

ASSESSMENT OF INFORMATION LITERACY SKILLS OF UNDERGRADUATE MEDICAL STUDENTS AT MOI UNIVERSITY AND UNIVERSITY OF NAIROBI, KENYA

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PRESENTATION OUTLINE

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- Significance of the Study
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BACKGROUND TO THE STUDY

- Amount of information that is available in contemporary society in the area of study.
- The data smog,
- Information technologies and innovations
- Revolution in information search strategies
- Research on various diseases i.e COVID 19
- Medical methods of training (the problem-based learning approach and conventional approach)
- Literature revealed that no such study has been conducted in Kenya specifically targeting medical students (Kanguha, 2013)

PROBLEM STATEMENT

- Medical training and practice requires the students to update their information continuously.
- The growing size and complexity of library collections
- Medical information explosion and dynamics (Sutton & Johnson, 2014).
- Students require ILS to effectively control course-related activities and develop lifelong skills
- Practitioners often rely on past success and failure, referrals from colleagues to treat their patients leading to unnecessary deaths (Gatero, 2010)
- Medical students have inadequate competencies in effectively utilizing information. (Onyeneke, 2017; Uwakwe, 2016; & Gatero, 2008)

AIM OF THE STUDY AND OBJECTIVE

Aim

This study aimed to assess the information literacy skills of medical undergraduate students in selected public universities in Kenya and to propose an ILS framework to enhance the training and learning of information literacy skills (ILS).

The objective of this study was to:

Assess the status of information literacy skills of medical undergraduate students at Moi University and the University of Nairobi.

SIGNIFICANCE

It is hoped that the findings of this study will:

- **Application**-provide a more practical way of integrating and utilizing ILS into medical training curriculum
- **Implication**- the basis for guiding university management and government efforts in the formulation of a national information literacy skills policy to aid thrust the country into an information society.
- **Contribution to knowledge**- deepen the understanding of medical faculty and students' information needs, sources of information used for teaching, research and patients care roles. their patterns of information search, utilization, sharing and use so as to improve patient confidence in health care delivery services in Kenya.



LITERAURE REVIEW THEORETICAL FRAMEWORK

- A theory gathers together all the isolated pieces of empirical data into a coherent conceptual framework of wider applicability. The study was underpinned by Sauce Model.
- Sauce Model: It is a procedure for conducting research and solving problems that aims at equipping students with ILS to help them succeed in their academic endeavors (Bond, 2011)
- Essential skills variable- communication; numeracy; information; problem-solving; self-management and competitive; social and cooperative; and labor and learning skills (Bond, 2011).



Gaps from literature and how they are addressed

Research Gap	How the Gap is Addressed	Related Research Question
<p>Kavulya (2003); Steinert (2014); Kanguha (2014); Kimani (2014); Cornwall (2011); Shabi, Akewukereke, and Udofia (2011); recommends that further investigations are needed on the ILS possessed by students because majority of the students are unable to adequately access, use , cite information resources due to absence of understanding the various information searching strategies and techniques.</p>	<p>The study assessed the status of information literacy skills of medical undergraduate students at Moi University and the University of Nairobi</p>	<p>What is the status of ILS among medical undergraduate students at the University of Nairobi and Moi University?</p>

RESEARCH METHODOLOGY

Philosophical Perspective



Pragmatic paradigm

Emphasizes the research problem and allows researchers to use available methods “what works” that enable them to address the problem (Creswell, 2009), and is usually associated with a mixed methods approach (Creswell & Clark, 2011).



Research Design

Descriptive Survey with Multiple case design

Descriptive, gives insights and views, that quantitative methods may not capture. Multiple case study- an extensive study carefully selected cases - variations and differences between the cases.

Research Approach

Mixed Method

The present study utilized mixed method approach and specifically concurrent triangulation mixed methods approach.



Population and Sample Size

Population

Medical Undergraduate Students, Lecturers, Heads of Departments, University librarians and Medical librarians

Sampling Procedures

- Two universities were purposively sampled
- The students were stratified into their area of specialization, students in their final year of study purposively sampled in selecting 6th, 5th and 4th year students.-Then simple random sampling was applied in selecting a sample size of 305 undergraduate students using Saunders et al, (2012) table,
- The lecturers were stratified into departments that they teach, then simple random sampling technique was used to select 62 lecturers using Saunders Table.
- Purposive sampling was used as a sampling strategy in selecting the 2 university librarians, 2 medical librarians, and 6 HODs

RESEARCH METHODOLOGY



Data Collection

- Questionnaires
- Interview
- Document Review



Data Validity and Reliability

- The researcher used both content validity and face validity- Experts from the School of Information Science-Moi University
- Internal consistency technique and Cronbach's alpha, a statistical test, to test reliability
- Pilot Study was also conducted at AMREF University



Data Analysis

Quantitative Data

Quantitative data was analyzed using descriptive statistics and presented using frequency distribution tables and bar charts

Qualitative Data

Qualitative data was analyzed thematically based on the objectives and research questions and presented in a narrative form.



Ethical Consideration

- Anonymity, confidentiality and voluntary participation
- Informed consent
- Formal permission
- Reported data accurately and honestly

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

Data presentation, analysis and interpretation was structured in themes in accordance with the research questions

Response Rate

Target Group	Sample Size (N)	Response Rate (n)	Response Rate in percentages
Interviews			
University Librarians	2	2	100
Head of Departments	6	6	100
Head medical Librarians	2	2	100
Interviews target rate	10	10	100
Questionnaires			
Medical undergraduate students	397	255	64.2
University lecturers	62	62	100
Questionnaires target rate	462	327	71.6

Research Questions (Themes)	Theoretical Model (s)	Summary of Findings
Status of ILS among undergraduate medical students	Sauce Model-Essential Skills Variable <ul style="list-style-type: none"> • Numeracy skills, • Communication skills, • Information search and retrieval skills, • Problem solving skills, • Social and cooperative skills, • Ethical information use skills. 	<ul style="list-style-type: none"> • 232(90.9%), 228(89.4%) students can define their specific information needs; and they understood the need to use the information to carry out their day-to-day tasks, respectively • 219 (85.88%), 180 (70.59%) and 123 (48.24%) of the students disagreed that they use several reference sources to increase familiarity with a topic, that they use truncation techniques and Boolean logic to search for information respectively. • Majority of students 144(56.47%), 202(79.22%) and 131(51.37%) stated that they didn't know how to limit the search by fields, how to use information to critically think and solve study related problems, and how to use the library catalog to effectively retrieve information materials based on their information need/s respectively • Majority of the students 204(80%) and 215(84.31%) of the respondents gainsaid that they comprehend the nature of publicly available information on the worldwide web and that they can choose information materials and abridge its content for use in that order. • 198 (77.65%) of the students and 28 (45.32%) of the lecturers disputed that students use information legally and ethically. • one Medical Librarian (ML02) said: <i>“.....majority of our undergraduate students do not have sufficient ILS skills hence majority of them did not have independent searching skills, or ability to compare and contrast information retrieved from a range of information resources and don't know how to cite or how to use information ethically....”</i>

CONCLUSION

In view of the findings of this study,

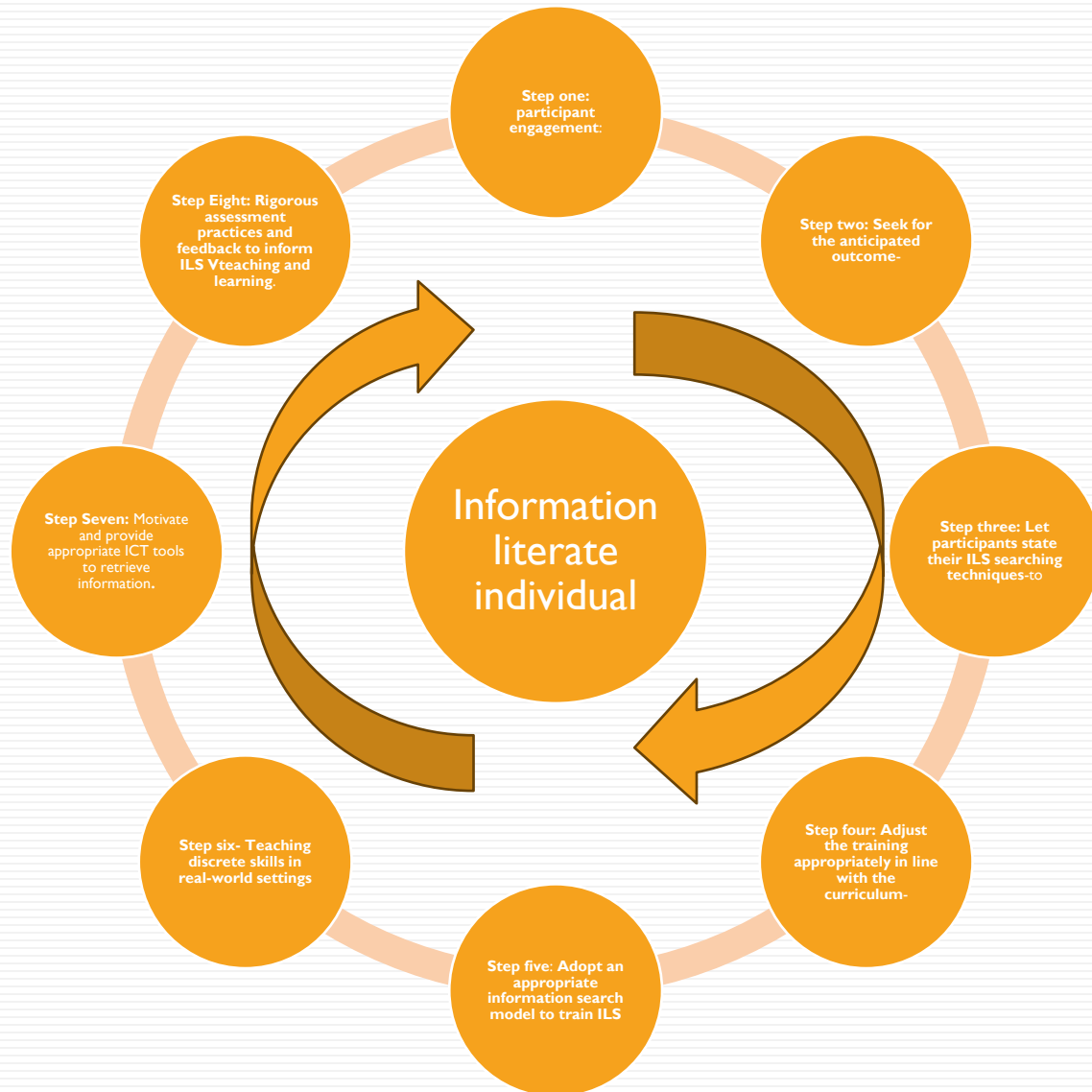
- Students had not gained sufficient requisite ILS to enable them carry out high level information searches; synthesis and authenticate information from variety of sources; critically think and solve problems; use information ethically and legally.

RECOMMENDATIONS

Status of ILS among medical undergraduate students

- The researcher recommends **short-term ILS training workshops and Webinars** for all medical undergraduate students to be conducted periodically.
- The ILS training workshops and Webinars can be organized by the librarians and lecturers, together with heads of departments.
- The curriculum for the short-term ILS training and Webinars should focus more on information search techniques and legal issues in information use.
- **Proposed 8- Step ILS Teaching Model for Medical Undergraduate Students:**

8-Step ILS Teaching Model for Medical Undergraduate Students



Proposed Model: 8 Step ILS Teaching Model for Medical Undergraduate Students: -

- **Step One: Participant Engagement:** the trainers welcome the participants and communicate the topic. Explain the importance of continuously learning ILS. The participants can be students, librarians or lecturers.
- **Step Two: Seek for the anticipated outcome-** to enable participants develop expectations/interest, the trainer/facilitator adopts a pragmatic approach, asks the participants to state what skills they hope to achieve at the end of the training exercise. The trainer motivates and empower students/participant to manage their own learning.
- **Step Three: Let participants state their ILS searching techniques-**to enable the instructor know where he/she is beginning from. Let the participant state their various searching experiences, how they deal with copyright and plagiarism issues of information.
- **Step Four: Adjust the training appropriately in line with the curriculum-** based on the stated searching experience and techniques, the trainer can adjust his training and anticipated outcomes appropriately. For example, if students don't know the sources of information, then it will be appropriate to start the training from explaining the various sources of information before elaborating on the search strategies.
- **Step Five: Adopt an appropriate information search model to train ILS.** For example, apply the Sauce Model as a tried-and-true method to teach students to become information users.
- **Step Six- Teach discrete skills in real-world settings.** the trainer should use real examples when demonstrating on the search techniques, information sources, application of ICTs, legal issues in information, and how to use the information acquired for long-life learning. The prominence is placed on repetition and practice to master the required ILS learning.
- **Step Seven: Motivate and provide appropriate ICT tools to retrieve information.** The trainers should assist the learners to practically search and retrieve information using the already trained ICTs and search techniques. Online sources should be used.
- **Step Eight: Rigorous assessment practices and feedback to inform ILS teaching and learning.** – the trainer should subject the trainees to a rigorous assessment to find out if learning has actually taken place. Practical search secessions should be used.

CONTRIBUTION OF THE STUDY

- From the policy and procedure perspective, the findings have the potential to influence the formulation of ILS policy and curriculum for teaching and learning of ILS in institutions of higher learning.

- From a pragmatic stand-point, the findings revealed and created awareness regarding the status of ILS in medical training hence the recommendations proposed by the study can improve ILS teaching and learning in medical schools hence improve learners' critical thinking skills, information search skills, information ethics skills, problem solving skills, information evaluation and use skills thereby leading to an information literate graduand.

From theory, the study contributes to the body of knowledge and literature, especially in the context of ILS among medical undergraduate students. The study contributes new model 8steps of ILS. It explains how a theory should be adopted to a study to invoke understanding of a phenomenon and creating a discourse aimed at improving ILS learning, training and application in medical field training.

THE END

THANK YOU!!