

# USE OF INFORMATION AND COMMUNICATION TECHNOLOGY TOOLS FOR EFFECTIVE USER EDUCATION PROGRAMME IN PUBLIC UNIVERSITY LIBRARIES IN RIVERS STATE

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**Abstract :** The study examined the use of Information and Communication Technology (ICT) tools for effective user education programme in public university libraries in Rivers State. The correlational survey design was adopted. The population consisted of 41 librarians from three university libraries. The entire population was used as the sample due to its small size. The questionnaire was the instrument used for data collection and Data were analysed using frequency counts, and simple percentages. The findings revealed that video conferencing and YouTube were the most commonly used ICT tools in user education programs (UEP), Librarians expressed a positive perception of the impact of ICT tools in enhancing the quality and effectiveness of UEP. However, challenges such as inconsistent power supply, poor internet connectivity, inadequate ICT facilities, and a lack of ICT training were identified as some of the challenges in the use of ICT tools for UEP. Based on the findings, the researchers recommended prioritizing technological infrastructure improvement in libraries, emphasizing professional development for librarians to enhance ICT skills, and advocating for increased support and investment in ICT capabilities within library settings.

**Keywords:** ICT, User Education Programme, Public University Libraries

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## 1.0 Introduction

University libraries play a vital role in providing access to information resources that support teaching, learning, and research. These resources, available in both print and electronic formats, encompass a wide range of materials such as books, dictionaries, encyclopaedias, newspapers/magazines, indexes, e-books, e-journals, and e-databases, among others. While acquiring print and electronic materials is important, it is equally crucial to equip students with the skills to effectively utilize these resources. These skills will enable them to access these resources both on-campus and remotely, making it simpler for them to get the information they require (Ogunbodede & Okwu, 2023). This highlights the significance of user education programmes in public university libraries.

User education refers to instructional activities designed to empower library users to optimally access, evaluate, and use available resources and services. Adebayo-Atchrimi et al. (2022) defined user education programmes as instructing newly enrolled students on effectively utilizing library resources and services to enhance their academic experience. This programme aims to enhance users' information literacy, which includes the ability to determine when information is needed, where to find it, how to access it, and how to critically evaluate and use it for academic, professional, or personal purposes. The provision of Library User Education underscores the commitment to empowering students to maximize the benefits of available resources, ultimately contributing to their academic success.

Traditionally user education is provided through in-person instruction sessions, and this method faces challenges such as limited accessibility, higher costs, fixed schedules, and scalability issues. These drawbacks underscore the importance of considering more flexible and cost-effective alternatives. However, with advances in technology, online platforms and interactive modules have become increasingly popular for delivering user

education. ICT tools such as computer technology, video conferencing, blogs, emails, and YouTube have revolutionized the delivery of user education (Onwubiko et al., 2020). They have enabled libraries to conduct programmes more efficiently and reach users virtually. With varying skill levels among students, educating them on navigating digital environments is crucial. An effective user education program, together with ICT integration, is pivotal for university libraries to meet user needs in the digital age. While adapting traditional methods, innovative ICT solutions ensure students can effectively search and utilize print and electronic resources. This contributes to their academic success.

Public university libraries in Nigeria must leverage ICT to provide effective user education aligned with institutional objectives. A blend of conventional orientation methods and technology-enabled instruction can equip students to optimally access the breadth of available information (Holister & Coe, 2013). Training on information search strategies and critical appraisal prepares students for self-directed learning. Ultimately, an engaging user education programme contributes immensely to academic excellence. ICT has revolutionized university library services and user education techniques. While adapting user instruction to the digital shift, public university libraries in Nigeria must begin strategically incorporating ICT tools to build students' information literacy which is the bedrock for their academic achievement. It is on this note, therefore, that this study examines the use of ICT tools for effective user education programme in public university libraries in Rivers State.

## **2.0 Statement of Problem**

The effectiveness of a university library is significantly influenced by the success of its user education program. Utilizing Information and Communication Technology (ICT) tools in library user education offers numerous advantages, empowering users to maximize the library's resources. Unfortunately, many public university libraries still rely on traditional methods, leading to challenges such as limited accessibility, higher costs, fixed schedules, and scalability issues. These challenges can have a detrimental impact on the library's reputation and create negative impressions among potential users. Observations reveal that some students graduating from public universities lack essential library skills, possibly due to ineffective user education programs. Factors like time constraints for both students and instructors, overcrowded classrooms, and other logistical issues contribute to this problem. Universities must recognize the evolving landscape of user education and embrace modern approaches, such as integrating ICT tools, to address these challenges. This shift not only enhances accessibility but also mitigates costs and provides a scalable solution for effective library user education. This study, therefore, examines the use of ICT tools for effective user education programme in public university libraries in Rivers State.

The following research question guided the study;

- What are the ICT Tools used by the libraries for user education programmes?
- What is the overall impact of ICT tools on the effectiveness of user education programmes?
- What are the challenges in the use of ICT tools for user education programmes?

## **3.0 Literature Review**

Omeluzor (2017) examined the benefits and drawbacks of the library instruction approach in academic libraries at the Federal University of Petroleum Resources in Delta State, Nigeria. Seven hundred and seventy three 100-level students made up the study's population. According to the data, the most often employed techniques were classroom instruction, library orientation, and library guides. It also became apparent that the users were not being instructed via email, video conferencing, the library website, or asking questions of a librarian. Similarly, Manuwa et al. (2018) looked at how library orientation affected library usage in two academic libraries in Nigeria. The study's conclusions demonstrated that classroom instruction, library orientation, and one-on-one instruction were the most often utilised methods for library orientation in both universities. The outcome also showed that the websites and guided tours of libraries were not utilised for library orientation.

The integration of ICT with library education at Clifford University Owerrintata, Abia State, Nigeria was studied by Omeluzor et al. (2019). The results show that student usage of ICT tools and associated information technology tools in private institutions is significantly impacted by switching from the traditional way of instruction to an inclusive library instruction plan with ICT integration. Similarly, Onwubiko et al. (2020) looked at how students at Nigerian Federal Universities were affected by the use of ICT in library instruction techniques. The results showed that incorporating ICT into education instead of sticking to the standard theoretical approach improves students' proficiency with using libraries and other associated technologies.

Wagwu et al. (2022) examined emerging issues in Library and Information Science education in the COVID-19 era. The findings established that poor Internet connectivity, poor electricity supply, and lack of ICT skills among others were some of the challenges to effective use of online learning platforms. The use of ICT-based

information resources in library user education courses in South-South Nigerian Colleges of Education was investigated by Okonoko & Eruvwe (2021). The results showed that there are not enough ICT resources accessible to make efficient use of ICT-based information resources in library user education sessions. According to Omeluzor et al. (2019), there are significant obstacles to integrating ICT with library education, including insufficient ICT resources in the library and a dearth of student-owned ICT devices like laptops.

In summary, the literature reveals a predominant reliance on traditional library instruction methods in Nigerian academic libraries, with a gradual rise in the integration of ICT. However, persistent barriers related to technology access, skills, and infrastructure hinder the optimal effectiveness of digital and ICT-based library instruction programs. The studies underscore the crucial need to incorporate ICT in library instruction to enhance students' utilization of technology and information resources, emphasizing that addressing challenges such as inadequate facilities, limited awareness of instructional methods, and connectivity issues is essential for successful implementation.

**4.0 Methodology**

The study employed a correlational survey design. The population of the study comprised 41 librarians in the three university libraries, which are Donald Okong Library, University of Port Harcourt, River State University Central Library, Dame Patience Good Luck Jonathan Automated Library, Ignatius Ajuru University, Port Harcourt. The entire population of 41 librarians was used as the sample size due to its small size. The sample size was justified based on recommendations by Gall et al. (2007), who suggested that when a population concerns tens, all of the population should be used, and when the population is 2000, 5000, a minimum of ten percent (10%) may be used. The questionnaire was the instrument used for data collection. The instrument's reliability was confirmed with a Cronbach's alpha of 0.81. Data analysis was performed using frequency counts, and simple percentages. A 4-point Likert-type scoring scale was employed, with respondents choosing from Strongly Agree, Agree, Disagree, and Strongly Disagree. A criterion score of 2.5 was used, and for research questions 2 and 3, mean scores above 2.5 were considered agreeable, and those below 2.5 were deemed disagreeable. The research process incorporated rigorous validation and reliability checks to enhance the credibility of the results.

**Table 1: Institutions of the Respondents**

Institution	Frequency	Percentage
RSU	17	47%
Unipart	13	36%
IAUE	6	17%
<b>Total</b>	<b>36</b>	<b>100%</b>

The result in Table 1 implies that the majority of the librarians 17(47%) were from RSU, 13(36%) were from Unipart, while 6(17%) were from IAUE. This implies that the majority of the librarians under study were from RSU.

**Table 2: Gender of the Respondents**

Gender	Frequency	Percentage (%)
Male	20	56
Female	16	44
<b>Total</b>	<b>36</b>	<b>100</b>

The result in Table 1 implies that the majority of the librarians under study were male.

**Research Question 1:** What are the ICT Tools used by the libraries for user education programmes?

**Table 3: ICT Tools used for User Education Programmes**

S/N	ICT tools	Frequency	Percentage (%)
1.	Video conferencing	30	83
2.	YouTube	28	78

3.	Library website/blog	19	53
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Source: Research Data, 2023

Table 3 reveals that the majority of the respondents 30(83%) agree that video conferencing, YouTube 28(78%), and library website/blog 19(53%) were some of the ICT tools used by university libraries in Rivers State for user education programmes. The table implies that video conferencing and YouTube are the most commonly used ICT tools in user education programmes, with high frequencies and percentages. The library website/blog is also used but to a lesser extent compared to video conferencing and YouTube. These percentages represent the proportion of programmes or instances in which each tool is utilized in the context of user education.

**Research Question 3:** What is the overall impact of ICT tools on the effectiveness of user education programmes?

**Table 4: Impact of ICT Tools on the Effectiveness of User Education Programmes**

S/N	Overall impact	Mean	S.D.
1.	ICT tools provide flexibility in terms of when and where users can access educational content and a variety of learning resources	3.4	0.65
2.	Integrating ICT tools in user education programs has improved the accessibility of educational content for diverse learners.	3.3	0.86
3.	ICT tools facilitate collaborative learning opportunities among users in the education programmes	3.3	0.86
4.	The use of ICT tools, including video conferencing, YouTube, and library website/blog, has positively contributed to the effectiveness of user education programmes.	3.2	0.38
5.	The use of ICT tools promotes active participation and engagement among learners in user education programmes	3.2	0.38
6.	Users are satisfied with the overall learning experience facilitated by the use of video conferencing, YouTube, and the library website/blog.	3.0	0.91
	<b>Grand Mean</b>	<b>3.2</b>	<b>0.67</b>

Items 1-6 have mean values that are above the criterion mean of (2.5), more so, the grand mean (3.2) is greater than the criterion mean (2.5). This means that librarians have a positive perception of the impact of ICT tools in UEP. In summary, the table implies that, on average, respondents perceive a positive impact of ICT tools in enhancing the quality and effectiveness of user education programmes.

**Research Question 4:** What are the challenges in the use of ICT tools for user education programmes?

**Table 5: Challenges in the Use of ICT Tools for User Education Programmes**

S/N	Challenges in the Use of ICT Tools	Mean	S.D.
1.	Inconsistent power supply	3.3	0.86
2.	Poor internet connectivity	3.2	0.54
3.	Poor ICT facilities	3.1	0.95
4.	Lack of ICT training opportunities	3.0	0.91
5.	Inadequate ICT skills	2.3	0.96
	<b>Grand Mean</b>	<b>3.1</b>	<b>0.83</b>

All the items in Table 5 have mean values that are above the criterion mean of (2.5), more so, the grand mean (3.1) is greater than the criterion mean (2.5). This means that librarians face several challenges in the use of ICT tools for user education programmes. The table implies that, on average, respondents perceive several challenges in the use of ICT tools including inconsistent power supply as the most significant challenge, followed by poor internet connectivity, poor ICT facilities, and lack of ICT training opportunities. However, while inadequate ICT skills are considered a challenge in the use of ICT tools for UEP, the overall perception is that this challenge is less severe compared to other challenges listed in the table.

### 5.0 Discussion of Findings

Research question one showed that video conferencing and YouTube are the most commonly used ICT tools in user education programmes, while library website/blog is also used but to lesser extent compared to video

conferencing and YouTube. This shows that video conferencing and YouTube may be more commonly used in user education programs due to their accessibility, multimedia features, and perceived effectiveness in fostering engagement.

This result is not in agreement with that with that of Omeluzor (2017) who found that classroom teaching, library orientation and library guide were the methods mostly used for UEP. Research question two showed that librarians hold a positive perception of the impact of ICT tools in UEP, suggesting that these tools are generally viewed positive impact of ICT tools in enhancing the quality and effectiveness of UEP. This may stem from the tools' ability to enhance accessibility, foster interactive learning, and provide diverse educational resources. This favourable view likely results from the effective integration of technology, aligning with evolving educational trends and meeting the varied needs of users in the dynamic learning environment. This findings is consistent with that of Omeluzor et al. (2019) and Onwubiko et al. (2020) who both observed a significant positive impact on student utilization of ICT tools and related information technology and also enhances students' mastery of library and related technologies, ultimately contributing to increased effectiveness in user education programmes. Lastly, research question four revealed several challenges faced by librarians in the use of ICT tools for user UEP including inconsistent power supply as the most significant challenge, followed by poor internet connectivity, poor ICT facilities, and lack of ICT training opportunities. The challenges may arise from limitations in technological infrastructure, resource constraints, and a need for increased support and investment in the development and maintenance of ICT capabilities within library settings. These challenges underscore the importance of addressing infrastructure-related issues to optimize the successful implementation of ICT tools in libraries.

This findings conforms to that of Wagwu et al. (2022) and Omeluzor et al. (2019) who established that poor Internet connectivity, poor electricity supply, inadequate ICT facilities and lack of ICT skills among others were some of the challenges to the effective use of online learning platforms.

## 6.0 Conclusion and Recommendations

The findings of this study revealed important insights into the use of ICT tools in UEP within libraries. Notably, video conferencing and YouTube emerged as the most commonly utilized ICT tools. Librarians expressed a positive perception of the impact of ICT tools in UEP. However, challenges faced by librarians in implementing these tools included inconsistent power supply, poor internet connectivity, inadequate ICT facilities, and a lack of ICT training opportunities. These challenges emphasize the critical need to address infrastructure-related issues for the optimal implementation of ICT tools in libraries. Based on the findings, the researchers recommended that efforts should prioritize the enhancement of technological infrastructure in libraries. Simultaneously, librarians should engage in regular professional development to augment their ICT skills. Collaboratively, librarians and educational institutions should advocate for heightened support and investment in ICT capabilities within library settings. This involves securing funds for technology upgrades and ensuring seamless ICT integration into broader educational strategies.

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