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ICT USAGE BY LECTURERS: ANALYSIS OF CHALLENGES AND BENEFITS IN COLLEGES OF EDUCATION, KWARA STATE, NIGERIA

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Abstract

This study assessed the benefits and challenges facing ICT usage by lecturers in Kwara State Colleges of Education (COEs), Nigeria. A descriptive research design of survey type was adopted. All the 398 lecturers in the three public COEs in the state formed population of the study. All the three COEs and the 398 lecturers therein were selected purposively. Benefits and Challenges Facing Lecturers in the ICT Usage Questionnaire was utilised gather data. The instrument was validated. The data collected from the 25 copies of the instrument administered to some lecturers outside the study sample were analysed using Cronbach's Alpha and reliability coefficient of 0.84 was realised. The data gathered were anslysed using t-test, mean and standard deviation. The findings of the study revealed that ICT helps lecturers to get unlimited information to adequately prepare for lectures and assists lecturers to have access to adequate literature for their researches. Epileptic power supply, techno-phobia, lack of technical-know-how and internet problem were challenges facing lecturers in the ICT usage. The study concluded that ICT usage helps in enhancing effective services delivery of lecturers in Kwara State COEs. It recommended that Kwara State government should intensify effort in facilitating stability of power supply, ensure stable provision of alternative power supply through solar power in the lecturers' offices, gives adequate attention to provision of hardware, software and other ICT-supported devices to the Colleges, to enhance effective ICT usage lecturers.

Keywords: Communication, Information, Lecturers, Technology, Usage

Introduction

Information communication technology (ICT) is a modern method of processing, passing, and receiving information among people. The use of ICT has crept into all the facets of human life, education in no exemption. In higher institutions of learning, lecturers need to key into ICT usage to enhance seamless discharge of their core mandate of teaching, research and community service. Shehu and Bello (2023) opined that ICT, which means information and communication technology, connotes the utilisation of devices and tools to generate,

communicate, manage, and store information. In recent years, it has witnessed continued significance in not only education, but also communication and employment. ICT also refers to technological gadgets which are used to impart knowledge to students in such a way that physical presence of teacher and students is totally prevented. It covers computer, internet service, software applications, Wi-Fi, projectors and laptops. According to Ajadi (2010), Isuku (2018) and Lam (2021), the connection between ICT and educational institutions in Nigeria cannot be over-emphasised, especially higher institutions of learning where there is large number of students. Shehu and Bello (2023) maintained that ICT consists of both new and old tools. Old tools cover television, telephone and radio. New tools include satellites, the Internet, computers, and wireless technology. It subsists in various dimensions like texts, videos, audio and audio-visual.

Idowu et al. (2014) posited that ICT helps lecturers to send and receive information from students via electronic gadgets, upload and download information with convenience and print from computer. To buttress this, Agim et al. (2018) found in a study that the ICTs are utilised by lecturers for retrieving information, carrying out research, spreading information, and getting files downloaded. Sango and Aliyu (2015) posited that ICT has remarkably improved the quantity and quality of teaching and the research carried out by academic staff in Nigerian tertiary institutions. Not only that, ICT helps lecturers to stimulate and engage students in learning, reinforce teaching and provide opportunities for themselves and students to connect to the world. Sango and Aliyu (2015) maintained that ICT assists lecturers in achieving effective classroom management, provision of high-quality education, research visibility, assessment of student learning and preparation of results. Umoren (2019) stated that ICT tools, such as educational software, online learning platforms, and interactive whiteboards have no doubt increased teacher motivation which in turn helps to increase their productivity in teaching. Olanipekun (2020) found in his study that significant difference was not in the benefits of ICT to teaching and learning in universities in Ekiti State, Nigeria based on lecturers' gender. In the same vein, the finding of Gabriel (2021) revealed that there was no significant difference in the importance of ICT to lecturers' job performance in Federal Polytechnic, Ilaro based on gender. The study of Alabi (2018) also found that significant difference did not exist in the male and female lecturers' opinions on the importance of ICT to lecturers in Kano State University, Nigeria.

There are some challenges facing lecturers in ICT usage. Kumar et al. (2019) opined that benefits of ICT to educators are enormous. It supports them to perform their administrative duties such as managing students' records, communication with students, co-lecturers or researchers and gathering of information for lecture preparation. Ajegbelen (2016) stated that inability to quickly adopt and adapt to using ICT facilities, non-possession of essential software and personal computers, problem of poor reception, low access to ICT facilities, and lack of consistent electricity supply hinder lecturers' ICT usage. Dorothy and George (2016) maintained that the challenges facing lecturers in the utilisation of ICTs include inadequacy of computers and laptops, limited ICT skills, insufficiency of Internet connectivity, limited ICT skills, insufficiency of time, and inadequacy of computer laboratories for online interaction among others. From the study conducted by Sango and Aliyu (2015), it was found that dearth of adequate time, adequate training, interest, skills, appreciation; and the tasking activities in the preparation of ICT utilisation are the challenges facing the utilisation of ICT by lecturers. As revealed by the findings of Watts and Ibegbulam (2016), lack of affordable online access, insufficiency of the infrastructure needed for ICT,

lack of information searching skills and lack of adequate ICT skills are the challenges to the use of ICT. In addition, Kumar et al. (2019) found that lack of technical skills, resistance to change by teachers, and poor support from school administration are the main challenges to adoption of ICT by educators. To examine the opinions of lecturers on the challenges facing ICT based on their gender, the study conducted by Gabriel (2021) showed that in perceptions of lecturers were significantly different on the challenges facing ICT usage among lecturers in Federal Polytechnic, Ilaro. The study of Olanipekun (2020) also found that male and female lecturers were not significantly different in their opinions on the challenges facing ICT in universities in Ekiti State, Nigeria.

Statement of Problem

Information and Communication Technology (ICT) has become a fundamental driver of effectiveness and innovation in contemporary higher education. In Nigeria, Colleges of Education are statutorily mandated to produce competent and professionally qualified teachers for the basic education sector. Fulfilling this mandate in the 21st century requires lecturers to integrate ICT into teaching, research, assessment, and community service. Effective ICT usage enhances instructional delivery, promotes research productivity, facilitates collaboration, and equips pre-service teachers with the digital competencies required in modern classrooms. Despite these recognized benefits, evidence from professional engagements, seminars, and institutional observations suggests that ICT utilization among some lecturers in Colleges of Education in Kwara State remains limited and inconsistent. Several interrelated challenges appear to constrain effective usage. These include inadequate ICT infrastructure such as insufficient computers and digital teaching facilities, unstable internet connectivity, erratic power supply, limited access to relevant educational software, inadequate technical support services, insufficient training and continuous professional development, and, in some cases, resistance to transitioning from traditional teaching methods to technology-driven approaches. The persistence of these challenges poses significant implications for lecturers, institutions, and the wider education system. When ICT facilities are inadequate and capacity-building opportunities are limited, lecturers may struggle to deliver engaging, technology-enhanced instruction. This may result in reduced instructional effectiveness, limited research visibility, poor integration of digital pedagogy, and minimal participation in global academic networks. More critically, pre-service teachers trained under such conditions may graduate without adequate digital skills, thereby weakening their capacity to function effectively in contemporary basic education classrooms. If these issues remain unaddressed, the overall quality, relevance, and competitiveness of Colleges of Education in Kwara State may be compromised. Although previous studies such as Kumar et al. (2019), Sango and Aliyu (2015), Shehu and Bello (2023) have examined ICT usage in various educational contexts, there is limited empirical evidence that specifically analyzes both the benefits derived from ICT usage and the contextual challenges confronting lecturers in Colleges of Education in Kwara State. This lack of localized data creates uncertainty regarding the actual extent of ICT integration and the nature of the barriers affecting it. Therefore, this study seeks to systematically analyze the challenges and benefits of ICT usage by lecturers in Colleges of Education in Kwara State, Nigeria, with the aim of providing evidence-based recommendations for institutional improvement and policy formulation.

Objectives of the Study

The objectives of the study were to:

i. identify challenges that influence lecturer ICT Usage in Kwara State COEs;
ii. assess the benefit of ICT usage to the lecturers in Kwara State COEs;
iii. find out the difference in the benefits of ICT usage to the lecturers in Kwara State COEs, Nigeria based on gender; and
iv. investigate the difference in the challenges facing lecturers in the ICT usage in Kwara State COEs, Nigeria.

Research Questions

i. What challenges currently influence lecturers' ICT Usage in Kwara State COEs?

ii. What are the challenges facing lecturers in the ICT usage in Kwara State COEs, Nigeria?

Research Hypotheses

Ho_1: there will be no significant difference in the benefits of the ICT usage to lecturers in Kwara State COEs, Nigeria based on gender.

Ho_2: There will be no significant difference in the challenges facing lecturers in the ICT usage in Kwara State COEs, Nigeria based on gender.

Methodology

In this study, a descriptive research design of survey type was employed. All the 398 lecturers in the three public COEs in Kwara State constituted population of the study. The three public COEs were purposively selected because of the ownership similarity. All the 398 lecturers (Kwara State College of Education, Ilorin, 178; Kwara State College of Education, Oro, 115; and Kwara State College of Education 'Technical', Lafiagi, 105) were selected purposively. The instrument titled, 'Benefits and Challenges Facing Lecturers in ICT Usage Questionnaire' (BCFLIUQ) was utilised for data gathering. The 20-item questionnaire was structured in the segments (A, B and C). A was utilised for gathering demographic information of the respondents, B was utilised for gathering data on the 'Benefits of ICT Usage to Lecturers', while C anchored on the 'Challenges Facing ICT Usage by Lecturers'. Each of the B and C had 10 items. Rating scale of Very True, True, Partially True and Not True scored 4, 3, 2 and 1 respectively was used. The instrument went through face validity by three experts in the field of Education. Its reliability was ensured through the process of administering 30 copies to some lecturers in a state College of Education outside the terrain of Kwara State. The data gathered were subject to analysis using Cronbach's Alpha. Reliability index of 0.87 and 0.81 was realised for the Benefits and Challenges, while the overall reliability index was 0.84. The mean scores with the range of 0.01-2.49 were considered 'Disagree', while 2.50 and above considered 'Agree.' Mean and standard deviation were usilised to answer research questions, while t-test was used to test hypotheses.

Results

Table 2

Respondents' Mean Ratings on the Challenges Facing Lecturer ICT Usage in Kwara State. n= 398

S/N	Items	$\bar{X}$	SD	Decision
1.	Epileptic power supply	3.81	1.35	Agree
2.	Lack of technical-know-how	3.11	.93	Agree
3.	Internet problem	3.67	1.18	Agree
4.	High cost of facilities procurement and maintenance	2.98	.73	Agree
5.	Techno-phobia	3.66	1.24	Agree
6.	Resistance to change from primitive to modern method	3.33	1.11	Agree
7.	Insufficiency of time	2.91	.80	Agree
8.	Shortage of hardware and software	3.57	1.10	Agree
9.	Inadequate commitment to capacity building on ICT	3.03	.98	Agree
10.	Gender	1.93	.41	Disagree

$\bar{X}$: 1.00-2.49 = Disagree; 2.50-4.00 = Agree

Table 2 presents information on the challenges facing lecturers in the ICT usage in Kwara State COEs, Nigeria. As shown in the Table, all the 1-9 items (Epileptic power supply, lack of technical-know-how, internet problem, high cost of facilities procurement and maintenance, techno-phobia, resistance to change from primitive to modern method, insufficiency of time, shortage of hardware and software and inadequate commitment to capacity building on ICT) had mean scores above 2.50 and as such considered 'Agree'; while the mean score of item 10 (gender) was below 2.50 and such adjudged 'disagree'. Hence, items 1-9, except item 10 (gender), were agreed on as the challenges facing the ICT usage.

Table 2

Respondents' Mean Ratings on the Benefit of ICT usage in Kwara State COEs. n= 398

S/N	Items	$\bar{X}$	SD	Decision
	ICT:			
1.	helps lecturers to get unlimited information to adequately prepare for lectures	3.09	1.15	Agree
2.	assists lecturers to have access to adequate	3.68	1.20	Agree

	literature for their researches			
3.	gives lecturers high level of convenience in marking students' answer scripts	3.57	1.10	Agree
4.	provides storage devices where lecturers keep their records of student assessment	3.68	1.20	Agree
5.	supports lecturers to easily connect to other scholars within and outside Nigeria for research and other collaborations	3.30	1.08	Agree
6.	helps lecturers to have access to different journal outlets where they can publish their papers	3.67	1.15	Agree
7.	assists lecturers to prepare their articles for paper presentations	3.32	1.11	Agree
8.	gives lecturers opportunity to participate in local and international conferences, via Zoom, Google Meet, WhatsApp, etc.	3.81	1.35	Agree
9.	assists lecturers to impart knowledge to students at any point in time	3.57	1.10	Agree
10.	helps lecturers to achieve effective teaching	3.15	.98	Agree

$\bar{X}$ **: 1.00-2.49 = Disagree; 2.50-4.00 = Agree**

Table 1 presents information on the benefits of ICT usage to lecturers in Kwara State COEs, Nigeria. As show in the Table, all the 10 items (helps lecturers to get unlimited information to adequately prepare for lectures; assists lecturers to have access to adequate literature for their researches; gives lecturers high level of convenience in marking students' answer scripts; provides storage devices where lecturers keep their records of student assessment; supports lecturers to easily connect to other scholars within and outside Nigeria for research and other collaborations; helps lecturers to have access to different journal outlets where they can publish their papers; assists lecturers to prepare their articles for paper presentations; gives lecturers opportunity to participate in local and international conferences, via Zoom, Google Meet, WhatsApp, etc.; assists lecturers to impart knowledge to students at any point in time; and helps lecturers to achieve effective teaching) had mean scores that were above 2.50. Therefore, they were all agreed as the benefits of ICT usage to lecturers.

Table 3

T-test Showing the difference in the Benefits of ICT Usage to Lecturers in Kwara State COEs*, Nigeria Based on Gender*

Gender	N	$\bar{X}$	SD	Cal. t-value	p-value	Decision
Male	152	3.56	1.29			
				2.55	.061	Ho_1 Accepted
Female	56	3.40	.99			

Table 3 presents the t-value of 2.55 and the p-value of .061 that is greater than 0.05 level of significance. Based on the above, the null hypothesis one (Ho_1) was rejected. This signifies that there was no significant difference in the benefits of ICT usage to lecturers in Kwara State COEs, Nigeria based on gender.

Table 4

T-test Showing the difference in the Challenges Facing Lecturers in the ICT Usage in Kwara State COEs*, Nigeria Based on Gender.*

Gender	N	$\bar{X}$	SD	Cal. t-value	p-value	Decision
Male	152	3.52	1.10			
				2.49	.060	Ho_2 Accepted
Female	56	3.32	0.86			

As presented in Table 4, 2.49 represents the t-value, while the p-value of .060 is greater than 0.05 level of significance. Therefore, 'accepted' was the decision taken on the null hypothesis two (Ho_2). This means that there was no significant difference in the challenges facing lecturers in the ICT usage in Kwara State COEs, Nigeria based on gender.

Discussions

As revealed by the findings of the study, ICT helps lecturers to get unlimited information to adequately prepare for lectures; assists lecturers to have access to adequate literature for their researches; gives lecturers high level of convenience in marking students' answer scripts; provides storage devices where lecturers keep their records of student assessment; supports lecturers to easily connect to other scholars within and outside Nigeria for research and other collaborations; helps lecturers to have access to different journal outlets where they can publish their papers; assists lecturers to prepare their articles for paper presentations; gives lecturers opportunity to participate in local and international conferences, via Zoom, Google Meet, WhatsApp, etc.; assists lecturers to impart knowledge to students at any point in time; and helps lecturers to achieve effective teaching. This finding corroborates the finding of Olanipekun (2021) that that ICT helps lecturers to connect to national and international scholars, have access to different journal outlets, get literature to support their

research, achieve effective teaching and learning and enhance their digital skills. This finding is in agreement with the finding of Alarape (2018) which revealed that there was a significant impacts of ICT on the academic staff's job performance in polytechnics in Ogun State, Nigeria.

The study found that the challenges facing lecturers in ICT usage in Kwara State COEs, Nigeria were epileptic power supply, lack of technical-know-how, internet problem, high cost of facilities procurement and maintenance, techno-phobia, resistance to change from primitive to modern method, insufficiency of time, shortage of hardware and software and inadequate commitment to capacity building on ICT); while gender was not. This finding is in consonance with what Alarape (2018) found in his study that the challenges facing the utilisation of ICT by lecturers in polytechnics in Ogun State, Nigeria were poor power supply, desire to stick to the old method, unstable internet service, shortage of hard and software, inadequate training and lack of adequate skills. This finding also supports the outcome of the study conducted by Sango and Aliyu (2015) that insufficiency of time, interest, skills, appreciation of the importance of ICT utilisation; and inadequate training, and tasking nature of the preparation for ICT usage are the problems facing the utilisation of ICT by lecturers.

The study found that there was no significant difference in the benefits of ICT usage to lecturers in Kwara State COEs, Nigeria based on gender. The connotation of this is that both male and female lecturers had similar opinions on the benefits which they derive from ICT. This confirms the finding of Gabriel (2021) that there was no significant difference in the benefits of ICT to lecturers in Federal Polytechnic, Ilaro based on gender. This study supports the finding of Olanipekun (2020) which showed that there was no significant difference in the opinions of male and female lecturers on the challenges facing ICT in universities in Ekiti State, Nigeria.

The outcome of the study revealed there was no significant difference in the challenges facing lecturers in ICT usage in Kwara State COEs, Nigeria based on gender. This connotes that both male and female lecturers did not have similar opinions of the problems facing them in the utilization of ICT. This finding confirms the finding of Alarape (2018) that there was no significant difference in the challenges lecturers in the utilisation of ICT in polytechnics in Ogun State. This finding corroborates the finding of Olanipekun (2020) that there was no significant difference in the opinions of male and female lecturers on the challenges facing ICT in universities in Ekiti State, Nigeria.

Conclusion

The study concluded that use of ICT helps in enhancing effective services delivery of lecturers in Kwara State COEs, Nigeria. The challenges facing lecturers in ICT use included epileptic power supply, lack of technical-know-how, internet problem, high cost of facilities procurement and maintenance and techno-phobia, Also, male and female lecturers were not significantly different in their opinions on the benefits and the challenges facing the lecturers in ICT use.

Recommendations

i. Kwara State government should intensify effort in facilitating stability of power supply, ensure stable provision of alternative power supply through solar power in the lecturers' offices, gives adequate attention to provision of hardware, software

and other ICT-supported devices to the Colleges, to enhance effective use of ICT by lecturers.

ii. The government and the Managements of the institutions should give more priority to the provision of capacity building workshop on the utilisation of ICT, to enable lecturers acquire adequate skills that would equip them to extensively manipulate ICT for effective discharge of their duties.

iii. Lecturers should in the interest of the improvement of their efficiency, develops high level of passion for acquiring adequate skills in ICT, to enhance effectiveness of their services delivery.

iv. There is need for the Managements of the institutions to periodically organise lectures on the benefits which lecturers stand to gain when they immerse themselves in the use of ICT.

References

Alarape, F. U. (2018). Assessment of the benefits and challenges facing academic staff job performance's use of ICT in polytechnics in Ogun State, Nigeria. *Educational Review, 2*(3), 67-75.

Ajadi, T. O. (2010). Private universities in Nigeria: The challenges ahead. *Journal of Education and Practice, 1*(7), 1-10.

Ajegbelen, A. J. (2016). The use of ICT to enhance university education in Nigeria. *International Journal of Education, Learning and Development, 4*(5), 1-11.

Awudu, A. D., & Attah, J. (2025). Effect of Information and Communication Technology (ICT) on Teachers' Productivity in North-West Nigeria. *Zamfara International Journal of Education (ZIJE) 5*(1), 110-117.

Dorothy, N. M., and George, L. M. (2016). Challenges affecting adoption of e-learning in public Universities in Kenya. *Sage Journals E-Learning and Digital Media, 13*(3–4). Retrieved from https://doi.org/10.1177/2042753016672902

Gabriel, J. L. (2021). Assessment of the benefits and challenges facing adoption ICT by lecturers in Federal Polytechnic, Ilaro, Ogun Sate. *Journal of Educational Innovation and Technology, 2*(1), 45-52.

Idowu, B., Adagunodo, R., & Idowu, B. (2014). Gender differences in computer literacy among Nigeria undergraduate students: A case study of Obafemi Awolowo University students, Nigeria. *Educational Research Journal, 4*(3), 34-43.

Isuku, E. J. (2018). Challenges and prospects of ICT facilities in improving access to the open distance learning programme of African universities: Research evidence from Nigeria. *US-China Education Review A, 8*(6), 259-266.

Kumar, R., Rose U., & D'Silva, J. (2019). Teachers' usage of ICTs in classrooms: The role of policy and training. *Journal of Education and Information Technologies, 24*(2), 1915-1932.

Lam, P. L., Ng, H. K., Tse, A. H., Lu, M., & Wong, B. Y. (2021). E-learning technology and the advancement of practical constructivist pedagogies: Illustrations from classroom observations. *Education and Information Technologies, 26*(1), 89- 101.

Olanipekun, K. D. (2020). Impacts of ICT on lecturers' job performance in universities in Ekiti State, Nigeria. *Journal of Research and Development, 1*(1), 76-84.

Shehu, S. A., & Bello, A. (2023). Effective utilisation of information and communication technology (ICT) tools in management of large class size in Nigerian Universities: Challenges and way forward. *Zamfara International Journal of Education (ZIJE), 3*(4), 70-77.

Sango, A., & Aliyu, M. (2015). Challenges militating against the utilization of information and communication technology by Nigerian teacher educators for sustainable development. *International Policy Brief Series Social Science and Law Journal of Policy Review and Development Strategies, 4*(1), 124-130.

Umoren, G. (2019). Impact of information and communication technology (ICT) on teaching and learning in Nigeria. *Journal of Education, Society, and Behavioural Science, 31*(4), 1-6.