers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
IOP Publishing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
JSTOR	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mary Ann Liebert, Inc., publishers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
NPG (Nature and Palgrave Macmillan Journals)(as subscribed)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Organisation for Economic Co-operation and Development Source OECD	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
OSA - Optical Society of America	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Oxford University Press - Oxford Journals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Project MUSE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Royal College of Physicians	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Royal Society - Royal Society Journals Online	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Royal Society for Chemistry - RSC Journals Archive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Royal Society for Chemistry - RSC Journals Online	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sage Online Journals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Springer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Symposium Journals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
University of California Press - Caliber	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
University of Chicago Press	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Wiley-Blackwell - former Interscience content	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wiley-Blackwell - former Synergy content	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
World Bank eLibrary	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

## 2. Have you ever been trained on the access and use of electronic resources?

Yes

No

## 5. E-RESOURCES - not trained

### 1. If not trained on use of electronic resources, please give reasons

Not aware

Semester schedule

Not interested

Other (please specify)

## 6. TRAINING

### 1. If yes, what was the mode of training and how would you rate this training?

	excellent	satisfactory	poor
Lectures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Class reps	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Workshops	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Through the Librarian	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self learning modules (Online Tutorials)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Demonstrations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please specify what "other represents"

### 2. Has the training improved your ability to access & use electronic resources?

Yes - A lot

Yes - A little

No

### 3. If trained how has it impacted on your teaching/ learning/ research activities

Improvement in information access & retrieval

Increased research output

Improved referencing skills

Improved quality in research output

Improved grades (GPA)

Other (please specify)

#### 4. What areas would you like improved or emphasized?

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> -Content                | <input type="checkbox"/> -Facilitation         | <input type="checkbox"/> -Regular training    |
| <input type="checkbox"/> -Searching skills       | <input type="checkbox"/> -Available Facilities | <input type="checkbox"/> -Flexible scheduling |
| <input type="checkbox"/> -Citation & Referencing | <input type="checkbox"/> -General Organisation | <input type="checkbox"/> -Target group        |

Other (please specify)

#### 5. What areas would you like introduced or initiated?

### 7. Marketing and promotion

#### 1. How did you learn about the electronic resources and how would you rate effectiveness?

	Very effective	Effective	Least effective
Orientation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Library instruction/Workshops/Seminars	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Posters/ brochures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Library portal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Exhibitions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tutors/professors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
From a friend/ colleague	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Emails	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

#### 2. Suggest ways on how we can improve the marketing of electronic resources.

#### 3. This data is for our records and names will not be shared publicly.

Institution:

Library:

Your name (optional)

Email Address(optional):

THANK YOU FOR YOUR TIME AND PARTICIPATION.

## APPENDIX 3 QUOTES AND COMMENTS FROM SERVICE USERS

**Table 1:**

Respondents who indicated poor for any of the marketing tools were asked to give reasons. The following reasons were provided:

- Portal not readily accessible. By the way, how do you get to the portal??
- Bulletins and brochures are only available if one physically frequents the library - lots of information doesn't get through
- Brochures and bulletin require time to read. Time is a scarce resource in the hectic schedule of a doctor resident.
- The library portal is difficult to find the items you want - not user friendly, not accessible off campus
- I have never received any email stating the updates of library, apart from this one today
- Not aware that there was training available
- Never had any Emails concerning availability and use of facility
- Have not received/seen any other than one bulletin
- We rarely get any bulletins or brochures, please send them via email
- There should be an orientation lecture to all the new students
- Be more interactive and occasionally enquire from users what problems they encounter and find out who requires
- Further assistance or training

**Table 2:**

Besides lack of awareness, no computers or poor connectivity, other reasons given for not using e-resources included:

- *Require passwords that we do not have to*
- *Accesses to Wiley Interscience and Springer articles are via HINARI since the two former require membership fee I think. The other 'nevers' are simply because I am totally unaware of the resource*

**Table 3:**

The respondents indicated the following problems on accessing online resources/databases:

- *Some require subscription*
  - *Occasionally there is no access probably due to poor internet connectivity or issue of subscription*
  - *Password required*
  - *Denied access especially Springer*
  - *Not able to access some articles because the journals are unavailable on Hinari or if they are, they require payment*
  - *Link to Hinari is sometimes erratic. If you want to get online journals from other sources the websites are blocked by the hospitals firewall.*
  - *Not able to access a lot of the surgery and critical care journals that I need.*
  - *Lack of access to computers(not enough), do not know how to use them, username and password d unable to access, not easy to open*
  - *A few weeks back, Hinari was not accessible but its good now.*
  - *There are no instructors available always*
- Lack of adequate experience on how to search*

## APPENDIX 4 INSTITUTIONAL VISITS-INTERVIEW QUESTIONNAIRES

### Teaching staff

- 1) What is your field of interest / research areas?
- 2) Which library resources do you use?
- 3) Do you use electronic resources?
- 4) If No, please state the reasons
- 5) If yes, from which location do you access electronic resources?
- 6) Have you had training on use of electronic resources?
- 7) If trained, how has it impacted on your teaching and research activities?
- 8) What are the major challenges you have experienced in accessing or using the Library's Electronic Resources?

### Students

- 1) What is your field of interest / Research areas?
- 2) Which library resources do you use?
- 3) Do you use electronic resources?
- 4) If No, please state the reasons
- 5) If yes, from which location do you access electronic resources?
- 6) Have you had training on use of electronic resources?
- 7) If trained, how has it impacted on your learning and research activities?
- 8) What are the major challenges you experience in accessing or using the Library's Electronic Resources?

### Administrators

- 1) What percentage of the budget is allocated to the Library?
- 2) Has Library Information Literacy been entrenched in the curriculum?
- 3) What is the role of management (administration) in supporting Information Literacy programmes?
- 4) How would you rate the IT infrastructure in your organization/institution (Poor – Fair – Good – Excellent)
- 5) (Based on the answer above) Kindly explain what your administration is doing to sustain and enhance it?

### Library Administration

- 1) Do you have any training programmes on access to e-resources?
- 2) What strategies are in place to promote e-resources?
- 3) How would you rate the IT infrastructure in your organization/institution (Poor > Fair > Good > Excellent)
- 4) (Based on the answer above) Kindly explain what you are doing to sustain and enhance it?
- 5) What efforts have you put in place to enhance Library staff ICT skills?

### Library Staff

- 1) Are you aware of e-resources?
- 2) Are you aware of any training programmes of Library Electronic resources? (ask if they were for the students or staff)
- 3) Do you participate in the training programmes

## APPENDIX 5 SUMMARY INTERVIEWS AND OBSERVATIONS

### Teaching staff

<b>QUESTIONS</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
<b>What is your field of interest / Research areas?</b>	Engineering	N/A	Seed science Physics Education Natural resources Language, Literature & Linguistics Ecology and management of arid areas	Computer Science Small Business management Education Management
<b>Which library resources do you use?</b>	Books, journals (print)		Books Print journals Electronic journals CD-ROM Newspapers Conference proceedings	Online journals, books, newspapers and internet
<b>Do you use electronic resources?</b>	Not yet			Yes
<b>If No, please state the reasons</b>	Never took the initiative to learn		Not aware of training sessions Lack of time Busy Schedule of work	Some are never accessible beyond the office
<b>If yes, from which location do you access electronic resources?</b>	N/A		Library Resource centre Computer lab Faculty computer labs Personal laptops (LAN enabled) Cyber cafe	Office PCs & at Home
<b>Have you had training on use of electronic resources?</b>	Not yet		Yes No	One on one training
<b>If trained how has it impacted on your teaching and research activities?</b>	Able to conduct online searches with minimum assistance Improve research outputs Supplement lecture notes		I am able to prepare timely work plans, notes. Access to current and reliable literature related to my area I am able to	Able to conduct online searches with minimum assistance Improve research outputs Supplement lecture notes Assist in my

			<p><i>effectively prepare reading lists for students</i></p> <p><i>The resources boost content capacity and ability to teach well</i></p>	<p><i>dissertation preparation</i></p>
<p><b>What are the major challenges you have experienced in accessing or using the Library's Electronic Resources?</b></p>	<p><i>ICT skills</i></p>		<p><i>Limited capacity of access</i></p> <p><i>Most offices are not connected to the internet</i></p> <p><i>Access is limited to only areas subscribed to not other areas. For example areas on seed science not well covered.</i></p> <p><i>Unable to print on-line resources neither can I order them from the publishers- subscription costs are too expensive.</i></p>	<p><i>Lack enough ICT skills to access e-resources</i></p> <p><i>Lack adequate time to search through the databases</i></p> <p><i>Some e-resources are not user friendly- have complicated user interfaces</i></p>

**Teaching Staff (continued)**

<b>QUESTION</b>	<b>A</b>	<b>B</b>	<b>C</b>
<b>What is your field of interest/research areas?</b>	Research professor Research area: Development	Research	Cognitive linguistics, language, culture, language and politics, technology and communications.
<b>Which library resources do you use?</b>	Mainly e-resources	Online	Electronic resources more than print resources
<b>Do you use electronic resources?</b>	Yes	Yes	Yes
<b>If NO, please state the reasons.</b>	N/A	N/A	N/A
<b>If YES, from which location do you access electronic resources?</b>	Office, Home	Office, library	From my laptop and modem
<b>Have you had any training on use of electronic resources?</b>	No	Yes, INASP training ... in 2006 HINARI training in ILRI	Yes – has participated in training as a champion in training in my faculty.
<b>If trained, how has it impacted on your teaching and research activities?</b>	N/A	Positive impact as I use electronic resources for all my work. I write proposals using electronic resources	Training makes research a pleasure. Improves lecturer's lives. Helps change the quality of education in universities
<b>What are the major challenges you have experienced in accessing or using the library's electronic resources?</b>	Core journals not available online Connectivity – slow internet	At times there is no internet connectivity Slow connectivity Technical issues with databases where one is unable to access	Viruses Slowness of internet. Some databases e.g. AJOL do not provide required articles. There is need for journals to provide Open Access to their articles like the Journal of Language, Technology and Entrepreneurship has done. Staff have not yet shifted from teaching to research.



**Administrators**

<b>QUESTIONS</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
<b>What percentage of the budget is allocated to the Library?</b>	No formula on library budget allocation but E-journals and books are allocated approx on basis of a 2:1 ratio	Approx 1% of E budget	Approx 0.458% in relation to the total budget of the University.	2.52% for Books & e-Resources (ejournals & ebooks) 7.8% Total budget
<b>Has Library Information Literacy been entrenched in the curriculum?</b>	Not yet	Yes, for the last 2 yrs	Not yet	Not yet (but already drawn)
<b>What is the role of management (administration) in supporting Information Literacy programmes?</b>	Provide facilitation in terms of ;personnel, funds , equipment Enhance improvement of e-resources through discussions in senate meetings. Improve on the e-learning system of the university to provide access to multidiscipline subject areas. Enhance availability of e-resources	Provide facilitation to access to Information in terms of staffing and infrastructure	Management continuously ensures improvement of the program by providing guidance and resources towards the success of the program. Ensures that standards set in the academic division conform to world standards in the academic world.	Provide facilitation to access to Information in terms of staffing and infrastructure
<b>How would you rate the IT infrastructure in your organization/institution (Poor – Fair – Good – Excellent)</b>	Fair	Excellent (Very Good)	Good	Good
<b>(Based on the answer above) Kindly explain what your administration is doing to sustain and enhance it?</b>	Provide facilitation in terms of ;personnel, funds , equipment Enhance awareness through regular training to both students and staff Enhance improvement of e-resources through discussions in senate meetings. Improve on the e-learning system of the university to provide access to multidiscipline subject	Infrastructure is continuously improved on by the ICT department at a rate of 100% to facilitate regular communication and liaising with international bodies and partners in research work.	The management ensures that in every senate meeting the ICT department provides a serious summary on the updates undertaken to sustain infrastructure in the entire university system.	Improving ICT skills by allowing time off for its staff Improve on the electronic library facilities. Encourage use of ICT tools for teaching purposes and for students to be able to access material for revision purposes ICT to enhance on

	<p>areas.</p> <p>Improve on the electronic library facilities.</p> <p>Encourage use of smart books for teaching purposes and for students to be able to access material for revision purposes</p> <p>Management Plan to increase budget on e-resources</p> <p>ICT to enhance on connectivity- provide adequate computers, laptops provided through subsidy by Safaricom 'booths'</p>			<p>connectivity- provide adequate computers, laptops provided through subsidy by</p>
<p><b>Others: Strategies of promotion</b></p>	<p>Exhibitions, open access w/shops</p> <p>Brochures</p> <p>Training using class reps &amp; lectures</p> <p>Lobbying during orientation week</p> <p>Currently working on institutional repository policy</p>	<p>Enhance and improve on the marketing strategies to improve access</p>		<p>Posters, email list, intranet &amp; extranet, adverts on each machine</p>

**Administrators (continued)**

<b>QUESTION</b>	<b>B</b>	<b>C</b>
<p>What percentage of the budget is allocated to the library?</p>	<p>9%</p>	<p>About 8- 10%</p>
<p>Has library information literacy been entrenched in the curriculum?</p>	<p>Part of general orientation</p>	<p>First Year Experience (FYE) teaches students how to survive in the university and within it they study I.L. They are also introduced to library resources during orientation. Lecturers are encouraged to send students to the library for instruction.</p>
<p>What is the role of management (administration) in supporting information literacy programmes?</p>	<p>Providing infrastructure, resources, manpower and training.</p> <p>Budgeting</p>	<p>During May/September, we have faculty development workshops for staff and the library has a session.</p>

<i>How would you rate the IT infrastructure in your organization/institution?</i>	<i>Good</i>	<i>Excellent. The institution has a budget for every employee to have a computer that is replaced after five years</i>
<i>(Based on the answer above) kindly explain what your administration is doing to sustain and enhance it.</i>	<i>Increase access points by providing wireless access. Providing the hardware</i>	<i>Budgeting for ICT materials. Policy to encourage use of ICT in teaching</i>
<i>Challenges</i>	<i>Lack of access to journals due to budget limitation.</i>	
<i>Additional Comments</i>	<i>Ability to share resources when institutions come together.</i>	

### **Library Administration**

<b>QUESTIONS</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
<b>Do you have any training programmes on access to e-resources?</b>	<i>Payments done directly to KLISC for subscription of e-resources</i>	<i>New students are taken through training and also on request</i>		<i>No yet</i>
<b>What strategies are in place to promote e-resources?</b>	<i>Library exhibitions- twice a year Conducted an Open Access workshop in 2010 Advertisement on available e-resources through the University website</i>	<i>Posters, brochures, demonstration, "walking the talk", w/shops, Programme Leaders</i>	<i>Posters Liaise with deans on new products available in the library through selective orientation. Library webpage Continuous training</i>	<i>Posters Library webpage/portal Email alerts Social media channels Flyers Bookmarks</i>
<b>How would you rate the IT infrastructure in your organization/institution (Poor &gt; Fair &gt; Good &gt; Excellent)</b>	<i>Fair</i>	<i>Excellent</i>	<i>Good</i>	<i>Good</i>
<b>(Based on the answer above) Kindly explain what you are doing to sustain and enhance it?</b>	<i>-Acquire adequate facilities; PCs, cabling etc -Improve on the bandwidth -Recruit skilled and adequate</i>	<i>Increase bandwidth, 4 year hardware replacement policy, firewalls in place &amp; deployment of firewalls solutions</i>	<i>No policy on ICT relies on University plans</i>	<i>Add 10 computers annually</i>

<b>QUESTIONS</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
	<i>personnel.</i>			
<b>What efforts have you put in place to enhance Library staff ICT skills?</b>	<i>There are training programs for library staff and users (in-house) i.e. one to one or ad hoc basis, online tutorials Plans are underway for scheduled training programs Trainings are also subject based</i>	<i>IT skills enhancement – own initiative, in-house training</i>	<i>Majority of users have laptops so have wireless connection within a certain radius Staff strategy – learning as we go along</i>	<i>Training conducted for all staff by ICT &amp; library staff Budget allocation for the same</i>
<b>Others (Challenges &amp; Observation)</b>		<i>Most resources retrieved from the institution except the ones with passwords Library does not open on weekends. Suggestion: Licenses to access information from home</i>		

**Library Administration (continued)**

<b>QUESTION</b>	<b>A</b>	<b>B)</b>	<b>C</b>
<b>Do you have any training programmes on access to e-resources?</b>	Yes	Yes	has a programme on training and a full time instructional librarian in addition to others. Trainings are done for different categories of users. For lecturers, we reach them by going to their offices, booking appointments with them.
<b>What strategies are in place to promote e-resources?</b>	Website, Help desk, Committees (support from Vice Chancellor)	Promotion during training. Posters Bulletin. B website Survey	Workshops/trainings Orientation programmes for new students and staff. Pamphlets and leaflets in strategic places in the library. Through the website, Emails "Campus this week" Programme. Talks – Freshman Experience
<b>how would you rate the ICT infrastructure in your organization/institution?</b>	Good	Good	Excellent – the infrastructure is good and caters for all categories of staff. The administration is also increasing the bandwidth.
<b>(Based on the answer above) Kindly explain what you are doing to sustain and enhance it.</b>	PCs life is 3 years so factored this in the budget. Order of 30 computers per year There is support from VC	Reviewing budget. Replacing old. Computers with new ones. Enhancing wireless access.	Training Increasing manpower.
<b>What efforts have you put in place to enhance library staff ICT skills?</b>	Workshops, Identify needs and train staff on areas such as digitization	Giving staff training opportunities both internally and externally. Attending workshops.	All staff employed in the library have to be ICT literate. A staff development policy is in place and staff are required to identify their weak areas. The institution will support their attendance of relevant courses in terms of funding and time off.
<b>Challenges</b>		PERI e- resources to be integrated in one interface to make search easier.	A lot of training and less usage. Some users have techno-phobia. Shortage of staff- instructional staff instructs as well as does other administrative duties

**Library Staff**

QUESTION	A			B		C		
	Staff 1	Staff 2	Staff 3	Staff 1	Staff 2	Staff 1	Staff 2	Staff 3
<b>Are you aware of e-resources?</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Are you aware of any training programmes of library electronic resources? (ask if they were for students or staff)</b>	Yes the library is running Information literacy programmes for users Training for staff is also provided	Yes information literacy classes offered by the library. Also orientation, communication skills taught in 1 <sup>st</sup> year which library is involved	Information literacy for users. Staff are also trained	Yes, Offers training for both faculty and staff	Yes there are training programs for faculty, staff and students.	Yes, we do a lot of training for students/staff	Yes, we have instruction programmes for students and staff to enable them make use of e-resources.	Yes, they are available for students, faculty and staff
<b>Do you participate in the training programmes?</b>	Yes	Yes	Yes. Provide ongoing training in the resource centre	Yes	Yes	Yes	Yes	Yes
<b>Challenges</b>	Training 50,000 students is a big challenge Difficult to reach students who only attend evening classes Time is a challenge	No of computer To reach all users is a challenge	Lack of skills especially distance learner Limited access to computer i.e. limit to 1 hour in the resource centre Connectivity – slow Need for dedicated staff in the resource centre Limited number of PCs	Inadequate resources. Need up-to-date staff skills.	No of computers verses no. of users not enough. Slow computers Slow connectivity Databases not sufficient. Poor turn-up during training.			

**Library Staff (continued)**

<b>QUESTIONS</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
<b>Are you aware of e-resources?</b>		Yes	Aware of e-resources	Aware of e-resources
<b>Are you aware of any training programmes of Library Electronic resources? (ask if they were for the students or staff)</b>		New students are taken through training and also on request	Aware of training programs	Aware of training programs
<b>Do you participate in the training programmes</b>		Have been taking users through training but need for more staff training	Participates	Participates
<b>Others: (Challenges, Observation)</b>	Most resources use IP and cannot be accessed at home Power blackouts No of computers few	Searching skills inadequate  Suggestion: Introduce ICT skills training	Challenges: time factor (short), reaching the community, staffing, no enough equipment, space, Digitization, power fluctuations, no policy on ICT relies on University ICT plans & operating systems keep changing very fast	Challenges: poor search strategies, time constraints, user apathy Suggestion: search strategy training, frequent training, More computers, upgrade bandwidth, upgrade skills, more staff, expand resources

**Students (Any Level)**

<b>QUESTIONS</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
<b>What is your field of interest / Research areas?</b>	Human resource 3 (30%) Entrepreneurship 1 (10%) Economics 2 (20%) Physics 2 (20%) Biomedical <u>2</u> (20%) Total 10	Biological Control of Insect Pests Field & Horticultural crops Insect Pest Management Malaria, vector biology & Ecology	Guidance and counselling 1 10% Agricultural Information & Communication Management(AICM) 1 - 10% Geography 1 10% Agriculture economics 2 - 20% Food Science 2 - 20%	Computer science Library Information Science Commerce
<b>Which library resources do you use?</b>	books e-journals e-books	Online journals, books, newspapers and internet	Books, internet & newspapers	Online journals, books, newspapers and internet
<b>Do you use electronic resources?</b>	Books 10 - 100% Internet 10 - 100% e-journals 2 - 20% e-books - 0 - 0% CD-Roms - 5 - 59% Majority said they do not use	Yes, use e-resources (100%)	Yes aware	Yes - 3 No - 7
<b>If No, please state the reasons</b>	Not aware of their availability Not familiar Not interested Not sure how to access	N/A	N/A	Not aware of their availability Not familiar Not interested Not sure how to access
<b>If Yes, from which location do you access electronic resources?</b>	Library ICT section Computer lab Personal Laptops Cyber cafes	Library PCs, Office PC & home	Library PC & cyber-café	Library PCs, Office PC & home
<b>Have you had training on use of electronic resources?</b>	No - 6 Yes (During orientation) - 4	Yes - 2 No - 1	No training on use of e-resources	Yes - 3 No - 7
<b>If trained how it has impacted on your learning and research activities?</b>	Complete assignments with ease Able to surf the internet Able to conduct online searches with minimum assistance Supplement lecture notes	writing of high quality papers & thesis preparation accessing up-to date information, reduce time, publish in high impact journals	Able to surf the internet Able to conduct online searches with minimum assistance Supplement lecture notes	Easily access information quickly, more varied information easier than before, searching quickly



<p><b>What are the major challenges you experience in accessing or using the Library's Electronic Resources?</b></p>	<p>Lack enough ICT skills to access e-resources Lack adequate time to search through the databases Some e-resources are not user friendly- have complicated user interfaces Few computers connected to the internet Computers infected with viruses Low speed of the internet Not able to access the resources outside the university</p>	<p>Challenges: unavailability of some paper, limited subscription, password problems, restricted access by publishers, inaccessible internet during weekends Suggestions: increase subscription, system worked well so that users don't get stack</p>	<p>Challenges: access problems, network issues &amp; Power</p>	<p>Challenges: access restrictions, variety of databases, navigation, bandwidth, annual registration (AJOL), searching skills</p>
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**Students – A(continued)**

QUESTION	Student 1	Student 2	Student 3	Student 4	Student 5	Student 6	Student 7
What is your field of interest/research areas?	Human resource	Project management	B-Commerce 1 <sup>st</sup> year	BA Economics 4 <sup>th</sup> year	Electrical Engineering 2 <sup>nd</sup> year	Anthropology – 4 <sup>th</sup> year	Research methods and statistics – PhD student
Which library resources do you use?	Electronic journals and print books	Internet and thesis	Only books	Print books	Print books and reading carrels	Books, E-journals(Jstor), google	Books and e-journals( ebsco-host, jstor, emerald, APA journals)
Do you use electronic resources?	Yes – I use e-resources	Not able to use e-resources	No	No	Use google and Wikipedia	Yes	Yes
If NO, please state the reasons		They are inaccessible, I cannot access from the office	Not aware of resources	Not aware of resources	Not aware of resources	N/A	N/A
If YES, from which location do you access electronic	From e-journals lab and			General internet from	Access internet from Computer lab	Computer lab and library	In the library

<i>resources?</i>	<i>my house I access general internet from the office</i>			<i>room/ho stel and comp lab outside the library</i>	<i>(not in library)</i>		
<i>Have you had training on the use of electronic resources?</i>	<i>I have not attended any training</i>	<i>Has been trained once on how to use e- resources</i>	<i>No</i>	<i>No</i>	<i>1<sup>st</sup> year training on communicati on skills</i>	<i>Yes in class but not from the library. Used library manuals also to learn on how to use.</i>	<i>As a student no.</i>
<i>If trained, how has it impacted on your learning and research activities?</i>	<i>No impact as I have not been trained.</i>	<i>No impact as was not able to access but I have been able to use OPAC</i>	<i>N/A</i>	<i>N/A</i>		<i>Has made learning easier</i>	<i>Made research easier in terms of capacity, time and ease.</i>
<i>What are the major challenges you experience in accessing or using the library's electronic resources?</i>	<i>Connectivity is slow Outdated equipment Ratio of students to computers is very high Ignorance – lack of awareness Poor attitude from staff Problematic wireless network training is not provided immediately one joins campus</i>			<i>Slow internet Connecti vity PDF a problem to downloa d At times no internet for as long as 2 weeks</i>	<i>Slow speed Complex information</i>	<i>Poor internet connectivity. Few computers.</i>	<i>Most journals don't allow access to the current issues. Pdf articles not able to convert in word. Few computers Internet connectivi ty problem. Access ours limited. Centre not opened after 4.pm, and closed over the weekend.</i>

**Students – B (continued)**

<b>QUESTION</b>	<b>Student 1</b>	<b>Student 2</b>	<b>Student 3</b>	<b>Student 4</b>	<b>Student 5</b>	<b>Student 6</b>	<b>Student 7</b>
<b>What is your field of interest/research areas?</b>	Nursing	Nursing	Sociology and Psychology	Nursing -	Radiology – 4 <sup>th</sup> year	Doctor, Obs/Gynae - 2 <sup>nd</sup> year	
<b>Which library resources do you use?</b>	Books, E-journals, internet	Books and e-journals, internet	Books, online resources	Books, photocopies, online journals	Journals (online and print) and print books	Online journals, free online books, general internet	
<b>Do you use electronic resources?</b>	Yes	Yes	Yes for all		Yes	Yes	
<b>If NO, please state the reasons</b>	N/A	N/A			N/A	N/A	
<b>If YES, from which location do you access electronic resources?</b>	Library	In the library	Office and the library	Resource centre and my house	Home and occasionally library	Home. Library once in a while	
<b>Have you had training on the use of electronic resources?</b>	Yes, trained by the librarian.	Trained in class by faculty..	Has not been trained and would wish to attend one	Has been trained three times.	Yes, in first year taken through a thorough course on use of electronic resources and searching skills by the librarian	Yes, in 1 <sup>st</sup> year during the training given to postgraduate students by the librarian	
<b>If trained, how has it impacted on your learning and research activities?</b>	Has made learning easier	Made research easier in terms of getting resources faster and current information	Not applicable .	It makes learning as well as accessing ejournals easier.	Great impact. I am able to do literature search, get articles in a short time due to the skills acquired during the training	Made me more efficient in searching. I can navigate different databases better than I used to before the training	
<b>What are the major challenges</b>	Very few users have	Most journals	Can only comment	There are not enough	Lack of access to	Connectivity. At times	

<b>QUESTION</b>	<b>Student 1</b>	<b>Student 2</b>	<b>Student 3</b>	<b>Student 4</b>	<b>Student 5</b>	<b>Student 6</b>	<b>Student 7</b>
<b>you experience in accessing or using the library's electronic resources?</b>	passwords. Passwords not provided at the computer lab. Poor network connectivity.	are locked. Some journals don't give full text articles. Few computers Slow Internet connectivity. Viruses.	on using google because I get lots of hits that are not relevant. Viruses in computers .	computers. When out of campus, you cannot access the ejournals.	journals in my discipline. Some available with embargo i.e. 12 months More access to radiology journal online for both archives and current issues	wireless not available	

**Students C (continued)**

<b>QUESTION</b>	<b>Student 1</b>	<b>Student 2</b>	<b>Student 3</b>	<b>Student 4</b>	<b>Student 5</b>	<b>Student 6</b>	<b>Student 7</b>
<i>What is your field of interest/research areas?</i>	<i>Strategic management</i>	<i>Criminal justice</i>	<i>Communication and political science</i>	<i>Organizational development</i>	<i>International relations Graduate</i>	<i>Tourism (undergraduate- 2<sup>nd</sup> year)</i>	<i>Business Management</i>
<i>Which library resources do you use?</i>	<i>Electronic journals – 3 Books – 4</i>				<i>Books, periodicals both print and non print.</i>	<i>Books and print journals</i>	<i>Books, E-journals( Jstor, Ebscohost, Chicago journals), Google</i>
<i>Do you use electronic resources?</i>	<i>Yes – 3 No – 1</i>				<i>Yes</i>	<i>No</i>	<i>Yes</i>
<i>If NO, please state the reasons</i>	<i>Not aware – 1</i>				<i>N/A</i>	<i>Get most of the information from books and internet.</i>	<i>N/A</i>
<i>If YES, from which location do you access electronic resources?</i>	<i>Own modem – 1 From campus – 2</i>				<i>Library</i>	<i>No</i>	<i>Library multimedia centre.</i>
<i>Have you had training on the use of electronic resources?</i>	<i>Has had training – yes during orientation – 2 Has been trained – 1</i>				<i>Yes in library by instructional librarian.</i>	<i>No, never had time for training because am working</i>	<i>Trained by library staff</i>
<i>If trained, how has it impacted on your learning and research activities?</i>	<i>The training attended was beneficial but still had to consult library staff afterwards. Has helped me to access the resources - 2</i>				<i>Has made research easier</i>		<i>Made writing of term papers and learning easier.</i>
<i>What are the major challenges you experience in accessing or using the library's electronic resources?</i>	<i>Wireless network keeps fluctuating. Slow internet Computers not enough Lack of remote access Network is down at times Most of the journals are from developed countries, need for journals from other countries</i>				<i>Some journals are not up to date. Connectivity problem.</i>		<i>Full text access to Chicago journals not available. Some don't go through passwords</i>

## Library visits - Observations

- *A very welcoming and well guided entrance*
  - *Good working relationship between Library staff and users*
  - *University library very clean and conducive environment for study*
  - *Adequate security*
  - *Inadequate Cabling system in the library*
  - *Inadequate computers*
  - *Low speed of access to e-resources*
  - *Printing services available*
- 
- *A very good and welcoming environment(both internal and external)*
  - *Trunking well done throughout the information centre*
  - *Adequate working and reading space*
  - *Fast speed of accessing e-resources*
  - *Have adequate printing and photocopying services for both staff and students*
  - *A very good working relationship between staff and users- very interactive*
- 
- *Welcoming and good environment*
  - *Well signed (signs are present although not professional)*
  - *Under-resourced (computers and furniture)*
  - *Congested*
- 
- *A welcoming and conducive atmosphere*
  - *Good and interactive relations between library staff and students*
  - *Security terminal automated and up-to-date.*
  - *Cabling system well trunked throughout the library*
  - *Presence of Promotional materials- posters, brochures*
  - *Well labelled display ranks*
  - *Computers and other ICT facilities not adequate compared to the user population.*
  - *Notice boards updated*
  - *Presence of active suggestion boxes*
  - *Library webpage shows the available electronic resources- journals, databases from PERii*
- 
- *Promotion material on notice boards around the library*
  - *Resource center available though not adequate. Computers are too few*
  - *Training room available in the library, which is used for training of users*
  - *No sign of marketing brochures*
  - *Enquiry desk at the entrance of the library with staff available to assist*
- 
- *Very clean and welcoming environment, staff available to assist users.*
  - *Need to add more pc's at the library computer lab. Enough printers for the users and the staff.*
  - *Signage available as you get into the library.*
  - *Few marketing brochures at the circulation desk*
  - *Librarians interact very well with their users. They are friendly and welcoming.*
  - *Staff has good computer skills and technology knowledge.*
  - *The librarian sits in the management committee and the institution factors e- resources in the library budget.*
- 
- *The entry foyer is very welcoming with very attractive paintings*
  - *Very clean environment and modern furniture*
  - *Signage is very good*
  - *Brochures available in strategic places on all floors of the library*
  - *Friendly and helpful staff who seem to interact very well with users of the library*
  - *Staff are very well informed and skilled on issues of electronic resources*
-

**APPENDIX 6 PHOTOGRAPHS OF THE PEER REVIEW AND VISITS**



*Interview on session at Kabarak University*



*Part of the Internet workstations at Kabarak University*



*University of Nairobi Online Public Access catalogue (OPAC) stations*



*Interview session at Aga Khan University Nairobi*



*Interview session at United States International University*