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Digital Literacy and Academic Staff Job Performance in Tertiary Institutions in Nigeria.

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Abstract

This paper discussed the benefits of digital literacy for academic staff and how it impact their job performance in tertiary institutions in Nigeria. The paper is a review paper that depend secondary data. The secondary data were collected from print and online publications. The paper revealed that academic staff that are digital literate excels in the implementation of teaching researching and provision of community services. Digital literacy allows lectures to meet up with the tertiary institutions goals and provide a flexible teaching and learning opportunities to the students. Based on this, the paper recommends that government should invest more in digital infrastructure facilities in the various tertiary institutions. Capacity building should be organized for academic staff of tertiary institutions to expose them to new innovative in the use of digital technologies for teaching and learning.

Key words: tertiary education, academic staff, digital skills, unesco's definition of digital skills.

Introduction

Tertiary institutions represent a microcosm of society, reflecting a diverse range of people, cultures, lifestyles, and values.Tertiary education encompasses specialized learning pursued beyond high school, including undergraduate and graduate credentials such as certificates, diplomas, and academic degrees. This form of education, which is non-compulsory, is provided by institutions like colleges, polytechnics, and universities. Tertiary education can be delivered through various modalities, including in-person, virtual, or distance learning [1].

Tertiary education is synonymous with higher education in Nigeria. This is the aspect of education that is in charge of producing the output required by the society for national development[2]. Tertiary education is a front liner amongst the tiers of education and is

considered as the icon for national development and transformation, implying that every skill, knowledge and information gained through this means is the vehicle for productivity, wealth creation, prosperity, good health and healthy living, competitiveness, communication, expansion, scientific and technological advancement[3]. Tertiary institutions are structured to function with academic staff, non-academic staff and students. Academic staff. Academic staff are faculty members that are key components of tertiary institutions, especially the universities. The role of academic staff in the development of higher institutions cannot be underestimated because the academic staff are the implementers of instruction in educational institutions. Academic staff as the name implies are professionals who handle the teaching, and research programmes of higher institutions and also perform other academic services[4]. Ogunode, Salman, &Ayoko described the academic staff as them engine room of the tertiary institutions. Academic staff are responsible for curriculum implementation of the tertiary institutions. The place and roles of academic staff in the tertiary institutions cannot be underestimated[5]. The main duties and responsibilities of academic staff in the higher institutions include: a. To teach at undergraduate and graduate level in areas allocated by the Head of Department and reviewed from time to time by the Head of Department; b. To carry out research and produce publications, or other research outputs, in line with personal objectives agreed in the Staff review process; c. To obtain research funding support; d. To engage with the broader scholarly and professional communities; e. To supervise or assist with supervision of undergraduate, taught graduate (Masters) or research graduate (MPhil/PhD) students; f. To contribute to the development, planning and implementation of a high quality curriculum. g[6]. To assist in the development of learning materials, preparing schemes of work and maintaining records to monitor student progress, achievement and attendance . The job performance of academic staff is vital in the realization of tertiary education objectives. Academic staff job performance is the total performance of teaching, researching and community services responsibilities an academic staff has carried out and still carrying out in the institutions where he or she work at a particular time[7]. Academic staff job performance is the general record of tasks carried out by an academic staff to be compare to the assigned responsibilities and functions given to them . Academic staff job performance can also be seen as the measuring of a specific and general tasks given to faculty in an institutions and they are expected to carry them out within a specific timeline[8]. Academic performance from a societal stand point. The author proved this point through his work by examining strong link between academic staff performance and the quality of society. Academic staff performance as a function of excellence leadership on the part of the university management. Achieving both individual and organization excellence is a pathway through which the society and members therein accomplish their goals . Academic staff of tertiary institutions in order to meeting up with the complexity of their job and improve their job performance needs the application of

technological facilities. This demands that academic staff must possess the relevant digital, ICT and technological skills. Digital skills is the ability to apply digital devices effectively and ethically in solving personally, professional and institutional problems. Successful modern and higher institutions of learning rely heavily on technologies to operate. Knowing how to apply suitable technology by their staff will significantly benefit the institutions[9].Currently, academic staff with skills related to AI will be able to advance teaching and research in tertiary institutions. This is the ability to work with machine learning algorithms that allow academic to automate tasks and processes, make data-driven decisions, and improve personalization. This skill involves grasping the utility of big data, as well being able to interpret statistics and universal performance indicators. It is import to discuss the benefits and impact of digital literacy on academic staff job performance in tertiary institutions in Nigeria.

2.0 Literature Review: Digital skills Digital skills is the ability to find, evaluate, use, share and create content using digital devices such as computers and smartphones. In the academic environment, digital skills required for teaching, researching and provision of community services. Tertiary institutions are expectingthe vast majority of their staff to have them, not just a select few. Technology is at the center of our lives, and as our dependence on the internet and digital communications increases, staff in tertiary institution must keep up with the evolving skill demand[10].UNESCO's definition of digital skills is 'a range of abilities to use digital devices, communication applications, and networks to access and manage information. They enable people to create and share digital content, communicate and collaborate, and solve problems for effective and creative self-fulfillment in life, learning, work, and social activities.' Academic staff that learn digital skills not only make themselves more effective but future-proof their career by understanding key digital channels and useful AI tools. Digital skills are skills and knowledge that allow for the appropriate use of technological tools, both in the personal and professional spheres. These skills allow people to enhance their employability, productivity, creativity and professional resilience [11].

From the above, digital skills is the ability to practically use the internet confidently on a mobile phone, tablet, laptop or PC, confidence to use systems at work such as Outlook, Power-point and Excel. Digital skills is the ability and capacity to use digital devices to keep digital records of students, to do an online education and safety course and when communicating with teammates.Digital skills is the ability to communicate online using email, social media or other tools like Zoom and Teams, searching for reliable information online[12].

Digital literacy

Digital literacy as a combination of technical procedural, cognitive and emotional-social skills. Digital literacy is used to describe our engagements with digital technologies as they mediate

many of our social interactions; they say, however, that the literacy associated with participation in digital practices and cultures are complex[13] . Jones-Kavalier and Flannigan state that digital literacy represents a person's ability to perform tasks effectively in a digital environment; digital means information represented in numeric form and primarily use by a computer, and literacy includes the ability to read and interpret media, to reproduce data and images through digital manipulation and to evaluate and apply new knowledge gained from digital environments[14].

Digital literacy is the ability to understand and use information in multiple formats from wide range of sources when it is presented via computers. A person's ability to perform tasks effectively in a digital environment, Literacy includes the ability to read and interpret media, to reproduce data and images through digital manipulation and to evaluate and apply new knowledge gained from digital environments[15]. Digital literacy as used by the European Reference Framework is the confident and critical use of information technology for work, leisure and communication, underpinned by basic skills in ICT: the use of computers to retrieve, assess, store, produce, present, and exchange information, and to communicate and participate in collaborative networks via the Internet[16].

Eshet-Alkali and Amichai-Hamburger give a broad meaning to the term: they suggested digital literacy is to consist of five major digital skills: photo-visual skills ("reading" instructions from graphical displays), reproduction skills (utilizing digital reproduction to create new, meaningful materials from existing ones), branching skills (constructing knowledge from non-linear, hyper-textual navigation), information skills(evaluating the quality and validity of information), and socio-emotional skills (understanding the "rules" that prevail in cyberspace and applying this understanding in online cyberspace communication)[17].

Digital competence refers to understandings and skills related to technology, which must be acquired mainly in higher education, which must be based on a wide network of technological literacy, but with a practical approach [18]. According to research by Ocaña, Valenzuela, &Morillo, it has been demonstrated that digital competences have a primary role in higher education, being essential to achieve digital literacy of students, which implies a technological skill necessary to manage and take advantage of technological tools, where for this new panorama to be viable, it is necessary that the teaching staff be at the level of the challenge implied by the technological change demanded by the current moments[19].

Digital competence can be divided into three levels according to the level of skill and knowledge they have considering at the basic level when students have a basic knowledge in the use of common computer and technological tools, such as the operation of a computer, the

use of web browsers, the creation and editing of documents in office programs[20]. At the intermediate level, students have more advanced knowledge in the use of ICT and can use more complex and specialized tools. Finally, at the advanced level, students maintain a complete management of ICT and can efficiently use a wide range of tools and technologies being able to create and manage online content, use programming tools and web development, and apply advanced techniques and strategies of search and evaluation of information .

Digital competence comes to be a fundamental skill for people today, involving responsibility and security in the handling of digital technology, as well as equality of being able to participate in various social sectors covering research and management of relevant information, communication and digital connection, as well as content creation, including aspects of security, such as digital well-being and cybersecurity, in addition to solving incidents according to the requirements, where five dimensions or key aspects that make up this competence have been identified[21].

There are three levels of digital skills: Basic level: these are the fundamental skills that allow you to perform basic tasks such as using a touch screen, operating word processors, managing files, sending emails, filling out forms and searching the web.

Intermediate level: intermediate digital skills are those that allow you to use technologies related to content creation, work on more automated processes or evaluate technology.

Advanced level: this level generally covers skills needed for IT work or closely related jobs, such as graphic design, multimedia development, data analysis, etc.

Materials and Methods

This paper discussed the benefits of digital literacy for academic staff and how it impact their job performance in tertiary institutions in Nigeria.The study used secondary data. The content analysis method was adopted for the selection of data. The data were collected from the following sources review of published articles from reputable international journals such as CEON, Elsevier, Hindawi, JSTOR, IEEE, Learn Techlib SAGE, Nebraska and Springer amongst others (Adapted from Ogunode &Ndayebom, 2023).

Results and Discussion

Discussion on Impact of Digital literacy on Academic staff job performance in Tertiary Institutions. Digital literacy are important for academic staff because it have enhance their job performance in the various institutions. Digital literacy in academic staff enhances their job performance in the higher institutions. It helps to carry out their functions very effectively. Digital literacy allows lecturers to leverage on technological tools to improve teaching and

learning process in the classrooms. Lecturers' responsibilities is increasingly demanding flexible analytical skills, therefore, being able to analyze and reason effectively and integrate diverse sources of information systematically into problem-solving is a plus to staff in tertiary institution. Digital skills enhance the status of education by offering some more novel and innovative ways to facilitates teaching and learning in schools [22]. Digital literacy of lecturers will aid the adoption and usage of Assistive Technology Tools of Speech to Text and Text to Speech and online education tool which can help support teaching and learning in the classrooms. Lectures are advised to engage actively with digital tools in ways that support and enrich their job performance and improves student learning. By having digital skills that cover both technical and pedagogical aspects, lecturers can select suitable digital resources, create digital learning activities, and foster digital literacy among students. Digital competence in lecturers aid them to carry out online teaching that involves virtual or online courses. Digital skills assists lecturers to plan and deliver teaching on their specialist subject to university students. This includes creating teaching materials, preparing for tutorials/seminars and marking students' work, as well as direct teaching [23]. Lecturers with digital literacy in the higher institutions excel in developing and update course materials online, including syllabi, lecture notes, and assignments. Conduct assessments and evaluate students' performance through exams, papers, and projects. Provide guidance and support to students, including advising on academic and career-related matters.AI is rapidly transforming all sectors, including education and especially the higher institutions. Integrating AI into the implementation of teaching in the classroom enhance teaching and learning. Academic staff with digital skills is easier for them to streamline administrative tasks and improve personalized learning approaches of students, and offer powerful analytical insights into student performance [24].

Digital literacy includes knowledge of AI basics, the ability to apply AI in educational contexts, and an understanding of AI's social and ethical implications. Lecturers with digital skills can provide insights into student engagement and learning outcomes, empowering them to create adaptive, personalized learning paths that cater to individual student needs[25].

Digital tools have become an important part of the classroom for a number of reasons. First and foremost, digital skills of both lecturers and students allow teachers to provide more engaging and interactive lessons for their students. They also allow teachers to track the progress of their students more accurately, which can help them provide better instruction and better assessment of their students' progress. Digital skills also make it easier for pupils to access information and resources when they need them, which can promote learning and engagement in the classroom ;Ogunode,Ayoko, &Orifah, 2023;Dhawan, 2023[26]. Digital

skills can be an incredibly effective tool for teaching and learning. There are many benefits that come along with having ICT skills because as they help to provide more engaging activities for students, as well as allowing for the creation of more individualized lessons. With digital skills, lecturers can leverage multimedia resources, online databases, and interactive learning tools to enhance lecture presentation and support student learning [27].

Digital literacy allows lecturers to communicate with students online. Dhawan, noted that with a digital classroom, students can leverage multimedia resources, online databases, and interactive learning tools, enhancing their comprehension and retention of complex concepts. Digital literacy of lecturers according to Dhawan, facilitates a diverse exchange of ideas and perspectives, enriching the learning experience. Additionally, digital platforms enable asynchronous learning, allowing students to progress at their own pace and revisit materials as needed, catering to different learning styles[28].

In the area of research and provision of community services, Pioneerschool,com and Study.com; Tacilla,Vásquez, Verde, and Colque, and Thomas, maintained that lecturers with digital skills can carry out more advanced research than those without the skills. Digital skills helps lecturers to continuously innovating new researches, better academic processes, and improved teaching and learning for the well-being of humans and the global economy. It is no surprise that creative work is highly valued[29].

Digital competent support e-resources including: gathering information on a specific topic, gaining general information, obtaining answers to specific questions, completing assignments, reviewing literature, writing essays and helping decision making. It also found that respondents use e-resources for each of the above purposes. Such an observation reflects the fact that currently users are dependent on the availability of e-resources for meeting many of their academic needs . Mutshewa , skill is improved through practice and frequent use of information retrieval system such as electronic database resources. Mutshewa pointed out that there is a need for well-defined development programmes that could help people to be competent in the use of information retrieval system.

Conclusion

This paper discussed the benefits digital literacy for academic staff and its impact on their job performance in tertiary institutions in Nigeria. The paper revealed that academic staff that are digital literate excel in the implementation of teaching researching and provision of community services. Digital literacy allows them to meet up with the tertiary institutions goals and provide a flexible teaching and learning opportunities to the students. Based on this, the paper recommends that government should invest more in digital infrastructure facilities in the various tertiary institutions. Capacity building should be organized for academic staff of

tertiary institutions to expose them to new innovative in the use of digital technologies for teaching and learning.

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