

**THE RELATIONSHIP BETWEEN USER EDUCATION AND
UNDERGRADUATE STUDENTS' PERCEPTION OF UNIVERSITY LIBRARIES
IN MERU COUNTY**

CHEPKURUI JANE KIBOS

**A Thesis Submitted to the School of Computing and Informatics in Partial
Fulfillment of the Requirements for the Conferment of Master of Science Degree in
Information Science of Kenya Methodist University**

SEPTEMBER, 2025

DECLARATION AND RECOMMENDATION

Declaration

This thesis is my original work and has not been presented for the award of a degree or any other award in any other university.

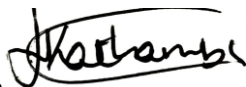
Sign Date:

Chepkurui Jane Kibos

ISK-3-0614-3/2022


Recommendation

I/We confirm that the work reported in this thesis was carried out by the candidate under my/our supervision

Signature  Date: 15th September 2025

Dr. Lilian Nkoroi

Machakos University

Signature  Date: 16th September 2025

Mr. Daniel Kerandi

Kenya Methodist University

DEDICATION

To my beloved parents, spouse Samuel Serem, children Remiel and Remalia. Thank you for your financial and moral support.

ACKNOWLEDGEMENT

I would like to express my heartfelt gratitude for the support and guidance I received from my academic mentors throughout this academic endeavor. I acknowledge the blessings and grace bestowed upon me by the Almighty. I wish to express my gratitude to my nuclear family and friends, who have always provided support and guidance. Their steadfast faith in me has been crucial to my accomplishments.

I would like to express my profound gratitude to my distinguished supervisors, Dr. Lilian Nkoroi and Mr. Daniel Kerandi, for their insightful counsel and direction, which have tremendously aided in my research thesis accomplishment. My sincere gratitude to my lecturers for their invaluable assistance in this thesis. Finally, I would like to express my gratitude to everyone who helped me to shape my academic journey for their unwavering support.

ABSTRACT

In the context of rapid technological advancements, information digitization, and the increasing availability of e-resources, effective user education has become crucial for enabling students to navigate and utilize university library resources. Despite these advancements, the two university libraries in Meru County, Kenya, have experienced suboptimal usage, potentially due to students' perceptions of the library. This study aimed to investigate the impact of user education programs on undergraduate students' perceptions and consequently library usage. The research was guided by objectives focusing on the types of user education programs offered, the extent of student participation, students' perceptions of the quality of these programs, and the barriers affecting user education. The literature was reviewed based on the research objectives. The study employed descriptive statistics and was anchored on the Expectancy-Confirmation Theory by Richard L. Oliver. The study was conducted in Meru County, focusing on two chartered universities: Kenya Methodist University (KeMU), a private university and Meru University of Science and Technology (MUST), a public university. The study employed descriptive statistics. The target population was 6138 first-year undergraduate students enrolled in the academic year 2023/2024. The study employed stratified sampling techniques based on academic schools. The study used Krejcie and Morgan (1970) table to determine the sample size, which was 364 students. The researcher purposively sampled a total of 12 out of 46 library staff. Data was collected from students using questionnaires and interviews for the staff. Pretesting of research instruments was done at Mount Kenya University, Meru Campus. Permission to collect data was sought from the National Commission for Science, Technology, and Innovation (NACOSTI). The computation of descriptive statistics was in the form of mean, mode, median, percentages, and standard deviation. The findings were presented using descriptive tables, figures, and narratives for ease of understanding the results. The findings revealed that library orientation and instruction sessions had high participation rates and were considered effective by the majority of students. Active participation in ongoing user education sessions was moderate, indicating that there was potential for improvement in terms of student involvement. Students generally had positive perceptions of the quality of user education programs. The programs were seen as significant to their educational pursuits, with high satisfaction levels regarding the relevance and adequacy of the resources provided. Barriers to user education included inadequate session time allotment and a lack of current digital resources. Recommendations include increasing the duration and frequency of user education sessions, updating digital resources, and utilizing promotional techniques such as social media for broader outreach. Future research could explore the long-term impact of user education on academic performance. This study contributes new insights into the relationship between user education and library perception, highlighting the importance of tailored educational interventions in enhancing library usage.

TABLE OF CONTENTS

DECLARATION AND RECOMMENDATION	i
DEDICATION.....	ii
ACKNOWLEDGEMENT.....	iii
ABSTRACT	iv
LIST OF TABLES	viii
LIST OF FIGURES	ix
LIST OF ABBREVIATIONS & ACRONYMS	x
CHAPTER ONE	1
INTRODUCTION.....	1
1.1 Introduction	1
1.2 Background of the Study.....	1
1.3 Statement of the Problem	6
1.4 Purpose of the Study	8
1.5 Objectives.....	8
1.6 Research Questions	9
1.7 Significance of the Study	9
1.8 Limitations of the Study.....	11
1.9 Delimitations of the Study.....	11
1.10 Assumptions of the Study	12
1.11 Operational Definition of Terms	13
CHAPTER TWO	14
LITERATURE REVIEW	14

2.1 Introduction	14
2.2 Concept of User Education in Libraries	14
2.3 Principles of User Education.....	15
2.4 Theoretical Framework	50
2.5 Conceptual Framework	54
CHAPTER THREE.....	57
RESEARCH METHODOLOGY	57
3.1 Introduction	57
3.2 Research Design.....	57
3.3 Target Population	58
3.4 Sampling Technique and Sample Size	60
3.5 Data Collection Tools/Instruments.....	63
3.6 Reliability of Research Instruments	65
3.7 Validity of Research Instruments.....	66
3.8 Pretesting of Research Instruments	67
3.9 Data Analysis	67
3.10 Ethical Considerations of the Study	68
CHAPTER FOUR.....	70
RESULTS AND DISCUSSION	70
4.1 Introduction	70
4.2 Response Rate	70
4.3 Reliability of Statistics	72
4.4 Background Profiles of the Respondents	73

4.5 Strategies of User Education Programs Offered	78
4.6 Extent of Participation of Undergraduate Students in User Education Programs Offered by University Libraries in Meru County.....	83
4.7 The Quality of User Education.....	88
4.8 Barriers Affecting User Education.....	93
4.9 Inferential Statistics.....	100
CHAPTER FIVE	109
SUMMARY, CONCLUSION AND RECOMMENDATIONS	109
5.1 Introduction	109
5.2 Summary of the Research Findings	109
5.3 Conclusions	113
5.4 Recommendations of the Study	115
5.5 Suggestions for Further Research	118
REFERENCES.....	119
APPENDICES.....	131
Appendix I: Questionnaire for Students.....	131
Appendix II: Interview Schedule for Library Staff.....	140
Appendix III: Table Krejcie and Morgan Table for Determining Sample Size.....	141

LIST OF TABLES

Table 3. 1: KeMU's First Year Students per School	59
Table 3. 2: MUST's First Year Students per School	59
Table 3. 3: Sample Size for Undergraduate Students in KeMU	62
Table 3. 4: Sample Size for Undergraduate Students in MUST	62
Table 4. 1: Staff Response Rate	71
Table 4. 2: Students Response Rate	71
Table 4. 3: Reliability Statistics	72
Table 4. 4: Background Profiles of Students	73
Table 4. 5: Distribution of Students Respondents per School	74
Table 4. 6: Frequency of Library usage by Students per Week.....	75
Table 4. 7: Academic Qualifications of Library Staff	76
Table 4. 8: User Education Programs Offered by University Libraries	79
Table 4. 9: Participation in User Education Programs.....	83
Table 4. 10: Strategies to Improve Participation in User Education Programs	86
Table 4. 11: Quality of User Education	89
Table 4. 12: Barriers Affecting User Education	94
Table 4. 13: Strategies for Improving User Education	98
Table 4. 14: Correlation	102
Table 4. 15: Model summary	104
Table 4. 16: ANOVA	105
Table 4. 17: Regression Coefficientsa	106

LIST OF FIGURES

Figure 1. : Conceptual Framework	55
Figure 2. : Library Staff Qualifications.....	77
Figure 3. : Recommendation of the use of library to other students.....	100

LIST OF ABBREVIATIONS & ACRONYMS

ALA	American Library Association
CUE	Commission for University Education
ICT	Information Communication Technologies
KEMU	Kenya Methodist University
KRA	Kenya Revenue Authority
LIBQUAL	Library Quality
MUST	Meru University of Science and Technology
NACOSTI	National Commission for Science Technology and Innovation
SERVQUAL	Service Quality Model
SPSS	Statistical Package for Social Sciences

CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter covered background information to the study, purpose, objectives, the research questions and problem statement. Justification was discussed in this chapter as well as limitations, delimitations, assumptions and definitions of terms.

1.2 Background of the Study

User education has become increasingly important each day in the light of the current environment's rapid technological advancement, information digitization, availability of e-resources, and rising user demand. User education is referred to as programs and initiatives that provide students with the skills they need to successfully access and make use of the available resources in the libraries (Kumar, 2023). This study focused on students' perceptions of university libraries; perception refers to how students subjectively interpreted, understood, and evaluated the library and its various facets (Oakleaf, 2010).

Globally, user education in academic institutions is recognized as a critical component for enhancing students' information literacy and research skills. Nevertheless studies on user education in countries such as Sri Lanka and Australia were reported to be relatively limited (Wickramanayake, 2016; Liu et al., 2019). The two studies suggested that regional factors such as technology interaction, collection diversity, and user-centered services play a significant role in shaping user education programs and their outcomes.

First-year students in Punjab Group of Colleges, Fudan University, and the National Taiwan Normal University enrolled eagerly, expecting their information and research needs would be met swiftly and competently by the library (Chaudhry et. al., 2021; Liu et al., 2016). User education was crucial for supporting the growth of an autonomous information user and ensuring they could locate and retrieve resources effectively. However, new students often disregard library training programs due to unawareness until they have term papers, continuous assessment tests, or examinations (Mwangi, 2006; Chiya et al., 2023). This highlights the importance of user education in information science dialogue and exploration, necessitating further research on its impact on library perceptions.

A comparative study between Peking University and the University of Tsukuba explored students' perceptions of libraries, focusing on attitudes, beliefs, and opinions. The study revealed that user education influenced library use, as Australian studies showed that exposure to rules, facilities, and available information resources significantly impacted students' attitudes towards library use (Liu et al. 2019). The study further resonates with the current study, as it had similarly highlighted how user education and increased familiarity with library resources shape students' perceptions and utilization of library services, reinforcing the importance of comprehensive user education programs in enhancing library engagement and effectiveness.

Studies in Sri Lanka, a middle-income country, revealed that most of the university students had positive perceptions towards the library; as a result, they got guidance and

assistance from the library when they experienced challenges in searching for and locating information resources related to their work (Punchihewa et al., 2018).

Research studies conducted regionally on user education programs in Africa were conducted in Kenya, Ghana, Nigeria, and South Africa. According to Adindu (2020) and Anyim (2018), effective user education programs are essential for the success of academic libraries worldwide. A research study by Abdulsalamami et al. (2021) at the Federal University of Lafia showed that user education positively impacted undergraduate students' library usage, but challenges arose due to low turnout during these programs. Anyim (2018) observed that despite libraries offering user education, university library users in North-Central Nigerian still showed inadequate knowledge of library usage. These studies highlighted the importance of improving resources and strategies to better facilitate student learning and engagement. According to Chiya et al. (2023), at North-West University, established that South Africa had developed user education programs, but a majority of the third-world countries were still establishing themselves.

Adindu (2020) highlighted the impact of user education in Federal University library in the South East, Nigeria, stating that it optimized the use of a university library's collection of information materials and ensured students achieved success in their studies through a well-planned and implemented programme. By investigating user education and perceptions, it identified and addressed barriers that impeded access to vital resources, thus ensuring that all students had an opportunity to leverage the wealth of information available through university libraries. User education programs identified and addressed barriers to accessing university libraries' resources, empowering users to become more self-sufficient

in research and learning (Abdulsalalami et al., 2021; Chiya and Onyancha (2023). However, structured programs were crucial for libraries to succeed in assisting patrons in becoming proficient and efficient users (Negi et al., 2023). This study focused on undergraduate students, who are a subset of library patrons. Studies by Abdulsalalami et al. (2021) and Chiya and Onyancha (2023) revealed that many Nigerian students lacked the necessary skills to maximize library usage.

Initiatives to improve user education have been driven by national policies and university-level initiatives. The Commission on University Education (CUE) regulates university accreditation, requiring university libraries to offer reliable information resources for research, training, learning, and community service. One requirement is that librarians use a well-structured information literacy competency program to support educational accomplishment and lifetime education (Commission on University Education [CUE], 2014). The study will attempt to establish if it has been adhered to. It is acknowledged that university libraries promote lifelong learning which is an indicator of social economic development in the country. University education is at the apex of education system. In Eastern Africa, only Kenya and the Seychelles had an average global literacy. Akpovire et al. (2019) established that user education promoted an information society and a well-versed labor force, aiding the government to achieve a well-informed labor force after graduation. There was need to carry out a study to establish if this apathy might have been the reason for undesirable perceptions of the library among university students, resulting in low usage of the facility and its resources.

Despite efforts by university libraries to provide elaborate user education programmes, the study was undertaken with the aim of understanding how user education could impact students' perceptions of the library. With the expansion of collections and advancements in technology, it was crucial to provide sufficient library instructions for patrons (Omeluzor et al., 2017). Research was needed to understand how user education affects library perceptions.

In Africa, a study by Eke et al. (2018) indicates a drop in university library patronage. Hence, the study was undertaken to promote user education and encourage fresh university students to utilize information resources for their largely educational advancement. In light of understanding the above givens, among others, the study attempted to establish a relationship between user education and undergraduate students' perceptions of university libraries in Meru County.

In Kenya, Mwangi (2006) studied user education programmes among undergraduate students in University of Nairobi and Kenyatta University libraries. The findings from the study indicated that very few respondents were aware of the existence of user education programme in both Universities. A study undertaken by Wanja et al. (2022) at the Kenya Revenue Authority (KRA) Library, revealed that user education included programmes such as library orientation and bibliographic instruction, among others. The study also established that user education programmes were inconsistently offered to library users. KRA library is part of special libraries, and the finding is indicative that there could be challenges with user education in special libraries too.

Meru County is one of Kenya's 47 counties located in the former Eastern Region. It is in the Upper Eastern region, neighboring counties such as Tharaka Nithi, Isiolo, Embu, Kitui, Laikipia, and Nyeri (Council of Governors, 2018). According to the County Government of Meru (2024), the county hosts two chartered universities and two campuses/centers of Mount Kenya University and Chuka University. The county prides itself of having a national polytechnic, two teachers training colleges, and other tertiary colleges offering post-secondary education spread throughout the sub-counties. The study was conducted in two university libraries in Meru County, namely, Kenya Methodist University (KeMU) and Meru University of Science and Technology (MUST) libraries.

1.3 Statement of the Problem

University libraries are recognized as crucial academic resources, with user education programs significantly influencing this perception. User education programs are expected to positively impact students' attitudes and perceptions of library resources and services. Consequently, the significance of user education in university libraries cannot be overstated. While libraries provide a wealth of resources and services, students may not have taken full advantage of them due to a lack of awareness or negative perceptions.

Research studies by Umoriya et al. (2023) and Onyeke et al. (2023) highlighted the positive impact of user education on the utilization of library resources by first-year students in Nigeria's University of Abuja and the role of library orientation in improving the usage of information materials. However, the two studies did not directly address the influence of user education on students' perceptions of library services. This study sought to fill that gap

by exploring how user education might shape students' perceptions and attitudes toward the library, specifically within the context of university libraries in Meru County, Kenya.

Despite the availability of user education programs, many students may have a limited or negative perception of the library. Factors such as a lack of awareness about the library's resources, insufficient participation in user education programs, or pre-existing negative attitudes towards the library may contribute to this issue. As a result, students may not fully recognize the value of the library, leading to underutilization of its resources and services. Studies from other contexts, like Agyen-Gyasi (2018) have shown that low student participation in user education which have resulted in poor library utilization and similar trends might be observed in Meru County.

Currently, Ayiah and Tamakloe (2023) say libraries provide rich resources and services, but students may have a bad impression of resources or are not aware of them; they may not have used them at all or only used them sparingly. Consequently, there is low utilization of the university library. Studies on students participation in user education by Agyen-Gyasi (2018) indicated low turnout, only a quarter out of over 1,000 plus new students from one of the faculties at Kwame Nkrumah University of Science and Technology in Ghana attended the library's user education initiatives. Only four students from the College of Engineering attended. Similar results were observed at the Federal University of Technology in Owerri, Nigeria, where 68% of the 1,500 new students did not utilize the library's information resources due to a lack of awareness.

Given that undergraduate students represent the majority of library users and considering the low utilization rates, it is plausible that negative perceptions of the library or lack of awareness about its resources could be contributing factors. This study urgently needed to investigate the relationship between user education and students' perceptions of university libraries, with a focus on Meru County. The study would be attempting to establish whether there was an association between user education and how university students perceive the library.

1.4 Purpose of the Study

The study purposed to investigate the relationship between user education and undergraduate students' perception while proposing strategies that librarians could adopt to enhance user education programmes in university libraries in Meru County.

1.5 Objectives

- i. Establish out the strategies of user education programs offered to undergraduate students by the university libraries in Meru County.
- ii. Assess the extent of participation of undergraduate students in user education programs offered by the university libraries in Meru County.
- iii. Determine the undergraduate students' perceptions on the quality of user education in university libraries in Meru County.
- iv. Identify barriers affecting user education in university libraries in Meru County.

1.6 Research Questions

- i. What are the types of user education programs offered to undergraduate students by university libraries in Meru County?
- ii. What extent do undergraduate students in Meru County participate in user education programs offered by university libraries?
- iii. What are the perceptions of the undergraduate students on the quality of user education in university libraries in Meru County?
- iv. What barriers affect user education programs in university libraries in Meru County?

1.7 Significance of the Study

The study investigated the relationship between user education and undergraduate students' perceptions of university libraries in Meru County, with the goal of improving access, promoting academic success, and addressing library usage disparities. The findings would guide policy formulation on matters relating to user education in other Kenyan universities and throughout Africa.

It was envisioned that the study would be useful to:

- a) Librarians** particularly those specializing in user education within academic libraries.

The university librarians would be better informed on how to undertake user education for undergraduate students, whose majority are Generation Z and millennials, with the revelations on how they perceive the library. The study would provide information to librarians on how user education programs could be strategically aligned in order to

influence undergraduate students' perception. The study advocated for the provision of customer-centric services.

- b) University students** would reap benefits from this study's findings, as they would lead to improved user education, which consequently lead to a positive attitude towards university libraries. Students utilize the library as an avenue for lifelong education and improves the users' understanding of the library's resources and services; this is an inspiring factor for patronage. The study would encourage librarians to offer quality user education programs that equip new users with the skills and knowledge to be self-reliant in looking for and using the library's information resources. Students who participate in user education were more likely to seek needed research assistance when writing course or term papers, research projects, and seminar presentations.
- c) University management.** The findings would be instrumental to the university management in ensuring library user education programmes are carried out on time and intensively. The study would stimulate proper utilization of information resources by undergraduate students who have tended not to fully utilize the online resources and print materials available in the library. The study would be significant for university management as the university library would ensure compliance with regulatory expectations, such as those outlined by CUE (2014) on university library standards. These guidelines emphasize the importance of advancing academic achievement and promoting lifelong learning through effective information literacy and proficiency programs. The related standard is Library Standard 12, which articulates that the university library is to institute a viable and constant user-centered mechanism for library outcomes assessment associated with university products.

d) National or regional level. It would be significant to Kenya in formulating policies that would promote user education in all types of libraries; public, special, academic and school media centres. Regionally, it would be great importance to professional bodies to embrace and dissect the matter and provide guidelines to the members.

1.8 Limitations of the Study

The study was restricted to one public and one private university in Meru. This study was not undertaken in all the university libraries in Kenya since the user education offered by this category of libraries is nearly alike; therefore, the research results are expected to reflect a similar situation in the university libraries. The study did not examine additional possible observable variables in university libraries at Meru University of Science and Technology (MUST) and Kenya Methodist University (KeMU) other than user education. The selection of the two universities was purposive because both institutions are located in Meru County; they are chartered and fall under the categories of public and private universities, respectively, and hence qualify for generalization.

1.9 Delimitations of the Study

The study was undertaken in Meru. Data was obtained from undergraduate students and librarians from MUST and KeMU. These two universities had their headquarters (main campuses) in Meru County. Chuka University had a satellite centre in Igembe, and Mount Kenya University had a campus in Meru Town. The two centres were excluded from the research due to the small student populations in the centres.

The study collected data from first-year undergraduate students in MUST and KeMU on user education and students' perceptions of the university library.

1.10 Assumptions of the Study

The research assumed that all undergraduate students in MUST and KeMU were registered library users, had online user education training, and that the library conducts user surveys on customer perception and satisfaction.

1.11 Operational Definition of Terms

This section highlighted the definitions of terms as used in this study:

Information literacy: ability to find, evaluate, and effectively use information in a variety of personal, social, cultural, or business contexts.

Library: is a collection of arranged materials, usually books and other materials, that are made available for reading, studying, or referencing.

Perception: Perceptions are thoughts, beliefs, and feelings about persons, situations, and events.

Undergraduate Student: a university student pursuing bachelor's degree programme

University library: a library or collection of libraries established, maintained, and run by a university to meet the information demands of its faculty and students.

User Education: A service that libraries offer to their patrons to help them make effective, independent use of the resources and services available.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter gives a summary of reviewed literature based on study objectives, as follows: strategies of user education programs, participation of undergraduate students in user education programs, expectations of users and perception of libraries, and barriers to user education.

2.2 Concept of User Education in Libraries

ALA Glossary of Library and Information Science (2013) as cited in Negi et al. (2023), user education incorporated all activities intended to teach the patrons about library resources or operations, amenities, organization, and search techniques to empower them to make more efficient and autonomous use of the library resources and services. Library users are synonymously known as readers, clientele, customers or patrons (Kumar & Kumar, 2020). Ahiauzu et al. (2024) defined user education as a well-organized program of teaching and providing patrons with instruction on how to find and retrieve library resources. Additionally, user education was all about teaching users' ways to become the most effective users of the information resource materials. User education was of paramount significance as it armed students with essential skills to effectively traverse the information landscape. Chalukya (2015) emphasized user education as vital because it

facilitated the broadcasting of library services, thereby enhancing the library's public perception.

Akalumhe (2011), Anyim (2018) and Moyane et al. (2015) suggested that user education was synonymously substituted equitably with terms such as; 'reader/library instruction', 'library education', 'library orientation', 'bibliographic instruction', and 'information literacy'. Programs for teaching users how to use library resources, services, and amenities to their fullest potential or providing information on how library users could use the resources efficiently were collectively referred to as user education initiatives.

2.3 Principles of User Education

The main motto or drive of user education was to prepare users' minds for optimal library use. User training would remain incomplete if the library's patrons are unable to find the information they need, how to use it, and where to locate it (Negi et al., 2023). Anyim (2018) puts it well; the capability of user education programs enabled users to make the most of libraries without invariably needing the assistance of librarians. User education had become more pronounced as there had been a remarkable growth in the quantity of publications, the ensuing complexity in libraries, and the methods and procedures by which literature is issued and arranged to determine user education (Kumar & Phil, 2009). In the same spirit, Moyane et al. (2015) opined that libraries needed to give priority to user education so as to give consumers the abilities they required in order to navigate and find information sources. This was supported by Agyen-Gyasi (2018) who noted that most

students faced diverse information choices in their academic endeavors, and hence user education would aid in identifying, locating, and retrieving information resources.

User education serves as both a public relations tool and a training avenue for the library and its patrons. Agyen-Gyasi (2018) looked at user education as both a marketing and introductory activity that was frequently part of the first-year student orientation package provided by the university. It was recommended that user education become a broad, continuous, and fundamental part of student learning. This has not been the case in some universities, as user education ends with library orientation in the first two weeks of the semester. Amadi et al. (2025) explained the reason being that library user education occurred or took place only when a new set of students or library users were admitted to study at a higher institution of learning. Aravind et al. (2014) generally defined orientation as the process of being introduced to a new or unusual topic or a particular new condition. Thus, in libraries, orientation was often the first marketing or socialization tool used in academic libraries.

Osei et al. (2021) stated that the goal of the orientation process was to prepare students to be self-sufficient and capable of seeking assistance from library professionals whenever they needed it. The library orientation program helped students cultivate the abilities required to understand the different information sources and apply them in accurate and appropriate ways. Onyeke et al. (2023) recommended that users must be sufficiently oriented in order to make effective use of library resources. As a result, user education was critical to the effective use of academic library resources. Senior members of the library fraternity were anticipated to provide new students with a guided tour of the library facility.

Agyen-Gyasi (2018) supported this phenomenon by saying that orientation was primarily presented to incoming students, but continuing students and other types of users could be factored in on request from departmental heads. In a similar way, Onyeke et al. (2023) observed that the library fulfilled the educational, teaching, and research needs of the affiliated university.

Libraries viewed user education as their obligation, and the utilization of resources, information sources, and services was capitalized to their users' advantage. Findings from a study by Ngozi et al. (2023) at the University of Nigeria, Nsukka, were interesting; they found that many higher education students went to the university having never attended any previous library background. Even in cases when students had beforehand been exposed to the usage of libraries, the dimension of the library in a university, the resources, and the organization were so complex that they had to be familiarized with it. This justified the need to emphasize the need for user education.

Lyakurwa and Luambano (2019) noted that there was diversity in library users. They noted that users varied in age, academic background, qualifications, and gender. This diversity led to varying experiences among clientele, which could be seen in underdeveloped or developing regions. Hamid and Ahmad (2016) noted that user education programs were useful to students, the faculty, and other staff members. They reiterated that students belonged to different backgrounds; some had outstanding literacy skills, while the majority of them had little idea about the usage of library resources.

In South Africa at North-West University, Chiya et al. (2023) reported that students, specifically first-year students, showed a desire to go from a lower to a higher level of academic standing as they enrolled in universities. Some were curious, unsure of what to anticipate, while others appeared to know more. Understanding the background of freshmen students was vital for the study, as it provided impetus to discover the underlying factors that might affect the perceptions towards the library.

In a study, Muszkiewicz (2017) At Valparaiso University, 71% of students reported that it was their first visit to an academic library, whereas 27% had prior experience and 1% did not respond. Such a high percentage of students without prior library experience justified the need for introduction to library systems at the university. For new students whose previous library exposure was within school media centers or public libraries, these numbers were unsurprisingly low. This was corroborated by Shai (2020) who acknowledged that in Nigeria, the issue of user background has been of importance in user education. It was established that many first-year students of higher institutions enrolled in college without the basic library experience.

The breadth of the university library, its information resources, and its organization were so complicated that even for students who had previously used libraries, an introduction to the library was necessary. These findings underscore the complexity and scale of university libraries, which can be overwhelming even for students with prior library experience. Therefore, it becomes evident that user education should not only be an introductory tool but also an essential component of ongoing support throughout a student's academic journey. This necessity is particularly relevant in my research on university libraries in

Meru County, where understanding the diverse backgrounds of students and their library needs can help tailor more effective user education programs.

By addressing these challenges, libraries can better equip students to navigate and utilize the vast resources available to them, ultimately enhancing their academic success. That was why Okoye (2013) advocated for user education for new students to introduce them to the complexities of university library facilities; according to him, some of the students have never utilized well-established libraries. The study aimed at looking at the planning, execution, and organization of user education but did not go further to establish the impact or how it would affect perception. This was why the current study was undertaken to explore the relationship between user education and how the library is perceived.

Anyim (2018) posited that over and above diversity, the student populations in universities had been growing exponentially, as evidenced by the admission numbers of institutions of higher education in Nigeria. The same had been reported earlier in Kwame Nkrumah University of Science and Technology's case on the rise in enrollment, increased demand for information, and pressure on the library administration to provide services to clients. Ahenkorah-Marfo and Teye (2010) recognized that individualized service delivery and assistance was continuously becoming difficult, if not impossible. This was attributed to the growing student populations and increasing diversity inside universities. Ashaver and Bem-Bura (2013) emphasized that, despite these developments, university libraries continued to promote the mission of their host institutions. This finding was especially pertinent in the context of this research because it emphasized the universal importance of libraries in academic settings, regardless of the specific issues or demographics they

encountered. The study intended to investigate how these institutions adapted to local demands while remaining true to their primary goal by examining how this purpose was met in Meru County university libraries.

The university library served as the prime tool for knowledge preservation at the institution by acquiring both published and unpublished materials. According to Olajide and Adio (2017), the main purpose of university libraries is to assist their parent institutions in fulfilling their research, teaching, and learning objectives. It was the prerogative of the academic library to serve the university, as opined by Chalukya (2015). The library was dedicated to supporting the university's mission by implementing effective strategies to ensure it met the institutional goal of providing high-quality services to the university community. To remain relevant, libraries need to effectively engage their users. Moyane et al. (2015) suggested that one effective strategy is user education. By teaching users, the necessary knowledge, skills, and attitudes, libraries can help bridge the gap between users' understanding and the actual use of library resources. This approach can convert occasional or non-users into regular patrons by ensuring they are well-informed and comfortable using the library's collections. Hamid and Ahmad (2016) reminded academic libraries that they provided a very imperative platform for students to gain exposure to new and relevant information.

Libraries played a vibrant role in making users active apprentices for their required information as centers of knowledge. In the same vein, Khan (2015) when commenting on the public library, emphasized the need for planning strategies that could attract potential customers by encouraging them to use the library's resources. It was important to properly

explain user education so that students could effectively use the library's current information systems. The librarian was expected to develop programs, processes, and services that provided enhanced, faster, and more proficient service to potential and actual library users (Anyim, 2018).

Chalukya (2015) believed that user education was an effective marketing tool that created awareness of the library's collection among users. He introduced the marketing concept popularly known as marketing mix, which he suggested could be employed in the analysis of library user training. The mix afforded a valuable structure for thinking about strategies in which the marketing concept of user education service could be realized and how it should be advanced. Chalukya (2015) continued to explain that marketing was essential to user education because it acted as a catalyst for popularizing among stakeholders who were predominantly undergraduate students and facilitating communication in university libraries.

It was imperative that user education be properly designed and documented as written policies with objectives to provide a base for self-assessment. User education programs needed constant modification to keep up with the ever-evolving information environment. Chalukya (2015) further advocated for the university library to formulate its own course of action to satisfy the immediate, unique needs of its patrons. Indeed, Folorunso and Njoku (2016) re-emphasized the significance of user education, reiterating that it was the connector between the users and the library information resources. They argued that since all library users were beginners, librarians should provide appropriate instruction to those who might lack prior knowledge or understanding about using the resources found in

libraries. In Malaysia, Suleiman (2012) reported that a majority of freshmen joining universities were reported to be facing problems whereby they did not know how to deal with library services and information provided. He proposed that libraries prepare special guides. These guides would help users with limited knowledge to independently navigate and utilize various sources of information.

Chalukya (2015) urges librarians to place the information needed and requirements of patrons in the forefront when planning for training programs; hence, there is a need for a systematic approach to regularly orient and educate new users to the library system. Okoye (2013) argued that the importance of user education could not be overstated since it was thought to improve patrons' awareness of the libraries' holdings.

Harisanty et al. (2020) from Malaysia, posited that the purpose of user education was to enhance the library's image. Researchers including Folorunso and Njoku (2016) deviated a bit and noted that user education's objective was to foster a welcoming environment where users and the librarian regarded one another as collaborators in progress. This partnership greatly improved the image of the library towards the students. User education is indeed beneficial for both patrons and librarians. For patrons, it enhances their ability to effectively use library resources, leading to better research outcomes and a more satisfying library experience. For librarians, it allows them to better support and engage with users, making their roles more impactful and efficient.

Agyen-Gyasi (2018) lauded the benefits of patron-librarian alliance by citing the example of the ease of locating desired materials in the library, which saves patrons' time and directs

them to alternative sources of information on topics of interest. It further postulated some of the intentions of user education, such as introducing students to the resources and amenities available in the library and helping them to become self-sufficient learners. User education aided patrons in building library skills, positioning the university library as the hub of academic activities, giving them an elementary knowledge of the library so they could use the materials and services competently, and teaching them about the sources and resources of information and how to use them effectively and efficiently.

Ukwueze et al. (2022) emphasized that university students had benefited greatly from the programs' activities, such as laws and regulations for the library and an introduction to accessible information resources. The importance of user education could not be overstated. However, due to the explosion of information materials and the increase in the number of services offered in university libraries, literature showed that the majority of university students were incapable of using information materials effectively and efficiently because of absence or inadequate information literacy skills (Bashorun, 2020).

According to Misra (2019), one of the primary user initiatives was library orientation. This was one of the most basic and commonly used methods in academic libraries. Here, new users were basically introduced to the library, but old users could also take advantage of this programme as per their requirements. According to Ahiauzu et al. (2024), library orientation took place when new students or library users were admitted to study at a university. It was a matter of program and routine being deliberately integrated and left to be undertaken or handled by the academic librarians of that particular institution of higher learning. Amadi et al. (2025) emphasized that orientation was a vital part of the general

orientation organized by the authorities and management of that particular institution of higher learning for its new students. Library orientation for new users was brief but quite all-encompassing of the position and place of the university library in the academic expedition of the students and other teaching, administrative staff, and other university community members, concerning how the information materials were organized and retrieved for general good academic performance and success (Osei et al., 2021).

Agyen-Gyasi (2018) positively noted that during orientation, the library staff utilized the opportunity to project an impression of the library as a pleasant, approachable establishment where assistance could be found. Research findings pointed to a necessity to encourage the university library in order to prevent new students from experiencing library anxiety (Baca, 2014). A student must acknowledge the usefulness of the information resources in addition to just being aware of their availability. Interestingly, Osei et al. (2021) confirmed that the users of the university library included researchers, academic and nonteaching personnel, students, and others who might not be even aware of how to use the resources in the library.

The objectives of user education had been well articulated by many authors. This study deviated from other studies as it attempted to establish the relationship between user studies and the perceptions of users. It attempted to find out if user studies affected the users' perceptions towards the university library. According to Harrod's Librarians' Glossary and Reference Book (2005), proposed user education could include programs such as library tours, workshops, lectures, and the provision of reference materials.

Other user education initiatives, apart from orientation, included library tours. According to Ahiauzu et al. (2024), a library tour is a deliberately organized and guided walk conducted by librarians or library assistants, purposed to acquaint new users to the location of services and resources. During the tour, the new users had the opportunity to ask questions as things were explained to them. Misra (2019) proposed that grouping around 20–30 users is an ideal number to be given a tour of the library by a staff member; during these tours, users are introduced to various facilities and services offered by the library. Additionally, the users were given an overview of the library's collection, operations, and various sections. Another user education programme was book talks. An occasional book talk not only provided information about the books but also motivated the users to read the books.

Libraries also utilize individual instructions. Wanja et al. (2022) presented library instruction as an instance in which users place a meeting to learn new skills with the user education librarian and be exposed to new resources. The user education program allowed the user to receive whatever knowledge they wanted while also being taught how to utilize the library's collections, services, and amenities individually. Ahiauzu et al. (2024) posited that this was another sort of library user education, in which the opportunity was used to interact and inculcate to the users the forms of query or inquiry that the new users posed and to which the librarians provided answers. In this personalized scenario, the librarian then took their time to expound and educate the new users of what the library was all about, how it operated, and the step-by-step manner and approach to get about whatever the issues or matter which the users ought to know.

Lecture exercises were found to be very important, and hence they were subsequently integrated into the academic curriculum of most, if not all, higher institutions and taught as a regular and separate course of the general studies departments, and this was deliberately left in the hands of the academic librarians to teach as professionals (Ahiauzu et al., 2024). This assignment and duty also gave the librarians more opportunity to further expound on the gospel of the usage of the university library and its resources. The librarians charged with the duty of lecturing could also enhance user studies by issuing prepared notes or handouts to new users or students for future reference. In such lecture exercises, questions and issues of interest about the use of the library were clarified.

Academic lectures could also be used to equip library users with library skills. Amadi et al. (2025) explained that lessons or tutorials, expositions, and explanations of the modus operandi of the academic libraries by way of teaching and/or lecture approaches and methods could be employed to reach out to the students. Misra (2019) asserted that many times librarians take a course or a series of lectures as an aid to classroom lectures.

Ahiauzu et al. (2024) organized workshops that were usually brief, intensive, practical, and interactive in nature. Librarians in academic libraries put up workshops as a forum for people who should and are expected to be interested in learning about the library and the organization of its resources to gain practical experience in the arrangement and use of basic procedures, systems, and processes in the library.

2.3.1 Strategies of User Education Initiatives

All university libraries, irrespective of size, were established to offer services to patrons. A user or patron is described as an individual who utilized any of the library services on the minima once a year. The patrons of university libraries were further categorized into students, teachers, and researchers (Omeluzor et al., 2017). Usman (2018) asserted that students at the university utilized the library more frequently and intensively than the other categories of users. In other words, they were the main users of the library.

User education is the strategy that could be employed by libraries to convert potential users into actual users by creating a good perception of the library in their minds. Basak (2018) attempted to bring the aspect of user education, which aimed to bring effectiveness, efficiency, and independence to users in their pursuit of use of the library.

User education would comprise initiatives or programs that would execute the mandate. Amadi et al. (2025) proposed these activities as means and ways to achieve user education goals: library orientation, bibliographic instructions, library instructions, and information literacy. Wickramanayake (2016) believed that programs for user education, such as orientation to libraries, information literacy, bibliographic orientation, and library tours, were intended to provide library patrons with the information and abilities they needed to understand what, how, and where information was found, collected, and used. Onyeke et al. (2023) added that university libraries were principally established to acquire, process, and organize information materials while making them user-accessible as soon as possible, and this applied to all formats of information resources that they needed.

Osei et al. (2021) stated that user education started with the library orientation in the majority of the university libraries. Library orientation and instruction took place at the beginning of every semester of a new academic year when there was a new intake. After that, students were followed by a guided tour through the library facility; the library would be expected to provide a library guide. It was proposed that librarians were expected in the classrooms to teach the newly admitted students at the university library skills. A tour through the library introduced students to the library space. Osei et al. (2021) continued to say that orientation provided the chance to show them around and introduce them to the numerous sections and areas within the library.

Punchihewa et al. (2018) recommended that user education programs could be used to introduce new services and raise awareness of already-existing ones. This was the reason why university libraries provided their user community with an indispensable service in the form of user education programs. The major purpose of user education was to familiarize patrons with the resources of the library while teaching them how to reach and use a varied range of information sources that included electronic and print resources. Anwar and Naveed (2019) emphasize that the library was ultimate to completing the course and given assignments.

It was assumed that students who possessed higher levels of information literacy were more likely to view the library positively because students who were information literate were able to access and utilize library resources as they knew how to use databases, conduct efficient searches, and find pertinent content. They would consequently view the university library as a useful resource since they could easily locate the information they needed for

their research papers or take-away assignments. This confidence that users possessed in carrying out their research improved their whole academic performance and nurtured a favorable perception of the library as an essential component in their achievement.

Anyim (2018) posits that user education programs indeed provided patrons with the necessary skills on how to make the most of the materials available in the library by equipping users with necessary information literacy abilities and how to ascertain what information is required, considering how information was categorized and classified, pinpointing sources of information, finding the sources, and sharing that information. This aspect of familiarity was lauded by Ranganathan (2012) who advocated for users to be acquainted with library materials and the system, and hence the essence of user education was a crucial component of this process.

Goldman et al. (2016) posit that students were often overwhelmed by the library's size and felt insufficient due to being clueless about the locations of materials and services within the facility. Osei et al. (2021) further observe that guidelines for the library may be provided during the orientation, library operation programs, guidelines, and the provision of guide manuals or handouts/leaflets that included some important materials and a brief tutorial and a demonstration on how to locate and obtain crucial materials and how to use the library.

Ahiauzu et al. (2024) defines orientation as training or information that is given before starting a new course or job in library user education. In a library, orientation usually occurs or takes place when a new set of students or library users are admitted to study at a higher

institution of learning. Osei et al. (2021) lauded library orientation for providing library users with an opportunity to adapt to the library system or get to be knowledgeable on how the library operates its activities and makes good use of its services.

Osei et al. (2021) found that library instructions had an impact on students' lifelong experiences, as they had proved beneficial to them even after the years they were enrolled in school. Bamidele et al. (2013) support this by positing that the effect of user education went beyond the duration students spend in universities. It left a lasting impression on library patrons and gave them the skills they needed to use library resources effortlessly. Library instructions influence and educate people to develop the mindset that they could profit from the material in the library. These instructions seemed to relate to the library's perception and the interest of this study. On the contrary, Kusi and Alunga (2018) reported that some students tussled to assimilate into the university environment, leading them to not achieve academic success, particularly during their first year of study. This condition begged the question of what kind of orientation program was set up for them. American Library Association (2012) created an instruction program with library guidelines; it was recommended that the following educational initiatives be implemented: social media, email, web tutorials, group research consultations and instruction, audio, video, and web conferencing, reference interviews, and distant learning. Libraries could combine the various methods to realize effectiveness in orientation.

Osei et al. (2021) examined a situation involving Ghana's Kwame Nkrumah University of Science and Technology (KNUST) and lamented that although students went through most of the processes of being given library instructions, a tour of the library, and classroom

teaching, among others, how successful such techniques as orientation and instruction on library services and material usage were yet to be established. This study intended to unravel this disconnect by establishing the relationship between user education and perception of the users towards the library.

2.3.2 Participation in User Education

A number of factors could significantly affect how much an undergraduate student participated in the university libraries' user education programs. Kusi and Alunga (2018) noted that the first-year university students often looked as if they were stressed after being admitted to the university. They faced issues relating to money, the difficulty of departing from family and friends, academic anxiety, adjusting new study habits, and the difficulty of appropriately adjusting to the new, unfamiliar surroundings. Universities had put effort into assisting freshly enrolled students to easily adjust from the prior secondary school atmosphere to the university setting in the process called orientation, which is usually at the beginning of the semester in the university. Unfortunately, according to Asare et al. (2021) research had shown that students encountered numerous challenges in an attempt to fit into the new environment. These struggles had impacted their academic accomplishment and psychological health as they interacted with their academic and social communities in these new settings. During orientation, a number of activities were undertaken by the university to orientate and usher in new students, and ultimately libraries took advantage of library orientation (Kusi & Alunga 2018; Achankeng et al. 2023).

Chiya et al. (2023) further argued that even with a variety of user education programs available for new students, many still lacked the skills needed to use a library. The inadequacy witnessed among new students was connected to the reality that most of them had never visited a library. A study at North-West University in South Africa revealed that once admitted to a higher education institution, these students often disregard library user education programs. Low participation of students was further reported in the University of Kwa Zulu Natal Library, which recorded that only 47 percent of targeted students participated in the orientation programmes organized for academic departments. This was in concurrence considering the librarian's statement when they affirmed that, generally, about 50 percent of students showed up for orientations (Moyane et al., 2015). However, the studies did not link low students' participation in user education to the study's attempt to understand how users perceived the library.

Eshbach (2020) noted that librarians could participate in lessons utilizing course-integrated learning in the classroom. This provided the librarians with a chance to familiarize students with resources from the library as well as an initiative to establish rapport and foster communication with patrons. Anyim (2018) was of the opinion that instruction librarians should continually explore ways to involve the students all through the library's user education lectures to improve the learning objectives for students. In Malaysia's University Malaya Library, a user education program was established to aid its users in information retrieval, backing up scientific work, and other findings that promoted students' academic life. (Harisanty et al., 2020). This university started a program called GIG1004, 'Program Information Proficiency Course and Proficiency.' This was a very intricate program that

had to be undertaken by every student, especially the first-degree students. This program was provided as one of the units to be undertaken by students. User education had been entrenched as part of the syllabus for undergraduate students at the University of Malaya. This was just one of the strategies where the information centre endeavors to ensure 100% participation of undergraduate students in user education.

To ensure increased participation of students in user education programmes, some universities, like International Islamic University in Malaysia Library, made user education programs a requirement to be undertaken by students every semester (Suleiman, 2012) . In Nigeria, a compulsory course was introduced to be taught in polytechnics and higher institutions of education (Shai, 2020). Universities in that country that had such courses included Babcock, University of Ibadan, and Ladoke Akintola University of Technology (Okoye, 2013). Federal University of Petroleum Resources, Effurun, introduced ‘Use of Library’ (GSE 112) in 2015/2016 (Omeluzor et al., 2017). In Kenya, Mwangi (2016) noted that a ‘Library Skills’ course, was a compulsory and examinable course at the University of Nairobi. There are no studies to indicate that other universities in Kenya have such courses.

Studies had been undertaken to establish the participation of students in user education programs. In a study by Agyen-Gyasi (2018) in Ghana, KNUST, Kumasi, only 250 out of 1000 students were registered to have participated in the user education program in 2004/2005. This was corroborated by studies conducted by Eke et al. (2018) at the Federal University of Technology in Owerri. The results indicated that 68% of 1500 first-year students did not take advantage of the library's offerings because they were unaware. That

was why there was a lamentation that many of the first-year students did not attend user education programs (Eke et al., 2018). Findings indicate low turnout in new students' participation attributed to lack of awareness; this study will attempt to delve into establishing other reasons that might hinder user participation in such programmes.

Shai (2020), in a study in sampled colleges in Nasarawa State, Nigeria, unveiled that user education was unsuccessful. The explanation to the low turnout was attributed to inappropriate timing as it was carried out before new students settled in the university. Another reason was related to limited time allocated to user education that was not enough and did not permit for practical sessions. These findings were echoed by Muszkiewicz (2017) in Valparaiso University, where the library orientation activities average 15% of new student attendees. It was further attributed to the sessions taking place at the end at the conclusion of a very busy day jam-packed with knowledge just a day prior to the students signing up for classes, a task that caused great anxiety in many of them. There were very limited studies that had been done in Kenya on the participation of students in user education and that is the rationale for study. Wanja et al. (2022) conducted a study at the Kenya Revenue Authority (KRA) library with the aim of determining the several approaches to user education about the usage of electronic resources. KRA library fell under special libraries and hence couldn't be compared to university libraries.

The goal of user education is to assist library patrons in maximizing the use of available information resources; a majority of university libraries worldwide consider user education or library instruction to be an inevitable necessity. This might not be achieved in university libraries unless there is higher participation of users during user education programs.

2.3.3 Assessment of the Quality User Education

Muszkiewicz (2017) advised libraries that the initial perceptions that students developed of university libraries were long-lasting; its materials and services could also shape student attitudes. Orientations for new students could help propagate a favorable correlation with the library and librarians among students. Chiya et al. (2023) warned that new students enrolled in universities with great expectations in a higher-level academic setting. Chiya et al. (2023) further explored, noting that some students were inquisitive, not sure of what to anticipate, and some may be well informed. Hence, Chiya et al. (2023) advocated for user education programs to bridge the literacy gaps among many students who enrolled universities with insufficient intellectual abilities and also a shortage of hands-on and intricate skills to gather, assess, and utilize information. Onyeke et al. (2023) disclosed that the goal of user education was to increase users' know-how of the resources and services offered by the library while also serving as a catalyst for increased usage, patronage, attitude adjustments, and expectations for the facility. Udem et al. (2020) argued that university libraries ought to offer quality services that are appreciated by users. According to Baada et al. (2019), the provision of quality library services was not but a legitimate expectation from the users.

Katlego et al. (2023) alleged that there were limited studies focusing on user education and user perceptions in developing countries as compared to literature on user education programs in developed nations. Further to this, the undergraduate students were the mainstream users in a university library (Folorunso & Njoku, 2016).

The idea of "service quality" linked what customers should have expected from a product or service with the effectiveness of the company in providing it. A study conducted in Asia's Peking University and the University of Tsukuba advocated for measuring the views of the university library and its user education initiatives as a useful means to come up with new approaches, which consequently would have allowed librarians to keep refining current library services (Liu et al., 2019).

In Africa, Ayiah and Tamakloe (2023) observed that every university library attempted to exhibit its value or impact towards the educational mission of its host institution by impacting on students' education through the provision of improved resources, personnel, and quality services. According to Udem et al. (2020), it was noted that the importance of the services to undergraduate students in Nigerian federal university libraries overtime had become a key factor in universities. It had prompted librarians to think creatively about how services could be offered in libraries, greatly profit users, and improve students' academic competence. Liu et al. (2019) re-emphasized that user service would have had a positive influence on students' learning outputs, research practices, and self-drive for self-regulating learning. Indeed, user education was advanced to inform and influence users' sentiments and attitudes about library usage.

Mahmood et al. (2021) defined "library service quality" as the variance between library users' perceptions of actual services received and desired expectations about the services Udem et al. (2020) defined Quality Service (QS) as the standard that could be used in libraries as a measure against users' desires or prospects. Library Service Quality (LSQ) was a present-day concept whereby users compared perceived expectations of library

services versus actual services. Additionally, perception of LSQ was the level at which users measure their prospects and information needs being satisfied through the services the libraries offer. Baada et al. (2019) defined LSQ as the complete excellence in the resources, services, and facilities provided by the library that fulfilled users' prospects. Chaudhry et al. (2021) recommended that libraries needed to ensure that the information provided by library services satisfied both the needs of patrons and users' expectations on library service. The library was normally seen as the heart of an academic institution. No wonder LSQ had become a modern tool in university libraries, employed to comprehend users' opinions about the services offered to them and act on them. The aim of this tool was to help libraries improve their service range and deliver higher-quality, more coveted services. The service quality 'SERVQUAL' has revolutionized as an instrument to measure service quality and what consumers valued as essential (Dash & Padhi, 2016). Khaola and Mabilikoane (2015) noted that LibQUAL+™ was the most common assessment intended to measure the perception of library users' vis-à-vis LSQ.

According to Omeluzor et al. (2017), users' perceptions of library materials were important to a degree; they defined the level of information material usage in university libraries. It was further argued that students' cognizance about information materials and services might have increased their usage; this was the study being undertaken. It was believed that the attitude and usage of any given resource in the library were determined by users' awareness; in the same vein, a result from a study by Omeluzor et al. (2017) in Nigeria at the Federal University of Petroleum Resources Library showed that the degree to which academic libraries used electronic information resources was heavily influenced by the

perspective of their users. The study did not focus on perception of the library but on electronic resources; the goal of the current investigation was to determine the link between user education and undergraduate perception of the library.

Baada et al. (2019) acknowledged the use LSQ by Malawian National Library Services to measure library patrons' needs and satisfaction. That was why Mahmood et al. (2021) opined LSQ was normally an exploration of the gap between the users' wishes and perceptions about a library and its services. Chaudhry et al. (2021) added that by connecting user prospects and their opinions of the quality, the perceived value of a service could be realized. The expectations and views of users were dynamic and therefore changed with the passage of time. This study was interested in the perceptions that were linked to users' expectations as per the literature reviewed.

Amarasekara and Marasinghe (2020) in a study on user satisfaction with library resources and services conducted at the Open University of Sri Lanka, recommended that information centres should always focus on clientele satisfaction as it was a very vital phenomenon and considering user needs was critical. The outcome of the investigation also showed that the respondents were moderately satisfied with the available library services at the Open University of Sri Lanka. The research pointed out that there were some areas that need improvement, predominantly providing user awareness programs and equipping users on information searching. Amarasekara and Marasinghe (2020) study focused on user satisfaction with library resources and services, as opposed to the current study, which focused on user education as a service to users.

The issue of awareness had been advocated for by Oriogu et al. (2018) noting that awareness was principal to clients' utilization of information materials and services. This recommendation was based on a study carried out at Afe Babalola University. It unveiled that the librarians' role to market the information materials and services and provide user education services was lacking. This denied users chances to be suitably informed on the availability of information resources and services in the library. Oriogu et al. (2018) study had focused on faculty members awareness, perception, and use of information resources and services; however, the current study would look at how user education relates to perception as one of the objectives. Therefore, it could be opined that in creating awareness about information resources and services in the library, it might positively influence their perception of the library, hence catalyzing users to use the resources.

Jameson et al. (2019) while conducting a study at the University of Toledo, Ohio, with a student population of more than 20,000, posited that nurturing affirmative relationships with users is a long-lasting concern for librarians. The research also established that any initial interaction between librarians and students was fundamental. Findings indicated that library instruction had an impact on students' views toward librarians, hence libraries. Looking at peer relationships, students noted that the library workers were more understanding of student desires, were likely to be more welcoming, and could positively stimulate student perceptions of libraries. The respondents in the study characterized the "Generation Z" populace of university students. Ali et al. (2018) in a study in a public library, discovered that when it comes to a librarian's image, users have various opinions, and they range from affirmative views to adverse ones. Some of the positive qualities of

librarians were assertive, soundly social, and inventive. On the negative flank, librarians were seen to have low management qualities, not ready to adopt change, old-fashioned, trivial, and hiding behind a date stamp. The two studies show a contrast in how the library is viewed by students and users in public libraries. There is more apathy and appreciation of the library and librarians by students as opposed to public library users. It was further proposed that the use of library instruction sessions may be an alternative explanation for perceptions towards libraries or librarians (Jameson et al., 2019).

Interestingly, Ngozi et al. (2023) observed that when library use was not introduced to secondary school students, it was most likely that even when library orientation was planned in the university, such students would not see the purpose to participate. Consequently, this appeared to impact their library usage in the future. The study above pointed to the fact that new students ought to be introduced to the library, as this experience could influence their perception of the library in a positive manner. Moyane et al. (2015) alluded that variations in the user demographic were frequently reflected in favorable or unfavorable library experiences, well-established or under-established library traditions, and differing degrees of appreciation, comprehension, and positioning.

2.3.4 Barriers of User Education

User education execution, just like any other service in the library, faced a number of challenges. Negi et al. (2023) noted that user education was gaining more relevance day by day, especially in the current perspective whereby new sources of information were being generated. Negi et al. (2023) further explored and noted that user education faced some

barriers to its effective implementation some of which were highlighted as follows in the academic libraries; limited professional staff to handle a huge number of users when conducting the user education initiatives. Indeed, Bhatti (2010) had earlier noted lack of staff library members that had requisite experience in provision of user education through seminars especially instructor librarians or a subject specialists was another barrier. It was also alleged that there were financial constraints in provision of teaching facilities during user education.

There were constraints emanating from inadequate time apportionment for the user education program by the office in charge of student orientation, as postulated by Ahiauzu et al. (2024) who noted that the allocated time period for library user education was short and inadequate; they also noted that there was a lack of backing and teamwork between the members of the of the faculty and library staff when conducting user education; and a lack of a library-oriented education system to have an inclusive library user education. Ahiauzu et al. (2024) identify a lack of seriousness and commitment on both the sides of the students or users and the librarians of the academic libraries.

The students or users refused and rejected showing up for user education programs with the notion that they could do without any library user education, especially in this era of handy electronic devices. Sometimes, lack of support for user education could be attributed to university management's reluctance to provide the necessary resources and support. This is why the findings of the study were meant to inform the university management on the importance of user education. According to Negi et al. (2023), it could have been the lack of commitment or proper attitude among librarians towards providing user education. A

large student population coupled with a lack of facilities could have been the barrier (Ahiauzu et al., 2024). The number of students had been on the increase compared to existing facilities.

The environmental conduciveness generally required to propagate library user education in academic libraries was abysmally inadequate and unfriendly. Poor funding for users was based on the premise that no program or project strived without proper funding. Ahiauzu et al. (2024) asserted that obviously there were inadequate or absolutely no funds allocated to run library user education programs adequately any more. Funds were required for the planning and implementation of user education.

New students who happen to come from underprivileged backgrounds are likely to lack a solid library background if not properly introduced and exposed to libraries. Lack of proper marketing of user education could be a major reason for this lack of awareness and subsequent usage of the library.

2.3.5 Influence of User Education on User Perception

User education is one of the strategies employed by libraries to translate new potential users into routine users. In this strategy, library potential users were molded and equipped with appropriate skills, information, and attitudes. According to Akpovire et al. (2019), libraries made available information materials that aided in information seeking and knowledge attainment. The university library served as a place that provided avenues to socialize, relax, serve individual interests, and communicate. Students are able to have discussions hence enhance socialization, relax to watch a video in electronic part of the

library, use WIFI to communicate or research topics that are not necessary academic using library resources.

In a university learning environment, attention was placed primarily on students, teaching and administrative staff, and researchers. According to Chatterjee et al. (2021), university libraries were very imperative platform for students to gain exposure to new and relevant information. Being a center of knowledge, libraries played a vibrant role in making users active apprentices for their required information.

University libraries were confronted with the need to keep up-to-date with changes in the university environment and meet users' prospects as a central place in university. According to Udem et al. (2020), the main reason for the library's existence was the users; its main obligation was to provide unsurpassed, excellent services. Without users, the library would not have been complete; it would have been analogized to a market packed with merchandise without patronage. Ali et al. (2018) exposed that a majority of people tended to misunderstand librarians, their abilities, and their duties. This was a result of lack of appreciation of the role of the library and the librarian. User education provided an opportunity for librarians to showcase their skills and positively influence the new students during orientation.

In developing countries like Malaysia, Ali et al. (2018) noted that the librarians played significant roles in helping the users. However, on the flip side, little had been investigated about library users' opinions on librarians and their work. Amarasekara and Marasinghe (2020) viewed perception as the set of procedures by which a person develops

consciousness of and deduces information about the environment. Amarasekara and Marasinghe (2020) further explained that perception was an inner attitude towards something or an individual with a result that could be positive or negative. Therefore, measuring opinions and perceptions concerning the university library and its user education initiatives was considered an efficient way to come up with new tactics. When that was done, it allowed library staff to keep improving upon prevailing library services. Akande (2009) opined that perception was related to comprehending problems. It was closely related to the psychological capacity to interpret or make use of data received from the sense organs. Liu et al. (2019), viewed perception as the way in which something was held, deduced, or construed.

According to Ranganathan (2012), perceptions were the attitudes molded after an individual interacted with the library. It was asserted that a user's previous learning had a major impact on our perception. Indeed, Baca (2014) posited that a student's awareness of the available library resources was not sufficient; they also needed to perceive them as useful. It was established that when students lacked knowledge of available library materials, they had a habit of avoiding the use of the library as an act of avoiding failure. Liu et al. (2019) added that it was expected that user education would positively impact students' learning results, curiosity, and self-motivation in order to support autonomous life-long learning. As earlier indicated, user education helped students gain information literacy and the ability to conduct critical research. Learners who possessed enhanced abilities to locate, assess, and apply knowledge efficiently were more likely to achieve academic success. Umoriya et al. (2023) put it better: academic libraries provided access

to patrons to empower them to be efficient, competent, and autonomous in their utilization of library materials and services. According to Rowley et al. (2015), students who gained information literacy skills feel more competent to carry out assignments, write papers, and conduct research. Because they felt more equipped to handle academic challenges, students' perceptions of the university may improve as a result of their increased confidence.

Ali et al. (2018) asserted that librarians had a lengthy history of concern in establishing library users' perceptions of them. The relationship between the librarian and library users was well articulated by Agyen-Gyasi (2018) who explained that a user-friendly environment where the librarians and the users viewed themselves as associates in progress would be beneficial to both parties. The cited studies focused on the perceptions of the users of the librarian, but the current research was to focus on the relationship between user education and perceptions of the university library. Chalukya (2015) study had an additional aspect on how user education connected the library and its patrons in a relationship of library/librarian-user, and this strengthened the image of the library.

The library utilized marketing as a tool to sensitize patrons of available services. Chalukya (2015) believed that user education was an effective marketing tool of the library. In that vein, Chaudhry et al. (2021) noted that marketing enabled library users to recognize what was good for themselves. Libraries are advised to apply a marketing approach to resource and service sensitization. According to According Daudi and Daksiri (2020), libraries utilize marketing strategies to help patrons identify their needs and desires so they could obtain services and products that meet their expectations. In this case, the employment of

marketing mix provided a beneficial structure for thinking about means by which marketing concepts in user training services should be developed and implemented. It was the user who drove marketing and shaped the service. A study in the University of Limpopo that examined user education initiatives from the perceptions of first degree final year students recommended that librarians should strengthen marketing of user education programs by reporting the perspectives of respondents to the university management (Shai & Solomon, 2021).

Libraries needed to improve on the understanding of the materials and services offered, as this may encourage users to use them more and place greater demands on them. (Okoye, 2013). User education was seen as the best way to apply Ranganathan's five laws of library science, which were contextualized by Misra (2019) as 'books or information are for use', 'every reader his or her book or information', 'every book or information its reader/user', 'save the time of the reader or user', and lastly, 'library is a growing organism'. The law on saving the user's time related closely with the training of users to be self-reliant in accessing and using information resources. The faster a library user is able to access information in a library would encourage continual usage of the library. A positive perception of the library would be promoted. This was well articulated by Abah et al. (2016) when they said that user education expedited the process by which patrons retrieved and utilized library materials, hence saving time. The study attempted to relate how user education raised academic librarians' and libraries' profile and position. Similarly, Moyane et al. (2015) related user education and improvement of users' familiarity with the materials

and services offered by the library, which positively became a driving force behind library usage, attitudinal shifts, increased patronage, and increased expectations.

The study aimed at establishing a relationship between user education and students' perceptions of academic libraries. Filiz (2007) in Somaratna et al. (2010) opined that the administration of libraries in developing nations appeared to have mainly disregarded students' opinions on libraries. This was worrying because patrons' opinions of the quality of the library services were negative if their expectations were higher than what was actually offered, which caused them to be dissatisfied with the services.

Some studies carried out in Africa relating user and perception included Moyane et al. (2015) study at the Westville Campus, University Kwa Zulu Natal, that examined user education programs for undergraduate students in particular and the degree to which students' opinions of their abilities aligned with their demonstrated talents. The research revealed that every student regarded user training programs as essential to their learning. The affirmative response indicated that students generally understood that user education could boost library usage, which could then positively affect their academic performance and, in turn, a positive perception of the university library. A study conducted earlier by Ashaver and Bem-Bura (2013) in universities in Benue State, Nigeria, gives a contradiction of the findings above: students in those universities had negative attitudes towards the university library services. The students attributed their negative perception of not having the know-how on how to find information resources and use retrieval procedures. One of the reasons for the negative perception was attributed to a lack of user education. This study

was founded on such a premise and hence attempted to solidify if indeed user education impacted user perception.

Undergraduate students' perceptions on university libraries can differ greatly depending on their personal needs, expectations, and experiences (Ariffin et al., 2022). An individual experience was their interactions with library staff, their ability to locate the resources they needed, and the standard of their study sessions in the library. Positive experiences in the library typically led to a more positive perception of the library, whereas negative experiences led to the opposite perception (Isbell et al., 2013). Students' perceptions of the library may differ depending on their backgrounds and cultures. Usman (2018) discovered that the majority of African students enrolling in higher learning institutions were deficient of rudimentary knowledge on library usage and its resources due to lack of well-organized school libraries in secondary and primary schools. It was alleged that students from Asia, mainly from China, Japan, South Korea, India, Malaysia, Thailand, and Africa, had poorer library skills because they were accustomed to working from single textbooks and experienced library shock when they were exposed to learning centres with over 460,000 hard copies and electronic resources (Lahlafi & Bullingham, 2012). Faced with such a learning curve, foreign students in Western countries struggled to adapt to the change in learning culture. However, international students from Western countries might have had distinct expectations and interactions with libraries, which could have affected how they perceived them.

Cultural shock initially occurred when students were unfamiliar with library systems or services, resources, or the roles of staff. The educational backgrounds of students from

different countries and regions may have had an impact. In other words, although certain international students might have grown up in homes where libraries were primarily utilized for quiet study sessions, others might have experienced learning environments that were more collaborative and team-oriented. The expectations that they had of university libraries may be influenced by their prior experiences (Galloway et al., 2022). Their comfort level when interacting with librarians and using the library's resources, such as reading materials, may have been impacted by this. User education could have been one of the factors our users identify as needed in order for a library to be a suitable place for meeting their needs.

Ahiauзу et al. (2024) recommended that frequent user education programs should have been invigorated by all interested parties in tertiary institutions; this would have boosted library literacy and ethical use of library resources. Such exposures would have led to most bachelor's degree students benefiting from the university library's powerful educational influence, hence helping in meeting their academic commitments and advancement at personal level.

These strategies are consistent with contemporary approaches to enhancing library services through better resource allocation and innovative use of technology (Leong, 2024; Smith & Oliver, 2022). These align with previous studies, such as those by Jones et al. (2023) who found that the quality of educational content and support significantly influences the effectiveness of library programs.

Baca (2014) added that the more knowledgeable the students were about the library, the more confident they would utilize the library. The common way to actively increase library knowledge was through orientation for all students. The results of the study confirmed the foregoing research findings that showed that with greater knowledge of libraries came more ease in use of the library and a stronger perception of the value of library staff. Folorunso and Njoku (2016) conducted a study at the University of Ibadan, and it was established that there was a substantial link between user education and library use among University of Ibadan undergraduate students.

In Kenya and East Africa, little had been done in this area of study concerning perception of the library. Related studies were conducted by Nyakweba et al. (2022) on users' needs and expectations on information services. The study revealed that the majority of users portrayed a positive perception towards the library, while others indicated that their needs were yet to be met. The study focused on all library services and not user education alone. Kinya and Muthee (2022) focused on service quality and user satisfaction, more so academic libraries, ensuring tangibility, reliability, responsiveness, assurance, and empathy that would lead to a favorable impact on service quality. The study focused on quality, which was used as an aspect to measure user education, and in the current study. Ongera (2021) was interested in the perceptions of first-degree students on LSQ in academic libraries. Hence the need for this research would attempt to explore the relationship between user education and perception given that the study had not been undertaken in Kenya.

2.4 Theoretical Framework

The study was guided by of Expectancy-Confirmation Theory by Oliver (1977).

2.4.1 Expectancy-Confirmation Theory

Expectation-confirmation theory (ECT) is a cognitive theory. The structure of the theory was developed in a series of two papers written by Oliver (1977) the theory originally appeared in literature related to marketing, but its usage was adopted in several other fields, more so information systems. Cognitive psychology is the study of mental processes such as language use, memory, attention, perception, and reasoning; all these are mental processes. This study focuses on the perceptions of users and hence deemed relevant for adoption. ECT endeavors to explain and forecast consumer gratification and the repurchase intent. Johns and Howard (1998) explained that ECT in the business world assumed that users' degree of fulfillment is a product of a five-step process. First, consumers form a preliminary expectation of a specific good or service before purchase, which would also be applicable in a library environment where a student would have expectations. Secondly, they accept and use the product or service. This is followed by the formation of perceptions about the performance of the service. Thirdly, is the comparison of the formed perceptions of performance with their prior expectation levels and decide the extent to which their anticipations are confirmed. Fourth is a feeling of fulfillment or discontentment based on their disconfirmation level (Chou et al., 2013).

The ECT is based on four constructs: expectations, perceived performance, disconfirmation of beliefs, and satisfaction. According to Baharum and Jaafar (2015), modified one of the main constructs in the model of disconfirmation of beliefs to confirmation. The study utilized one construct: satisfaction. While expectations and perceived performance have an indirect effect through a mediational relationship that

passed through the disconfirmation construct, disconfirming beliefs and perceived performance had a direct impact on satisfaction. Expectations were core to perception. A user would have perceived the usefulness of a library based on the expectations that would either lead to satisfaction or dissatisfaction.

Expectancy-Confirmation Theory can be traced to the Expectancy model. This model was used in the area of psychology by Darley and Fazio (1980), where they discovered that the perceiver formed an expectation about a target person's conduct as the initial step in the interaction sequence. This theory focus on the impact of expectations on satisfaction and their confirmation. Jayasundara et al. (2019) noted that this psychological theory pertains to consumer behavior in the context of service marketing.

Park and Lee (2023) used the ECT in recognizing the stage of perception expectations that emerged from real product use; this was a crucial idea for figuring out whether or not customers would stick with the product. The theory assist in determining whether students' expectations of what they would gain from user education programs are met and how that confirmation affects their perceptions of the library in the context of user education and library perceptions. The foundation of this theory is the notion that people have expectations about the results of their experiences or actions. Students enter user education programs with assumptions regarding what they would learn from taking part in these programs (Jon et al., 2014).

Baharum and Jaafar (2015) posited that expectations and perceived performance worked together to produce satisfaction. Positive or negative confirmation between expectations

and performance acted as a mediating factor for this impact. A product was deemed satisfactory if it performed better than anticipated and received favorable confirmation. Tan et al. (2019) supported this perspective after noting that positive reinforcement induced the consumers' continued usage or purchase of the products and services. Whereas a product fell below the expectations, it became that if there was negative confirmation, the customer would probably be unhappy.

The theory had been used previously in studies associated with LibQual+™ to ascertain whether the superiority gap score, which was the simple difference between the service's perceived performance rating and the intended level of performance, was a more reliable measure of user happiness than the perceived score, a direct measurement of service quality (Jayasundara et al., 2009; Roszkowski et al., 2005). Other studies that had used it included Ahmad (2016) in the study of academic e-book usage.

The theory informs that variable on quality of user education programmes by adopting the principle whereby individuals set an initial standard of expectations. In case the service or good fails to meet the expectations of the consumer, the initial reference point affects their gratification levels (Shukla & Dwivedi, 2023). They further allege that in case consumers' expectations of products fail to meet their expectations, this would lead to unfavorable attitudes. The same would apply to library users, the focus of this study.

On participation of the students in user education, the study Shukla and Dwivedi (2023) noted that consumers create initial expectations about a good before making a purchase based on knowledge. Accordingly, knowledge is gotten through a number of mass

communication channels, peers, and influencers. Mass media acts as a critical source of product information and knowledge for consumers, who form expectations based on advertising, media coverage, and other types of media exposure. Furthermore, direct channels such as personal selling, opinion leaders, peers, and influencers affect consumers' knowledge and expectations about the products. Likewise, the study was to explore the various user education programs that could be employed to influence the perceptions of the students towards the library.

2.5 Conceptual Framework

According to Jabareen (2009), a conceptual framework is a visual or narrative model or a network, or “a plane,” of interlinked concepts that together provide a comprehensive understanding of a phenomenon or phenomena. It stands for ideas, variables, and the anticipated connections between them in a study. Based on a literature study and the researcher's understanding of the issue, it serves as a research roadmap, explaining how various elements are expected to combine to produce a certain phenomenon.

The study adopted the Conceptual Framework below as shown in Figure 1.1

Figure 2.1

Conceptual Framework

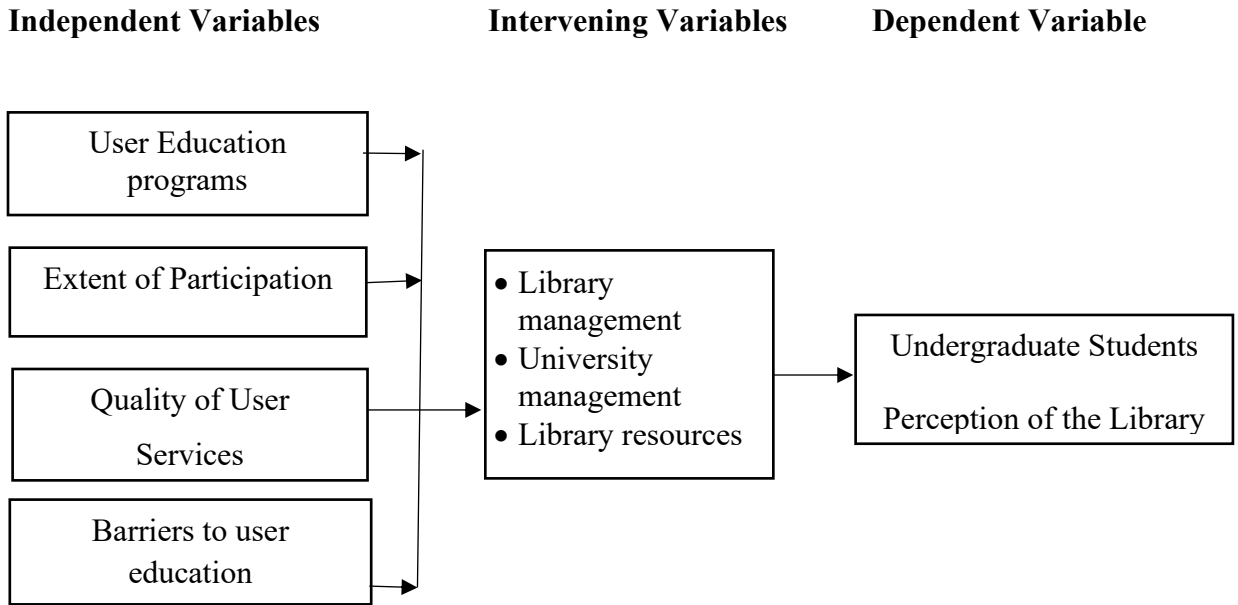


Figure 1 above, the dependent variable was undergraduate students' perception of the library, which was influenced by independent variables that included aspects of user education such as the types of library-provided user education programs, users' expectations on user education, student participation in user education, and barriers to user education. The intervening variables include library management, university management and library resources.

The views of students of the library could have been negative or positive depending on how the independent variables are altered. For example, if there was a reduction in the number of user programs, it might have affected first-year students as they might not have

been reached by the librarian during orientation. A user's accessibility to the librarian during orientation and afterwards could influence a user's perception towards the library.

First-year library users' perceptions could be influenced during the provision of user education programs. The higher the attendance and participation of users during the trainings, the greater the likelihood of positively influencing their perceptions towards the library. The vice versa also applies, where low attendance raises the risk of negative perception due to lack of an opportunity for interaction, hence influence. The quality of user education was another independent variable that affected perception. If users felt the quality was good/below par, then that would influence their view of the library. Obstacles to user education affected the provision of user education programs, hence affecting the user's perception of the library.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the research approach that was employed for the investigation. The chapter entailed research design, study location, target population, sampling technique and sample size, data collection instruments, procedure, data analysis, and ethical considerations.

3.2 Research Design

The research design articulates what data is required, what methods are utilized to collect and evaluate the data, and how they answer the study questions. This step was crucial in guiding the gathering and data analysis and ensured that the research was well organized and capable of producing reliable and valid results (Kapur, 2018; University of Pretoria, 2024).

The study employed a descriptive survey research design to collect both qualitative and quantitative data that allowed the researchers to gather a more comprehensive understanding of the relationship between user education and students' perceptions. Kothari (2019) recommended the use of covariance to measure relations in a bivariate population with more than one variable, which applies to this study. Kapur (2018) explained that descriptive studies aimed at portraying in an accurate manner the

characteristics of a particular group or situation. The primary goal of this research was to describe the data and the characteristics of user education and perception in libraries.

This research employed a blend of qualitative and quantitative research methods, also identified as blended techniques or methodological triangulation. Methodological triangulation produces superior knowledge and understanding of the study topic. According to Schoonenboom and Johnson (2017), triangulation seeks for convergence, verification, and communication of results from several approaches.

3.3 Target Population

The population is defined as all the people or things that one wanted to understand (Rahi, 2017). The targeted population is known as the group from which the intervention is intended to collect information and draw conclusions (American Library Association, 2012). It included undergraduate students enrolled in the two universities in Meru County. The research focused on undergraduates because they comprised the largest group of the student population in universities. The diversity of the targeted population was critical for gaining a comprehensive understanding of the relationship between user education initiatives and how students perceived and interacted with university libraries. The study purposed to gather insights that reflected the diverse expectations, preferences, and challenges that undergraduate students faced when interacting with library resources and services.

The target population for this study comprised undergraduate students in the 2023/2024 academic year: Meru University of Science Technology (2024) had 4284 and Kenya

Methodist University (2024) had 1854, and 46 library staff in the two universities. First-year students were chosen because they are in a critical transitional period, adjusting to university life and learning how to effectively use academic resources such as the library. The data was obtained from the Office of Registrar Academic Affairs in the two universities. Tables 3.1 and 3.2 showed students' targeted population per university per school.

Table 3. 1

KeMU's First Year Students per School

Name	Target Population
Business	656
Education and Social Sciences	216
Science and Technology	330
Medicine and Health Sciences	652
Total	1854

MUST has eight schools hosting various departments with the target population as shown in Table 3.2.

Table 3. 2

MUST's First Year Students per School

Name of School	Target Population
Business and Economics	605
Education	1083
Agriculture and Food Science	736
Health Sciences	282
Nursing	79
Engineering and Architecture	529
Computing and Informatics	530
Pure and Applied Science	440
Total	4284

The study targeted 46 staff working in the KeMU and MUST libraries.

3.4 Sampling Technique and Sample Size

Sampling is a method of choosing a portion of the population for research in order to evaluate the characteristics of the complete population and derive statistical conclusions from it (Mujere, 2016). Samples have the advantages of quicker data collection and less expensive costs (Singh & Masuku, 2014).

3.4.1 Sampling Technique

The study employed a stratified sampling technique. According to Rahi (2017), stratified sampling is a sampling procedure wherein every subgroup, referred to as a stratum, is assigned an equal probability of being chosen at random to provide a representative sample from the population. Singh and Masuku (2014) proposed that in this approach the whole diverse population is organized into several homogeneous groupings or layers, each of which is homogenous within itself. Units are then sampled randomly from each of these strata. Every stratum is given an equal and proportionate representation. Stratification involved dividing the undergraduate student population into different strata based on distinct categories based on relevant characteristics such as academic disciplines, academic years, or other demographic variables or schools, which was the case in this study. KeMU had four schools, and MUST had eight schools where the students belong academically.

The researcher used lists of students provided by the office of the registrar of academic affairs to sample respondents from every school or faculty. A computer program assisted in randomly sampling the respondents in each stratum. For the library staff, the study used

purposive sampling to select the staff that were interviewed. Purposive sampling would allow the researcher to sample individuals who had experienced the phenomenon being investigated. Such respondents contributed to a wide range of domain descriptors and construct dimensions. The University of Pretoria (2024) acknowledges that this method facilitated knowledge extension by intentionally choosing sample individuals who were considered to be valuable providers of data.

3.4.2 Sample Size

The sample size was drawn from first-year undergraduate students in the two universities in the academic year 2023/2024 that were purposively sampled. This category of students was appropriate to the study as they could easily recall their experiences as new students at the university and give their perception of what they thought of the library. The sample size for the study was determined using the Krejcie and Morgan Table (1970). From a target population of 6138 first-year undergraduate students, Morgan and Krejcie (1970) proposed a collection of 364 students.

Table 3. 3***Sample Size for Undergraduate Students in KeMU***

Name	Population Target	Sample Size
Business	656	39
Education and Social Sciences	216	13
Science and Technology	330	20
Medicine and Health Sciences	652	39
Total	1854	111

Table 3. 4***Sample Size for Undergraduate Students in MUST***

Name	Target population	Sample Size
School of Business and Economics	605	36
School of Education	1083	63
School of Agriculture and Food Science	736	44
School of Health Sciences	282	17
Nursing	79	5
School of Engineering and Architecture	529	31
School of Computing and Informatics	970	57
School of Pure and Applied Science	440	26
Total	4284	253

The study used purposive sampling for the library staff; a total of twelve out of 46 library staff from both universities were sampled. They included deputy librarians, senior assistant librarians, and library assistants in charge of user services at each university.

3.5 Data Collection Tools/Instruments

To effectively investigate the relationship between undergraduate students' education and user perceptions of libraries at the university, the study used questionnaires and interviews.

3.5.1 Questionnaires for Undergraduate Student Respondents

The questionnaire consisted of questions that were both closed-ended and open-ended. Closed-ended questions, often known as restricted-choice questions, provided respondents with a predetermined set of options. Closed-ended questions were ideal for gathering information on categorical or quantitative factors. The questionnaire consisted of five-level Likert scale statements that handled the combined data as interval-scale quantitative data. According to Bhandari (2021), open-ended, or long-form, questions allowed respondents to answer questions using their own language. Respondents provided answers in ways that researchers might not have otherwise thought of because there were no limitations on their options. Such questions were used in cases where the researcher solicited opinions or respondents' recommendations.

The researcher self-administered questionnaires, which she anticipated would have benefits such as cost-effectiveness, maintaining the anonymity of the respondents on sensitive topics, and being self-paced in data collection. The research engaged two research assistants to administer questionnaires in KeMU and one to assist in MUST. To ensure the questionnaire's reliability and validity, a pre-test was done to recognize areas of confusion or ambiguity elicited by the questionnaire before the actual data collection (Appendix I).

3.5.2 Interview for Library Staff

According to George (2022), an interview is a qualitative research method that gathers information through questions. Two or more people participated in an interview; one of them was the interviewer who asked the questions. There were three types of interviews: semi-structured, unstructured, and structured.

The researcher used a combination of structured and semi-structured interviews to collect data from the librarians working at the KeMU and MUST libraries. The researcher conducted in-person interviews with the library staff. Due to the type of questions that were asked, interviews were mostly used as qualitative tools. Data from the librarians was gathered through structured interviews that followed a thematic framework guided by the objectives. However, semi-structured questions were included to allow for flexibility in gathering additional information. For the interview schedule, see Appendix II.

3.5.3 Procedures for Collecting Data

The researcher made the necessary data collection instruments, which included the questionnaire and interview schedule. Upon successfully presenting and defending the research proposal, the researcher sought a letter of introduction and authorization from KeMU's Directorate of Postgraduate Studies.

A research permit was sought from the National Commission for Science, Technology, and Innovation (NACOSTI) ethical clearance from the KeMU Ethics Review Committee. Thereafter, the researcher physically visited KeMU and MUST to seek permission to collect data. A pilot study was conducted at Mount Kenya University (MKU) - Meru

Campus to test the research instruments. This study was carried out in Meru due to its proximity to the researcher, and it was within the study area.

Upon being granted all the necessary authorizations, the researcher distributed questionnaires to the sampled students. The questionnaires had an introduction letter that informed targeted respondents of their freedom when filling out the questionnaire. Upon issuing the questionnaires, the researcher gave the respondents time to fill them out immediately at that moment of distribution. The researcher collected all the filled-out questionnaires and stored them safely, awaiting analysis. The library staff were interviewed as guided by the interview schedule.

3.6 Reliability of Research Instruments

Reliability is the process of ensuring the steadiness of the research instruments. This ensures that the techniques produce consistent results and can be used again under comparable circumstances with the same outcomes. The goal of reliability in this study was to minimize errors and biases in the study. Reliability refers to the consistency with which a method measures something. A measurement would be deemed reliable if the same outcomes are consistently obtained under the same conditions by applying the same techniques (George, 2022). Reliability in quantitative studies is primarily concerned with the internal uniformity of research tools. The language employed in study instruments was one of the elements that influenced their reliability. Reliability in research refers to the extent to which a study could be duplicated or repeated. If the study is repeated and yields the same results, it was considered reliable. Research could be trusted throughout time and across sample sizes.

Ahmed and Ishtiaq (2021) reliability factor referred to the constancy of a measure of findings or data. Reliability was achieved by administering the data collection instrument twice over a period of time to a group of individuals. A test-retest strategy was employed, in which a sample of participants will be given the same questionnaire measuring students' opinions of university libraries twice. High dependability is one indicator that a measurement was valid.

The study measured the reliability of data using Cronbach's Alpha Correlation Coefficient before utilizing it to compute results. The range for Cronbach's alpha that is acceptable in research is 0.70 and above (Mallery & George, 2010). The Cronbach's Alpha for all variables was above 0.825 in the study.

3.7 Validity of Research Instruments

A research instrument's ability to measure exactly what it was intended to assess was determined by its validity test. Validity is about the assessment of how accurate the measure of data or results is. It is the extent to which the data appropriately portrayed the findings reached from the research respondents and equivalent non-participants. It refers to the degree to which a technique measures what it is supposed to measure (Ahmed & Ishtiaq, 2021; George, 2022). Research with high validity produces conclusions that effectively capture the characteristics, differences, and features seen in the real world, be it social or physical. Content validity was employed, whereby the questionnaire was carefully crafted to cover a comprehensive range of factors related to undergraduate students' perceptions. The questionnaire was divided into several sections to ensure each section assesses information for each objective, which was tied with the conceptual framework's variables.

3.8 Pretesting of Research Instruments

Before the main study was carried out, the researcher pre-tested the research instruments to ensure that they met the threshold of validity and reliability. The pretesting was carried out at a private university, Mount Kenya University, Meru Campus, located in Meru County. Pretesting was conducted on a limited number of respondents, which consisted of fifteen first-year undergraduate students and two university library staff at senior assistant librarians with similar characteristics to the actual study population. It was anticipated that the selected sample would accurately reflect the intended respondents. The researcher used a pilot study to pretest the questionnaires with the aim of identifying errors of commission and omissions and the grammar; thereafter, corrections were affected prior to the actual data collection.

3.9 Data Analysis

Data analysis involves procedures used to manipulate data to allow the researcher to answer research questions. The researcher used quantitative data analysis methods to analyze the data collected through questionnaires. Upon collection of the administered questionnaires, the collected data was taken through several stages of data processing, which included formatting, cleaning, scripting, and analysis. The data analysis was conducted using the Statistical Package for the Social Sciences (SPSS version 27), as developed by Norman et al. (1970). Although SPSS version 28 was available, this study utilized version 27 for the analysis. The software provided a comprehensive summary of the results by generating frequencies, percentage bar graphs, charts, and tables, providing mean scores and standard deviation measurements of the data distribution about a mean value. The research

employed descriptive analysis to determine relationships using analysis of variance (ANOVA) and inferential analysis to draw conclusions or infer patterns from the samples from a wider population that were analyzed.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where; Y= Students Perception (DV)

β_0 =Constant

X_1 = User Education programs

X_2 = Extent of Participation

X_3 = Quality of User Services

X_4 = Barriers to user education

ε = Error term

The analysis of interview data in this research followed a thematic approach. At no point in time did data analysis refer to a specific respondent to ensure that the anonymity of participants was maintained.

3.10 Ethical Considerations of the Study

The researcher sought ethical clearance in research proposals from an accredited Institutional Review Board (IRB), and in this case, the researcher applied through the KeMU Ethics Review Committee. A national research permit was obtained from the National Commission for Science, Technology, and Innovation [NACOSTI], 2024).

The research adhered to the provisions of the Data Protection Act (Government of Kenya, 2019) where it requires protection of the privacy of individuals. For that matter, the

questionnaires did not capture respondents' names or contact information. The researcher declared the purpose for which the data was being collected was for research purposes.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents data, interprets, and analyzes the research findings on the relationship between user education and undergraduate students' perception of university libraries in Meru County. The chapter is structured around the study's objectives, beginning with an analysis of response rate and background information for both undergraduate students and library staff.

4.2 Response Rate

The study administered 364 questionnaires to undergraduate students at two universities in Meru County. Out of these, 207 were returned, of which 201 were fully completed and thus considered valid for analysis; this represented a response rate of 55.2%. Babbie and Mouton (2001) indicates that a response rate of 50% is acceptable for surveys and anything above this is generally considered good. The 55.2% response rate falls within this range, suggesting it is sufficient for valid analysis. During the time of research, MUST students were on long holiday apart from a few that were available and hence hampered access to the anticipated target population. For the library staff, the study aimed to interview 12 librarians, of which 10 participated, resulting in a response rate of 83.4% as shown in Table 4.1.

Table 4. 1***Staff Response Rate***

Position	Targeted Population	Frequency	Percentage
Librarian	1	0	0
Senior Library Assistants	9	8	66.7
Library assistants	2	2	16.7
Total	12	10	83.4%

Table 4.2 indicates the response rate for the students who participated in the study.

Table 4. 2***Students Response Rate***

School	Sample Size	Frequency	Percentage
Business and Economics	75	25	6.9
Education and Social Sciences	76	21	5.8
Agriculture and Food Science	44	35	9.6
Medicine and Health Sciences	17	17	4.7
Nursing	44	45	12.4
Engineering and Architecture	31	24	6.6
Computing and Informatics/Technology	77	34	9.3
Total	364	201	55.2

These response rates align with the recommendations of Mugenda and Mugenda (2019) who stated that a response rate of 60% and above is sufficient for analysis. Similarly, Babbie and Mouton (2001) classify response rates of 60% and 70% as good and very good,

respectively, and assert that a 55.2% response rate is still adequate for data analysis. Consequently, the response rates achieved in this study are considered satisfactory and provide a reliable basis for interpreting the research findings.

4.3 Reliability of Statistics

The study measured the reliability of data using Cronbach’s Alpha before utilizing it to compute results. The reliability results are presented in Table 4.3.

Table 4. 3

Reliability Statistics

Main variables of the study	Cronbach's Alpha
User Education programs (X ₁)	0.854
Extent of Participation (X ₂)	0.839
Quality of User Services (X ₃)	0.894
Barriers to user education (X ₄)	0.900
Students Perception (Y)	0.825

From the results above, the Cronbach’s Alpha for all variables was above 0.825. This high level of internal consistency indicates that the data collected is reliable and suitable for analysis. According to Jerry et al. (2017), a Cronbach's Alpha value above 0.700 provides sufficient reliability for analysis, with values between 0.65 and 0.80 generally considered adequate for scales used in human dimensions’ research. Therefore, the reliability coefficients achieved in this study indicated that the measures used to assess user education

programs, extent of participation, quality of user services, barriers to user education, and students' perception consistently captured the intended constructs.

4.4 Background Profiles of the Respondents

The background information was sought from the student respondents to understand their characteristics in terms of university, school enrolled in, semester enrolled in, gender, and frequency of use of the library. The research also focused on their academic qualifications.

4.4.1 Background Profile of Students

The study aimed to establish the distribution of the respondents based on their enrolment in different institutions. Table 4.4 shows the obtained results.

Table 4. 4

Background Profiles of Students

Background Information	Attribute	Frequency	Percentage
Gender	Male	94	46.8%
	Female	105	52.2%
	Others	2	1.0%
	Total	201	100%
University	MUST	68	33.8%
	KeMU	133	66.2%
	Total	201	100%
Current Semester of Study	First Year, First Semester	113	56.2%
	First Year, Second Semester	37	18.4%
	First Year, Third Trimester	51	25.4%
	Total	201	100%

The findings revealed that the student respondents consisted of slightly more females (105, 52.2%) than males (94, 46.8%), with a small percentage identifying as others (2, 1.0%). The distribution of participants across the institutions showed that 68 students (33.8%) were from MUST and 133 (66.2%) from KeMU. The lower participation from MUST could be attributed to many students being on recess during the data collection period.

Understanding the proportion of students in different semesters as shown in Table 4.4 enables a more nuanced analysis of how library use and perceptions may differ at various stages of their academic journey. For example, the high percentage of first-semester students indicates that a sizable proportion of the study's participants are at the start of their academic careers, which may influence their need for and engagement with library services. This demographic information is critical for tailoring user education programs to effectively meet the needs of students at various points in their university tenure, thereby enhancing overall satisfaction and library.

Table 4. 5

Distribution of Students Respondents per School

School	Frequency	Percentage
Medicine and Health Sciences	94	46.8%
Nursing	58	28.9%
Engineering and Architecture	19	9.5%
Business and Economics	10	5.0%
Agriculture and Food Science	9	4.5%
Education and Social Sciences	8	4.0%
Computing and Informatics	3	1.5%
Total	201	100%

From Table 4.5 above, students were distributed across various schools, with the highest number from Medicine and Health Sciences (94, 46.8%), followed by Nursing (58, 28.9%), Engineering and Architecture (19, 9.5%), Business and Economics (10, 5%), Agriculture and Food Science (9, 4.5%), Education and Social Sciences (8, 4%), and Computing and Informatics (3, 1.5%). The distribution is indicative of the population of students present during the data collection period, with a significant proportion (75.7%) being medical students, reflecting the prominence of these programs in the universities.

Table 4. 6

Frequency of Library usage by Students per Week

Frequency of Library Visit	Frequency	Percentage
Daily	16	8.0%
Several times a week	95	47.3%
Once a week	44	21.9%
Less than once a week	13	6.5%
Rarely or never	33	16.4%
Total	201	100%

The findings, as shown in Table 4.6 show their library usage patterns. These findings were crucial as they provided insights into the demographic and academic characteristics of the student population, which was essential for understanding their perception of university libraries. For example, the high percentage of medical students indicate a greater need for specialized library resources in health sciences.

4.4.2 Academic Qualifications of Library Staff

The researcher targeted senior librarians, who in the two libraries were the departmental heads, senior assistant librarians and library assistants in charge of user services in the two universities, focusing on their highest level of academic qualifications. The findings are presented in Table 4.7.

Table 4. 7

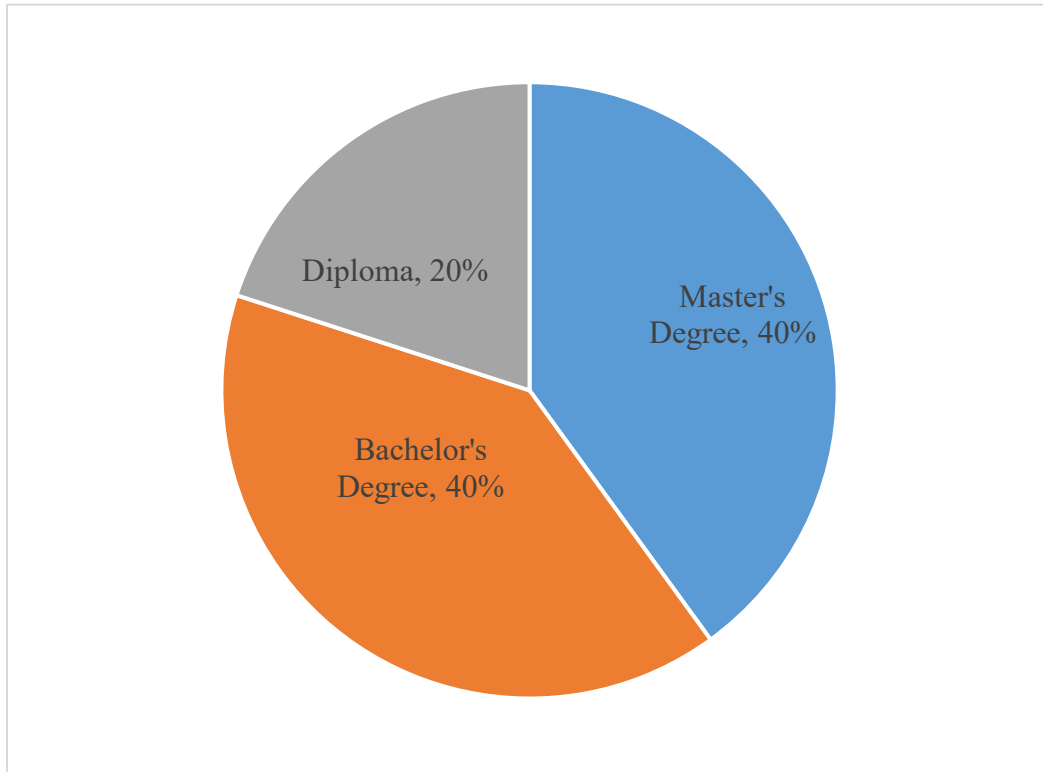
Academic Qualifications of Library Staff

Qualification Level	Frequency	Percentage
Master's Degree	4	40%
Bachelor's Degree	4	40%
Diploma	2	20%
Total	10	100%

The findings show a well-educated library staff with a balanced distribution of academic credentials. With a majority of 80% of the staff holding at least a bachelor's degree (master's 4, 40% and bachelor's 4, 40% degrees), the library is staffed by people with strong academic backgrounds, which is likely to benefit the quality of services and support provided to students. There were 2(20%) diploma holders. The presence of diploma holders suggests that the staff's educational experiences are diverse, which can improve the team's overall skill set and ability to address a wide range of students' needs. This educational diversity among staff members is critical to providing comprehensive and effective library services. Figure 4.1 shows the distribution diagrammatically.

Figure 4.1

Library Staff Qualifications



The academic qualifications and years of experience of the librarians align with the Commission for University Education (CUE, 2014) mandates and guidelines, which recommend appropriate, qualified staff commensurate with the number of service points. According to CUE (2014), a university librarian and deputy should hold doctorate degrees in Library and Information Science or related fields, while senior librarians, librarians, and assistant librarians should possess Master's degrees in Library and Information Science. Senior library assistants require a Bachelor's degree and Library assistants should have a diploma in library and information studies.

4.5 Strategies of User Education Programs Offered

The first objective of the study was to assess the types of user education programs offered by university libraries in alignment with the CUE (2014) standards, which state that university libraries should facilitate academic success and encourage lifelong learning through information literacy and competency initiatives (CUE, 2014).

The respondents were asked to rate various user education programs provided by their university libraries using a 5-level Likert scale, where SD = Strongly disagree (1), D = Disagree (2), N = Neutral (3), A = Agree (4), SA = Strongly agree (5). The results are presented in Table 4.8.

Table 4. 8*User Education Programs Offered by University Libraries*

Statements	SD (1)	D (2)	N (3)	A (4)	SA (5)	Mean	Std. Dev.
Library tours	21 (10%)	32 (16%)	44 (22%)	60 (30%)	44 (22%)	3.37	1.274
Library offers book talks	24 (12%)	25 (12%)	69 (34%)	44 (22%)	39 (19%)	3.24	1.243
Lectures and lecture exercises	26 (13%)	19 (9%)	71 (35%)	50 (25%)	35 (17%)	3.24	1.227
Library conducts workshops/seminars for new students	18 (9%)	14 (7%)	58 (29%)	55 (27%)	56 (29%)	3.58	1.218
Tutorials and demonstrations	19 (9%)	12 (6%)	30 (15%)	86 (43%)	54 (27%)	3.72	1.198
The university library has user education programs in place for new students	11 (5%)	14 (7%)	53 (26%)	53 (26%)	70 (35%)	3.78	1.158
Provide Library instructions	12 (6%)	11 (5%)	17 (8%)	62 (31%)	99 (49%)	4.12	1.151
The university library conducts library orientation	10 (5%)	9 (4%)	9 (4%)	54 (27%)	119 (59%)	4.31	1.084

The analysis of the responses indicates a general positive perception of the user education programs offered by the university libraries. The highest mean score was for "The

university library conducts library orientation" (mean = 4.31, SD = 1.084). The average score of 4.31 indicates that students rated the library orientation highly on a scale with a maximum possible score of 5. This suggests that students find library orientations to be very effective and satisfactory. The standard deviation (SD) of 1.084 represents the degree to which individual ratings differ from the mean score. A standard deviation slightly greater than one indicates that, while the majority of students rated the orientation positively, there was some variation in their responses, with few respondents rating it lower or higher than the average. This finding aligns with the literature that emphasizes the importance of orientation programs in helping new students acclimatize to library resources and services (Leong, 2024). Studies by Osei et al. (2021) lauded library orientation for providing library users with an opportunity to adapt to the library system or get to be knowledgeable on how the library operates its activities and make good use of its services. The finding supports studies by Umoriya et al. (2023) and Onyeke et al. (2023) who highlighted the positive impact of user education on the utilization of library resources by first-year students.

Similarly, "Provide library instructions" received a high mean score (mean = 4.12, SD = 1.151), reinforcing the value of structured instructional sessions in enhancing students' information literacy. According to Smith and Oliver (2022), library instruction programs are critical for equipping students with the necessary skills to effectively locate and utilize information resources. Such a programme would positively influence perceptions of the library users.

In contrast, "Library offers book talks" and "Lectures and lecture exercises" had lower mean scores of 3.24 each, suggesting that these programs may be less frequent or less

impactful from the students' perspective. These findings indicate areas for potential improvement or increased emphasis in library programming to better meet student needs.

"Library conducts library tours" (mean = 3.37, SD = 1.274) and "Library conducts workshops/seminars for new students" (mean = 3.58, SD = 1.218) also received moderate ratings, highlighting the significance of interactive and engaging programs in fostering a better understanding of library services and resources (Brown, 2021). In the reviewed literature, Misra (2019) emphasized the role of tours as a way of introducing users to various facilities and services offered by the library. The users were given an overview of the library's collection, operations, and various sections.

Lastly, "tutorials and demonstrations" (mean = 3.72, SD = 1.198) reflects a favorable perception, suggesting that hands-on and practical demonstrations are effective in enhancing students' library skills. Amadi et al. (2025) had proposed tutorials as one of the user education services that the university libraries could reach out to users by way of teaching and/or lecturing. Likewise, Misra (2019) recommended librarians take a course or a series of lectures as an aid to classroom lectures. The study found that 40% of the library staff interviewed had a master's degree; this is the minimum required for one to teach in a university. Therefore, the staff can offer tutorials in library usage and be co-opted to assist in offering tutorials when students are taught about the library in communication skills. This programme is anticipated that it would positively influence the perception of the librarians and the library by the new students in the university.

The staff interview revealed that indeed user education programs offered included physical orientation sessions, access training, specialist resource usage training, reference and citation seminars, library guides, and information literacy initiatives. The aim of these programs was to offer a variety of user education activities for new students to help them become more familiar with library resources.

Respondents were also asked to suggest additional user education programs they would recommend the university library adopt, including in-person workshops or training sessions, online tutorials or video guides, written guides or handbooks, and one-on-one sessions with library staff.

These recommendations align with the current trends in academic libraries that emphasize a blend of traditional and digital learning formats to cater to diverse student needs (Jones et al., 2023).

The findings indicate that while the university libraries in Meru County are providing a range of user education programs, there is room for improvement in areas such as book talks and lecture exercises. Aligning these programs with student preferences and integrating additional formats, such as online tutorials and one-on-one sessions, can further enhance the effectiveness of user education and support students' academic success.

4.6 Extent of Participation of Undergraduate Students in User Education Programs Offered by University Libraries in Meru County

The study sought to evaluate the extent of undergraduate students' participation in user education programs offered by university libraries in Meru County. Respondents rated their agreement with various statements about their participation using a 5-level Likert scale SD = Strongly disagree (1), D = Disagree (2), N = Neutral (3), A = Agree (4), SA = Strongly agree (5). The results are summarized in Table 4.9.

Table 4.9

Participation in User Education Programs

Statements	SD (1)	D (2)	N (3)	A (4)	SA (5)	Mean	Std. Dev.
I participated in the library orientation	18 (9%)	19 (10%)	13 (7%)	72 (35%)	79 (39%)	3.85	1.243
An attendance register is provided for all attendees of user programs	22 (11%)	25 (12%)	42 (21%)	44 (22%)	68 (34%)	3.56	1.276
I attended all the programs lined up for new library users during orientation	23 (11%)	34 (17%)	40 (20%)	54 (27%)	50 (25%)	3.38	1.280
I actively participate in the user education programs	19 (10%)	30 (15%)	51 (25%)	67 (33%)	34 (17%)	3.32	1.211
Library user education programs attendance was made compulsory by the university	39 (19%)	38 (19%)	50 (25%)	28 (14%)	46 (23%)	3.02	1.350

The results show that a significant proportion of students (74%) participated in the library orientation (mean = 3.85, SD = 1.243). This high participation rate aligns with the

importance of library orientations in familiarizing students with library services and resources, as highlighted by previous studies (Leong, 2024).

However, the attendance at all programs' during orientation was lower, with only 52% of students agreeing or strongly agreeing that they attended all programs (mean = 3.38, SD = 1.280). Active participation in user education programs was also moderate, with a mean score of 3.32 (SD = 1.211), indicating that while some students are engaged, there is room for improvement in encouraging broader participation. This was attributed to new students encountering numerous challenges in attempt to fit into the new environment (Asare et al., 2021).

The statement about the compulsory nature of user education programs had a lower mean score of 3.02 (SD = 1.350), suggesting that not all students perceived these programs as mandatory, which may affect attendance rates. Providing an attendance register for all attendees received a higher agreement (mean = 3.56, SD = 1.276), indicating a structured approach to tracking participation. These finding concur with studies conducted earlier by Okoye (2013) where user education courses were examined hence providing an opportunity to evaluate library user education. There is usually a number of activities undertaken by the university to orientate and usher in new students (Kusi & Alunga, 2018; Achankeng et al., 2023).

The library staff interview on their opinion and observation, how they rated the attendance of new undergraduate students during user education programmes offered by the library to the students. The library's user education programs are deemed positive by 90% of new

undergraduate students, with a 4/5 rating and positive turnout. However, a 60% turnout suggests that a substantial proportion of students may not be completely participating in these educational opportunities. Despite this, the programs are well-received and beneficial to those who participate, but there is potential for improvement in attendance rates to ensure greater student involvement. Overall, the library's user education programs are well-received and effective with its students.

The library staff interviewed on their opinion and observation, how they rated the attendance of new undergraduate students during user education programmes offered by the library to the students. The library's user education programs are deemed positive by 90% of new undergraduate students, with a 4/5 rating and positive turnout. However, a 60% turnout suggests that a sizable proportion of students may not be completely participating in these educational opportunities. Despite this, the programs are well-received and beneficial to those who participate, but there is potential for improvement in attendance rates to ensure greater student involvement. Overall, the library's user education programs are well-received and effective with its students.

Librarian 3 had this to say about attendance:

“The participation of new undergraduate students in the library's orientation events for the academic year 2023/2024 demonstrates high overall engagement levels. The most precise number shows that 2506 out of 2894 students, or 86.59%, attended the orientation sessions, indicating a high turnout.”.

Students were provided with proposed strategies that the libraries could employ to influence users' perception. The outcome is presented in Table 4.10.

Table 4. 10

Strategies to Improve Participation in User Education Programs

Statements	SD (1)	D (2)	N (3)	A (4)	SA (5)	Mean	Std. Dev.
The library should use social media platforms to reach out	8 (4%)	4 (2%)	12 (6%)	62 (31%)	115 (57%)	4.34	0.986
The library should put posters on noticeboards to publicize the user programs	7 (4%)	5 (3%)	8 (4%)	70 (35%)	111 (55%)	4.33	0.988
Use of university website to invite users for library user education programs	5 (3%)	5 (3%)	21 (10%)	66 (33%)	104 (52%)	4.27	0.997
Use of class representatives and student leaders to reach out to new students	12 (6%)	9 (5%)	14 (7%)	62 (31%)	104 (52%)	4.18	1.109
The course lecturers can be used in sensitization of the programs	3 (2%)	9 (5%)	28 (14%)	79 (39%)	82 (41%)	4.11	0.939
The university should include library orientation in the mandatory scheduled university orientation programs	14 (7%)	13 (7%)	17 (9%)	55 (27%)	102 (51%)	4.07	1.222
The library should send SMS to new students	13 (7%)	15 (8%)	25 (12%)	55 (27%)	93 (46%)	3.98	1.207

The suggested strategies to improve participation received strong support, particularly the use of posters (mean = 4.33, SD = 0.988) and social media platforms (mean = 4.34, SD = 0.986) for publicizing programs. This aligns with contemporary research that underscores

the effectiveness of digital communication and social media in reaching and engaging students (Jones et al., 2023).

Students also strongly agreed that the course lecturers could be used to sensitize them about the programs (mean = 4.11, SD = 0.939), indicating a potential partnership between faculty and library staff to boost participation. The use of class representatives and student leaders (mean = 4.18, SD = 1.109) was another highly endorsed strategy, reflecting the value of peer influence in promoting educational activities (Brown, 2021).

The findings indicate that while there is a decent level of participation in user education programs, there are opportunities for further engagement. Aligning with previous studies, integrating digital communication tools such as social media, SMS, and university websites can significantly improve program visibility and participation (Jones et al., 2023; Leong, 2024). Additionally, leveraging faculty and student leaders as advocates can create a more supportive and encouraging environment for new students to participate in these essential programs Smith and Oliver (2022).

Enhancing the extent of participation in user education programs requires a multifaceted approach that combines traditional methods with modern digital strategies. By implementing these recommendations, university libraries in Meru County can better support students' academic success and lifelong learning, fulfilling the CUE's standards.

4.7 The Quality of User Education

The quality of user education provided by university libraries plays a crucial role in shaping students' perceptions and enhancing their academic experience. This section explores students' satisfaction with the quality of user education and its impact on their perception of the library. The data was collected through a survey where respondents rated their satisfaction and agreement with various statements using a 5-level Likert scale SD = Strongly disagree (1), D = Disagree (2), N = Neutral (3), A = Agree (4), SA = Strongly agree (5). The responses from students were as shown in Table 4.11.

Table 4. 11*Quality of User Education*

Statements	SD (1)	D (2)	N (3)	A (4)	SA (5)	Mean	Std. Dev.
User education is significant to my educational pursuit	2 (1%)	5 (3%)	30 (15%)	82 (41%)	82 (41%)	4.17	0.869
User programs train and develop skills for independent information searching	2 (1%)	13 (7%)	29 (14%)	81 (40%)	76 (38%)	4.06	0.953
The accessibility of user education support services significantly improves my learning experience	4 (2%)	9 (5%)	28 (14%)	91 (45%)	69 (34%)	4.04	0.949
User education trains students on the use of different formats of information resources	4 (2%)	8 (4%)	36 (18%)	87 (43%)	66 (33%)	4.01	0.961
User education programs encourage users to seek assistance from library professionals	10 (5%)	14 (7%)	19 (9%)	85 (42%)	73 (36%)	3.98	1.129
User education programs properly introduce new students to the university library environment	8 (4%)	11 (6%)	27 (14%)	84 (42%)	71 (35%)	3.96	1.069
The user education resources offered by the university satisfy my requirements for education and expectations	3 (2%)	17 (9%)	32 (16%)	91 (45%)	58 (29%)	3.89	0.993
The user education programs are informative and sufficient in content	6 (3%)	20 (10%)	36 (18%)	73 (36%)	66 (33%)	3.85	1.081
I am satisfied with the overall quality of user education provided by the university library	6 (3%)	19 (10%)	48 (24%)	78 (39%)	50 (25%)	3.72	1.053

A significant majority of respondents (82%) agreed or strongly agreed that user education is significant to their educational pursuit, with a high mean score of 4.17 (SD = 0.869). This reflects the critical role of user education in academic success, corroborating findings by Smith and Oliver (2022) that effective user education programs enhance students' ability to utilize library resources efficiently. Liu et al. (2019) added that it was expected that user

education would positively impact students' learning results, curiosity, and self-motivation in order to support autonomous life-long learning. Liu et al. (2017) concluded that the students in universities considered library user education to be essential for their learning and research.

Regarding the influence of user education on students' perceptions of the library, 74% of respondents reported a positive or very positive impact. This aligns with the studies by Leong (2024) which highlight the positive correlation between comprehensive user education programs and improved student perceptions of library services.

The study established that 74% of respondents agreed or strongly agreed that the user education resources met their educational requirements and expectations (mean = 3.89, SD = 0.993). This indicates that the libraries are providing relevant and useful educational materials. Osei et al. (2021) confirmed that the users of the university library might not have been aware of how to use the resources in the library and only got enlightened after user education. According to Onyeke et al. (2023), libraries' principal roles include acquisition, processing, organizing, and making information resources accessible to users when needed. If the users are unable to access the resources, hence not satisfied, then the library's core mandate would not have been achieved.

The research found out that a notable 79% of students agreed that access to library support services significantly improve their learning experience (mean = 4.04, SD = 0.949). This finding is supported by Jones et al. (2023) who emphasize the importance of accessible library services in enhancing student learning.

On overall quality user education services, 64% of respondents expressed satisfaction with a (mean = 3.72, SD = 1.053), indicating room for improvement in certain areas to achieve higher satisfaction levels. Udem et al. (2020) and Baada et al. (2019) insist on the provision of quality library services to users. Chaudhry et al. (2021) made a clarification call to libraries to ensure that the information provided and the library services satisfied both the needs of patrons and users' expectations on library service.

69% found the content of user education programs to be informative and sufficient (mean = 3.85, SD = 1.081), suggesting that while content quality is generally good, there might be areas needing enhancement to fully meet student expectations. On the users' skills for independent searching; a high percentage of students (78%) agreed that the programs helped develop skills for independent information searching (mean = 4.06, SD = 0.953). This is consistent with Brown (2021) findings on the importance of developing independent research skills through user education. Governor and Mesagan (2024) while commenting on independent search by college students, praised user education in enabling the users to have the ability to search from the shelves and differentiate library resources and services. Chiya and Onyancha (2023) user-education programmes improved their skills in searching for information relevant to their studies.

More than three quarters of the student respondents (77%) agreed that the user education programs effectively introduced them to the university library environment (mean = 3.96, SD = 1.069), highlighting the effectiveness of these programs in familiarizing new students with library services. Bhatti (2010) acknowledged that the library environment was complex and was changing quickly. Folorunso and Njoku (2016) affirmed the need for the

librarians to see every user of the library as a novice, and therefore provide a procedural way of educating or orientating them. Chiya and Onyancha (2023) noted that new university students lacked the skills to utilize the library and hence the need for introduction.

Librarians' effort to train users on differently packed information formats and channels was acknowledged by 76% of respondents (mean = 4.01, SD = 0.961), underscoring the value of comprehensive user education in enhancing information literacy. 78% of respondents agreed that the programs encouraged them to seek help from library professionals (mean = 3.98, SD = 1.129), emphasizing the role of user education in fostering a supportive academic environment. This finding is in line with Agyen-Gyasi (2018) who alluded that during orientation, the library staff tried to project an impression of the library as a pleasant, approachable establishment where assistance could be found.

The results indicate that user education programs are generally well received and play a significant role in enhancing students' educational experiences. However, there is potential for further improvement, particularly in ensuring that all aspects of the programs meet students' needs and expectations. The findings are consistent with previous research, which highlights the importance of comprehensive, accessible, and well-structured user education programs in academic libraries (Smith & Oliver, 2022; Leong, 2024; Jones et al., 2023). One of the interviewees Librarian 1, noted, "*The quality of services has a direct influence on students' desire to continue utilizing the library. Positive experiences and high-quality services increase customer satisfaction and improve the likelihood of returning.*".

The quality of user education provided by university libraries in Meru County is positively influencing students' perceptions and supporting their academic pursuits. By addressing areas for improvement and integrating student feedback, these libraries can further enhance the effectiveness and impact of their user education programs. Additionally, Librarian 4 hoped that *“these educational activities would improve students’ academic performance by providing them with the knowledge and skills necessary to efficiently use library resources.”* In fact, Librarian 8 brings out the relationship between quality user services and perception as follows; *“The quality of library services has a considerable impact on how students perceive the library. When resources match their needs, students are more drawn to and satisfied with the library, which they regard as a significant educational resource. Meeting or exceeding students' expectations is critical for building a positive image and encouraging continuous library use.”*

According to the library staff, the quality of user education could be measured using parameters such as cost-effective, relevant, and user-friendly resources that have an easy-to-use interface for browsing the library's materials. Clear communication from staff was critical since it allowed them to understand and efficiently use the available services. Students also intended to serve as ambassadors, sharing their expertise with classmates and contributing to a culture of informed library use.

4.8 Barriers Affecting User Education

Understanding the barriers that affect the effectiveness of user education programs is crucial for improving these services. Respondents were asked to rate their agreement with several statements regarding the barriers they face in user education programs using a 5-

level Likert scale (SD = Strongly disagree (1), D = Disagree (2), N = Neutral (3), A = Agree (4), SA = Strongly agree (5)). The results are presented in Table 4.12.

Table 4. 12

Barriers Affecting User Education

Statements	SD (1)	D (2)	N (3)	A (4)	SA (5)	Mean	Std. Dev.
Lack of sufficient publicity of user education programs	27 (13%)	49 (24%)	57 (28%)	44 (22%)	24 (12%)	2.97	1.204
Limited space for training sessions in the library	41 (20%)	35 (17%)	53 (26%)	46 (23%)	26 (13%)	2.93	1.253
Lack of sufficient up-to-date teaching and learning resources	33 (16%)	60 (30%)	35 (17%)	45 (22%)	31 (15%)	2.91	1.293
Inadequate time allocated to user education sessions or classes	35 (17%)	51 (25%)	41 (20%)	51 (25%)	23 (11%)	2.89	1.260
Lack of sufficient staff to provide user education	37 (18%)	53 (26%)	45 (22%)	38 (19%)	28 (14%)	2.85	1.270
The user education programs are not intensive in content	42 (21%)	34 (17%)	61 (30%)	46 (23%)	18 (9%)	2.83	1.230
Inadequate assistance and direction from instructors or trainers	36 (18%)	62 (31%)	35 (17%)	45 (22%)	23 (11%)	2.78	1.250
Lack of reliable internet access	44 (22%)	60 (30%)	33 (16%)	37 (18%)	27 (13%)	2.71	1.308

The findings highlight several significant barriers to the effectiveness of user education programs:

On content intensity, 38% of respondents agreed or strongly agreed that user education programs are not intensive enough in content (mean = 2.83, SD = 1.230). This suggests a

need for more comprehensive and detailed educational sessions. Librarian 5 affirmed the fear, “*Library trainers do not always give all of the needed content, further complicating the educational process.*” Mwangi (2006) noted that the Library Skills course faced problems such as inappropriate and poor subject content, confirming the finding.

Shai (2020) based on a study at the University of Limpopo noted that library tours and library orientation do not offer sufficient and adequate content in user education. The programmes offer more basic and directional information about the library and its information services and resources.

The research intended to establish sufficiency of time allocated to user education. A significant portion (36%) indicated that inadequate time is allocated to user education sessions (mean = 2.89, SD = 1.260). This finding resonates with comments from staff, especially Librarian 7, who was concerned that “*time constraints for students, along with a lack of appropriate direction, contribute to low turnout and interest.*” It was added another Librarian 4 dimension relating to time by Librarian 3: “*Students may struggle to concentrate during sessions.*” This aligns with Smith and Oliver (2022) who emphasize the importance of adequate time for effective learning. This finding is corroborated by Shai (2020) who admitted that the time allocated to user education was insufficient. Mwangi (2006) had brought out another aspect of the timing of user education programs, where his finding indicated that they were inappropriately timed during the first week of the students’ arrival in the universities when they were busy settling down.

The study established that 45% of respondents agreed that there is a lack of sufficient up-to-date library user education teaching and learning resources (mean = 2.91, SD = 1.293), reflecting a need for continuous resource updates to meet current academic demands. It was noted that 49% of students felt that inadequate assistance and direction from instructors hinder their academic progress (mean = 2.78, SD = 1.250). This highlights the need for better training and support from library staff. This could be an explanation as to why Librarian 3 lamented, *“Misinformation from classmates who regard the library as insignificant influences student engagement and perspective.”*

On internet access 52% agreed that a lack of reliable internet access is a barrier (mean = 2.71, SD = 1.308), underscoring the critical role of stable internet for accessing digital resources. Librarian 5 affirmed, *“Technological challenges such as poor network access and a lack of computers impede the efficiency of user education programs.* This confirms that indeed there could be a problem relating to technology, especially internet connectivity, especially when online resources such as online journals and other library databases need to be accessed for demonstration or training purposes.

Publicity of user education is of concern to the research. Lack of sufficient publicity for user education programs was also noted, with 34% of respondents agreeing or strongly agreeing (mean = 2.97, SD = 1.204). Effective communication strategies are essential for increasing awareness and participation. This finding contravenes Shai (2020) whose study unveiled that the levels of awareness about user education and the realization of the importance of user education were high among final-year students in South Africa's University of Limpopo.

Another challenge that had been presented to respondents related on staffing issues. 45% of respondents agreed that there is a lack of sufficient staff to provide user education (mean = 2.85, SD = 1.270), indicating a need for more qualified personnel to handle user education programs. These challenges were highlighted by Librarian 6 when it was reported, “*Uncooperative faculty or departments might compound the situation, forcing the library staff to handle the majority of the work*”.

Limited space for training sessions was a barrier for 36% of respondents (mean = 2.93, SD = 1.253), suggesting that improving physical facilities could enhance the learning experience. The same case was noted: there were insufficient venues, which were always full, where librarians had to book in advance to conduct user education (Shai, 2020). The library staff noted that other barriers included: *the prevalent problem is a negative attitude toward libraries, which is often the result of bad perceptions acquired in high school. Also, the vast amount of knowledge anticipated to be covered in a single session can be overwhelming for both trainers and students.*

Respondents also provided their views on potential improvements to user education programs. The data is summarized in Table 4.13. The Likert scale used was SD = Strongly disagree (1), D = Disagree (2), N = Neutral (3), A = Agree (4), SA = Strongly agree (5).

Table 4. 13*Strategies for Improving User Education*

Statements	SD (1)	D (2)	N (3)	A (4)	SA (5)	Mean	Std. Dev.
Conduct library orientation after one week from the opening date	4 (2%)	6 (3%)	12 (6%)	58 (29%)	121 (60%)	4.42	0.876
Hire more staff to assist as subject specialist librarians	4 (2%)	8 (4%)	19 (9%)	67 (33%)	107 (52%)	4.29	0.961
Involve more staff and revamp their skills and knowledge	3 (2%)	7 (4%)	19 (9%)	66 (33%)	106 (52%)	4.29	0.916
Organize frequent online training sessions	5 (3%)	5 (3%)	14 (7%)	72 (36%)	103 (51%)	4.29	0.973
Vibrant 'Ask Librarian' chat services and social media services	3 (2%)	6 (3%)	22 (11%)	64 (32%)	103 (51%)	4.29	0.935
Incorporate user education as a core course for every program	5 (3%)	9 (5%)	21 (10%)	66 (33%)	104 (52%)	4.22	0.994
Provide continual user education by reference or user service librarians	5 (3%)	6 (3%)	17 (8%)	64 (32%)	111 (55%)		0.968

The findings indicate several barriers affecting the effectiveness of user education programs in university libraries. The lack of intensive content, inadequate time allocation, insufficient up-to-date resources, and limited instructor assistance are significant issues. This was articulated in the statement: conduct library orientation after one week from the opening date, which was supported by 179 (89%) respondents cumulatively with a mean of 4.42 and SD of 0.876. The respondents were also in agreement with the provision of continual user education by reference or user service librarians (175 (87%) with a mean of 4.32 and SD of 0.968.

Statement on hiring more staff to assist as subject specialist librarians and involving more staff in user education by ensuring their skills and knowledge revamped were supported Librarian 4;

“Recruiting more trained staff and providing extensive instruction to new students can help to improve educational outcomes; subsequently, creating a feedback mechanism would allow students to share their experiences and recommend improvements, so enhancing the library's educational offerings.” The other statements were also agreed upon by over 80% of respondents.

In addition, the following improvement strategies were strongly supported by respondents: incorporating user education as a core course, conducting orientation sessions after a week of the university opening, involving more staff, and organizing frequent online training sessions. Further to that, the library staff recommended that all trainers are appropriately trained and involve important stakeholders in the planning and execution of training sessions to dramatically increase educational quality. Increased computer availability and improved network connectivity are critical for providing students with the tools and resources they require. Offering desktop workstations to students without personal devices would allow for continual practice. Also, promoting the activities through numerous forums helps increase awareness and interest.

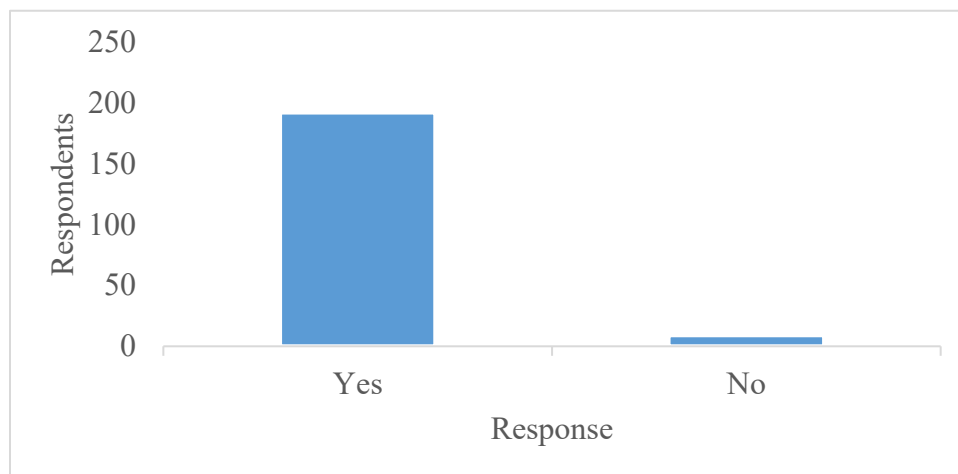
Addressing the identified barriers and implementing the suggested improvements can significantly enhance the effectiveness of user education programs in university libraries.

By doing so, libraries can better support students' academic success and adapt to the evolving educational landscape.

The researcher sought to find out if the respondents would recommend the user education services of the university library to other students, and the outcome was overwhelmingly positive. Out of 201 respondents, 192 (95.5%) indicated that they would. Only 9 (4.5%) were of the contrary opinion; see Figure 4.2.

Figure 4.2

Recommendation of the use of library to other students



4.9 Inferential Statistics

This study employed inferential statistical methods, specifically correlation analysis and regression analysis. Correlation analysis was utilized to determine the degree and direction of the association between four distinct abilities (types of user education programs, Extent of Participation, Quality of User Services and Barriers to user education). Meanwhile, regression analysis was used to explore the primary dependent variable, the Undergraduate

Students Perception of the Library and the independent variables. These inferential statistical findings contribute to an improved understanding of the effect of user education on undergraduate students' perception of University Libraries in Meru County.

4.9.1 Correlation Analysis

Correlation analysis was done establish the association, strength and direction of study variables relationship. The Pearson correlation coefficient was the statistical measure employed. This being a parametric test, it was considered to be the most suitable measure of correlation. According to Holcomb (2021), a correlation has to lie between -1 and +1, with +1 indicating perfect positive relationship and -1 revealing perfect negative relationship. The main independent variables (types of user education programs, Extent of Participation, Quality of User Services and Barriers to user education) and the main dependent variable (undergraduate students' perception of University Libraries) were measured for correlation. The results of the correlation analysis are presented in Table 4.14.

Table 4. 14*Correlation*

		Types of user education programs	Extent of Participation	Quality of User Services	Barriers to user education	Perception of University Libraries
Types of user education programs	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	201				
Extent of Participation	Pearson Correlation	0.678	1			
	Sig. (2-tailed)	0.000				
	N	201	201			
Quality of User Services	Pearson Correlation	0.644*	0.378**	1		
	Sig. (2-tailed)	0.041	0.000			
	N	201	201	201		
Barriers to user education	Pearson Correlation	0.110	0.656*	0.745*	1	
	Sig. (2-tailed)	0.009	0.027	0.000		
	N	201	201	201	201	
Perception of University Libraries	Pearson Correlation	0.894**	0.740**	0.871**	-0.139**	1
	Sig. (2-tailed)	0.006	0.000	0.001	0.000	
	N	201	201	201	201	201

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Correlation results from Table 4.14 revealed there was a significant positive linear correlation between types of user education programs with student's perception of University Libraries ($p\text{-value} < 0.05$, $r=0.894$). The positive association means an increase in the predictor variable (types of user education programs) causes and increase in the outcome variable (student's perception of University Libraries). The results also revealed the student extent of Participation in user education exhibited a significant strong linear positive association with their perception of university libraries ($p\text{-value} < 0.05$, $r=0.740$). The positive association means an increase in the student's perception of the university libraries is affected by an increase in the predictor variable (extent of Participation in user education)

Additionally, it is apparent that quality of user services exhibited strong positive significant linear correlation with students' perception of university libraries ($p\text{-value} < 0.05$, $r=0.871$). Thus, a rise in the predictor variable (quality of user education) leads to a corresponding increase of the outcome variable (perception of university libraries among the undergraduate students). Further it is apparent that barriers to user education revealed a significant strong negative linear association ($p\text{-value} < 0.05$, $r=0.139$). The negative correlation suggests that when the predictor variable (barriers to user education) decreases, the outcome variable (perception of university libraries among the undergraduate students) increases.

4.9.2 Multiple Regression Analysis

The purpose of this study was to investigate the relationship between user education and undergraduate students' perception of university libraries in Meru County. After ascertaining that there is a statistically significant association between each of the four predictors - namely types of user education programs, extent of Participation, Quality of user services and Barriers to user education and the outcome, which is the undergraduate student's perception of university libraries, a multiple linear regression was conducted. Table 4.15 provides the model summary; Table 4.16 highlights the ANOVA model and Table 4.17 outlines the overall regression model respectively.

Table 4. 15

Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.865 ^a	0.776	0.751	.17865

Predictors: (Constant), types of user education programs, extent of Participation, Quality of user services, Barriers to user education

According to the regression model summary, the model has a strong explanatory power, with an R of 0.865 and an R² value of 0.776. The high values (R of 0.865) indicate that independent variables in the model are highly correlated with the dependent variable. The value R square of 0.776 implies that the predictors accounts for 77.6% of the variance in undergraduate student's perception of university libraries while 22.4% is explained by other variables outside this study.

Table 4. 16

ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	20.526	4	5.132	33.698	.000 ^b
	Residual	272.011	196	1.388		
	Total	292.537	200			

Dependent Variable: undergraduate student's perception of university libraries

Predictors: (Constant), types of user education programs, extent of Participation, Quality of user services, Barriers to user education.

The analysis of variance (ANOVA) model summarized in Table 4.17 reveals a significant relationship between the predictor variables and the outcome variable, with an F-value of 33.698_{196,4}, $p < 0.001$ where $df = N-1$, thus a result of 200. Meaning the model is valid because the P value is less than 0.001 (level of significance). This suggests that the independent variables have a significant effect on the undergraduate student's perception of university libraries in Meru County.

Table 4. 17*Regression Coefficientsa*

Model	Unstandardized		Standardized	t	Sig.
	Coefficients		Coefficients		
	B	Std. Error	Beta		
1 (Constant)	2.644	0.369		9.883	0.000
Types of user education Programs	0.631	0.121	0.117	1.085	0.007
Extent of Participation	0.371	0.114	0.306	2.829	0.005
Quality of user Services	0.319	0.080	0.122	1.485	0.000
Barriers to user education	-0.251	0.078	0.159	1.922	0.001

a. Dependent Variable: undergraduate student's perception of university libraries

Table 4.19 can be simplistically expressed as:

$$Y = 2.644 + 0.631X_1 + 0.371X_2 + 0.319X_3 - 0.251X_4 + \varepsilon$$

Where; Y= student's perception of university libraries (DV)

X₁ = Types of user education Programs, X₂ = Extent of Participation, X₃ = Quality of user Services

X₄ = Barriers to user education, ε = Error term

All independent variables were found to be statistically significant in predicting the dependent variable, undergraduate student's perception of university libraries, according to the regression model shown in Table 4.18. The findings from Table 4.18 illustrate how certain factors influence undergraduate students' perceptions of university libraries,

particularly in Meru County. Initially, without the influence of any independent variables, the perception of university libraries stands at a constant value of 2.644. This baseline suggests an initial assessment or expectation undergraduates have towards library services before considering specific attributes or experiences. Among the independent variables analyzed, the type of user education programs emerges as the most significant predictor of students' perceptions, with a beta value of 0.631 and a p-value less than 0.05. This indicates that educational initiatives designed to familiarize students with library resources and how to use them effectively have the most substantial impact on improving or shaping students' perceptions positively.

The second predictor, the extent of participation, with a beta value of 0.371 and a p-value of 0.005, implies that the level to which students engage with the library and its offerings also significantly affects their overall perception. More engagement and active participation in library events or resources tend to enhance students' views and satisfaction. Quality of user services is the third significant factor, with a beta of 0.319 and a p-value of 0.000, underscoring the importance of the quality and reliability of library services in molding students' perceptions. High-quality services that meet or exceed students' expectations can significantly boost their opinion and satisfaction with the library.

Interestingly, the evaluation of information has a negative beta value of -0.251 with a p-value of 0.001, indicating a nuanced aspect of students' perceptions. This could suggest that more critical or discerning attitudes towards the information provided by libraries might lead to a slightly more negative perception, perhaps reflecting higher expectations or a desire for more refined or accurate resources.

The significance of user education programs is echoed in the research conducted by Odunlami et al. (2021) who found that library orientation and literacy programs significantly influence students' utilization and perception of library resources. On impact of participation levels on students' perceptions, the work of Zhang and Zheng (2021) supports the observation that active engagement with library services and resources contributes to a more positive library perception among undergraduates. Further, the significance of service quality on students' perceptions is validated by Boateng et al. (2021) who investigated the impact of library service quality on students' satisfaction in a Ghanaian university context. Their findings reiterate the importance of high-quality library services, suggesting that effective, reliable, and responsive library operations contribute significantly to shaping positive perceptions and enhancing user satisfaction.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter contains a summary of the results of the study, conclusions, and suggestions. The study was set out to examine the relationship between user education and undergraduate students' perception of the university libraries in Meru County. The study was guided by the following specific objectives: types of user education programs offered, the extent of undergraduate students' participation in user education programs offered by the university libraries, undergraduate students' perceptions on the quality of user education, and barriers affecting user education in university libraries in Meru County.

5.2 Summary of the Research Findings

The study conducted a thorough examination of user education programs at university libraries, quality, respondent characteristics, program types, barriers, and participation levels. The reliability of the data, as evidenced by strong Cronbach's Alpha values (above 0.825), reflects the consistency and dependability of the measurement instrument. emphasizes the strength of the research. The respondent profile shows a higher level of participation from KeMU and more so a strong proportion of Medicine and Health Sciences students. The staff profile indicated a majority of library employees have appropriate

qualifications that meet CUE criteria. While library orientations were highly regarded, other activities, such as book chats and lectures, are less popular.

5.2.1 Strategies of User Education Programs

The study found that the university libraries in Meru County offer a variety of user education programs aimed at enhancing students' information literacy and library usage skills. These programs include library orientation, library instruction sessions, book talks, library tours, lectures, workshops, seminars, tutorials, and demonstrations. Library orientation and instruction sessions received high participation rates and were deemed effective by the majority of students. However, programs such as book talks and lectures had lower engagement, indicating potential areas for improvement. The results of the correlation analysis showed a significant positive linear correlation between types of user education programs with student's perception of University Libraries in Meru County as demonstrated by a correlation coefficient of 0.894 and a P value of 0.006.

5.2.2 User Participation in the User Education Programmes

The analysis of user education program participation showed that while library orientation had a high level of engagement (mean score of 3.85), sustained attendance at all future sessions is lower (mean score of 3.38). Active participation in ongoing user education sessions is moderate (mean score 3.32), indicating that there is potential for development in terms of student involvement. The compulsory nature of these programs elicits mixed reactions (mean score of 3.02), implying that mandatory attendance requirements may not be universally enforced or valued. However, the usage of an attendance register is

perceived positively (mean score of 3.56), indicating that students probably value the tracking of involvement which is better articulated by use of register that was common in secondary school environment. Overall, while initial orientation efforts are helpful, there is a need for measures to promote continuing and active participation in user education. The correlation analysis revealed the student extent of Participation in user education exhibited a significant strong linear positive association with their perception of university libraries in Meru County as supported by (p-value < 0.05, r=0.740).

5.2.3 Quality of User Education

Students generally had positive perceptions of the quality of user education programs. The programs were seen as significant to their educational pursuits, with high satisfaction levels regarding the relevance and adequacy of the resources provided. According to the study, respondents had an overall positive opinion of user education, with average ratings over 3.5 for every statement. Mean scores of 4.17 and 4.04, respectively, indicate that users greatly appreciate the importance of user education in their academic endeavors and find that the availability of support services greatly improves their learning experience. Though there is still opportunity for improvement, satisfaction with the overall standard of user education and the adequacy of program material have a slightly lower mean, at 3.72 and 3.85, respectively. Even though user education initiatives are generally regarded as valuable and well-received, opinions vary noticeably from one another. Students appreciated the accessibility of support services such as training sessions and online resources. However, there were suggestions for more intensive and comprehensive content in some programs to better meet their academic needs.

The study's correlation analysis revealed a quality of user services exhibited strong positive significant linear correlation with students' perception of university libraries (p-value < 0.05, r=0.871).

5.2.4 Barriers Affecting User Education

Several barriers affecting the effectiveness of user education programs were identified. The information provided identified a number of significant obstacles that user education programs face. Significant variation in opinions was indicated by a mean score of 2.83 and a standard deviation of 1.230, which indicated respondents' perceptions that the programs were light on content and intensity. The problem was exacerbated by inadequate session time allotment and a lack of current digital resources, with mean scores of 2.89 and 2.91 respectively. These results highlight a discrepancy between the best comprehensive training environment and the level of user education at the moment, which could improve user engagement and learning outcomes. Lower mean scores and bigger standard deviations indicate that these difficulties were made worse by instructors' lack of support and erratic internet connectivity.

Additionally, the lack of people to carry out user education programs and their inadequate publicity are indicative of structural problems that could compromise these initiatives' efficacy. The restricted amount of space available for training sessions suggests a physical limitation that may affect the caliber and accessibility of user education. When taken as a whole, these obstacles point to the necessity of strategically enhancing program design, resource distribution, and logistical preparation in order to enhance user education. To address these problems and build a more resilient and successful user education framework,

measures like raising staffing and resource levels, expanding program exposure, and upgrading infrastructure may be necessary. The correlation analysis on barriers to user education revealed a significant strong negative linear association (p- value < 0.05, $r=0.139$). The negative correlation suggests that when the predictor variable (barriers to user education) decreases, the outcome variable (perception of university libraries among the undergraduate students) increases.

5.3 Conclusions

The conclusions are drawn in line with the objectives of the study.

5.3.1 Strategies of User Education Programs

The libraries have employed numerous programs to execute user education and predominantly user orientation, library tours, and instruction sessions. There are programs that could be employed by the libraries in Meru to execute user education, such as book talks, library tours, lectures, workshops, seminars, tutorials, and demonstrations. However, they are less utilized.

A majority of the respondents (74%) indicated that they had participated in the user education programs offered by both libraries. There was a feeling that the universities could reach out to more first-year students by employing a number of promotional techniques that were deemed by respondents as effective, such as the use of posters and social media.

5.3.2 User Participation

The majority of the first-year respondents use the library, indicating active engagement with library resources, which highly correlates with a high level of attendance during user education programs. The visits of at least once per week stood at 69% among the respondents who participated. This response is above 50%, and it is indicative that students have a positive perception of the library. The contrary would have been low rates of library visits and not valuing user education. It can be concluded that indeed user education influences undergraduate perception of the library. There was high positivity towards the library, as affirmed by the respondents involved in this study. A majority of them 192 (95.5%) indicated that they would recommend library usage to other students.

5.3.3 Quality of User Education

The study concludes that the quality of user education is proportional to the impact it has on educational pursuit. A majority of the respondents agreed that the quality of user education programs was satisfactory (64%) and had sufficient content (69%).

5.3.4 Barriers to User Education Programs

Implementation of user education programs is faced with some challenges. Predominantly, the respondents spotted unstable internet access. Other barriers included small training venues, insufficient staff to train, inadequate publicity of the programs, limited time allocated for user education, incomprehensive program content, and outdated content in the user programs.

5.4 Recommendations of the Study

The study recommends the following:

5.4.1 User Education Strategies

The study recommends that libraries should employ other user education programs to complement the commonly utilized programs. The respondents suggested improvement of the in-person workshops or training sessions, online tutorials or video guides, written guides or handbooks, and one-on-one sessions with library staff. Other conventional programs, such as book talks and lecture exercises, could also be employed.

The government could entrench enriched user education programs and deviate from the traditional strategies employed. Public libraries would benefit much from employing the suggested strategies.

5.4.2 Participation in User Education

Implementing an effective feedback mechanism can assist libraries in regularly assessing and improving their user education programs. Regularly requesting student input via surveys, focus groups, or feedback forms can provide useful insights into program efficacy and areas for development. Furthermore, using attendance data and engagement metrics to assess the performance of various program parts can help inform future changes and ensure that programs satisfy the requirements of students.

The two universities do not offer a common university course on library use. The universities could introduce a course that could be taught by librarians who are holders of

masters and doctorate degrees. Such discourses in class could intensively expose students to library usage skills and positively influence the student's perception towards the library.

The divergent viewpoints on required attendance indicate that flexibility may be advantageous. Libraries should consider offering optional, but highly motivated, courses that cater to a variety of learning styles and schedules. Balancing compulsory and elective elements can accommodate varied degrees of student commitment while increasing total involvement.

5.4.3 Quality of User Education

There ought to be a concerted effort to enhance the content and raise the general intensity of the programs in light of the feedback indicating that the present user education initiatives are thought to be insufficient. Inadequate session time and resource availability could also be addressed by lengthening sessions and offering a wider range of forms, including online courses or hybrid formats. To address the issues of outdated resources and restricted space, it is critical to invest in innovative user education resources and technology. Libraries should think about investing in new digital resources and extending physical or virtual training space. Upgrading internet infrastructure and providing consistent connectivity is critical for both in-person and online user education programs. In addition, increasing the number of library personnel committed to the provision of user education will relieve the pressure on existing professionals while also providing more individualized help to students.

The government could ensure installation of high bandwidth internet in all her libraries whether Kenya National Library Service owned branches, special libraries and academic libraries so as to reach more potential library users during user education sessions. The staff could also be taken for refresher courses to enhance their skills in handling modern technologies that would provide avenues for the clients to participate in user education programs remotely.

5.4.4 Challenges of User Education

The study emphasizes the importance of better communication and marketing for user education programs. Creating a targeted communication strategy that uses many channels, such as social media, email newsletters, and campus events, can increase awareness and involvement. Engaging students in interesting and enticing forms, such as gamified workshops or peer-led sessions, can help increase participation and interest over time.

The government would take a deliberate initiative to introduce library courses and library skills as early as the primary school, junior school and high school level. Any subsequent review of the Competency Based Education (CBE) Curriculum should consider introduction of such a course to introduce learners to libraries at an early age. The government could also make a deliberate effort to establish school media centres in all schools, given that it provides free textbooks to these schools.

5.5 Suggestions for Further Research

The study was conducted in universities in Meru County; similar research is recommended to be carried out in other counties in the country. This will attempt to affirm the findings established in this research. There is a need for further research on the new trends towards technological dependence and entertaining approaches in user education. Further studies could be conducted to investigate if adoption of the SERVQUAL model in user education with the view of establishing if improvement in service delivery would improve user participation in the user programs, hence changing perception of the library. Finally, the study recommends investigation on barriers perceived by undergraduate students in the subsequent years and postgraduates in relation to user education.

REFERENCES

- Abah, A. T., Chorun, M. T., & Mbatoron, V. M. (2016). Factors affecting the effectiveness of user education programme for fresh students in selected colleges in Nasarawa State, Nigeria. *International Journal of Academic Library and Information Science*, 4(9), 249–263. <https://www.academicresearchjournals.org/IJALIS/PDF/2016/November/Abah%20et%20al.pdf>
- Abdulsalamami, L. T., Ekhaguosa, V. O., & Adeg, R. (2021). User's Perception about Orientation Program of Academic Library. *Journal of Business Strategy Finance and Management*, 1 & 2(2), 15–27. <https://doi.org/10.12944/JBSFM.02.01-02.04>
- Achankeng, N. D., Lyonga, N. A. N., & Anyi, E. M. E. (2023). Exploring Academic Support needs for Transitional Adjustment OF Newly Admitted Students IN Cameroon State Universities. *The American Journal of Social Science and Education Innovations*, 5(2), 12–24. <https://doi.org/10.37547/tajssei/Volume05Issue02-03>
- Adindu, A. I. (2020). Application of Information Communication Technologies (ICT) for effective user education programme in federal university libraries in south east, Nigeria. *International Journal of Library and Information Science*, 12(1), 16–30. <https://doi.org/10.5897/IJLIS2018.0844>
- Agyen-Gyasi, K. (2018). User education at the Kwame Nkrumah University of Science and Technology (KNUST) Library: Prospects and challenges. *Library Philosophy and Practice*, 4(2), 25–40. <https://digitalcommons.unl.edu/libphilprac/193>
- Ahenkorah-Marfo, M., & Teye, V. (2010). *From User Education to Information Literacy: The Kwame Nkrumah University of Science Technology Library'S Experience*. <https://www.researchgate.net/profile/Victor-Teye>
- Ahiauza, B. E., Umelo, D. I., & Amadi, N. S. (2024a). Influence of User Education Programmes in Mitigating Book Vandalism in Academic Libraries in Tertiary Institutions in Rivers State. *African Journal of Economics and Management Research*, 2(1). <http://rajournals.net/index.php/ajemr/article/view/199>
- Ahiauza, B. E., Umelo, D. I., & Amadi, N. S. (2024b). Influence of User Education Programmes in Mitigating Book Vandalism in Academic Libraries in Tertiary Institutions in Rivers State. *African Journal of Economics and Management Research*, 2(1), 1-10. <http://rajournals.net/index.php/ajemr/article/view/199>
- Ahmad, P. (2016). Academic E-Book Usage: Expectancy Confirmation Model. *Pakistan Library & Information Science Journal*, 47(1), 1-10. <https://search.ebscohost.com/login.aspx?direct=true&profile=ehost&scope=site&authtype=crawler&jrnl=19943059&AN=115151490&h=nBV20yYlgjGrXVvHxxDpSIPOFBIIYI013%2FoFMqc04YyRD2R2oCob%2FpFpFcDowyHacJmbJno83Fe00jxFBul4ow%3D%3D&crl=c>

- Ahmed, I., & Ishtiaq, S. (2021). Reliability and validity: Importance in Medical Research. *Methods*, 12(13), 2401-2406. <https://doi.org/10.47391/JPMA.06-861>
- Akalumhe, K. O. (2011). Library users' education programme in Nigerian Universities: A case study of Lagos State University, Ojo. *Journal of Readings in Education, Development and Globalization*, 1(1), 19–24. <https://www.icidr.org/doc/ICIDR%20PDF%20contents/journal%20of%20research%20in%20education%20and%20society/JRESSvol2%20nos3%20december%202011/library%20user%20educational%20programme.pdf>
- Akande, S. (2009). Knowledge, Perception, and Attitudes of Library Personnel towards Preservation of Information Resources in Nigerian Federal University Libraries. *Library Philosophy and Practice (e-Journal)*, 303, 1-8. <https://digitalcommons.unl.edu/libphilprac/303>
- Akpovire, E., Olawoyin, O. R., Adebayo, O., & Esse, U. C. (2019). Role of information literacy skills on use of information resources by medical students in Lagos state. *Library Philosophy and Practice*, 1-18. <http://repository.elizadeuniversity.edu.ng/handle/20.500.12398/774>
- Ali, S., Yu, H., & Amran, N. (2018). Library user perception towards librarians in public library: A malaysian story. *International Journal of Academic Research in Business & Social Sciences*, 8(9), 452–463. <http://dx.doi.org/10.6007/IJARBS/v8-i9/4604>
- Amadi, W. A., Du Plessis, M., & Balogun, T. V. (2025). A systematic review of the factors influencing the motivation to lead among students in higher education. In *Frontiers in Education*, 10(17), 1-15. <https://www.frontiersin.org/journals/education/articles/10.3389/feduc.2025.1564445/full>
- Amarasekara, K., & Marasinghe, M. (2020). User Satisfaction on library resources and services: Survey conducted in main library of the Open University of Sri Lanka. *Journal of the University Librarians Association of Sri Lanka*, 23(2), 27–46. <http://doi.org/10.4038/jula.v23i2.8007>
- Anwar, M. A., & Naveed, M. A. (2019). Developments in Information Literacy in Pakistan: Background and Research. *Pakistan Library & Information Science Journal*, 50(2), 7-20. <https://search.ebscohost.com/login.aspx?direct=true&profile=ehost&scope=site&authtype=crawler&jrnl=19943059&AN=136486308&h=q9MQPcewzK%2Fd7RM6t94SOqrqIHietVaQ34LIG9PKeflyouiXfr5sAyss4Z1AHiFrw716QsxoYoxxbITSqNobYA%3D%3D&crl=c>
- Anyim, W. O. (2018). Multimedia instructional resources for effective library user education programme in universities in North-Central, Nigeria. *Library Philosophy and Practice*, 1-30. <https://digitalcommons.unl.edu/libphilprac/1821>
- Aravind, S., Muthumari, P., & Chinnasamy, K. (2024). Orientation Programs are Supportive to Improve the Utilization of Academic Library-with Special Reference

- to Library Professionals of Self Financing Engineering College at Madurai and Dindigul Districts of Tamilnadu, India. *European Academic Journal*, 2(9), 11528-11544. <https://www.academia.edu/download/91635983/1152.pdf>
- Ariffin, K., Noor, N. A. M., & Alias, A. (2022). Students' Expectation, Perception and Personal Development on Their University Education. *Asian Journal of University Education*, 18(3), 803–817. <https://doi.org/10.24191/ajue.v18i3.19003>.
- Asare, M., Ako, M., & Kwame, S. O. (2021). Assessment of the influence of general orientation service on students' adjustment to campus life at the Christ Apostolic University College and The University of Cape Coast in Ghana. *International Journal of Social Sciences and Management Review Volume*, 4(2), 139-160. https://www.academia.edu/download/72313031/ijssmr04_19.pdf.
- Ashaver, D., & Bem-Bura, M. D. (2013). Students' perception of library services in universities in Benue State. *IOSR Journal of Research & Method in Education*, 1(5), 41–48. www.iosrjournals.org.
- Association, American Library (2012). *Guidelines for instruction Programs in Academia Libraries*. Advanced Learning Transforming Scholarship. <https://www.ala.org/acrl/standards/guidelinesinstruction>
- Ayiah, E. M., & Tamakloe, E. (2023). Users' Perception of Library Resources in Academic Libraries: A Case of University of Education, Winneba Library. *International Journal of Innovative Science and Research Technology*, 8(2), 601–615. <https://ijisrt.com/assets/upload/files/IJISRT23FEB403.pdf>.
- Baada, F. N.-A., Baayel, P., Bekoe, S., & Banbil, S. (2019). Users' perception of the quality of public library services in the Greater Accra Region of Ghana: An application of the LibQUAL+ Model. *Library Philosophy and Practice*, 1–33. <http://digitalcommons.unl.edu/libphilprac>.
- Babbie, E., & Mouton, J. (2001). *The Practice of Social Research*. South Africa Oxford University Press.
- Baca, L.-A. (2014). The effect of library orientation on library knowledge. *The Christian Librarian*, 57(2), 13. <https://doi.org/10.55221/2572-7478.1411>
- Baharum, A., & Jaafar, A. (2015). *User interface design: A study of expectation-confirmation theory*. <https://repo.uum.edu.my/id/eprint/15486/>
- Bamidele, I. A., Omeluzor, S. U., & Amadi, H. U. (2013). Utilization of journal publications by undergraduate students of Babcock University, Nigeria. *Library Philosophy and Practice*, 1-14. <https://digitalcommons.unl.edu/libphilprac/1006>
- Basak, M. (2018). User education of University library in India with special reference to University of GourBanga. *Journal of Advanced Research in Library and Information Science*, 5(1),

3641.https://d1wqtxts1xzle7.cloudfront.net/70374229/pdf_20libre.pdf?1632808632=&response-content-disposition=inline%3B+filename%3D

- Bashorun, M. T., Aboderin, O. A., & Lawal, W. O. (2020). User education programmes as correlate of information literacy skills among undergraduates in universities in Osun State, Nigeria. *Journal of Library Services and Technologies*, 2(1), 1–16. <https://d1wqtxts1xzle7.cloudfront.net/79916989/202015998343289894137167-libre.pdf.30/8/2023 1:10p.mi>
- Bhandari, P. (2021, July 15). *Questionnaire Design | Methods, Question Types & Examples*. Pritha Bhandari. <https://www.scribbr.com/methodology/questionnaire/>
- Bhatti, R. (2010). An evaluation of user-education programmes in the university libraries of Pakistan. *Library Philosophy and Practice*, 1-15. <https://core.ac.uk/download/pdf/188046481.pdf>
- Boateng, R., Boateng, S. L., Awuah, R. B., Ansong, E., & Anderson, A. B. (2016). Videos in learning in higher education: assessing perceptions and attitudes of students at the University of Ghana. *Smart Learning Environments*, 3(1), 8-21. <https://link.springer.com/article/10.1186/s40561-016-0031-5>
- Chalukya, B. V. (2015). Academic libraries and user education. *E-Library Science Research Journal*, 3(5), 1–6. https://www.researchgate.net/profile/B-Chalukya/publication/279182896_ACADEMIC_LIBRARIES_AND_USER_EDUCATION/links/558cf65e08ae40781c206b24/ACADEMIC-LIBRARIES-AND-USER-EDUCATION.pdf
- Chatterjee, S., Samanta, M., & Dey, S. (2021). The Role Played by Public Libraries in Promoting Information Literacy and User Education. *IUP Journal of Knowledge Management*, 19(1), 36-49. <https://search.ebscohost.com/login.aspx?direct=true&profile=ehost&scope=site&authtype=crawler&jrnl=09729216&AN=150180169&h=8Jgbv1J4ckDd9dZsLo2R3vs9Vq5XIsWr%2B9293uwf%2BHP%2F1kM%2BgabkffWODW4ETF3dHxi6G%2B%2FZcLgj5ooMDzBXiA%3D%3D&crl=c>
- Chaudhry, M. S., Bhatti, M. Z., Shahzad, K., Sulehri, I. G., Hussain, I., & Ullah, M. U. (2021). Users' Perceptions and Expectations of Quality Services in Libraries of Punjab Group of Colleges, Lahore. *Library Philosophy & Practice*, 1-20. <https://search.ebscohost.com/login.aspx?direct=true&profile=ehost&scope=site&authtype=crawler&jrnl=15220222&AN=154632784&h=5%2BJJ%2BbDHvEo3k%2BFgA%2BQ0TwPOwTMYqnuxUXax1kB5U3L%2FZSb2TOPF%2FgiA8IZOGESv3Q2eB5kv32x%2Bb9qOinyw0Q%3D%3D&crl=c>
- Chiya, K. P., Onyanacha, O. B., & Ezema, I. J. (2023). Students' perceptions of the user education programmes at a South African university. *IFLA Journal*, 49(2), 419–431. <https://doi.org/10.1177/03400352221130775>
- Chiya, K. P., & Onyanacha, O. B. (2023). *Transforming University Students into Library Users: Influence of User-Education Programmes on the Information and Study*

Skills of First-Year Students in South Africa. Media and Information Literacy as a Public Good, 189. <https://doi.org/10.26620/uniminuto/978-958-763-705-2.cap.8>

- Chou, C.-H., Chiu, C.-H., Ho, C.-Y., & Lee, J.-C. (2013, June 18-22). *Understanding Mobile Apps Continuance Usage Behavior and Habit: An Expectance-Confirmation Theory*. [Paper Presentation]. Pacific Asia Conference on Information Systems. Jeju Island, Korea. <https://core.ac.uk/reader/301359576>
- Council of Governors (2018). *Council of Governors Annual Statutory Report 2018 – 2019*. <https://www.cog.go.ke/cog-reports/category/92-council-of-governors-statutory-annual-reports>
- County Government of Meru (2024). *About Meru County*. <https://meru.go.ke/>
- Darley, J. M., & Fazio, R. H. (1980). Expectancy confirmation processes arising in the social interaction sequence. *American Psychologist*, 35(10), 867. <https://doi.org/10.1037/0003-066X.35.10.867>
- Dash, N., & Padhi, P. (2016). LSQA Scale: A Tool for Measuring Users' Perceptions of Service Quality in Libraries. *DESIDOC Journal of Library & Information Technology* 36(4), 181-193. https://www.researchgate.net/publication/307590055_LSQA_Scale_A_Tool_for_Measuring_Users'_Perceptions_of_Service_Quality_in_Libraries
- Eke, F. M., Opara, G. C., Njoku, I. S., & Okoye, I. B. (2018). The effect of library orientation programme on use of library resources by freshmen and women in the Federal University of Technology, Owerri. *Journal of Applied Information Science and Technology*, 11(1), 73-80. https://www.researchgate.net/publication/327776036_The_Effect_of_Library_Orientation_Programme_on_Use_of_Library_Resources_by_freshmen_and_Women_in_the_Federal_University_of_Technology_Owerri
- Eshbach, B. E. (2020). Supporting and engaging students through academic library programming. *The Journal of Academic Librarianship*, 46(3), 102129. <https://doi.org/10.1016/j.acalib.2020.102129>
- Filiz-Ozbay, E., & Erkut, Y. O. (2007). "Auctions with Anticipated Regret: Theory and Experiment." *American Economic Review*, 97 (4), 1407–1418. <https://www.aeaweb.org/articles/pdf/doi/10.1257/aer.97.4.1407>
- Folorunso, O., & Njoku, E. (2016). Influence of library environment and user education on undergraduates' use of library at the University of Ibadan, Nigeria. *European Scientific Journal*, 12(19), 288–304. <http://dx.doi.org/10.19044/esj.2016.v12n19p288>

- Galloway, R., Reynolds, B., & Williamson, J. (2020). Strengths-based teaching and learning approaches for children: Perceptions and practices. *Journal of Pedagogical Research*, 4(1), 31–45. <http://dx.doi.org/10.33902/JPR.2020058178>
- George, T. (2022, March 10). *Types of Interviews in Research: Guide & Examples*. Scribbr. <https://www.scribbr.com/methodology/interviews-research/>
- Goldman, C., Turnbow, D., Roth, A., Friedman, L., & Heskett, K. (2016). Creating an engaging library orientation: First year experience courses at University of California, San Diego. *Communications in Information Literacy*, 10(1), 81-98. <https://escholarship.org/uc/item/5pm433xh>
- Government of Kenya (2019). *Kenya-gazette-data-protection-act*. National Council for Law Reporting with the Authority of the Attorney-General. <https://www.odpc.go.ke/download/kenya-gazette-data-protection-act-2019/?wpdmdl=3235&refresh=65b789b046ec81706527152>
- Hamid, A., & Ahmad, Z. (2016). User education programs in university libraries: A survey. *Pakistan Library & Information Science Journal*, 47(1), 72–78. <https://www.researchgate.net/publication/298790771>
- Harisanty, D., Diba, A. F., & Layyinah, K. (2020). The Effectiveness Program of User Education at University of Malaya’s Library. *Library Philosophy and Practice*, 1–15. <https://digitalcommons.unl.edu/libphilprac/4227>
- Holcomb, T. S. (2022). *Lambda Coefficient of Rater-Mediated Agreement: Evaluation of an Alternative Chance-Corrected Agreement Coefficient* [Doctoral dissertation, The University of North Carolina at Charlotte.]. United States. <https://www.proquest.com/openview/6cbb3ee3c3ba7fcfd42c5a0f1f4ec563/1?pq-origsite=gscholar&cbl=18750&diss=y>
- Isbell, L. M., Lair, E. C., & Rovenpor, D. R. (2013). Affect-as-Information about Processing Styles: A Cognitive Malleability Approach. *Social and Personality Psychology Compass*, 7(2), 93–114. <https://doi.org/10.1111/spc3.12010>
- Jabareen, Y. (2009). Building a conceptual framework: philosophy, definitions, and procedure. *International journal of qualitative methods*, 8(4), 49-62. <https://journals.sagepub.com/doi/full/10.1177/160940690900800406>
- Jameson, J., Natal, G., & Napp, J. (2019). Evolving and enduring patterns surrounding student usage and perceptions of academic library reference services. *College & Research Libraries*, 80(3), 366. <https://doi.org/10.5860/crl.80.3.366>
- Jayasundara, C., Ngulube, P., & Minishi-Majanja, M. K. (2009). A theoretical model to predict customer satisfaction in relation to service quality in selected university libraries in Sri Lanka. *South African Journal of Libraries and Information Science*, 75(2), 179–194. <https://journals.co.za/doi/epdf/10.10520/EJC61321>
- Johns, N., & Howard, A. (1998). Customer expectations versus perceptions of service performance in the foodservice industry. *International journal of service industry management*, 9(3), 248-265. <https://www.emerald.com/josm/article->

abstract/9/3/248/157640/Customer-expectations-versus-perceptions-of?redirectedFrom=fulltext

- Jon, J.-E., Lee, J. J., & Byun, K. (2014). The emergence of a regional hub: Comparing international student choices and experiences in South Korea. *Higher Education*, 67(5), 691–710. <https://doi.org/10.1007/s10734-013-9674-0>
- Jones, I., Lloyd, C. E. M., Murphy, J., Arnold, A., Duerdoth, C., Hawczak, A., Pretty, J., Johnes, P. J., Freer, J. E., Stirling, M., Richmond, C., & Collins, A. (2023). What do macroinvertebrate indices measure? Stressor-specific stream macroinvertebrate indices can be confounded by other stressors. *Freshwater Biology*, 68(8), 1330-1345. https://research-information.bris.ac.uk/ws/portalfiles/portal/461600508/Jones_et_al_2023_FB_paper.pdf
- Kapur, R. (2018). *Research methodology: Methods and strategies*. Department of Adult Education and Continuing Extension, University of Delhi. <https://cmappublic2.ihmc.us/rid=1SG69305X-1FN0PGW-TK/Kapur%20-%20Research%20methodology%20Methods%20and%20strategies.pdf>
- Khan, S. A. (2015). User's perception of services quality of the central public library Bahawalpur. *Library Philosophy and Practice (e-Journal)*, 1276. <https://core.ac.uk/download/pdf/188099288.pdf>
- Khaola, P., & Mabilikoane, M. (2015). Perception of library service quality, satisfaction and frequency of use of library resources. *Journal of Humanities and Social Sciences*, 7(1), 44–52. <https://www.ajol.info/index.php/ijhss/article/view/118783>
- Kinya, C., & Muthee, D. (2022). Service quality and user satisfaction at Machakos University, Kitui Campus Library, Kenya. *International Journal of Current Aspects*, 6(2), 1–10. <https://doi.org/10.35942/ijcab.v6i2.257>
- Kothari. (2008). *Research Methodology: Methods and Techniques* (4th ed.). New Age International Publishers.
- Krejcie, R. V., & Morgan, D. W. (1970). Sample size determination table. *Educational and psychological Measurement*, 30(3), 607-610. <https://doi.org/10.1177/001316447003000308>
- Kumar, B. R., & Kumar D.A. (2020). Information Seeking Behaviour of University Library Users, *Library Projgress*, 40(2), 26-34. https://www.researchgate.net/publication/348560222_
- Kumar, B. R., & Phil, M. (2009). User education in libraries. *International Journal of Library and Information Science*, 1(1), 001–005. https://academicjournals.org/article/article1380016674_Kumar%20and%20Phil.pdf

- Kumar, P. (2023). Changing Role of Library Professionals in the Digital Age. *International Journal of Library and Information Network*. <http://slp.org.in/IJLINK/volumes/IJLINK-V9I2-6.pdf>
- Kusi, H., & Alunga, A. A. (2018). Orientation Programme at the University of Education, Winneba Campus (Ghana): Perspectives of Second Year Undergraduate Students at the Faculty of Educational Studies. *Journal of Education and Practice*, 9(15), 98-105. <https://core.ac.uk/download/pdf/234641659.pdf>
- Lahlafi, A., & Bullingham, L. (2012). "Library shock"-the expectations and realities of library and information literacy skills for international students. *Student Engagement and Experience Journal*, 1(3), 1-15. <https://shura.shu.ac.uk/id/eprint/7572>
- Leong, J. (2024). Innovative Technologies and their Application in Academic Libraries. *Ukrainian Journal on Library and Information Science*, 13, 44-60. <https://doi.org/10.31866/2616-7654.13.2024.307116>
- Li, M., Liu, Y., Liu, L., & Wang, Z. (2017). Proactive Personality and Innovative Work Behavior: the Mediating Effects of Affective States and Creative Self-Efficacy in Teachers. *Current Psychology*, 36, 697-706. <https://doi.org/10.1007/s12144-016-9457-8>
- Liu, Q., Allard, B., Lo, P., Zhou, Q., Jiang, T., & Itsumura, H. (2019). Library user education as a window to understand inquiry-based learning in the context of higher education in Asia: A comparative study between Peking University and the University of Tsukuba. *College & Research Libraries*, 80(1), 1-8. <https://crl.acrl.org/index.php/crl/article/view/16854/19364>
- Liu, Q., Lo, P., & Itsumura, H. (2016). Measuring the Importance of Library User Education: A Comparative Study Between Fudan University and the National Taiwan Normal University. *The Journal of Academic Librarianship*, 42(6), 644-654. <https://doi.org/10.1016/j.acalib.2016.08.009>
- Lyakurwa, B., & Luambano, I. (2019). The state of information literacy and user education programmes in public libraries in Tanzania: A case of National Central Library (NCL) and Kibaha Public Library. *University of Dar Es Salaam Library Journal*, 14(1), 38-52.
- Mahmood, K., Ahmad, S., Ur Rehman, S., & Ashiq, M. (2021). Evaluating library service quality of college libraries: The perspective of a developing country. *Sustainability*, 13(5), 2989. <https://doi.org/10.3390/su13052989>
- Mallery, P., & George, D. (2010) *SPSS for Windows Step by Step: A Simple Guide and Reference 17.0 Update*. (10th ed.). Pearson

- Misra, S. (2019). User Education and Information Search Process in Academic Libraries. *International Journal of Research and Analytical Reviews*, 6(2), 625-930. <https://www.researchgate.net/profile/Sadhana-Misra/publication/372157441>
- Moyane, S. P., Dube, L., & Hoskins, R. (2015). Evaluating user education programmes for undergraduate students in the School of Management, Information Technology and Governance at the University of KwaZulu-Natal. *South African Journal of Libraries and Information Science*, 81(1), 28–40. <https://doi.org/10.7553/81-1-175>
- Mugenda, O., & Mugenda, A. (2019). *Research methods: Quantitative and qualitative approaches*. (3rd ed.). Pearson.
- Mujere, N. (2016). Sampling in research. In *Mixed methods research for improved scientific study* (pp. 107-121). IGI Global Scientific Publishing.
- Muszkiewicz, R. (2017). Get to Know Your Librarian: How a Simple Orientation Program Helped Alleviate Library Anxiety. *Public Services Quarterly*, 13(4), 223–240. <https://doi.org/10.1080/15228959.2017.1319780>
- Mwangi, E. (2006). *An assessment of library user education programmes among undergraduate students in Kenyan universities with particular reference to University of Nairobi and Kenyatta University libraries*. [Master's Thesis, University of Nairobi]. <https://erepository.uonbi.ac.ke/handle/11295/17218>
- Negi, A. S., Prakash, S., & Dubey, B. (2023). User Education in Academic Libraries: An Overview. *Journal of Advances in Library and Information Science*, 12(3), 143–150. <http://jalis.in/pdf/12-3/Negi.pdf>
- Ngozi, O., Farouq, M. O., Victoria, M. R., Samaila, A., & Kehinde, A. (2023). User Education Programs for undergraduate Students in Nnamdi Azikiwe Library University OF Nigeria, Nsukka Nigeria. *Journal of Applied Information Science and Technology*, 16 (1), 128-137. <https://jaistonline.org/16vol1/13.pdf>
- Nyakweba, I., Bukirwa, J. M., Sendikadiwa, E., & Ratanya, F. C. (2022). Users' needs and expectations on information services provided in libraries: Case of four public university libraries from the western region of Kenya. *Library Management*, 43(1/2), 1–14. <https://doi.org/10.1108/LM-12-2020-0178>
- Oakleaf, M. J. (2010). *The Value of Academic Libraries: A Comprehensive Research Review and Report*. Assoc of Cllge & Rsrch Libr.
- Odonlami, M. C. (2023). *Instructional Technology Adaptation Experience Among Premillennial Prelicensure Faculty During COVID-19 Pandemic*. [Doctoral dissertation, Capella University.]. United States. <https://www.proquest.com/openview/f06873bdfa6c31fabd85f4b9b05f2994/1?pq-origsite=gscholar&cbl=18750&diss=y>

- Okoye, M. O. (2013). User Education in Federal University Libraries: A study of Trends and Developments in Nigeria. *Library Philosophy & Practice*. <https://core.ac.uk/download/pdf/188084964.pdf>
- Olajide, O., & Adio, G. (2017). Effective utilisation of university library resources by undergraduate students: A case study of Federal University Oye-Ekiti, Nigeria. *Library Philosophy and Practice*. <https://go.gale.com/ps/i.do?id=GALE%7CA500261784&sid=googleScholar&v=2.1&it=r&linkaccess=abs&issn=15220222&p=AONE&sw=w>
- Omeluzor, S. U., Akibu, A. A., Dika, S. I., & Ukangwa, C. C. (2017). Methods, effect and challenges of library instruction in academic libraries. *Library Philosophy and Practice*. https://www.researchgate.net/profile/Saturday-Omeluzor/publication/316187022_Methods_Effect_and_Challenges_of_Library_Instruction_in_Academic_Libraries/links/5906481e0f7e9bc0d590f8dc/Methods-Effect-and-Challenges-of-Library-Instruction-in-Academic-Libraries.pdf?_sg%5B0%5D=started_experiment_milestone&origin=journalDetail
- Ongera, O. (2021). *Perception among Undergraduate Students on Quality of Library Services in Academic Libraries: Case Study of South Eastern Kenya University (SEKU)* [Doctoral Thesis, University of Nairobi].Kenya. <http://erepository.uonbi.ac.ke/handle/11295/161108>
- Onyeke, O. E., Sheneni, F., Ibeh, L. I., Omale, A. I., & Adigun, T. A. (2023). User Education as Tool for Utilization of Library Information Resources by 300 Level Students of Law, University Of JOS. *Journal of Applied Information Science and Technology*, 16 (1), 1-9. <https://jaistonline.org/16vol1/1.pdf>
- Oriogu, C. D., Chukwuemeka, A. O., & Oriogu-Ogbuiyi, D. C. (2018). Faculty awareness, perception and use of information resources and services in a private university in Nigeria. *Covenant Journal of Library and Information Science*, 1(2), 32-44. <https://journals.covenantuniversity.edu.ng/index.php/cjlis/article/view/1152>
- Osei, K., Adjei, K. O. K., MS, D., Frimpong, A., Librarian, F., Dogbe, M., & Assistant, L. (2021). Library orientation and its impact on Students Library Orientation and its impact on Students Academic Journey: A case study of Kwame Nkrumah Academic Journey. *Library Philosophy and Practice (e-journal)*, 1-35. <https://digitalcommons.unl.edu/libphilprac/6567>
- Park, A., & Lee, S. B. (2023). The Effects of Mobile Accommodation App Quality Perception on Continual Use Intention through Expectation Confirmation and Satisfaction. *International Journal of Advanced Culture Technology*, 11(2), 345–357. <https://doi.org/10.17703/IJACT.2023.11.2.345>
- Punchihewa, C. N. D., Kirialla, A., Kumara, B., & Kodikara, R. (2018). Students' Perception towards the Library User Education Programmes of the University of

- Moratuwa, Sri Lanka: A Case Study. *Journal of the University Librarians Association of Sri Lanka*, 21, 106–122. <https://doi.org/10.4038/jula.v21i2.7920>
- Rahi, S. (2017). Research design and methods: A systematic review of research paradigms, sampling issues and instruments development. *International Journal of Economics & Management Sciences*, 6(2), 1–5. <https://doi.org/10.4172/2162-6359.1000403>
- Ranganathan, C. (2012). Perception and expectation of the users of Bharathidasan University library: a study. *Journal of Advances in Library and Information Science*, 1(3), 119-124. <https://jalis.in/pdf/Ranganathan.pdf>
- Roszkowski, M. J., Baky, J. S., & Jones, D. B. (2005). So which score on the LibQual+™ tells me if library users are satisfied? *Library & Information Science Research*, 27(4), 424–439. <https://doi.org/10.1016/j.lisr.2005.08.002>
- Rowley, J., Johnson, F., Sbaffi, L., & Weist, A. (2015). Peer-based information literacy training: Insights from the NICE evidence search student champion scheme. *Library & Information Science Research*, 37(4), 338–345. <https://doi.org/10.1016/j.lisr.2015.11.007>
- Schoonenboom J., & Johnson, R. B. (2017). *How to Construct a Mixed Methods Research Design*. Kolner Z Soz Sozpsychol.
- Shai, K. S. (2020). *Perceptions of final-year students and subject librarians on the adequacy of library user education programmes at the University of Limpopo* [Doctoral Thesis, University of Limpopo]. South Africa. <http://ulspace.ul.ac.za/handle/10386/3585>
- Shai, K., & Solomon, B. (2021). Library User Education Prominence: Perspectives of Final-Year Students and Subject Reference Librarians from the University of Limpopo. *Mousaion*, 39(3), 1-15. <https://journals.co.za/doi/pdf/10.25159/0027-2639/9560>
- Shukla, A., Mishra, A., & Dwivedi, Y.K. (2023). *Expectation Confirmation Theory: A review*. TheoryHub Book.
- Singh, A. S., & Masuku, M. B. (2014). Sampling techniques & determination of sample size in applied statistics research: An overview. *International Journal of Economics, Commerce and Management*, 2(11), 1–22. https://d1wqtxts1xzle7.cloudfront.net/65225177/21131_IJECM-libre.pdf?1608404466=&response-content-disposition=inline%3B+filename%3D
- Somarathna, S. D., N. Peiris, C., & Jayasundara, C. C. (2010). *User expectation verses user perception of service quality in University libraries: A case study*. <http://repository.kln.ac.lk/handle/123456789/22287>
- Suleiman, S. A. (2012). User education programs in academic libraries: The experience of the International Islamic University Malaysia students. *Library Philosophy and*

<https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=840616e26fe1c22d900e5669af8bd5b4a9c34be5>

- Tan, C. C., Praditmon, W., Pattanadeekul, A., & Chimwan, S. (2019). Intercepting stimulus-organism-response model, theory of planned behavior and theory of expectancy confirmation in the study of smartphone consumer behavior: A Thai university student perspective. *Asia Pacific Journal of Religions and Cultures*, 3(2), 27–48. <https://www.researchgate.net/profile/Chai-Ching-Tan/publication/371665435>.
- Udem, O. K., Ikenwe, J. I., & Ugwuamoke, E. C. (2020). *Undergraduates' Perception of Library Service Quality and Value in the 21st-Century in Southeast Nigeria: A Case Study* (SSRN Scholarly Paper 3731835). <https://papers.ssrn.com/abstract=3731835>
- Ukwueze, P. O., Osuagwu, H., & Ani, S. (2022). Library Education and Its Impact on Students' Library Use in Coal City University, Enugu, Nigeria. *Library Philosophy and Practice*. <https://digitalcommons.unl.edu/libphilprac/7431>
- Umoriya, P. P., Garbobi, M., Joshua, A., Usman, A. U., Nwafor, M., & Idakwo, S. I. (2023). Impact of User Education Program on Undergraduate Students in University Of Abuja. *Journal of Applied Information Science and Technology*, 16 (1), 78-86. <https://jaistonline.org/16vol1/8.pdf>
- Usman, A. N. (2018). Library Orientation: A Prospect To Effective Library Service Delivery And Use For Undergraduate Students. *Lapai International Journal Administration*, 2(1),11–17. <https://ojs.ibbujournals.com.ng/index.php/lijad/article/view/278/279>
- Wanja, L., Namande, B. W., & Awuor, F. M. (2022). User education practices on utilization of electronic resources at the Kenya Revenue Authority Library, Nairobi. *Technology and Investment*, 13(1), 20–36. <https://doi.org/10.4236/ti.2022.131002>
- Wickramanayake, L. (2016). User Education and its Present Status in University Libraries in Sri Lanka: An Overview. *Journal of the University Librarians Association of Sri Lanka*, 19(1), 92-114. <https://jula.sljol.info/articles/7877/files/submission/proof/7877-1-27735-1-10-20160121.pdf>
- Zhan, C.J., Zheng, Y.F., Zhang, H.J. and Wen, Q.S. (2021) Random-Forest-Bagging Broad Learning System with Applications for Covid-19 Pandemic. *IEEE Internet of Things Journal*, 8, 15906-15918. <https://doi.org/10.1109/JIOT.2021.3066575>

APPENDICES

Appendix I: Questionnaire for Students

INTRODUCTION LETTER

I am Jane Chepkurui, a Master in Information Science student at Kenya Methodist University. I am undertaking a research study entitled ‘Relationship between User Education and Undergraduate Students Perception of the University Libraries in Meru County’.

Kindly feel free to respond; the information that will be collected from this research shall be treated with confidentiality it deserves. The information will be used for the purpose it is meant for.

Thank you.

Jane Chepkurui

c0614@stu.kemu.ac.ke

SECTION A: Biodata

Instruction

Tick (✓) or fill where applicable

1. Indicate the university you are enrolled in

a) Meru University of Science and Technology

b) Kenya Methodist University

2. Indicate your School:

Name of School	Tick once
Business and Economics	
Education (and Social Sciences)	
Agriculture and Food Science	
(Medicine and) Health Sciences	
Nursing	
Engineering and Architecture	
Computing and Informatics	

3. Indicate your current semester of undergraduate study:

- a) First Year, first Semester
- b) First Year, second Semester
- c) First Year, third Trimester
- d) Others

4. Indicate your gender

- a) Female
- b) Male
- c) Others

5. How frequently do you visit the university library?

- a) Daily
- b) Several times a week
- c) Once a week
- d) Less than once a week
- e) Rarely or never

Section B: User Education Programs Offered

6. Kindly indicate by ticking (√) the extent to which you agree or disagree with each statements provided below on user education programs offered by your university library as rated as: SD = Strongly disagree (1), D = Disagree (2), N = Neutral (3), A = Agree (4), SA = Strongly agree (5).

NO.	STATEMENTS	SD(1)	D(2)	N(3)	A(4)	SA(5)
a)	The university library has user education programmes in place for new students					
b)	Library conducts library orientation					
c)	Provide library instructions					
d)	Library offers book talks					
e)	Library tours					
f)	Librarians provide lectures and lecture exercises					
g)	Library conducts workshops/seminars for new students					
h)	Tutorials and demonstrations					

7. In addition to the programs mentioned in No. 6 above, which of the following additional user education programs would you recommend the university library to adopt?

- a) In-person workshops or training sessions
- b) Online tutorials or video guides
- c) Written guides or handbooks
- d) One-on-one sessions with library staff

e) Any other:

- i.
- ii.
- iii.
- iv.

Section C: Participation in User Education Programs

8. How frequently do you participate in user education programs offered by the university library?

- a) Not at all
- b) Minimal
- c) Moderately
- d) Extensively
- e) Very extensively

9. Kindly indicate by ticking (√) the extent to which you agree or disagree with each statement provided below on your participation in the user education programmes offered by your university library as rated as: SD = Strongly disagree (1), D = Disagree (2), N = Neutral (3), A = Agree (4), SA = Strongly agree (5).

NO.	STATEMENTS	SD(1)	D(2)	N(3)	A(4)	SA(5)
a)	I participated in the library orientation					
b)	I attended all the programmes lined up for new library users during orientation					
c)	I actively participate actively in the user education programmes					
d)	Library user education programmes attendance was made compulsory by the university					
e)	An attendance register is provided for all attendees of user programmes					

10. Kindly indicate by ticking (√) the extent to which you agree or disagree with each statements provided below on how to improve participation of students in the user education programmes offered by your university library as rated as: SD = Strongly disagree (1), D = Disagree (2), N = Neutral (3), A = Agree (4), SA = Strongly agree (5).

NO.	STATEMENTS	SD(1)	D(2)	N(3)	A(4)	SA(5)
a)	The library should send SMS to new students					
b)	The library should put posters on noticeboards to publicize the user programmes					
c)	The library should use social media platforms to reach out					
d)	The course lecturers can be used in sensitization of the programmes					
e)	Use of class representatives and student leaders to reach out to new students					
f)	The university should include library orientation in the mandatory scheduled university orientation programmes					
g)	Use of university website to invite users for library user education programmes					

11. Apart from the strategies in No.10 above, kindly highlight any other strategies the library can employ to encourage more students participate in the user education programmes?

- a)
- b)
- c)
- d)

12. What improvements can the library undertake to make user education programmes relevant to the current generation of students?

- a)
- b)
- c)
- d)

Section D: Perceptions on Quality of User Education

13. Are you satisfied with the overall quality of user education provided by the university library?

- a) Yes
- b) No

14. To what extent has user education influenced your perceptions on the library?

- a) Very negatively influenced
- b) Negatively influenced
- c) No influence
- d) Positively influenced
- e) Very positively influenced

15. Kindly indicate by ticking (√) the extent to which you agree or disagree with each statement provided below on user education offered by your university library as rated as: SD = Strongly disagree (1), D = Disagree (2), N = Neutral (3), A = Agree (4), SA = Strongly agree (5).

NO.	STATEMENTS	SD(1)	D(2)	N(3)	A(4)	SA(5)
a)	User education is significant to my educational pursuit					
b)	The user education resources offered by the university satisfy my requirements for education and expectations.					
c)	The accessibility of user education support services, such as training sessions, instructions, and online resources, significantly improves my experience of learning.					
d)	I am satisfied with the overall quality of user education provided by the university library					
e)	The user education programmes are informative and sufficient in content					
f)	User programmes train and develop the skills in the users for independent information searching					
g)	User education programmes properly introduces new students to complex university library environment					
h)	User education trains students on use of different formats of information resources					
i)	User education programmes encourage the users to get the assistance from library professionals					

Section E: Barriers Affecting User Education

16. Kindly indicate by ticking (√) the extent to which you agree or disagree with each statement provided below on user education offered by your university library as rated as: SD = Strongly disagree (1), D = Disagree (2), N = Neutral (3), A = Agree (4), SA = Strongly agree (5).

NO.	STATEMENTS	SD(1)	D(2)	N(3)	A(4)	SA(5)
a)	The user education programs not intensive in content					
b)	Inadequate time allocated to user education sessions or classes					
c)	Lack of sufficient up-to-date teaching and learning resources to be used by library staff during orientation					
d)	Inadequate assistance and direction from instructors or trainers during user education activities hinders my academic progress.					
e)	Lack of reliable internet access					
f)	Lack of sufficient publicity of user education programmes					

g)	Lack of sufficient staff to provide user education to the many students in the university					
h)	Limited space for trainings during user education session in the library					

17. Kindly indicate by ticking (√) the extent to which you agree or disagree with each statement provided below on ways of improving user education in your university library, as rated as: SD = Strongly disagree (1), D = Disagree (2), N = Neutral (3), A = Agree (4), SA = Strongly agree (5).

NO.	STATEMENTS	SD(1)	D(2)	N(3)	A(4)	SA(5)
a)	The institution of higher learning ought to focus on incorporating user education as a core course for every programme.					
b)	The university library could conduct library orientation after one from the opening date in the university to allow new students to be settled.					
c)	There need for more staff to be involved in the user education and hence need to revamp their skills and knowledge					
d)	There is need for continual user education provision by reference or user service librarians					
e)	Library should organize online training session for students frequently					
f)	'Ask Librarian' chat services and social media services should be vibrant to guide and assist users whenever needed					
g)	Need for university libraries to hire more staff to assist as subject specialist librarians					

18. Are there any specific improvements or changes you would like to see in the user education services offered by the university library?

- a)
- b)
- c)
- d)

19. Would you recommend the user education services of the university library to other students? (Select one)

a) Yes

b) No

Thank you so much for finding time to participate in the study.

END.

Appendix II: Interview Schedule for Library Staff

1. What is your highest academic qualification?
2. What are the user education activities or programmes that the library offers to new students?
3. In your informed opinion and observation, how would you rate the attendance of new undergraduate students during user education programmes offered by the library to the students?
4. Kindly provide statistics indicating participation of new undergraduate students in your orientation programmes in the academic year 2023/2024.
5. What are the expectations of the undergraduate students in terms of quality of user education?
6. Do you think students' expectations on quality of library services influence their perception towards the library? Explain.
7. What challenges are faced when offering user education to undergraduate students in university library?
8. What improvements do you think the library could employ to enhance user education programmes?

Appendix III: Table Krejcie and Morgan Table for Determining Sample Size

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384
<i>Note: N is Population Size; S is Sample Size</i>					<i>Source: Krejcie & Morgan, 1970</i>				