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Accessibility and Utilization of E-Learning Resources among Students of Higher Institutions of Learning with Particular Reference to Federal University of Education, Kontagora

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Abstract

This study investigates the accessibility and utilization of e-learning resources among students at the Federal University of Education, Kontagora. As digital platforms become central to modern higher education, understanding how students interact with these tools is critical for academic success. The study adopts a descriptive survey research design, utilizing a structured questionnaire to gather data from a sampled population of undergraduate students across various departments. The primary objectives are to identify the types of e-learning resources available, assess the level of student access to these technologies, determine the frequency and purpose of their utilization, and uncover the primary challenges hindering effective integration. Expectant findings point to a disparity between the availability of digital tools and students' actual access, often exacerbated by institutional infrastructure deficits. Key constraints likely include erratic power supply, poor internet connectivity, high costs of data, and a lack of formal digital literacy training. Based on these anticipated outcomes, the study recommends that the university management invest in robust ICT infrastructure, provide subsidized campus-wide Wi-Fi, and integrate mandatory digital literacy workshops into the curriculum. Ultimately, bridging the gap between accessibility and utilization is essential to maximizing the pedagogical benefits of e-learning in teacher education institutions.

Keywords: Accessibility, Utilization, E-Learning Resources, Higher Institutions, Federal University of Education Kontagora.

Introduction

The world as a global village derive so much power through information, therefore, the absence of information makes one powerless and cannot make informed decisions or have access to the resources that are necessary for survival. Consequently, the fundamental aim of every

academic library is to provide information resources and enabling environment for research and dissemination of knowledge targeted at societal development. Access to information is vital for successful research outcome. Adeoye (2000) affirmed that access and use of information is needed for problem solving and decision making in research process. Therefore, the global concern for timely access and utilization of information resources orchestrated the adoption of Information Communication Technologies in the management and use of information.

Also, the era of COVID-19 pandemic has opened our eyes to the importance of the use of electronic devices for learning. The effects that emerged during the pandemic are relevant in digging deeper into the adoption of technology in the teaching-learning process. Thus, the integration of e-learning facilities can be well-directed to achieve long-term goals in improving the quality of education in the country. Hence, effects and values of information technology related instructional materials in the teaching-learning exercises cannot be denied nor underestimated. This, therefore, makes it one of the justifications for this work.

The modern teaching and learning in Nigeria emerged as a result of the introduction of Western system of education in the country by the colonial administrators. However, the methods and instructional materials used in teaching in those days were so limited both in terms of quantity and in terms of quality. In present-day times, the inventions in the field of Information Technology (IT) have become an important instrument for teaching and learning. The importance of online technology in enhancing education, and especially when it comes to learning, cannot be over emphasized. Thus, the main thrust of this research is to investigate the availability and the use of Information Technology (IT) related materials by students of tertiary institutions of learning with the particular reference to Federal university of Education, Kontagora.

LITERATURE REVIEW

In this technology age, information and communication technology (ICT) is fast becoming a major source of information. The internet has greatly changed the way people obtain information which also affects their reading culture. In fact, the internet has now become the way of life of many people, especially adolescents. The internet has changed the world in an incalculable number of ways. It has changed the way people communicate, the way business is done, and the way information is shared and received. The academic library is the hub of every academic activity in higher institutions, where researchers and students are granted access to an army of refined information. To the undergraduates, the library is the learning centre because it provides materials that are needed for learning in all the courses that may be offered by the institution (Aina, 2014). The study of the use of e-learning resources across academic disciplines in academic institutions has been the crux of most researches in the information science since evolution of the information age in view of its impact on the society particularly in the universities. While technology is slowly taking a steady control over individual lives, Librarians are constantly improving the provision of information services by harnessing the acceptance accorded to ICTs by collection and provision of electronic learning resources. This is because according to Hindu (2004) browsing the net, thereby making reading a book or any other piece of written material in a quiet or peaceful corner of a library or home becomes an archaic and unfashionable idea for most school children and adults. Copper ,Wiki (2008) bemoaned the decline in reading habit to be caused by the offshoots of technological advancements. Graham & Kingsley (2005) estimated that on the average, young people spend more time watching TV and videos, listening to music, using computers and playing video games instead of reading. Also, Hastings & Henry (2006) reported that 85% of children

prefer watching television over reading. Majid et al(2001) found that 57.6% of the children in Singapore prefer playing on computer or surfing the Internet whereas only 44.1% prefers reading as their leisure time activity. It is therefore, a justified venture that these technologies can now be utilized in learning as electronic learning resources.

According to World Bank (1994), tertiary education is seen as the capstone of the traditional education pyramid. As the apex of educational structure, it is a critical pillar of human development which provides a life long learning framework for training high-level skilled human capital resources in all spheres of life namely, teachers, doctors, nurses, civil servants, engineers, humanities, entrepreneurs, scientist and myriad of personnel (Aduwa-Ogiegbaen &Imogie, 2005). The authors further maintained that improved tertiary education is necessary for sustainable progress in basic education. With the advent of globalization and information revolution, education is expected to create intellectual capacity on which knowledge production and utilization depends on. It is also expected to play a key role in promoting lifelong learning practices that is necessary for updating people's knowledge and skills. To achieve this, tertiary institutions need to change their instruction modes of operation and delivery by taking advantage of e-learning technologies, which is an integral part of information communication technology. Realizing the importance of e-learning resources, the Government, particularly at the federal and state levels in conjunction with some non-governmental organizations (NGOs) has contributed towards the promotion and provision of information communication technology facilities and capacity building in some Nigerian tertiary institutions. However, a bit more is needed in this regard. The inclusion of information communication technology courses is compulsory in all courses in Nigerian tertiary institution and as a major feature in business education courses point to the fact that ICT and e-learning is a necessity and of great importance, if we are to achieve the millennium development goals of the UNESCO. The support on the use of e-learning resources has received wide acceptance from information professionals, government, stakeholders and educationists as improving the teaching and learning process. According to Wodi (2009) the Nigerian policy on learning technologies capped 'National Information Technology Policy (NITP)' was approved in March 2001, leading to the subsequent establishment of the National Information Technology Development Agency (NITDA) to implement NITP in April 2001. The policy stipulated the relevance of ICT to tertiary education. To further strengthen the impact of the policy, the National Universities Commission (NUC) prescribed PC ownership for universities as follows: one PC to every four students, one PC to every two lecturers below lecturer I; one PC per senior lecturer, and one notebook per reader/professor (Agyeman, 2007).

E-LEARNING

E-learning is defined as digitally permitted and technology-facilitated learning devices that use a digital camera, personal computers (PCs), digital videos, tablets, projector; OHP, software, operating systems which aid in the interaction of students and teachers (Eze, Chinedu-Eze, Bello, & A.O, 2018). It includes other applications that support learning from a distance or face to face with the help of PC. It refers to computer-based (e.g., digital videos, tablets, projector, operating systems) learning process which links digital content, system-based administrations and mentoring support and aid in the interaction of students and teachers (Eze, A., Chinedu-Eze, & Bello, 2020). E-learning has moved from learning from the conventional method to contemporary driven, synergistic, customized and adaptable learning method involving learners', facilitators and instructors. E-learning covers basic and synergistic PC supported scholarship process and evaluation methods that use innovative approaches and applications

to advance teaching and research, empower students and teachers to share learning contents produced in a consistent structure (Eze, Chinedu-Eze, Bello, & A.O, 2018)

According to Kajetanowtez, 2010, e-learning is a dynamic technique that aids the improvement of self-study, constant testing and assessments which provokes genuine examination of educational development and intermittent accomplishment. Eze (2020) identified some of the most important benefits of e-learning to institutions, teachers and students to include: it saves time, helps in projecting the image of the institution, encourages knowledge advancements of staff, and improves how teaching and learning are carried out and makes adaptation more predominant (Eze, A., Chinedu-Eze, & Bello, 2020).

Giving his contribution in respect of the relationship between education and information technology, Richmond, quoted in Eze, et'al (2020) asserts that there are links between educational programs and Information technology (IT). Technology, according to him, have impact on learning through the use of information utilizing devices, use of educational modules, the use of online reference books and electronic diaries. He further lamented that the use of e-learning as a teaching methodology has witnessed massive adoption in developed countries but not prominent in developing countries like Nigeria.The emergence of e-learning in Nigeria dated back during the introduction of telecommunication in 1886 by the colonial masters between Lagos and the colonial office in London to convey information and receive feedback (Ajadi, Salawu, & Adeoyee, 2008).

E-learning by definition is the use of electronic technology to deliver education and training applications, monitor learner's performance and report learner's progress (Emmanuel Olusola.Adu, February, 2013). In other words, it is the application of a whole range of technologies involved in information processing and electronic communications, such as computers, internet, e-mail, computer software, satellite, mobile communication gadgets, and other allied electronic devices for dissemination of knowledge and information. Hedge and Hayward (2004), defined it as an innovative approach for delivering electronically mediated, well-designed, learner-centred and interactive learning environments to anyone, anyplace, anytime by utilizing the internet and digital technologies in concern with instructional design principles. According to Adesoji (2012), e-learning comprises computer and ICT materials and applications, which aid information collection and dissemination, research and global exchange of ideas that are critical for advancing meaningful, educational initiatives and understanding issues related to global development.

Electronic Learning, as an electronic delivery and administration of learning opportunities and support via computer network and web-based technology covers a wide range of systems, from students using e-mail to accessing course work on-line. to include web-based learning, computer-based learning, virtual classroom, video conferencing and digital collaboration where contents are delivered via the internet, intranet/extranet, audio/video tape, satellite TV, CD-Rom which creates a self-centred approach to learning by relaxing time and space, enriches learning content and enhances wider access to information resources (Olatokunbo Ofuyatan, 2014).

The introduction of e-learning facilities to the education systems is aimed at improving educational delivery and preparing students for a role in an information age. (Salawudeen, October 8-13, 2006)

E-LEARNING AND NIGERIA EDUCATIONAL INSTITUTIONS

Anene et al. (2014) studied the problems and prospects of e-learning in University of Abuja Nigeria. They examined the accessibility and availability of e-learning resources to discover students' acceptance and use of e-learning platforms during studies. Their findings revealed that poor and

inadequate infrastructure is the major challenge facing the use of IT in the country (Anene, Imam, & Odumuh, 2014).

Added to the above was the work carried out by Chiaha et al. (2013) which focused on the e-learning facilities students have access to in public institutions, the level at which they access the facilities and the factors that impede students from gaining access to e-learning facilities. Findings of the study shows that over 41% of the students can access e-learning facilities, however, what most students have access to is the e-mail accounts and factors such as unsatisfactory electric power supply, and poor network connections thwart access to e-learning facilities (Chiaha, Eze, & Ezeudu, 2013).

In a similar way, Abdulhamid et al. (2017) investigated the elements of perpetuation intention to use e-learning among students in public universities in Nigeria. The study examined the relationship between elements of perpetuation intention to use e-learning among public university students in Nigeria. The result revealed that accomplishment is a determinant of perpetuation intention to use e-learning (Abdulhamid, Shafiu, & Murtala, 2017)

Another work of significant is the work of Nwokolo et al. (2017). Their work reviewed the impact of e-learning on education and training in Nigeria's public tertiary educational institutions and discussed the impact of e-learning technologies, factors affecting its full adoption. The study recommended that the Government of Nigeria at both levels should invest in ICT infrastructure (Nwokolo, Allu, Rabiu, & G.M, 2017).

Also, Atsumbe et al. (2012) examined the accessibility and use of e-learning structures in one of the Nigerian public universities. The study specifically looked at the adequacy of e-learning infrastructures for teaching and learning; the capacity of the e-learning facilities to teaching, learning and interactions among teachers and students, as well as the factors that hinder the utilisation of e-learning facilities. The result of the findings indicated that there are poor facilities specifically directed towards teaching and learning rather most facilities were channelled towards administrative use, although students and lecturers have laptops and internet facilities that are not used for teaching (Atsumbe, Emmanuel, Igwe, & Atsumbe, 2012).

Aboderin and Kumuyi (2013) in another study investigated the problems and prospects of e-learning in developing and implementing curriculum in secondary schools in Ondo State, Nigeria. Their study focused on the accessibility of e-learning tools in implementing curriculum, the degree at which they are applied by teachers, strategies and prospects of e-learning in secondary schools. The findings revealed that tools available for e-learning are limited and the few available are not satisfactorily utilised. They recommended that government should organise training and retraining of teachers on the use of e-learning facilities and in turn teachers should regularly use it with the students during teaching and research activities (Aboderin & Kumuyi, 2013).

Eze et'al (2020) explored the views of students of private HEIs on the utilisation of e-learning facilities. More specifically, the research explored the factors that shape students' adoption and use of e-learning facilities within the University and identified factors that greatly impact on student's utilisation of e-learning facilities. From the findings, 100% of the participants revealed that technology-related factors such as ease of use, speed and accessibility and service delivery influence their usage of the e-learning facilities, while 93 % of the participants indicated that organisations related factors such as training support and diversity shape their use of e-learning facilities. The study recommended that university should ensure that mentoring and monitoring of students is adopted on a weekly bases to ensure that students use them regularly and internet facilities should be provided. Furthermore, the university should endeavour to ensure there are regular technical infrastructures such as the internet and intranet access on the campus. (Eze, A., Chinedu-Eze, & Bello, 2020)

Hamzah et al. (2014) as quoted by(Sholeh, 2023)further reiterated that among the problems that are plaguing the effectiveness of Instructional and Multimedia Materials in teaching as applicable to countries including Nigeria as regards are the lack of infrastructural multimedia equipment, inadequate numbers of multimedia software, and difficulty in accessing multimedia laboratory.The use of ICT in tertiary institutions by lecturers and students has become a necessity for the enhancement of quality teaching and learning. This study examines the availability, accessibility and utilization of Information and Communication Technology (ICT) in Teaching-Learning in Colleges of Education in North-East, Nigeria. The study adopts multi-stages sampling technique in which Five (5) out of the eleven Colleges of Education (both Federal and State owned) were purposively selected for the study. Primary data was drawn from the respondents by the use of questionnaires, interviews and observations. The result of the study, generally, indicates that the availability and accessibility to ICT facilities in Colleges of Education in North-East, Nigeria, especially in teaching/learning delivery of Islamic studies are relatively inadequate and rare to lecturers and students. The study further reveals that the respondents' level of utilization of ICT is low and very few computer gargets and internet services are in the ICT utilization which is yet to reach the expected demand of the globalization and advancement in the application of ICT compared to other parts of the world as far as the teaching and learning of Islamic Studies is

Enhanced Student Motivation and Engagement

One of the most significant findings across the reviewed studies was the positive impact of ICT on student motivation and engagement. Numerous studies have shown that the integration of technology in classrooms can significantly increase students' interest in learning. Traditional teaching methods, which often rely on rote memorization and passive learning, tend to disengage students, particularly in a world where technology plays an ever-growing role in their daily lives. ICT tools such as interactive whiteboards, educational software and multimedia presentations offer students more dynamic, engaging, and interactive learning experiences. These tools allow for a more participatory and collaborative learning environment, where students are active participants rather than passive recipients of information. For example, several studies highlighted that students responded more positively when lessons were delivered through multimedia, such as videos, animations, and interactive quizzes. The use of such ICT tools can make even the most complex subjects more accessible and interesting. Additionally, the integration of ICT encourages a student-centered approach, where learners have more control over their learning pace and style. This autonomy can foster a deeper interest in the subject matter, leading to higher levels of engagement and motivation. Furthermore, digital platforms allow students to access a wealth of information beyond the classroom, enabling them to pursue their interests and broaden their knowledge independently

Improvement in Academic Achievement

Another key finding is that the use of ICT can lead to improvements in students' academic performance. Studies revealed that students who use ICT regularly for educational purposes tend to achieve better results compared to those who rely solely on traditional methods. This is particularly evident in subjects like mathematics, science, and language learning, where interactive software, simulations, and online resources help students grasp complex concepts more easily. In mathematics, for instance, educational software that offers visual representations of mathematical problems allows students to see abstract concepts in a more concrete manner. Similarly, in science, virtual experiments and simulations can replace or complement real-life experiments, providing students with

opportunities to explore concepts that might be difficult or unsafe to conduct in a physical laboratory setting (Kaitatzi-Whitlock, 2020; Ross, 2020; Tabassum, 2020). For language learning, ICT provides access to interactive language learning apps, online exercises, and global communication platforms, enabling students to practice their language skills in real-world contexts.

However, it is important to note that while ICT has the potential to enhance academic achievement, its effectiveness largely depends on how it is implemented. Studies have shown that merely introducing technology into classrooms without proper guidance or instructional design does not automatically lead to better learning outcomes. Effective ICT integration requires thoughtful planning, clear educational objectives, and teacher support to ensure that technology is used as a tool to complement and enhance traditional teaching methods, rather than replace them.

DEVELOPMENT OF COMMUNICATION AND COLLABORATIVE SKILLS IN FEDERAL UNIVERSITY OF EDUCATION KONTAGORA

ICT's role in enhancing communication skills was another important outcome of the research. The use of communication technologies such as email, discussion forums, video conferencing, and instant messaging platforms allows students and teachers to communicate more efficiently, both inside and outside the classroom (Almeida et al., 2016; Balakrishnan, 2014; Moloi & Kanjee, 2018). This expanded mode of communication fosters greater collaboration, especially in federal university of education, kontagora. Examples of this are group projects and collaborative learning environments. Digital tools enable students to engage in peer learning and collaboration with classmates, even beyond the physical confines of the classroom. For instance, online discussion boards and collaborative document-sharing platforms, such as Google Docs, allow students to work together on projects in real time, sharing ideas, providing feedback, and completing assignments. These platforms also help students develop important digital literacy and communication skills, which are essential in today's increasingly technology-driven workforce.

Moreover, ICT encourages more interactive communication between teachers and students. Teachers can use various digital platforms to give instant feedback, address student concerns, and provide additional resources that support learning. This ongoing interaction helps students feel more connected to their learning process and ensures that teachers can provide timely interventions when students are struggling. However, the potential for over-reliance on digital communication should be considered, as it could reduce face-to-face interaction, which is equally important in developing students' interpersonal skills.

CHALLENGES OF ICT INTEGRATION IN FUE KONTAGORA

Despite its many benefits, integrating ICT into learning systems in the federal university of education Kontagora is not without its challenges. One of the primary issues identified in the research is the risk of technology misuse. As younger generations grow up with more advanced technological skills, there is a growing concern that students may use ICT tools inappropriately, particularly for non-educational purposes. For example, students might get distracted by social media, games, or other online activities during class, which can hinder their learning. To address this issue, the management of the university needs to implement strict policies and monitoring systems to ensure that ICT tools are being used appropriately for educational purposes. Another significant challenge is the digital divide, which refers to the gap between students who have access to modern technology and those who do not. While many schools in urban or well-funded areas have the resources to provide students with cutting-edge technology, students in underfunded or rural schools may lack access to basic ICT tools. This disparity

can exacerbate existing inequalities in education, leaving disadvantaged students further behind in their academic pursuits. Governments and educational institutions must prioritize equitable access to ICT to ensure that all students can benefit from technological advancements.

Additionally, teacher preparedness is a critical factor in the successful integration of ICT. While technology can enhance teaching, its effectiveness largely depends on how well teachers are trained to use it. Many educators may not be fully equipped to integrate ICT into their teaching practices, either due to a lack of training or resistance to adopting new methods. Professional development programs are essential to help teachers develop the necessary skills to use ICT tools effectively and confidently. Moreover, teachers must be given ongoing support to keep up with rapid technological advancements and evolving best practices in education

Recommendations

Based on the results of the study, the following recommendations were made:

1. The University management's efforts should be made to improve on the band width and enhance the internet connectivity so as to enable the students have easy access to online electronic information resource.
2. Trained personnel should be on ground to assist the students in the use of the available e-resources to enhance learning process.
3. The University management should provide adequate funds for the subscription to electronic journals, e-books etc. Appropriate databases related to faculty and students' fields of study should be subscribed to address the limited subscribed titles.
4. Appropriate user education should be organized for students for better use of electronic information resources in the library.
5. Users (students) should be made to understand that even if they cannot use a computer system, staff would assist them to meet their information needs

Conclusion

The integration of ICT into education has the potential to transform teaching and learning by enhancing student motivation, engagement, communication, and academic achievement. However, its successful implementation requires careful planning, teacher training, and strategies to mitigate the challenges associated with technology misuse and the digital divide. When effectively used, ICT can revolutionize education, offering students more dynamic, interactive, and personalized learning experiences while preparing them for the demands of the modern workforce. Schools and educators must continue to explore innovative ways to leverage technology and communication tools to foster a more collaborative, engaging, and inclusive educational environment.

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