PREPAREDNESS FOR THE USE OF DIGITAL LEARNING TOOLS AMONG MASS COMMUNICATION UNDERGRADUATES OF THE UNIVERSITY OF NIGERIA NSUKKA

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Abstract

This study examined the preparedness of the use of digital learning tools among mass communication undergraduates of the University of Nigeria Nsukka. Survey was adopted using copies of questionnaire to garner data from 297 respondents from a population of 1305. The study used the multi-stage sampling technique to determine the respondents for the study. Data was analyzed quantitatively. The study was premised on the Agenda Setting and; Innovation and Diffusion theories. Findings showed that the awareness of digital learning tools among Mass Communication students of UNN is high. Also, there is positive perception and preparedness among them. Findings also revealed that Mass Communication Undergraduates of UNN are not fully prepared for the use of digital learning tools due to unavailability of such digital tools, lack of free wifi, inadequate power supply and poorly equipped lecture halls. Among others, it was recommended that digital learning tools, good internet connections and well equipped classrooms and studios should be made available in order to encourage preparedness in digital learning.

Keywords: Digital Learning, Digital tools, Mass Communication, Undergraduates, Preparedness

Introduction

The outbreak of the corona virus pandemic exposed the digital infrastructural backwardness and the unpreparedness of some educational sectors mostly in developing nations such as Nigeria; the research work provides empirical evidences on how digital learning and usage of digital tools enhances learner's learning and improves it effectiveness.

Advancement in science and technology among the developed nations has given rise to upsurge in information hunt within the developing nations. Students of tertiary institutions are in great pursuit of information; they are keen to learn new things, ideas, technologies and new ways of acquiring information. This obviously occurs now that the world is fast turning into a global village. This is the world of information and communication technology (ICT). In education, computer has made tremendous impact in enhancing learning. Information and communication technology and its use have Impacted on the way learners and educators acquire and deliver information (Eke, 2009). These technologies have been applied in so many ways in the learning pursuit thus giving rise to the concept of digital learning. Udosen and Ekpo-Eloma (2008) cited in Sylvester (2017) observed that this century stands out uniquely as an era of information and communication explosion, radically altering the roles and circumstances of both the teacher and learner, methodology of instruction, the classroom environment and so on. Against this background, Olofu, Agbo and Oshimu (2007) uphold that science and technology has expanded the frontiers of knowledge, which has led to integration of the school curriculum with latest technological and social changes.

Digital learning though not new in Nigeria has been given much prominence of recent. The advancement and revolution in communication and technologies have culminated in the supplementation and near phase-out of traditional educational delivery system. These new technologies allow for more flexibility in learning and a wider reach for

education in many countries world-wide Salawudeen, (2010). Digital learning has quite a contentious definition due to its application in different fields and the continuous evolvement of the systems used in such learning. However, it can be generally said that digital learning is the type of learning facilitated by technology or learning through digital media, it encompasses online/ e-learning.

Contextually, Holzberger, Philipp and Kunter (2013) regarded digital learning as delivery with digital forms of media such texts or pictures through the internet in order to enhance learners' learning, to improve teaching effectiveness or promote personal knowledge and skills. This implies that digital learning is meant to enhance learning by exploring new technologies and applying them to learning contexts and not to totally rely on digital means of instruction delivery. It is meant to enhance the learning experience and not to replace the traditional method of learning. Explicating further, Anttila, Valimaki, Hatonen, Luukkaala and Kaila (2012) opined that digital learning is a digital tool used to acquire digital teaching materials for online or offline learning activity through wire or wireless networks.

Therefore, digital learning is an instructional practice that ultimately helps students through various digital means such as the internet, corporate network, computers, satellite broadcasting, audiotapes, videotapes, interactive TV, compact disks, among others These mediums are applied in a broad range of technology-enhanced educational strategies including blended learning, network-based learning, computer-based learning, virtual classrooms, digital cooperation and other strategies that rely on digital tools (Lauren, 2020).

Although many academic units have also started synthesizing learning but a lot of them are still stuck with old procedures (Dhawan, 2020). The facts that there is inadequate ICT infrastructure, the educational sector is generally underfunded, poor and limited expertise, lacks effective co-ordination of the various ICT for education initiative and as well the overdependence of educational institutions on government (Aduke, 2008). For instance, Digital readiness indicates a nation's ability to implement digital learning and harness advantage of ICT. However, Nigeria ranks 79th out of 80 countries in the Economist Intelligence Unit's Technological Readiness Ranking for 2018. From this survey, Nigeria's infrastructure is far from being adequate for digital learning. Hence, one can say that Nigeria is an ICT emerging country.

A modern journalist needs more than notebooks, pens, tape recorders and typewriters to carry out his or her basic duties. The advent of computer and its applications to information gathering and media production process has created tremendous change in the practice. Scholars, consequent to these developments, advocated the inclusion of ICT in the curricular of mass communication training institutions. Newspapers across the country produces online versions and television stations broadcasting programmes engaging in digital production, it imperative to introduce ICT studies into the syllabi of Mass Communication and Journalism studies for the student journalists to be acquainted with the technological proficiency embedded in the practice of modern journalism.

Students are developing a positive attitude towards using technology systems, editing and customizing content and thinking about online design and layout. They are also sharing creative original work like poetry and film and practicing safe and responsible use of information and technology. Sanusi, Adelabu and Okunade (2014) stressed that the Internet which has become an integral aspect of the media and should also be integrated into media training.

The Problem

Education has remained the bedrock of any nation being an instrument for national transformation and development. In this regard, Etejere and Ogundele (2008) asserted that a country that toys with the education of her citizens is going to experience dwindled development and will invariably be ranked low among the developed nations of the world. Issues surrounding digital learning in the educational sector have received extensive attention globally. According to Ali (2020), educational institutions worldwide are moving more and more towards digital learning.

The emerging relationship between the journalists and the new media of gathering and reporting information has brought about a new breed of communicators which Pattern

(1986) in Aina (2004) called the techno journalists and it is not enshrined in the pedagogical skills of journalism in Nigerian tertiary institutions. The few ICT courses introduced into the curricular are not well taught, while the students are not ICT compliant. This is because the institutions have inadequate ICT tools, inadequate facilitators, epileptic supply of power and other inherent problems in the schools.

Consequently, the students in the institutions graduate without sufficient ICT skills that would enhance them the knowledge to use the tools effectively in the discharge of their duties and this further create a digital divide among them and their counterparts in a more technological advanced nation. To this end, it becomes pertinent to ascertain the preparedness for the use of digital learning tools among mass communication undergraduate of the University of Nigeria Nsukka.

Objectives

The main objective of the study is to investigate the preparedness for the use of digital learning tools among undergraduates of mass communication UNN. Specifically, the study aims at identifying the following:

1) To ascertain the level of awareness to digital learning tools by mass communication undergraduate of UNN.
2) To ascertain the level of exposure to digital learning tools by undergraduate of Mass communication UNN.
3) To examine the perception of undergraduates of mass communication UNN on the use of digital learning tools.
4) To find out the level of preparedness for the usage of digital learning tools by undergraduates of mass communication UNN.

Research Questions

This research will attempt to answer four questions

1) What is the level of awareness to digital learning tools by mass communication undergraduates of UNN?
2) What is the level of exposure to digital learning tools by undergraduates of mass communication UNN?
3) What is the perception of UNN mass communication undergraduates to digital learning tools?
4) What is the level of preparedness for the use of digital learning tools by mass communication undergraduates in UNN?

Hypothesis one ($H0_1$)

"There is no significant difference in the mean preparation level for the use of digital learning tools among Mass Communication undergraduates based on respondents' characteristics."

Literature Review

Digital education is the type of education in which instructors and learners (i.e. students) utilize digital technologies to deploy teaching and learning via remote location (Oriji and Torunarigha, 2019). This has become an increasing feature of education in many societies occasioned by the fact that many of the younger generations of the 21st century were born as "digital natives," who from birth speak the language of digitalization, computers, video games, and the internet. Students have grown up surrounded by digital technology such as smartphones, computer devices, highspeed internet, social media, e-mail, telegram, and online-based messaging services (e.g. WhatsApp) (Oriji and Torunarigha, 2019). When these tools are deployed for educational purposes, then such a form of education is called digitalized education.

The world is a 'global village' is a saying which is over a decade old, but its gradually but becoming a daily reality in Nigeria and across the sub-Saharan region. With the increase in mobile devices and cheap high-speed internet which serve as platforms for many socio-economic technologies, the new educational technologies are yet to revolutionize most of our schools. In our contemporary time, the place of technology cannot be overemphasized, before now people used to think that just like other things come and go, technology has come and would definitely go. However, information and communication Technology (ICT) has proved

otherwise as it keeps getting better day by day, improving and expanding in various aspects. This improvement and expansion have continued to improve mankind, facilitate growth and development among others. Of course, the education sector is never left out of the increase brought about by ICT. According to United Nation Educational, Scientific and Cultural Organization (UNESCO; 2002), ICT is like the foundation for every other thing in our contemporary world; hence, a deeper knowledge of this advancement in knowledge is essential for proper education. ICT as defined by UNESCO (2006) means those forms of technology that are used for transmitting, saving, creating or sharing information or knowledge. This definition implies that ICT include various kind of technology like the telephones, televisions, video, computer hardware and software, DVD among others. Beebe (2004) as cited in OdedeandEnakerakpo (2014) defined ICT as short term for computers, software, networks, satellite links and related systems that allow people to access, analyze, create, exchange and use data, information and knowledge.

Digital learning is any learning that is accompanied by technology or by instructional practice that makes for effective use of technology. Digital education enables teachers or instructors to pace learning according to individual needs. In this way, it facilitates the acquisition of cognitive skills at the level of each learner's ability, allowing some learners opportunities to practice more and others to go ahead when they are ready to do so. Internet technologies at an early stage such as e-mail, web pages and newsgroups have to add value to the delivery of knowledge in a traditional classroom. Internet technology has been growing with the emergence of Web 2.0 technologies. Web 2.0 technologies such as blogs, wikis and social networking sites will link the information to people who are interconnected. This means that the dimensions of the field of education will change as a result of this rapid development of technology.

Digital learning also contributes to student access to devices such as smartphone and tablet. It makes the shift to digital instructional materials (Bailey et al, 2013). The activities in social networks provide students with an active process that gives significant meaning to them. Effective pedagogical practices and use of technology will naturally motivate the students. Internet and social networking tools can provide opportunities for students to find information, collect their own materials, communicate, create meaning, and evaluate the final outcome. Students with self-directed learning practices will create an active learning environment, as identified by Batchelder (2010).

E-learning in this regard, as shown by the massive growth of web technology, is being significantly the learning technique in terms of schooling, training and development and a lot of corporate functions. Nevertheless, more educational organizations and business schools now take crucial moves in utilizing increasingly immersive e-learning methods to improve university students and their staff efficiently.

Digital learning technology is the convergence of learning process, the internet and other technologies. Information technological improvement has turned the big world into a small global village. Communication is the live wire of today's business and means of livelihood. Communication is one of the oldest technologies but less attention was paid to it as regards the role it plays in the history and life of mankind. The development of e-learning in Nigeria could be traced back to the development of telecommunication which began in 1886 when e-cable connections was established by the colonial masters between Lagos and the colonial office in London to transmit information and receive feedback. By 1893, all government offices in Lagos were provided with telephone service for easy communication, feedback and easy access and later all other parts of the country were provided with telephone services.

In Nigerian schools, the commonest type of e-learning adopted is in form of lectures note on CD-ROM which can be played as at when the learners desires. For instance, the face of educational sector in Nigeria is changing gradually as evident in the obvious progress of the National Open University of Nigeria (NOUN), a distance learning institution whose course delivery is digitally facilitated through a combination of Webbased modules, textual materials, audio and video tapes as well as CD-ROMs (MacIkemenjima, 2005). More so, so many universities now have approved Distance

Learning Centres (National Universities Commission, 2020) and as well use digital learning tools for their semester exams. In addition, as reported by Ajikoba (2017), over five hundred thousand students gain admission into various tertiary institutions in Nigeria each year through computer-based exam of the Joint Admission and Matriculation Board (JAMB). These and many more are responsible for the gradual exposure of the students, academics and institutions to the digital world.

However, the level of digital learning in Nigeria is still at low ebb due to the resistance to change from traditional pedagogical methods to more innovative, technology-based teaching and learning methods by the educational sector. Although many academic units have also started synthesizing learning but a lot of them are still stuck with old procedures (Dhawan, 2020). This is not far connected from the facts that there is inadequate ICT infrastructure, the educational sector is generally underfunded, poor and limited expertise, lacks effective co-ordination of the various ICT for education initiative and as well the overdependence of educational institutions on government (Aduke, 2008). For instance, Digital readiness indicates a nation's ability to implement digital learning and harness advantage of ICT. However, Nigeria ranks 79th out of 80 countries in the Economist Intelligence Unit's Technological Readiness Ranking for 2018 (Zubairu, Oyefolahan, Babakano, Etukand Mohammed, 2020). From this survey, Nigeria's infrastructure is far from being adequate for digital learning.

Hence, one can say that Nigeria is an ICT emerging country. The COVID-19 pandemic with its social distancing status opened up wider the need for digital learning which has before now been in neglect and abandoned owing to the deplorable state of our infrastructure and educational sectors. It further exposed the worsening educational sector of Nigeria and provided the need to improve on the system which serves as the only panacea to the public amidst coronavirus pandemic. Therefore, there is need for educational institutions to remain resilient and find new ways to continue with teaching- learning activities (Chang-Richards *et al.*, 2013).

Also, there existed the Correspondence and Open Studies Unit (COSU) of University of Lagos that started in 1974 which is now known as Distance Learning Institute (Ajadi *et al,* 2008). According to Ajadi (2008), it initially offered programs in science education at first degree level and Postgraduate Diploma in Education (PGDE) for degree holders that did not possess teaching qualifications and thus, became the first attempt made to establish a distance education unit as part of University programs in Nigeria. Relatively, this development led to a momentary institution of NOUN by an Act of the National Assembly in 1983 as the first National Open University (Mac-Ikemenjima, 2005). It was momentary courtesy of the fact that the continued military junta of 1984 but NOUN was however later brought back to life in 2002. NOUN over the years has proven to be of great potential and instrumental in achieving Nigeria's goal of education for all. The technological consciousness of Federal Government in the educational sector was reawakened through this progress.

Learning has become an activity that that can be carried out irrespective of time and places, with the support of digital tools. Now is an opportunity to improve standards, contribute to knowledge-based economies, enrich learning potentials, facilitate personalized learning and in all, transform pedagogy to make it more student-centered in line with the global standard (Fullan, 2013; Hammond, 2013). Therefore, the adoption of digital learning is very crucial to ensuring the continuity of education in Nigeria which demands working on our digital infrastructure, up-skilling staff and expanding their capabilities.

Digital learning is an effective teaching method to enhance students' learning experience. It emphasizes a high-quality teaching experience and provides access to challenging contents, feedback through formative assessment, and self-learning opportunity at student's own pace. Digital classrooms are considered as the vital element in promoting and improving the traditional methods of teaching and learning. Digital classroom requires a shift from a teacher-centred to student-centred environment where the instructor must take on multiple new roles. The integrating technology into the classroom is an approach to develop better understanding of basic concepts provided for learning, if it is applied appropriately. Digital classroom

comprises all forms of electronically supported learning and teaching.

Innovative way of teaching with technology enabled education making them flexible and technologically gymnastic. A Picture is worth a thousand words; Animation adds spice to teaching and create a fun atmosphere in learning, "Save" and reuse of Lecture when needed. Most Important of all is that technology saves the time for more learning activities. Asynchronous learning's greatest benefit to students is the freedom it gives them to access the course and its instructional materials at any time they choose and from any location with an Internet connection. This allows for accessibility for diverse student populations, ranging from traditional, on-campus students, to working professionals, to international students in foreign countries.

Due to some hindrances in the Nigerian educational sector, there are obvious and reluctant attempts that encourage reliance on the traditional pedagogy in educational process despite the emergence of technology. The difficulty in fostering digital learning in Nigeria can be tied to our poor digital infrastructure. For instance, the 2020 Digital Global Overview reported that only 20 percent of Nigerians have access to smartphones while about 40 percent only, have access to the internet (Osuagwu, P. andUmeh, 2020). It has led to a significant slowdown of digital learning implementation in Nigerian educational sector.

There is need to expand the broadband connectivity and invest handsomely in the necessary structures that will enable digital learning to thrive as seen in first world countries. This will be achieved through the adoption and the implementation of policies and programs in line with the future-oriented education (Dhawan, 2020). There is a belief that government policies and governance that enable digital learning can drive competition, engender education system sustainability and could contribute to revamping the Nigerian economy (Osuagwu, P. andUmeh, 2020). Common feature countries that have successfully introduced digital learning share is that they have invested a lot on the internet, ICT infrastructure and power and have also earmarked action programs and policies in this regard (Oye, SallehandIahad, 2011).

The inadequate funding of the federal universities has metamorphosed into abandoned projects, epileptic power supply, erratic internet networks, limited access and penetration of the Internet, incessant industrial action by both academic and non-academic Staff of the Universities. This has further resulted into grossly inadequate information and communication technology, infrastructure, other socio-economic factors and the poor coordination of the educational sector. For these reasons, Nigeria is still very far from fostering digital learning successfully alongside other developing nations of the world. One of the major problems facing the proper adoption of digital learning in Nigerian educational institutions in general is:

Relatively, this situation is worsened due to inadequate power supply. Epileptic power supply is a perennial issue that has been argued to be the major setback to the adoption of digital learning by the Nigerian educational sector and the technological advancement generally (Ajadi, 2008). It poses a great difficulty in accessing the internet because most rural areas are not connected to the national grid. On the other hand, both students and academics in Nigerian educational institutions have been resisting changing from the conventional pedagogical approach to digital learning modalities. Factors affecting the acceptability of digital learning are not far from the fact that there is mass unawareness of the effectiveness of digital learning, low digital literacy, cost of accessing the internet and technophobia (Folorunso, Ogunseyeand Sharma, 2006; Ajadi*et al,* 2008). Imagine a country where the majority of her citizens are curiously contending that rolling out the fifth generation (5G) network by the Chinese and other stakeholders is the cause of the pandemic that is ravaging the world. This surly retard the acceptability of certain technological features needed to foster digital learning in Nigeria.

Also, digital learning in Nigerian educational sector has witnessed poor co-ordination of all the various digital learning initiatives over the years. This is because it has not only been poorly funded but also records poor human resources and misappropriation of funds. In fact, the overall educational system is underfunded and thus, the available funds are used to meet survival needs of the sector rather than investing in the standard needs (Mac-

Ikemenjima, 2005). For instance, National Open University of Nigeria (NOUN) and the University of Nigeria Nsukka (UNN) is faced with lack of financial support to build the required infrastructure and to produce digital learning materials for over 9,000 students registered in each year (Omofaye, 2007).

Theoretical Framework

This study is hinged on Evaluation Theory and Diffusion of Innovation theory. Where the former is on how the processes followed after exposure to advertising, influences a consumer's decision to purchase a product or service, the latter focuses on the impact of television and its influence in altering individual's perception of reality and how their exposure to media messages influences the consumer overtime.

Evaluation Theory

According to Shadish, Cook, and Leviton (1991), the fundamental purpose of evaluation theory is to specify feasible practices that evaluators can use to construct knowledge about the value of social programs. This explanation of evaluation theory consists of five main components: practice, use, knowledge, valuing, and social programming.

Thus, the theory's applicability to the study pinpoints the several processes through which evaluators can use to construct knowledge about the value of social programs. Evaluation of the incorporation of digital learning tools in teaching and learning of mass communication undergraduates is vital as it would help in making a more informed decision.

Diffusion of Innovation Theory

The diffusion of innovation theory, which is one of the oldest social science and communication theories, was developed by Everett M. Rogers in 1962. It explains that a new information technology innovation grows and diffuses to become popular and accepted over awhile within a specific population or social system (LaMorte, 2019; Frank *et al.*, 2020).

This theory is very appropriate for this study because digital learning (i.e. online or e-learning) for studies is innovative and its gradually diffusing to developing nations. As such, the current study, in a general sense, attempts to find out how undergraduates of mass communication in university of Nigeria Nsukka are prepared to accept or adopt this innovation.

Methods

Design

The research design adopted for this study is the survey method. Survey is considered appropriate because it is a quantitative method of conducting research and involves sampling a large num. it also helps in obtaining demographic and psychographic information from the population under study in order to arrive at a valid scientific conclusion.

Population

The population of Mass communication students for the 2021/2022 session is 1305 (according to the Academic Planning Unit)

Table 3.1: UNN Mass communication Undergraduate Student's population Distribution

Level	Population
First Year	420
Second year	330
Third year	250
Final Year	305
Total	1305

Source: Academic Planning Unit, University of Nigeria Nsukka (UNN), 2022.

Sample Size

Using the Australian Sample Size Calculator, developed by the National Statistical Service of Australia, a sample size of 297 was gotten. This was achieved using confidence interval of 0.05, confidence level of 95% and a population of 1305. (*Source:* https://www.abs.gov.au/websitedbs/D3310114.nsf/home/Sample+Size+Calculator)

Reliability Instrument

To calculate the reliability coefficient, the researcher adopted the Guttman Scale formula developed by Louis Guttman in 1944, with the formula:

The calculation goes thus:

1-toatal error/total respondents

Where 1 is constant

1-2/20=0.9

Therefore, 0.9/1 X 100/1=90%

From the calculation above, the research instrument is 90% reliable

Data Analysis

The qualitative method was used for interpretation to discuss the figures for better understanding of the findings. The research questions in this study were analyzed and treated one after the other to ensure clarity of data presentation. The percentage formula used is shown below.

Where;

$$\frac{n}{\sum n} \times \frac{100}{1}$$

n = Number of respondents (frequency)

∑ = Total number of respondents

100% = Percentage

In using the above formula, the number in a particular unit was divided by the total number in the frequency then multiplied by one hundred in order to get the total percentage in a given item or question percentage.

The researchers also adopted the real limit mean instead of the cut-off or bench mark mean used in the last objective. The reason for this was to aid the researchers take decision on the level to which the objectives were adhered to. In using the real limit mean, means of less than 1.5 are termed very low level, 1.5 to 2.4 as low level, 2.5 to 3.4 as high level and means of 3.5 upward as very high level.

Findings

More males (57.7 %) responded to the questionnaire than females. Most respondents (62.5 %) were aged 15 to 25 years. Finally, respondents were mostly single (94 %), Christians (97.9 %) and in their first year of study (40.9 %).

Research question 1

What is the level of awareness to digital learning tools among Mass Communication undergraduates?

In answer to research question one above, responses to the relevant section of the instrument (Items 1 to 3) were collated and analysed. The obtained results are presented hereunder. Their responses are presented in Table XX1.

Table 4.1: Level of undergraduates' awareness to digital learning tools

Awareness items	**% Disagree**	**% Agree**	**Mean**	**Remark**
I am aware of digital learning tools	12.5	87.5	3.12	High
I am aware of digital learning tools from the classroom	18.2	81.8	3.0	High
I am aware of digital learning tools from the television	61.7	38.3	2.22	Low
Cluster mean			2.78	High level

N=297

From Table 4.1 above, over half of respondents agree to awareness of digital learning tools (87.5 %) and from the classroom (81.8 %). In addition, only 38.3 % agree to awareness of digital learning tools from the television. Overall, there is a high level of awareness to digital learning tools among Mass Communication undergraduates in the University of Nigeria, Nsukka.

Research question 2

What is the level of exposure to digital learning tools among Mass Communication undergraduates?

In answer to research question two above, responses to the relevant section of the instrument (Items 4 to 12) were collated and analysed. The description of responses obtained is presented in Table 4.2.

Table 4.2: Level of undergraduates' exposure to digital learning tools

Exposure items	**% Disagree**	**% Agree**	**Mean**	**Remark**
I have attended a computer literacy course	23.6	76.4	2.9	High
I have skills in different computer applications	61.6	38.4	2.27	Low
I use digital learning tools actively in the lecture hall	88.2	11.8	1.67	Very Low
There is free Wi-Fi in the university for easy learning on the internet	9.5	90.5	3.31	Very High
I use digital learning tools for personal purpose	12.5	87.5	3.21	Very High
I engage in online classes with other students	29.4	70.6	2.91	High
There are some functional digital tools in the department that aids teaching	28.6	71.4	2.96	High
I search for solutions to my assignment using the internet	49.8	50.2	3.39	Very High
I learn more by using the internet	5.7	94.3	3.47	Very High
Cluster mean			2.89	High level

N=297

From Table 4.2, most respondents agreed to all the listed items of exposure to digital learning tools except two – possessing skills in multiple computer application and the usage of digital learning tools in the lecture halls. Overall, the cluster mean of 2.89 shows a high level of exposure, being above the benchmark of 2.5. Hence, there is a high level of exposure to digital learning tools among Mass Communication undergraduates, although they neither use these tools in the lecture halls nor possess skills in multiple computer applications.

Research question 3

What is the perception to the use of digital learning tools among Mass Communication undergraduates?

In answer to research question three above, responses to the relevant section of the instrument (Items 13 to 21) were collated and analysed. The obtained results are presented in Table 4.3.

Table 4.3: Perception to the use of digital learning tools among Mass Communication undergraduates

Perception items	% Low extent	% High extent	Mean	Remark
I consider digital learning tools necessary for teaching and learning	11.4	88.6	3.3	Agree
I am not interested in digital learning	87.2	12.8	1.69	Disagree

tools				
I prefer the traditional method of teaching and learning	87.8	12.2	1.71	Disagree
Learning with digital tools is confusing	64	36	2.18	Disagree
Digital learning tools improves students learning experience	7.5	92.5	3.2	Agree
Digital learning tools motivates students to self-development	7.4	92.6	3.31	Agree
Students taught with digital tools perform better academically	16.2	83.8	3.21	Agree
Digital tools are important for learning	9.5	90.5	3.27	Agree
Lecturers' knowledge of digital tools affects the students	33.3	66.7	2.9	Agree
Cluster mean			2.75	High

N = 297

From Table 4.3, most respondents agreed to all the listed items of perceptions of digital learning tools except three – not being interested in digital learning tools, preference for traditional method of teaching and learning and that 'learning with digital tools is confusing'. The cluster mean of 2.75 shows a highly positive perception of digital learning tools in general, being above the benchmark of 2.5. Therefore, Mass Communication undergraduates positively perceive and prefer digital learning tools to traditional methods.

Research question 4

What is the level of preparation for the use of digital learning tools among Mass Communication undergraduates?

In answer to research question three above, responses to the relevant section of the instrument (Items 22 to 30) were collated and analysed. The results obtained are presented in Table 4

Table 4.4: Level of preparation for the use of digital learning tools

Perception items	% Low extent	% High extent	Mean	Remark
There is free Wi-Fi all over the department for easy learning on the internet	87.5	12.5	1.65	Disagree
There is adequate power supply for the use of digital tools for learning	88.9	11.1	1.65	Disagree
Lecturers are up to date with digital learning tools	64.6	35.4	2.21	Disagree
The lecture halls are digitally equipped	89.5	10.5	1.56	Disagree
There are enough and functional projectors in the lecture halls	83.4	16.6	1.75	Disagree
There are some functional digital tools in the department that aids teaching	23.8	76.2	2.98	Agree
The digital learning tools in the	7.8	92.2	3.38	Agree

department are limited				
The department is equipped with enough manpower to handle the digital tools	35.8	64.2	2.9	Agree
The department has the finance to purchase basic digital learning tools	20.6	79.4	3.13	Agree
Cluster mean			2.36	High

N=297

From the results in Table 4.4, most respondents agree to availability of some functional digital teaching tools in the department, although limited, and that the department is equipped with adequate finance and manpower to adopt digital learning tools. In addition, most respondents disagreed on the items of availability of free Wi-Fi all over the department for easy learning, adequate power supply for the use of digital learning tools, lecturers being up to date with digital learning tools, lecture halls being digitally equipped and adequate supply of functional projectors in the lecture halls. Furthermore, the cluster mean of 2.36 shows a low level of preparation for the use of digital learning tools in general, being below the benchmark of 2.5. Thus, Mass Communication undergraduates are poorly prepared for the use of digital learning tools due to unavailability of free Wi-Fi, inadequate power supply, poor capacity among lecturers, unequipped lecture halls.

Hypothesis one ($H0_1$)

> "There is no significant difference in the mean preparation level for the use of digital learning tools among Mass Communication undergraduates based on respondents' characteristics."

To test the null hypothesis ($H0_1$) above, the mean responses of items 22 and 30 of the questionnaire were collated and used for analysis, to obtain results of the significance or otherwise, of mean differences, based on respondents' gender, age, marital status, religion and level of study. The obtained results are presented in Table 4.5.

Table 4.5: Results of mean differences analyses (based on personal characteristics) on responding Mass Communication undergraduates on their preparation level for the use of digital learning tools

***Mean difference is significant at the 0.05 level | ANOVA = Analysis of variance | N = 295**

Variable	Groups	Mean scores	Levene statistics (Sig.)	Sig.	Test	Remarks
Gender	**Male** **Female**	**2.34** **2.35**	**.506**	**.846**	***t* test**	**Not significant**
Age	**15 – 25 years** **26 – 30 years** **31 – 35 years** **36 & above**	**2.35** **2.34** **2.28** **2.28**	**.022**	**.930**	**Oneway ANOVA**	**Not significant**
Level of study	**100 level** **200 level** **300 level** **400 level**	**2.32** **2.46** **2.26** **2.27**	**.001**	**.010***	**Oneway ANOVA**	**200 level >100 level*> 400 level*>300 level**
Religion	**Christianity** **Islam** **African Traditional Religion**	**2.35** **2.22** **2.41**	**.498**	**.816**	**Oneway ANOVA**	**Not significant**
Marital status	**Single** **Married** **Divorced** **Separated**	**2.36** **2.23** **2.08** **1.89**	**.146**	**.095**	**Oneway ANOVA**	**Not significant**

Responses of Mass Communication undergraduates on their preparation level for the use of digital learning tools did not vary by gender, age, religion, and marital status. Results of the mean differences tested based on respondents' gender, age, religion, and marital status were not significant. Further analyses of ANOVA statistics (i.e., Posthoc tests) for these variables were therefore not necessary. However, the mean differences of Mass Communication undergraduates on their preparation level for the use of digital learning tools were significantly different based on the respondents' level of study (Table 4.5). These significant results warranted a Posthoc test to further understand the mean differences in the collected data (Table 4.6).

Table 4.6: Multiple Comparisons – Least Significant Difference (LSD) Test of Mass Communication undergraduates' mean preparation level for the use of digital learning tools

(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.
100 level	200 level	-.13285*	.05354	.014
	300 level	.06538	.21664	.763
	400 level	.05698	.05373	.290
200 level	100 level	.13285*	.05354	.014
	300 level	.19823	.21774	.363
	400 level	.18983*	.05803	.001
300 level	100 level	-.06538	.21664	.763
	200 level	-.19823	.21774	.363
	400 level	-.00840	.21779	.969
400 level	100 level	-.05698	.05373	.290
	200 level	-.18983*	.05803	.001
	300 level	.00840	.21779	.969

***. The mean difference is significant at the 0.05 level.**

Dependent Variable: Preparation cluster

From the LSD test results in Table 4.6, the mean preparation level for the use of digital learning tools based on level of study shows significant differences. The mean preparation level of respondents in 200 level was significantly higher than their counterparts in 100 level and 400 level. While the null hypothesis guiding this study can be accepted for the respondents' gender, age, religion, and marital status, the hypothesis would be rejected for respondents' level of study.

Therefore, the null hypothesis that "there is no significant difference in the mean preparation level for the use of digital learning tools among Mass Communication undergraduates based on respondents' gender, age, religion, and marital status" is confirmed and accepted. Conversely, the null hypotheses that "there is no significant difference in the mean preparation level for the use of digital learning tools among Mass Communication undergraduates based on respondents' level of study" is rejected.

Conclusion

This study examined the Preparedness for the use of digital learning tools among mass communication undergraduates of the University of Nigeria Nsukka. In view of the above summary, it was evident that the level of awareness to digital tools among Mass Communication undergraduates in University of Nigeria Nsukka is very high, but the Preparedness for the use of the digital tools among the Mass Communication undergraduates in UNN is very low.

Mass Communication undergraduates are poorly prepared for the use of digital learning tools due to unavailability of free Wi-Fi, inadequate power supply, poor capacity among lecturers, unequipped lecture halls.

The study concludes that Preparedness for the use of digital learning tools among mass communication undergraduates of the University of Nigeria Nsukka do not incite the right perception of preparedness among the mass communication undergraduates in UNN. Though the undergraduates' awareness of digital learning tools are positively high, the right authority should make efforts to provide all the lacks and necessity for the department so that the department can grow effortlessly.

Recommendations

Based on the findings of the study, the following recommendations are given.

1) Proper awareness of digital learning tools should be created among mass communication undergraduates by organizing workshops, seminars and symposiums on the relevance of digital tools

2) Mass communication undergraduates should by highly exposed to digital learning tools by giving the required access to such tools
3) Mass communication undergraduates' preference for digital learning tools should be encouraged making regular use of such tools in administering lectures to them
4) Mass Communication undergraduates should be fully prepared for the use of digital learning tools by making such tools available and accessible to them.

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