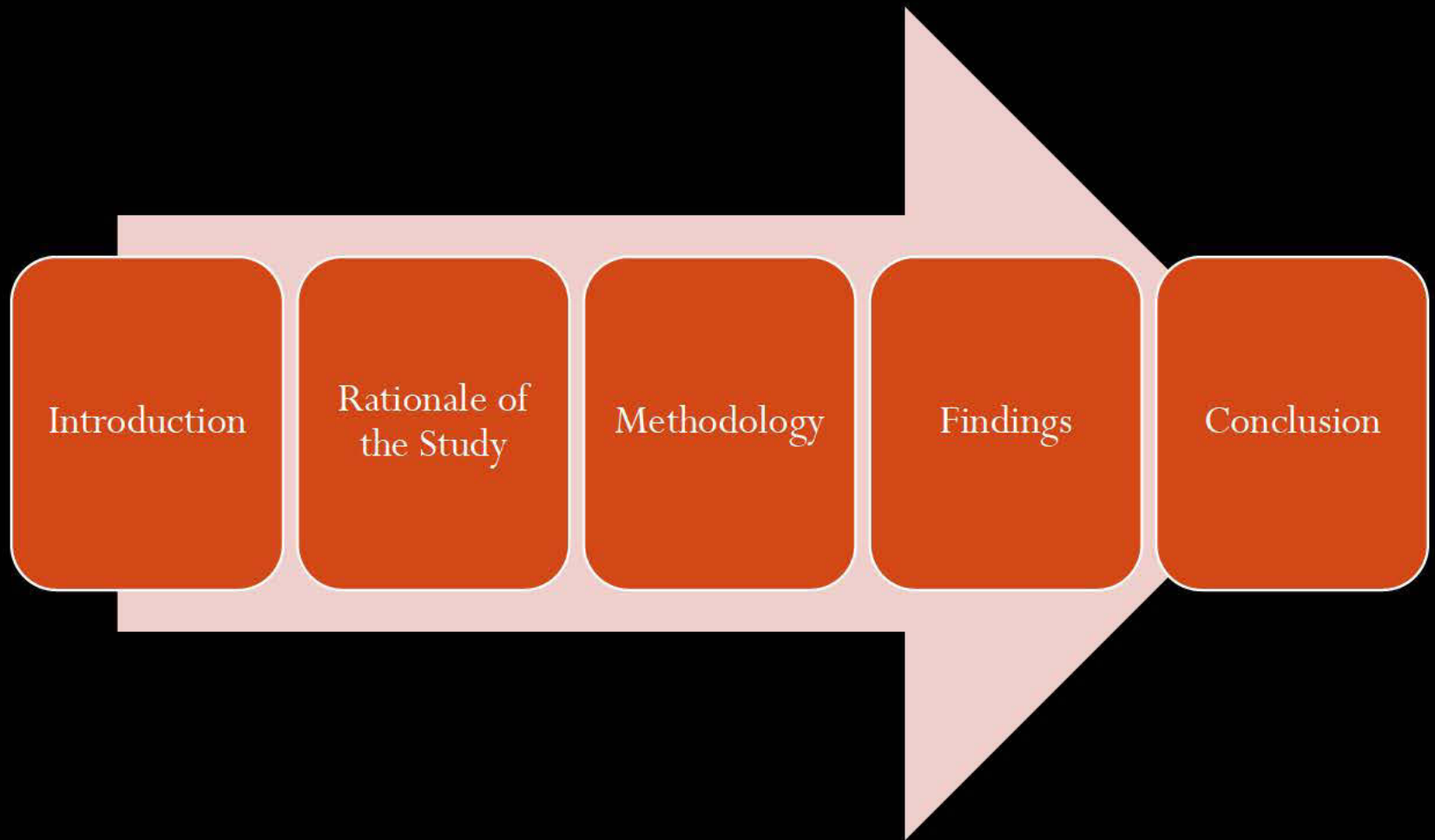


ICT use in Academic Libraries: A Comparative Analysis of Student Experiences at a Public and Private University in Kenya

Presenter: Lilian Ingutia-Oyieke

The Presentation



Introduction to ICTs

- Background of study is influenced by 2 major occurrences
 1. Introduction of ICTs especially the internet to Higher Education Institutions
 2. Introduction of E-Resources

Introduction to ICTs

Information and Communication Technologies (ICTs) and the Higher Education Landscape in Africa.

- Globalization and technological change have created a new global economy.
- New economy is powered by technology, fueled by information and driven by knowledge.
- Knowledge driven economies are essential for developing countries such as Kenya.

ICT s in Higher Education Institutions in Africa: Current context

1. Access to ICT infrastructure

African universities are seriously constrained in the use of ICT by:

A lack of computers

A lack of access to affordable high-speed Internet connectivity.

2. Affordable and sufficient bandwidth

The 2006 African Tertiary Institutions Connectivity Survey (ATICS) summed up the situation as “too little, too expensive, and poorly managed.”

The survey report further states that “the average African university has bandwidth capacity equivalent to a broadband residential connection available in Europe, pays 50 times more for their bandwidth than their educational counterparts in the rest of the world.”

3. Human resource capacity to exploit the technology

Most academic libraries lack ICT librarians and even where these are present they are not true advocates in the use of ICTS.

Most Library Schools in Africa have not revised their curriculum to embrace ICT.

Practising Librarians have not been retrained elsewhere in readiness for new job challenges within the ICT environment.

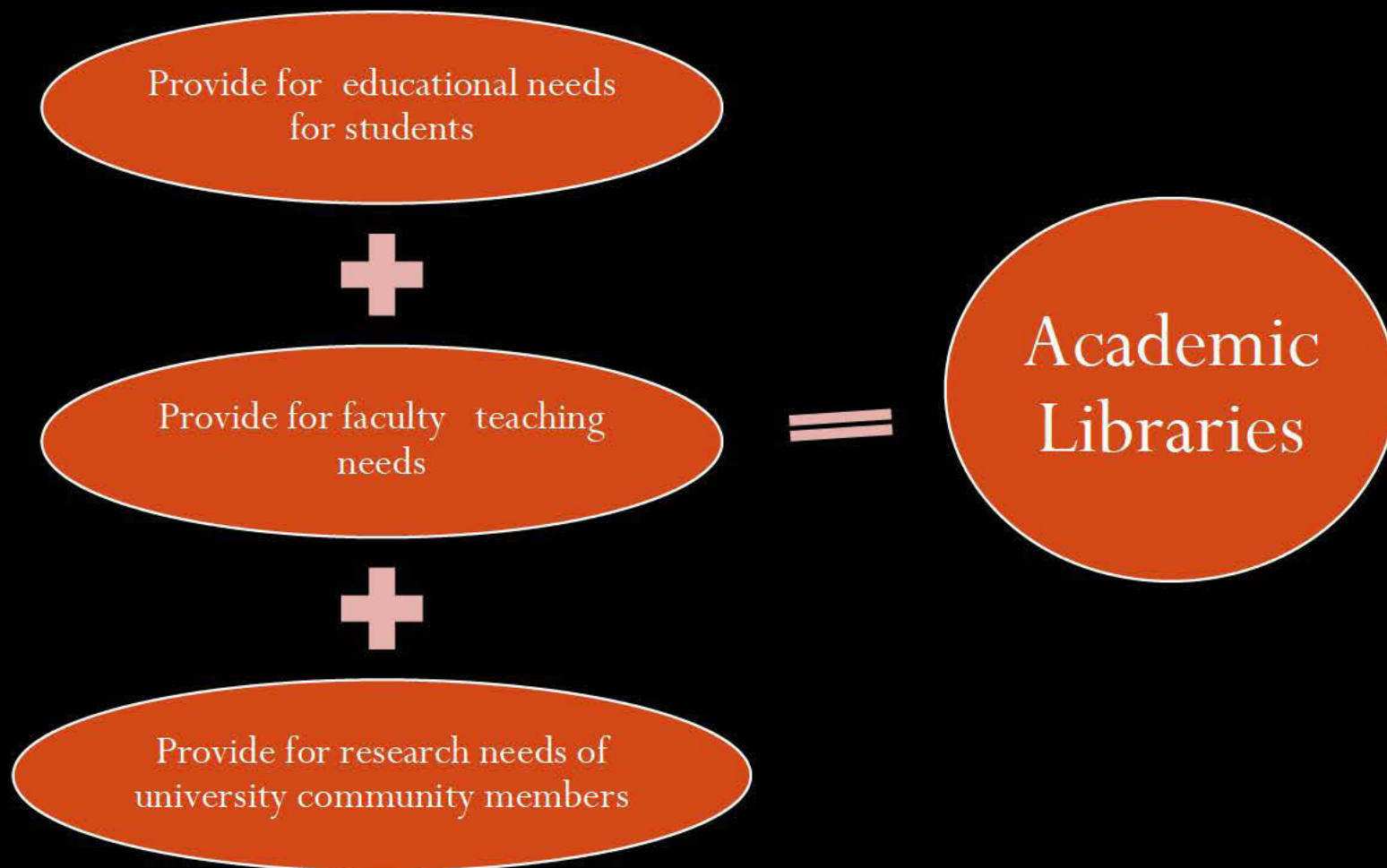
4. ICT Plans

Adherence to ICT education policies.

ICT education plans are not often implemented.

There is no varied stakeholder involvement.

Threefold Obligation of Academic libraries in Sub-Saharan Africa



Academic Libraries Today

ICTs have turned libraries into virtual places for information access.

ICTs present a path towards barrier-free access to information.

Academic Libraries in Kenya

Kenya faces great information challenges.

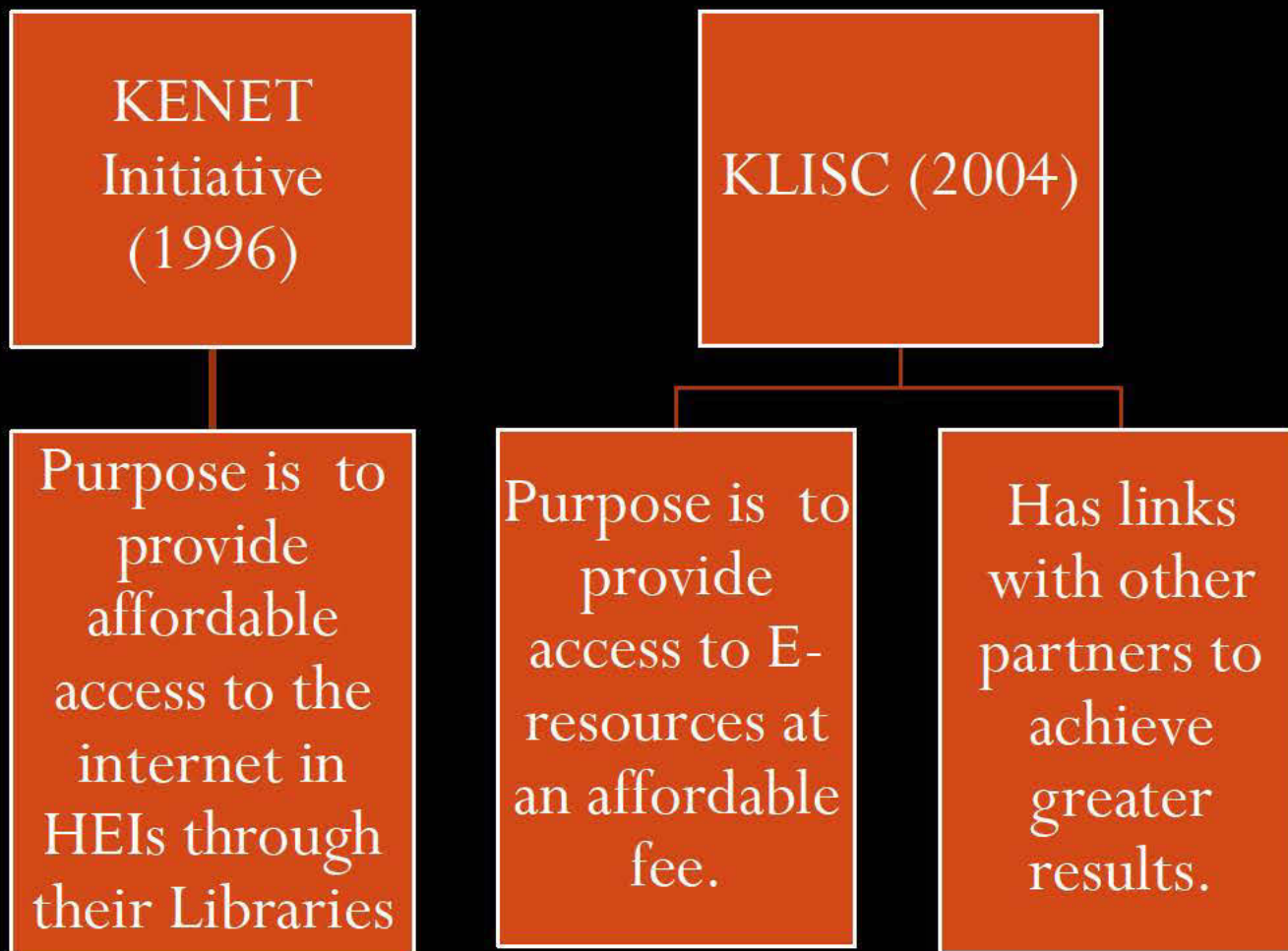
Underlying Problem is the lack of a clear Information Policy in HEIs (Ayoo & Otike, 2002).

Institutionally:

Faculty-Librarian Collaborations

Modern ICT Technology and Equipment

Current ICT Situation



Why the Need for an Evaluation of ICTs in Kenya's Academic Libraries?

1.

To help identify ICT usage patterns among the undergraduate students.

2.

To identify the level of ICT integration that selected libraries have reached.

Research Question

Are ICTs used to support formal and informal learning in academic libraries in Kenya?

Methodology

Survey research design was used within a broad qualitative approach.

Study is mainly descriptive within a comparative analysis.

Limitations of the study

Focuses on general use of ICTs by undergraduate students and specific applications of ICTs in the libraries.

Setting

Study is limited to two institutions in Kenya which benefit from KENET initiative and are members of KLISC

Kenyatta University (KU) Public University—Large student enrolment—Urban based

University of Eastern Africa Baraton (UEAB) Private University—Small student enrolment—Rural based

Data Collection methods

Self- administered questionnaires to the student sample.

Face to face Interviews with librarians.

Findings

**Physical barriers to
ICT use**

**Personal barriers to
ICT use**

Findings on Physical Barriers to ICT

Kenyatta University

Incomplete Library Network (LAN).

Lack of space for an online access centre within the library.

Lack of computers (only 5 computers).

Restricted access to the internet (30 minute sessions).

Slow Internet connection speed.

Findings on Physical Barriers to ICT

UEAB

Power outages.

Equipment downtime.

Slow Internet speed.

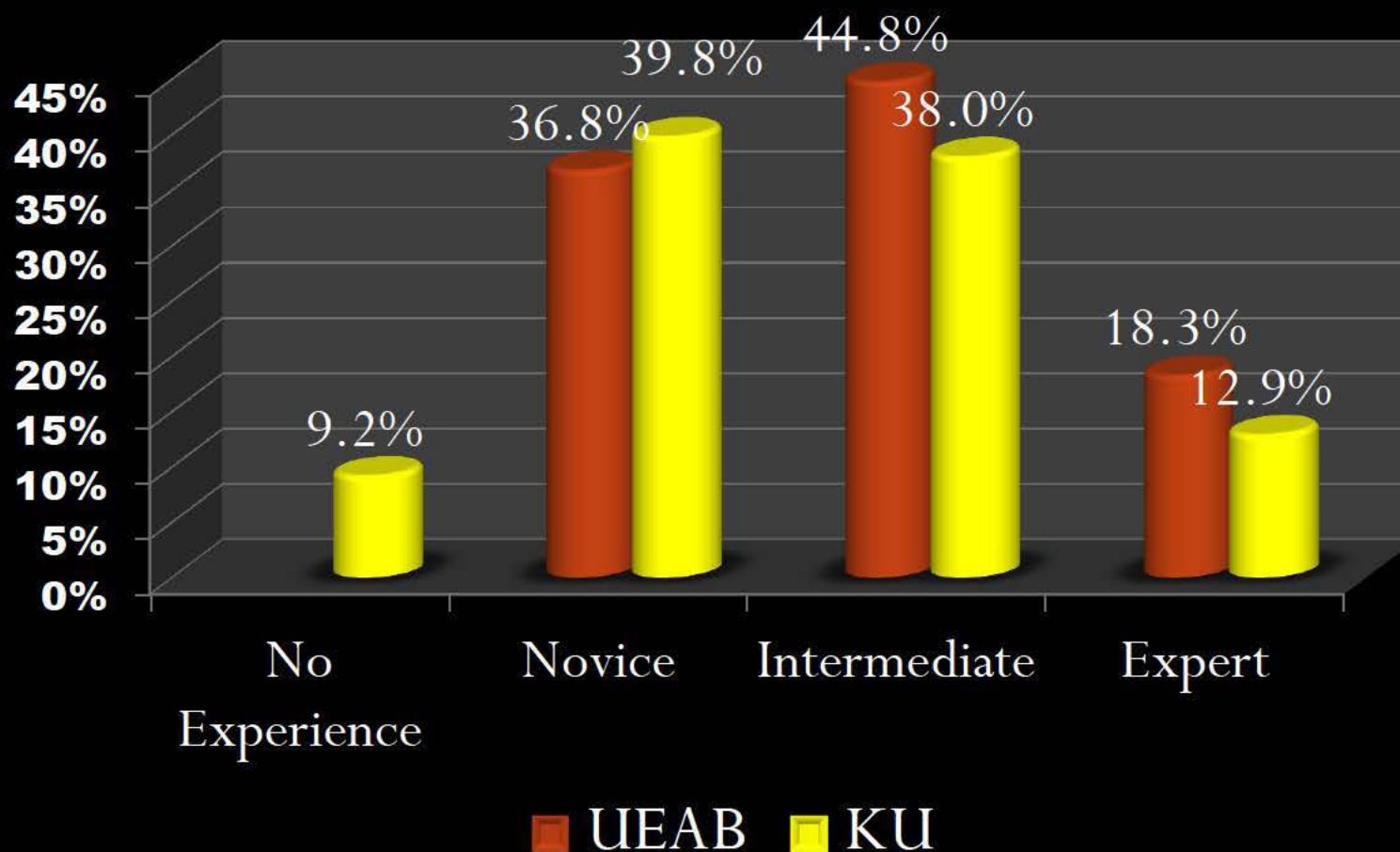
Personal barriers to ICT use

1. Technical skills.
2. Information retrieval skills.
3. The role of the library in determining students' learning outcomes.

Knowledge of existing resources and ICT services.
Students awareness of new e-resources in their libraries.

Technical Skills

Computer Competencies



Computers Skills at different Levels

- **No Experience**

KU mean 9.2%

- **Novice Computer Skills**

UEAB mean 36.8 % ; KU mean 39.8 %

- **Intermediate Computer Skills**

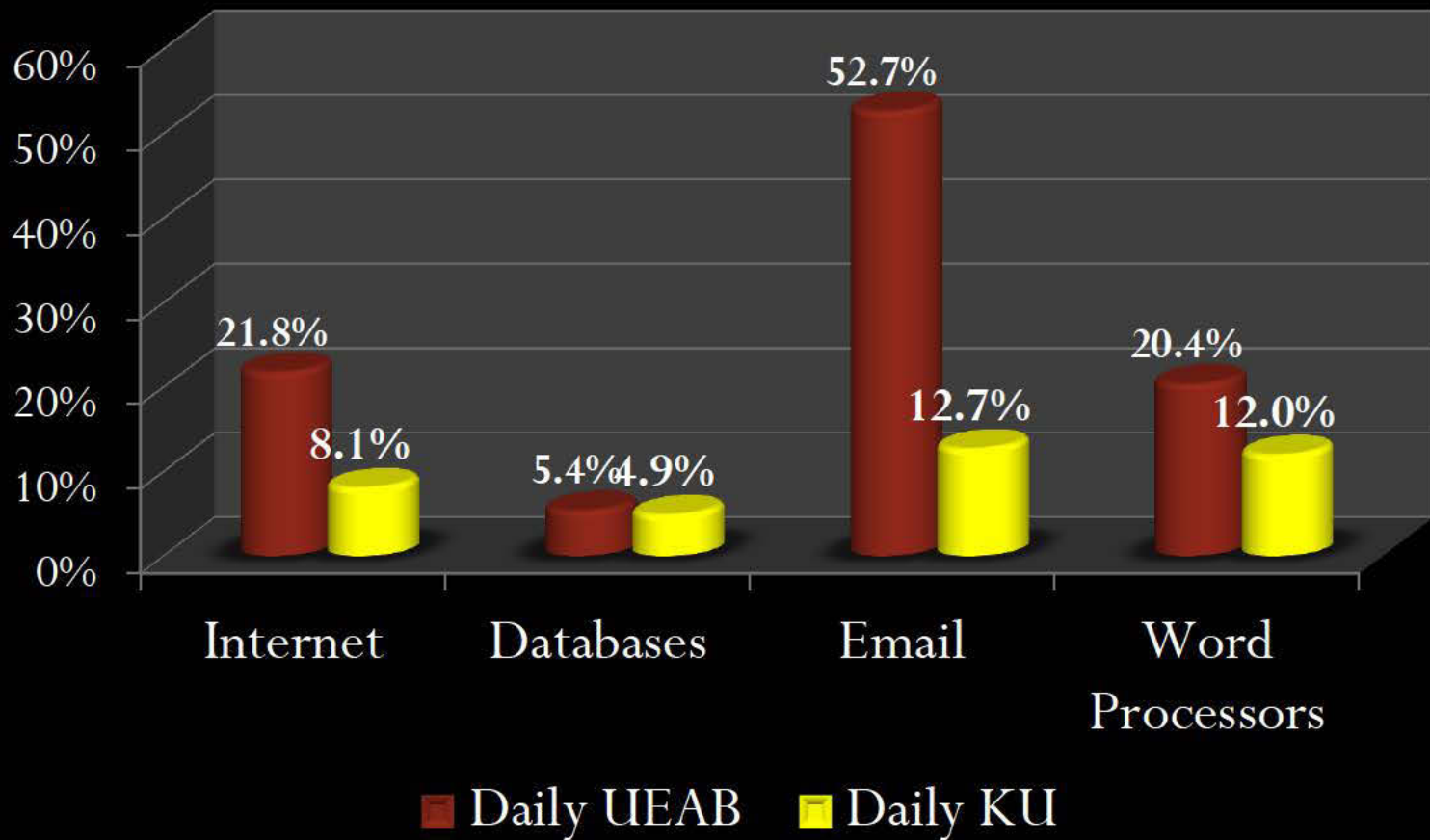
UEAB mean 44.8 % ; KU mean 38%

- **Expert Computer Skills**

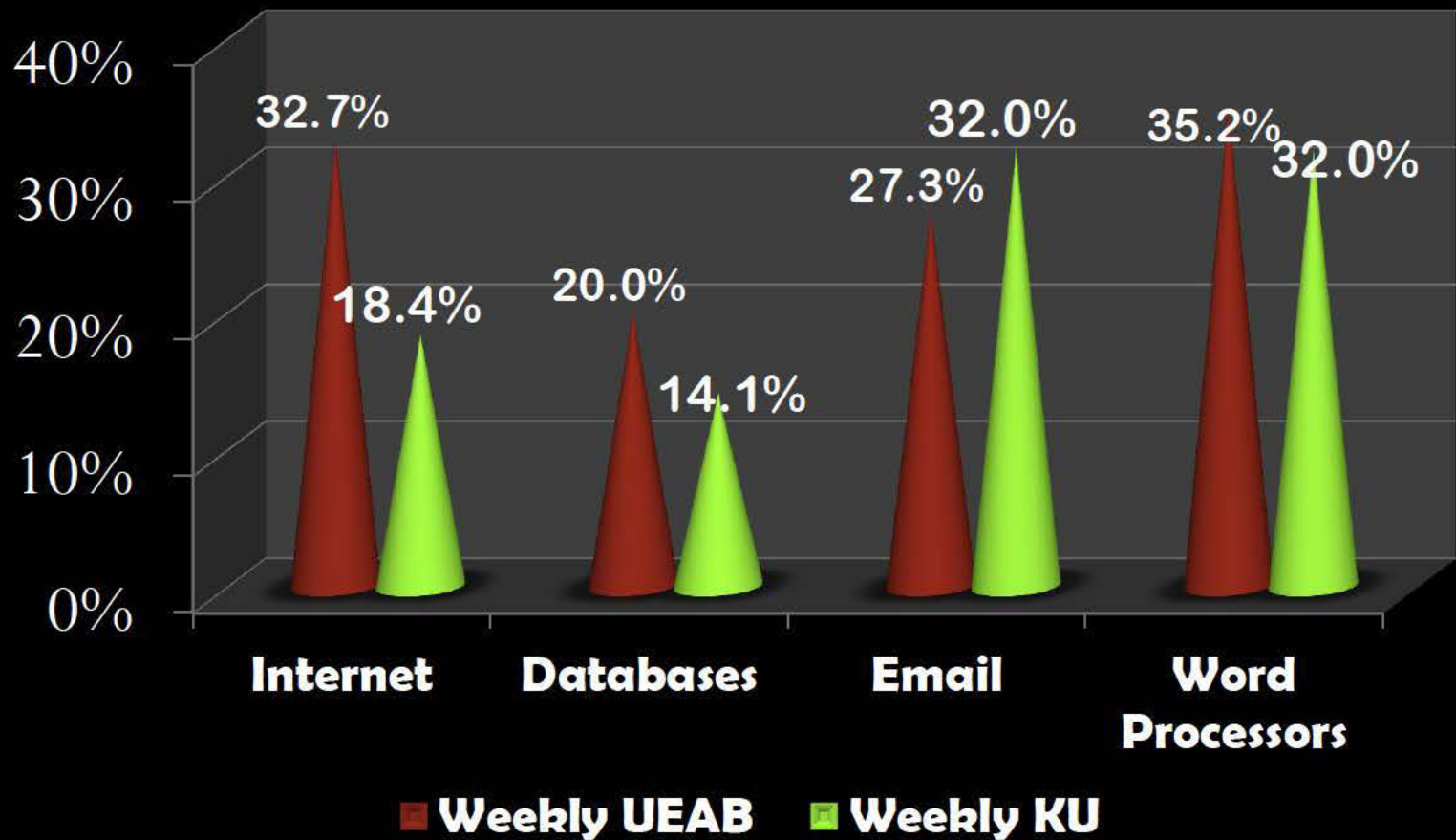
UEAB mean 18.3 %; KU mean 12.9%

Frequencies of ICT Usage

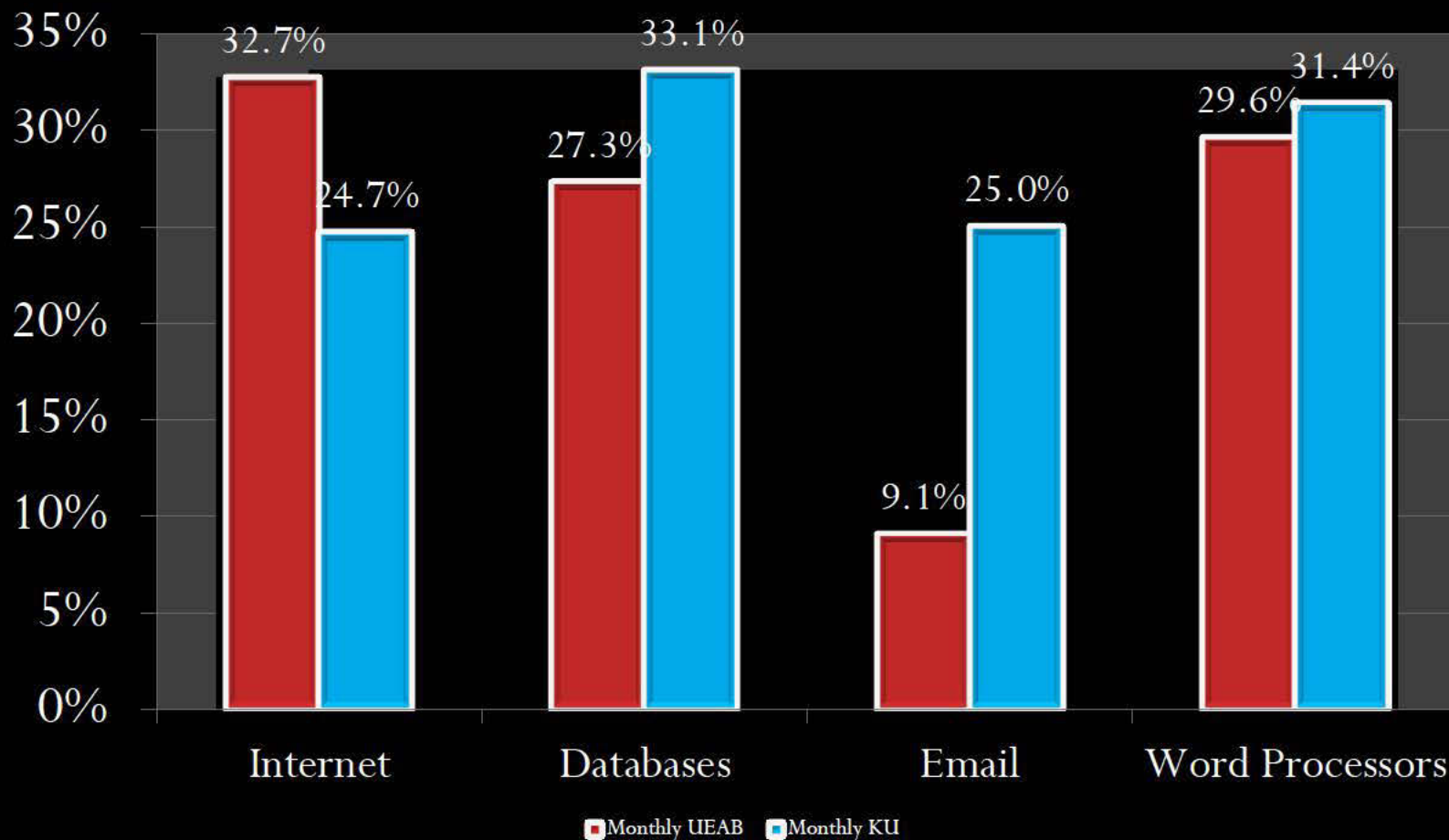
Daily Use: Internet/Databases/Word Processors/Email



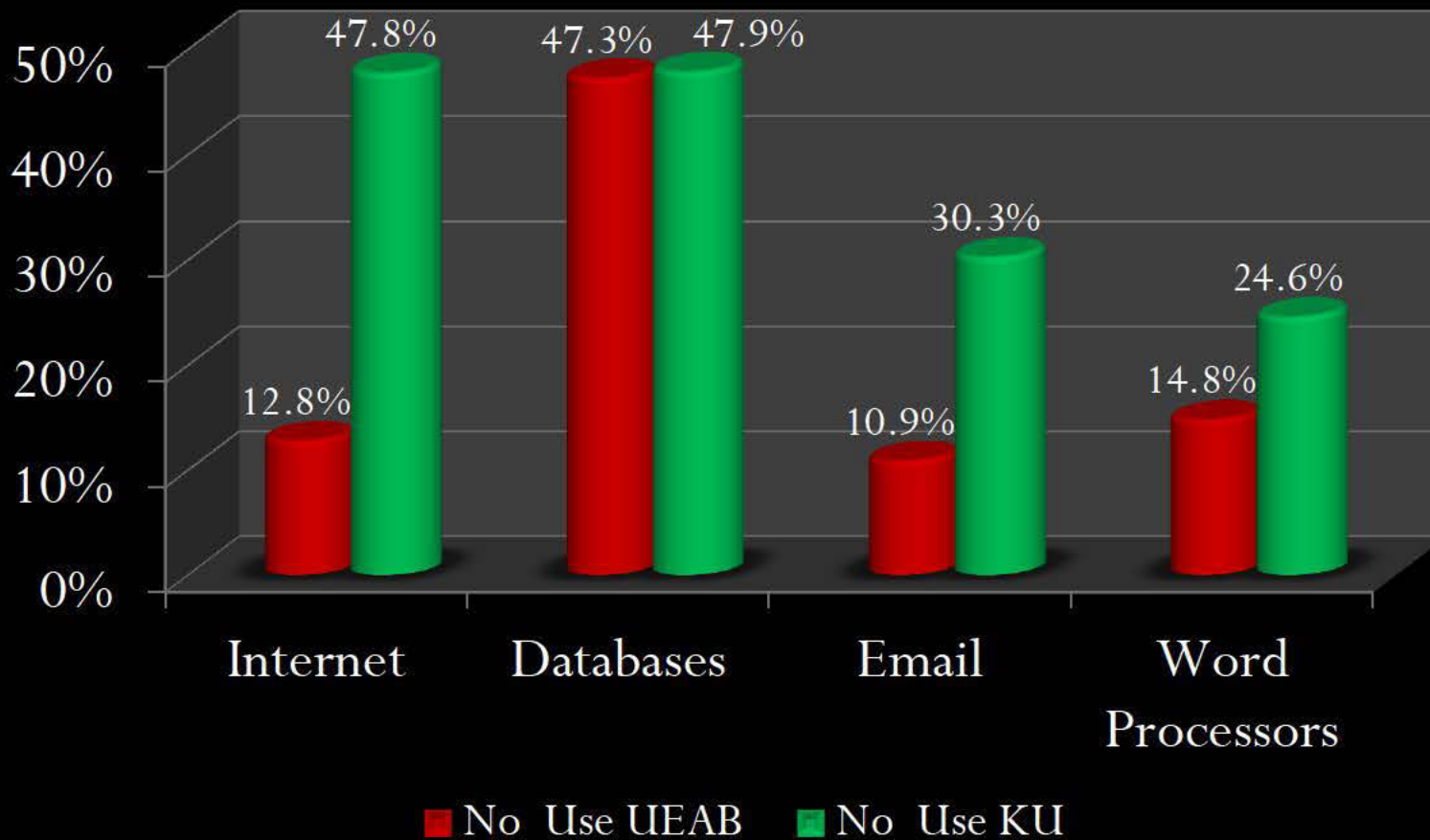
Weekly Use: Internet/Databases/Word Processors/Email



Monthly Use: Internet/Databases/Word Processors/Email



No Use: Internet/Databases/Word Processors/Email



Trends and Observations

Daily use Internet/Databases/Word Processors/Email

- Email use is highest but only at UEAB (52.7%)

Weekly use Internet/Databases/Word Processors/Email

- All ICTs used weekly

Monthly use Internet/Databases/Word Processors/Email

- All ICTs used monthly

No use Internet/Databases/Word Processors/Email

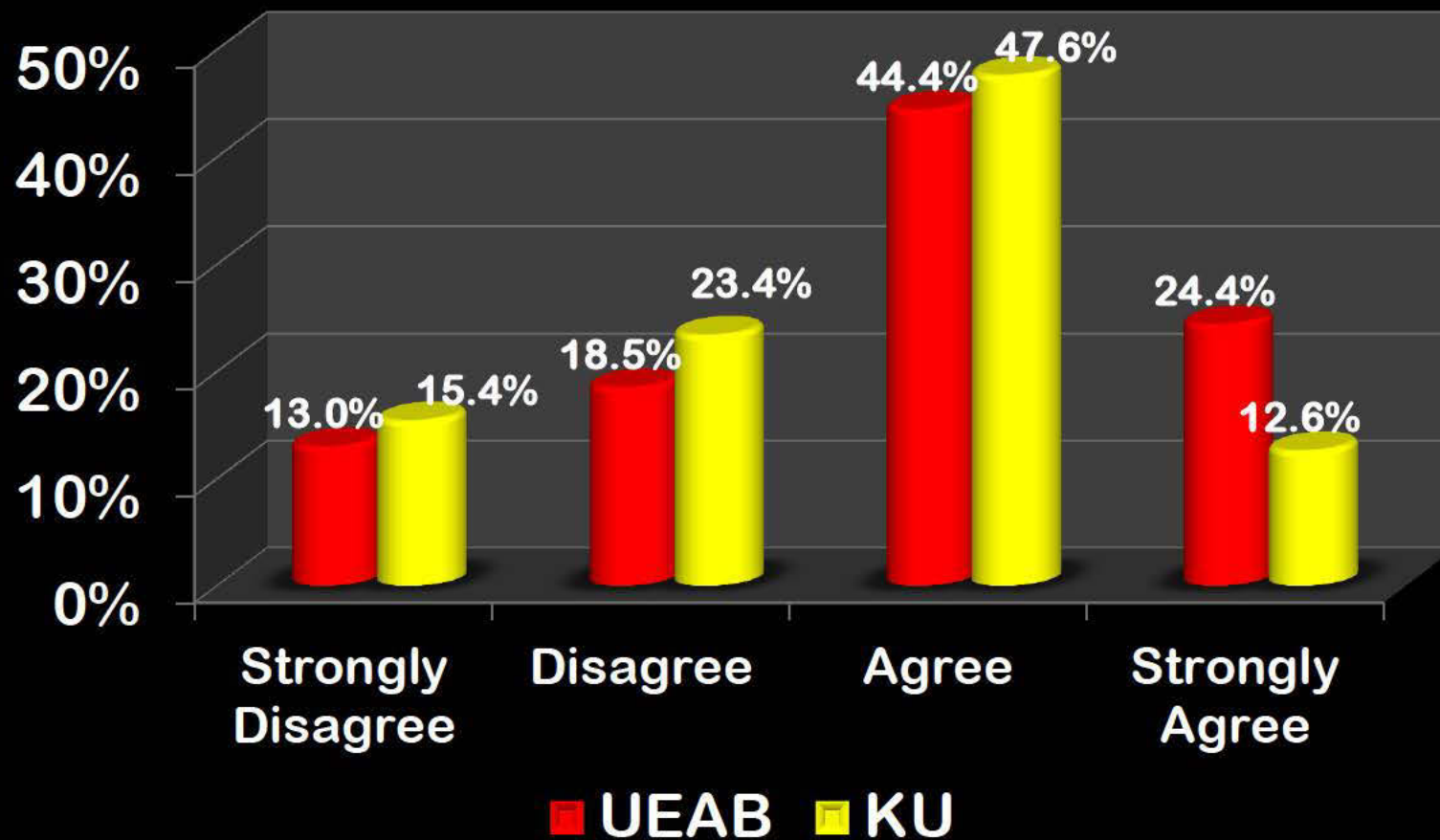
- Majority of the respondents from KU (47.3%) & UEAB (47.9%) no use for Databases. KU (47.8%) no use for internet

Observation

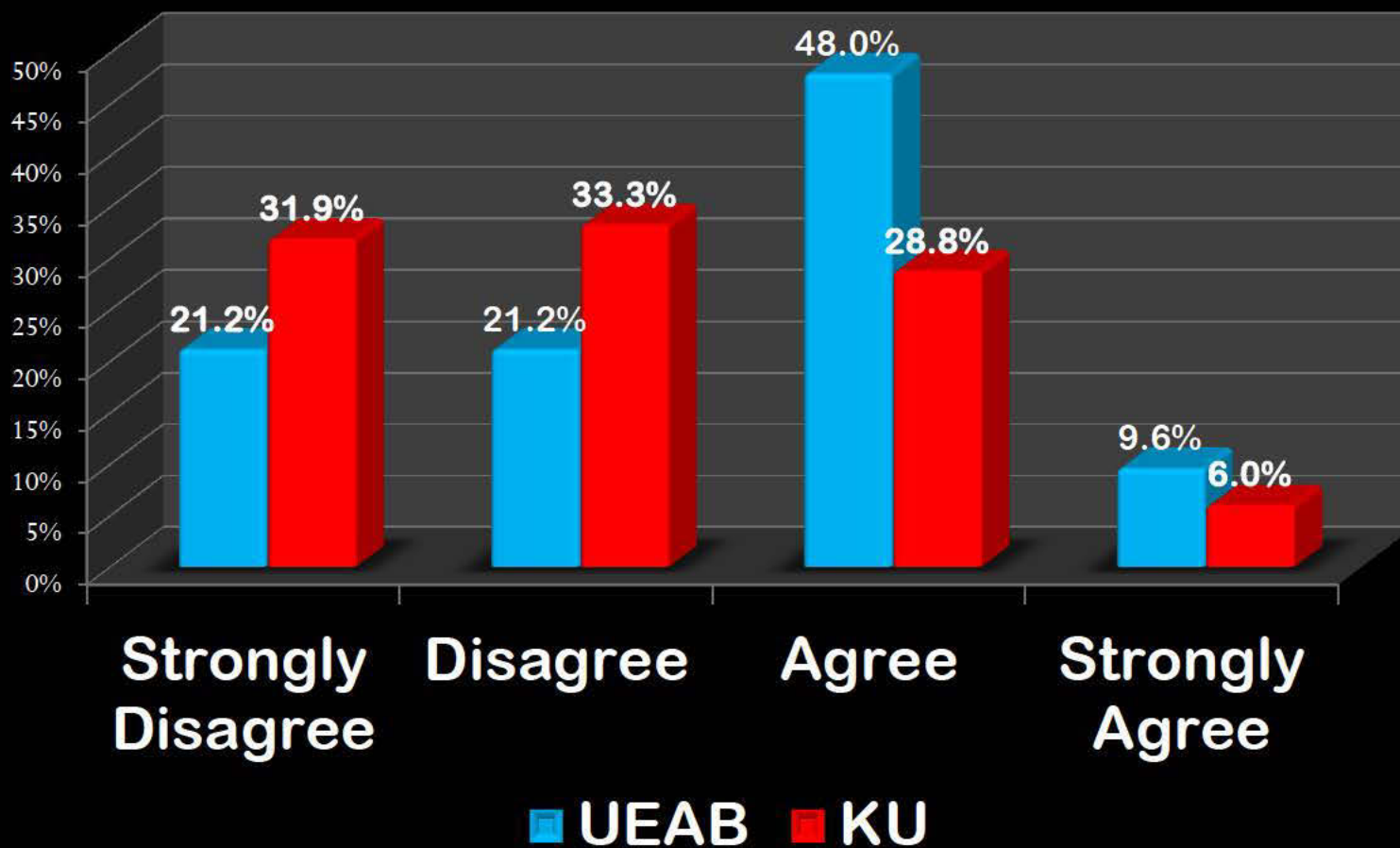
- No use shows that ICTs are not accessible to majority of the students especially at KU (47.8%)

INFORMATION RETRIEVAL SKILLS

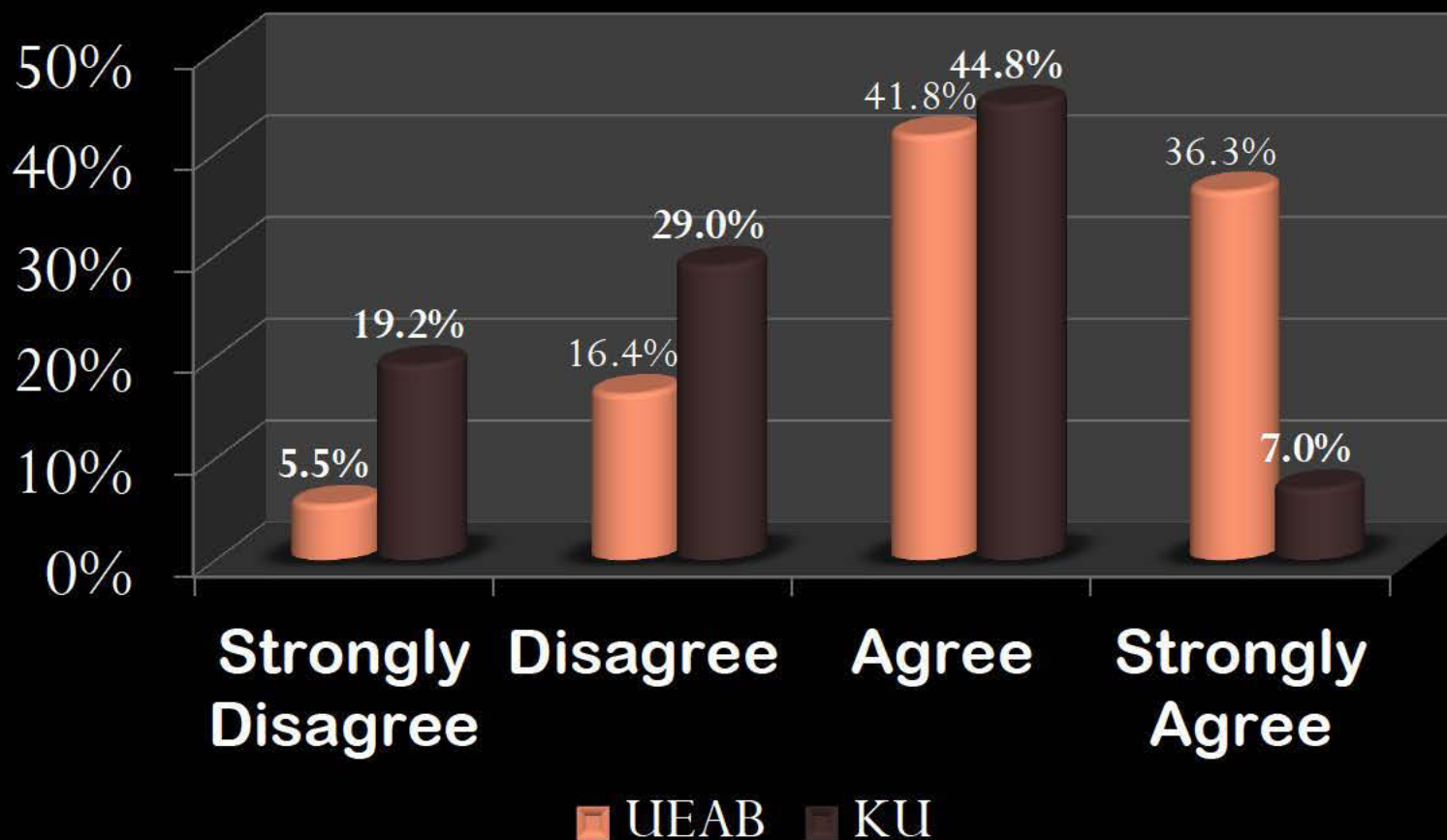
Ability to decide on a keyword



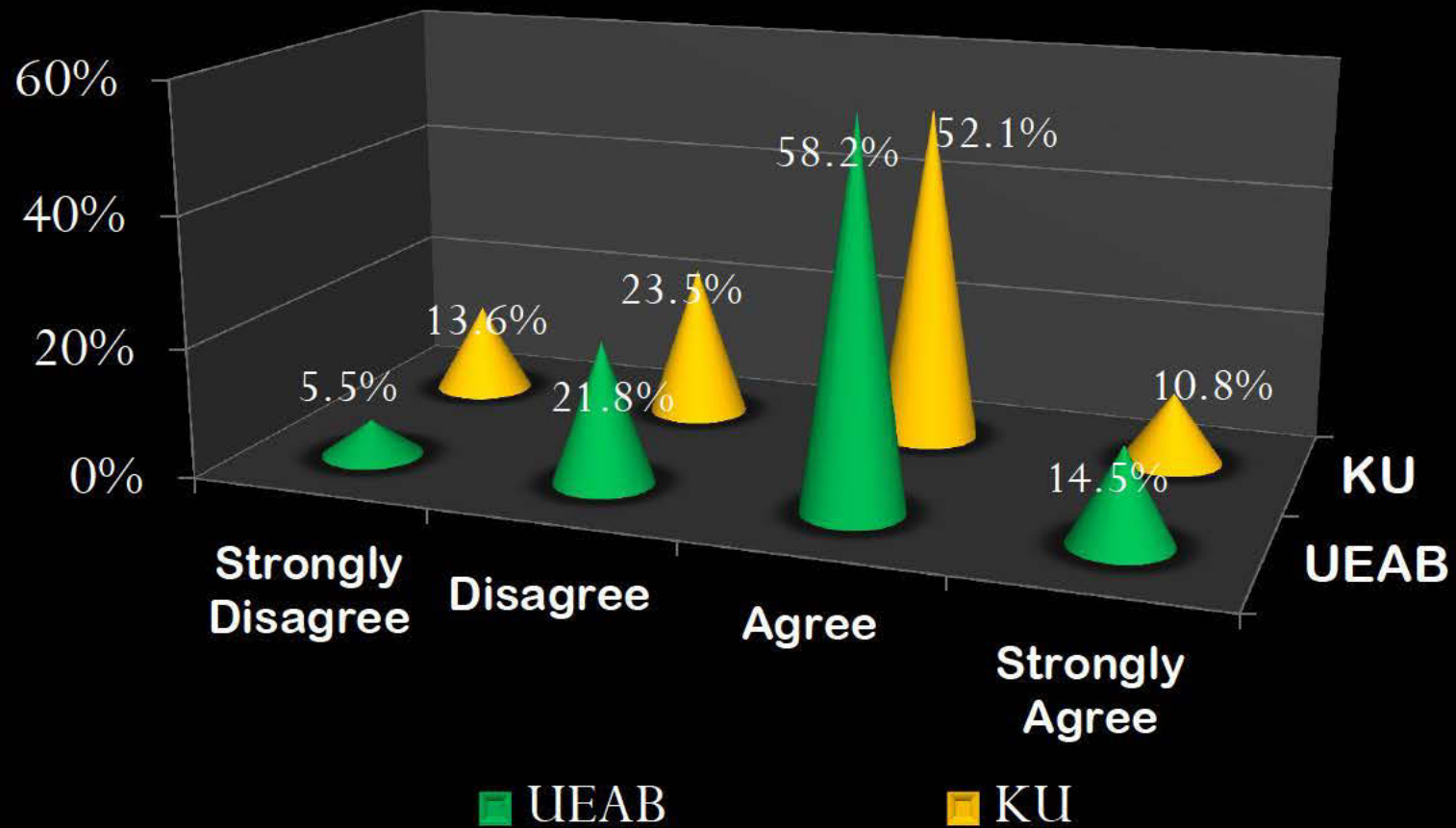
Ability to Perform a Boolean Search



Ability to Limit a Search



Ability to Gather Information Comprehensively



Trends and Observations

Decide on a keyword

- Majority of students from UEAB (44.4%) and KU (47.6%) agree they have this ability.

Perform a Boolean search

- Majority of students from UEAB (48%) have this ability

Limit a search

- Majority of the students from UEAB (41.8%) and KU (44.8 %) have this ability

Gather Information comprehensively

- Majority of students from UEAB (58.2%) and KU (52.1%) have this ability

INFORMATION RETRIEVAL SKILLS

Similarities among the students from both universities

Students can perform a keyword search

Use Boolean operators

Limit searches

Gather information comprehensively

The role of the library in determining students' learning outcomes

Findings on the role of the library in determining students' learning outcomes included

The library should play a significant role in determining the students' learning outcomes by supporting ICT use

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graph TD; A["The library should play a significant role in determining the students' learning outcomes by supporting ICT use"] --- B["1. Perceived value of e-resources in learning"]; A --- C["2. Perceived role of the academic librarians."]
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1. Perceived value of e-resources in learning

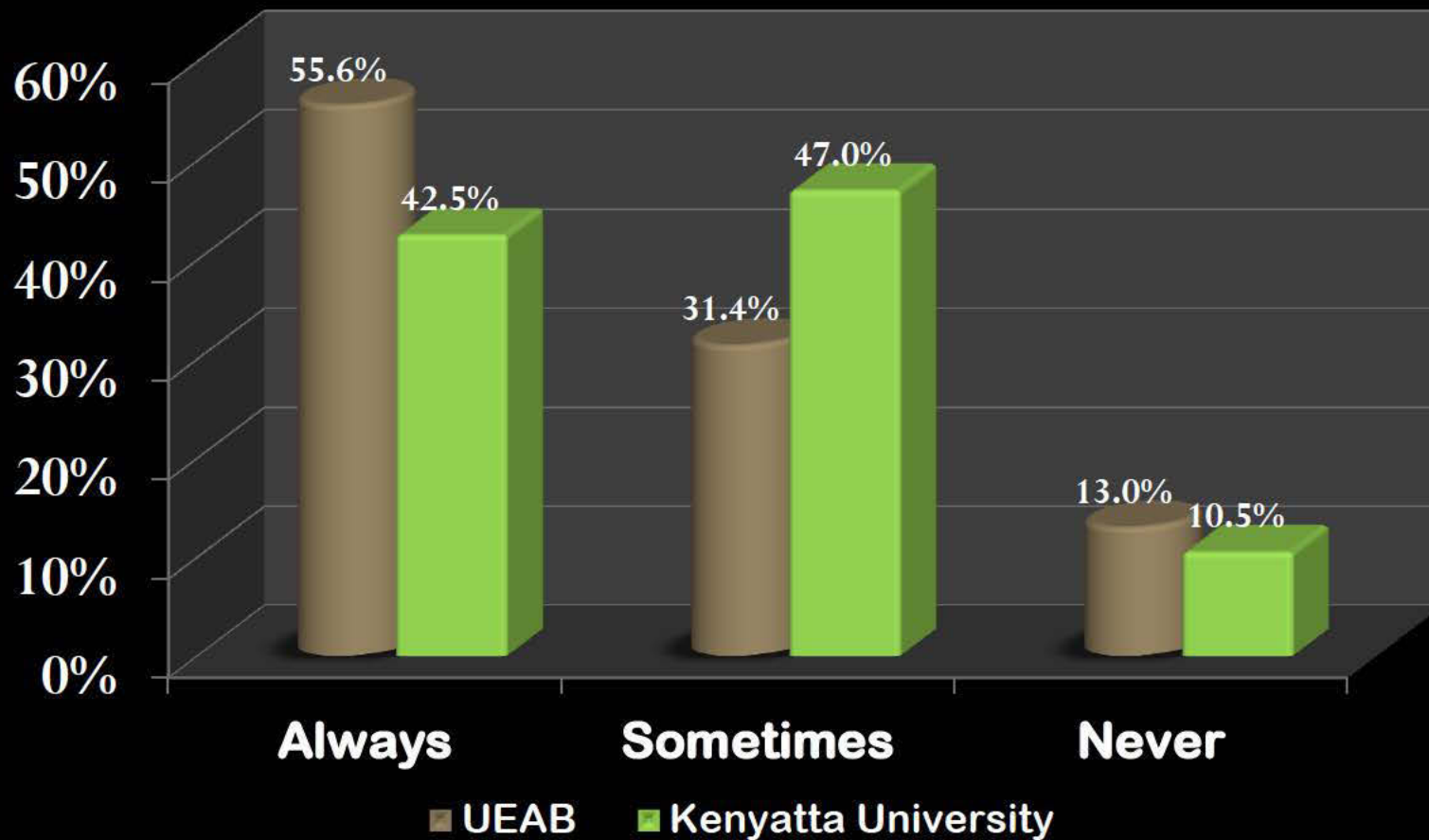
2. Perceived role of the academic librarians.

Perceived Value of e-resources to students

Aims at finding out if e-resources play an important role in:

- Supporting students academic learning;
- Changing the way students do research;
- Helping improve the standards of students work; and
- Meeting students informal learning needs.

E-Resources: Supporting students Academic Learning



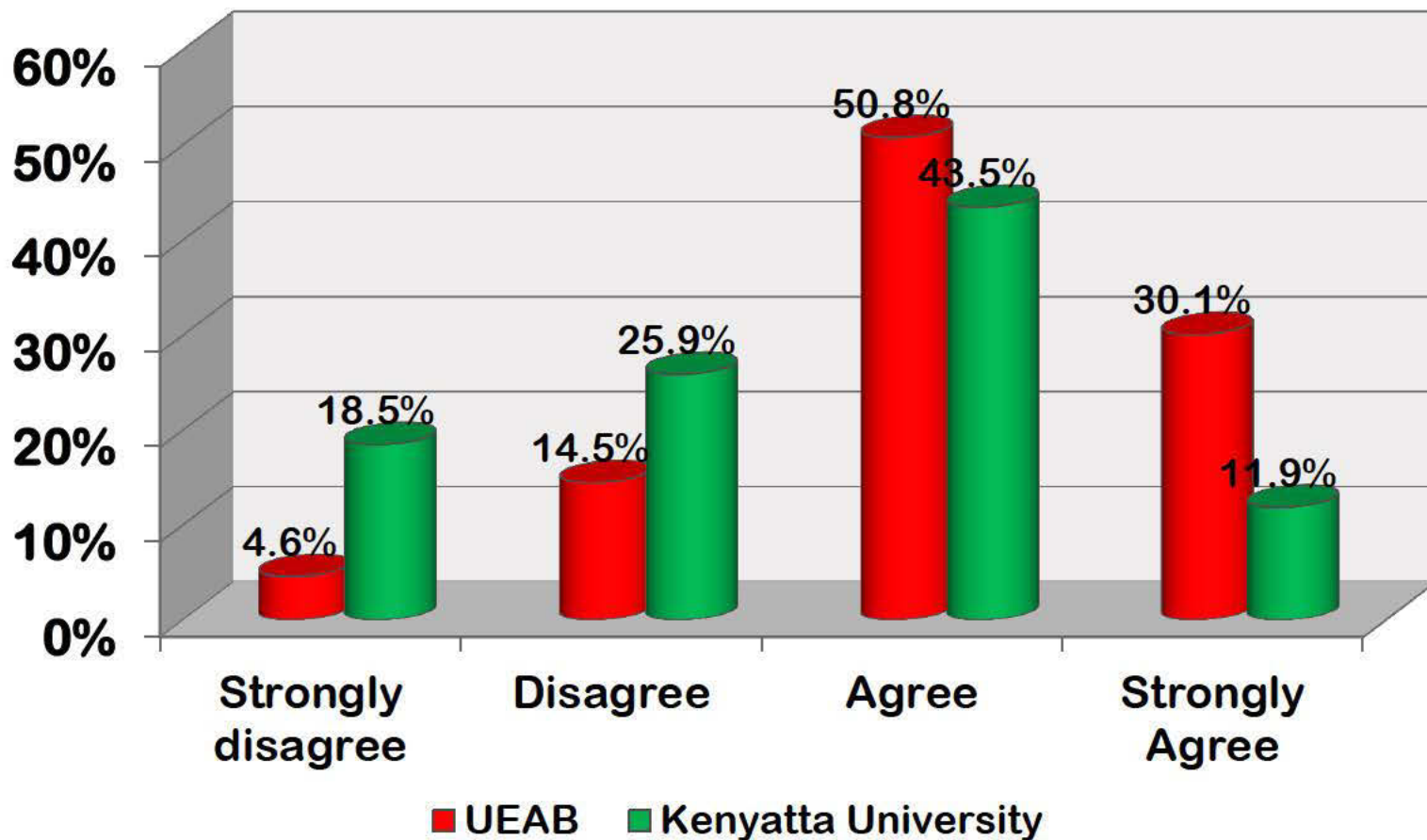
Trends and observations

- **Always**
- UEAB 55.6 %; KU 42.5 %
- **Sometimes**
- UEAB 31.4%; KU 47%
- **Never**
- UEAB 13%; KU 10.5%

Observation

The e-resources support students academic learning.

E-resources: Changing ways students approach research



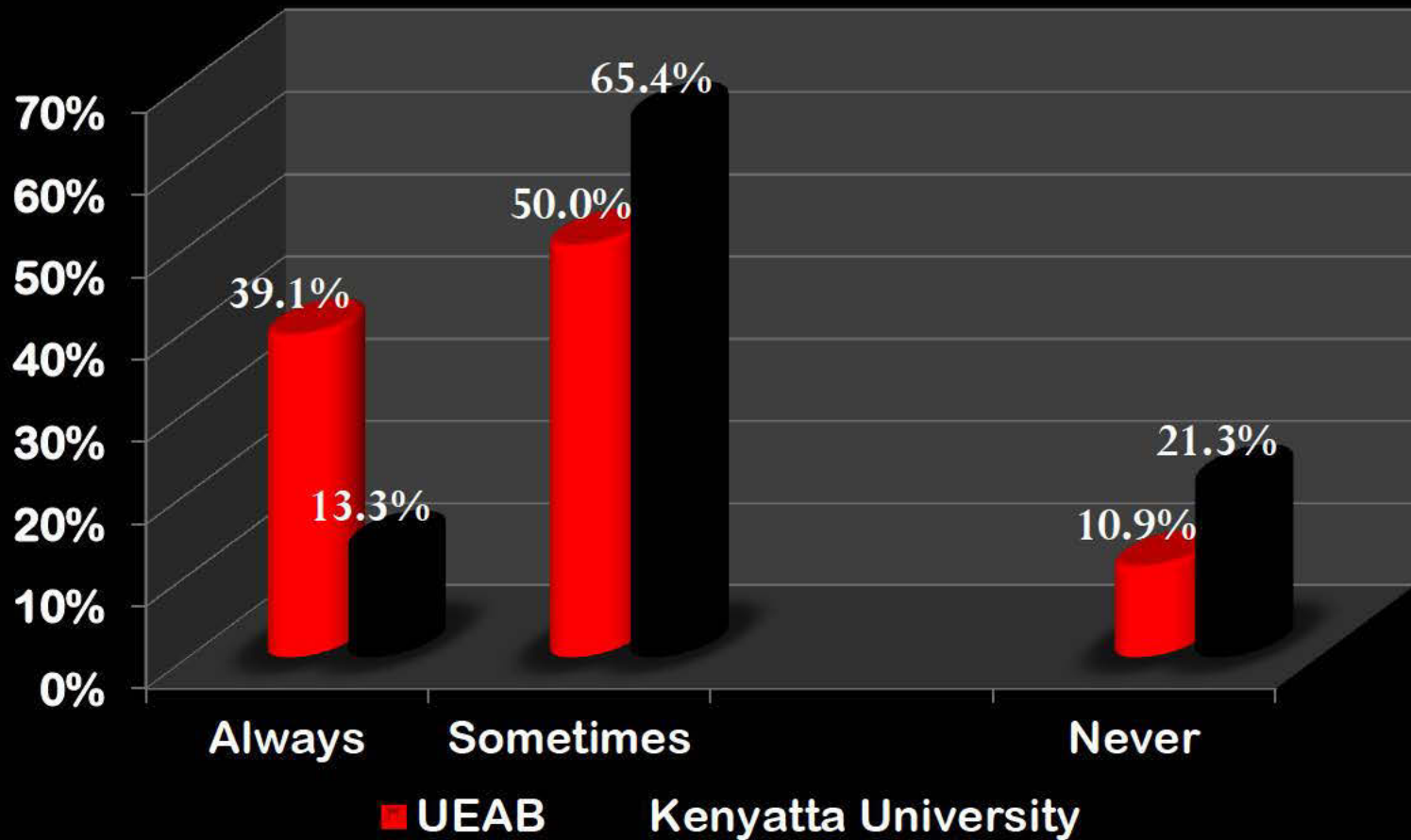
Trends and observations

- **Strongly Disagree**
- UEAB 4.6 %; KU 18.5%
- **Disagree**
- UEAB 14.5%; KU 25.9%
- **Agree**
- UEAB 50.8% ; KU 43.5%
- **Strongly Agree**
- UEAB 30.1%; KU 11.9%

Observation

The e-resources have changed the way students from both universities do research.

E-resources : Meeting students needs through informal learning



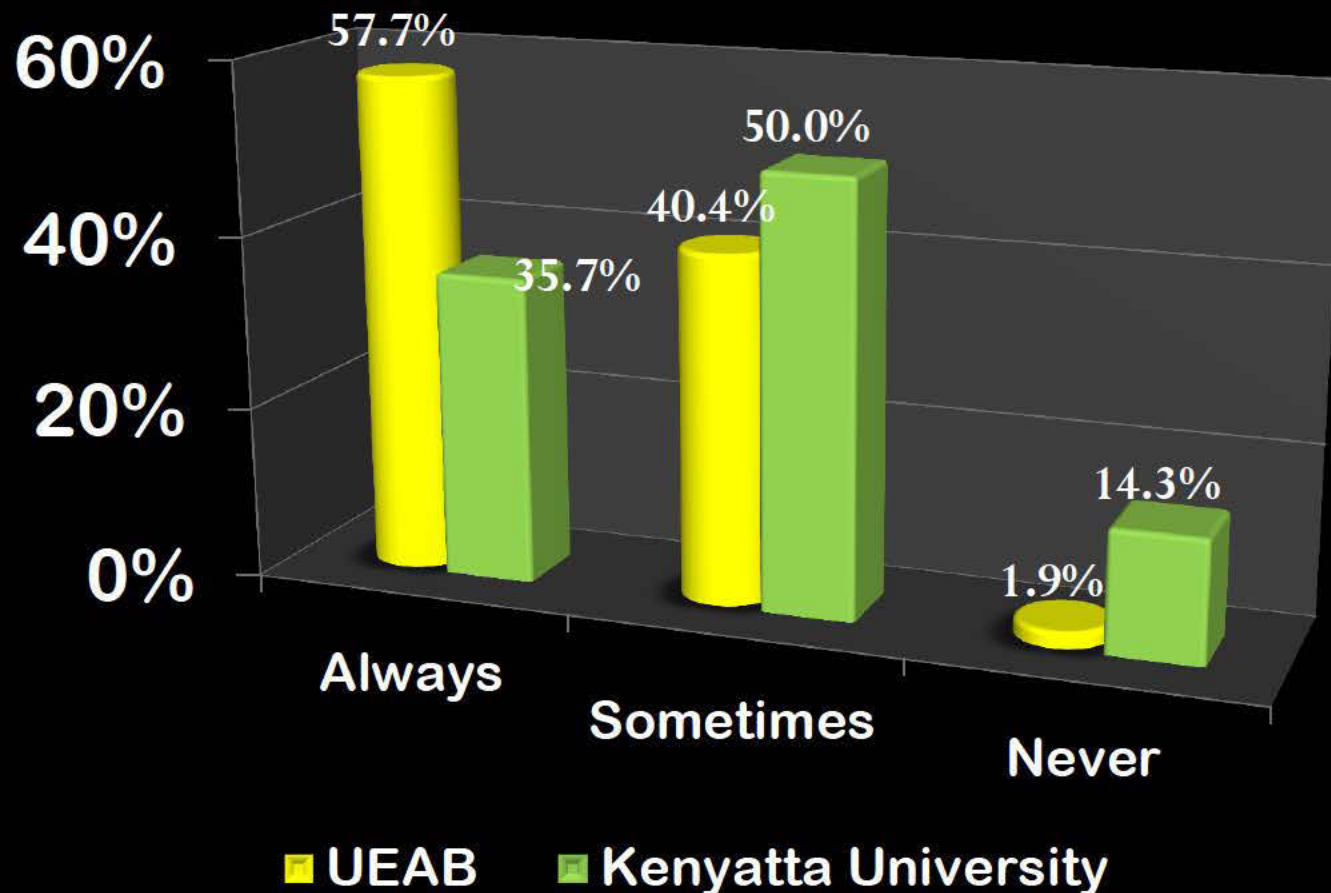
Trend and observation

- **Always**
- UEAB 39.1%; KU 13.3%
- **Sometimes**
- UEAB 50%; KU 65.4%
- **Never**
- UEAB; 21.3%; KU 10.9 %

Observation

The e-resources met students for informal learning.

E-Resources: Helping improve the standards of students work



Helping improve the standards of students work

- **Always**
- UEAB 57.7%; KU 35.7%
- **Sometimes**
- UEAB 40.4%; KU 50%
- **Never**
- UEAB 14.3%; KU 1.9 %

Observation

The e-resources help students improve the quality of their work.

Perceived Role of the Academic Librarians in promoting ICT use

- **Students indication on:**
- **usefulness of the library training in the use of e-resources**
- **Knowledge of existing new resource**
- **library training in the use of e-resources has led each one of them to use new resources**
- **Students' indication of use of e-resources and improvement of ICT skills**

Usefulness of the library training in the use of e-resources

	Strongly Disagree	Disagree	Agree	Strongly Agree
UEAB	14.8%	13%	42.6%	29.6%
KU	24.6%	23.5%	42.1%	9.8%

Trends and Observation

- Majority of the Students from both universities agree that training in the use of new e-resources has been beneficial to them.

Knowledge of Existing Information Resources

	UEAB	KU
Lecturer recommends	35.3%	41.6%
Librarian recommends	3.9%	3.8%
Prior knowledge	13.7%	20.3%
Through searching/ browsing	47.1%	34.3%
Total	100%	100%

Trends and observations

The Lecturers seem to play a major role in leading students to information resources. UEAB (35.3%); KU (41.6%).

Students also play a lead role through searching and browsing UEAB (47.1%); KU (34.3%).

Librarians play a minimal role in leading students to information resources as indicated by the responses UEAB (3.9%) ; KU (3.8%).

Library training and use of new e-resources

	Strongly Disagree	Disagree	Agree	Strongly Agree
UEAB	14.5%	14.5%	52.7%	18.3%
KU	20.5%	32.9%	41%	5.6%

Trends and Observations

- Where library training in use of E-resources takes place majority of the students Agree that it is beneficial.
- Some students disagree that training in use of e-resources has been beneficial indicating a possibility of technical barriers to ICT use.

Use of E-resources and improvement of ICT skills

	Strongly Disagree	Disagree	Agree	Strongly Agree
UEAB	5.6%	8.9%	67%	18.5%
KU	18.6%	25.9%	43.6%	11.9%

Trends and Observations

Majority of the Students have improved their ICT skills through the use of e-resources.

Conclusion

UEAB emerges as a university with a higher level of ICT integration, where the students have basic computer skills and the library has fairly adequate ICT infrastructure.

Kenyatta University on the other hand appears to be at the nascent stages of ICT integration. No LAN, few computers.

The students' responses clearly indicate that there is a need to develop the ICT infrastructure as well as to equip the students with ICT skills.

Conclusion

Librarians need to play a more significant role in promoting the use of ICTs especially the electronic databases.

Librarians need to continuously improve their own ICT skills

The Library schools need to include more ICT courses and also offer short courses that can help improve librarians skills

More Faculty-librarian collaborations need to be developed

Institutional ICT policies be developed and adhered to

Recommendations

- From the data generated, it is evident that the roles of UEAB and Kenyatta academic libraries should be re-defined.
- Both the students and faculty members should be aware of the valuable services offered by their libraries and the availability of e-resources through ICTs.
- To achieve this, there appears to be a strong and urgent need for UEAB and Kenyatta University to develop and implement an effective information literacy program.
- The IL program will help both students overcome the personal and physical barriers to ICT use. It will also help affirm the role of the library in students learning outcomes.
- Finally when this has been achieved, the students will achieve lifelong learning skills.

The End

Any Questions?