

## **THE USE OF INFORMATION AND COMMUNICATION TECHNOLOGY FOR TEACHING ISLAMIC STUDIES AMIDST OF COVID-19 PANDEMIC IN KWARA STATE**

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### **Abstract**

*The use of technology for teaching and learning in primary, secondary and tertiary institutions require great attention for the purpose of producing a quality education. The Federal Government of Nigeria, in the National Policy on Education (Federal Republic of Nigeria, 2004), recognises the role of ICT in education. Sequel to this development, the sudden emergence of Covid-19 to the entire world greatly affects all sectors most especially education. The virus led to the closure of schools throughout the world of which Nigeria was not left out. Teaching and learning via the use of chalk and talk method was stopped to avoid spreading of the virus in Nigerian schools. More so, the Nigerian government announced the total lock-down during the pandemic which gives room for virtual learning embarked upon by most schools for teaching and learning of Islamic studies in Kwara State, Nigeria. The researcher has therefore chosen to investigate the use of Information and Communication Technology (ICT) tools for teaching and learning of Islamic studies during the Covid-19 lock-down in Kwara State, Nigeria. The simple random sampling technique was used to sample 30 schools across the three senatorial districts of the state while 60 teachers and 300 students of Islamic studies were also sampled in Kwara State. Descriptive statistics in form of tables and percentages was used to describe the demographic data of the respondents and analysed the results obtained from the questionnaire administered. It was found that Smart phones, Radio, Television and several applications such as whatsapp, zoom, telegram, facebook, google, 2go, twitter, instagram and host of others were majorly used for teaching and learning of Islamic studies in Kwara State during the Corona virus lock-down. It was recommended that to enhance effective and efficient teaching and learning of Islamic studies through virtual learning, teachers and students need to undergo rigorous training on how to make maximum use of ICT tools.*

**Keywords: ICT, Covid-19, Islamic studies, Virtual learning, National Policy on Education.**

### **Introduction**

The challenges posed by the emergence of COVID-19 called for innovative ideas, skills, creativity and proactive steps that would ensure the continuity of teaching and learning

during the lockdown in schools across Nigeria and the entire universe. Perhaps, teachers and students were also faced with the problems what to teach, how to teach, the workload of teachers and students, the teaching environment, and the implications for education equity (Zhang, Wang, Yang, & Wang, 2020). Therefore, to foster the continuity of teaching and learning in the nation, efforts were geared towards the integration of technology in support of remote learning, distance education and online learning during the COVID-19 pandemic across the world of which Nigeria was not left out. Information and Communication Technology (ICT) is an indispensable part of the contemporary world. In fact, cultures and societies have to adjust to meet the challenges of the knowledge age. The pervasiveness of ICT has brought about rapid technological, political, educational and economic transformation which has eventuated in the network which societies organize around ICT (Akawu, 2009). In education, ICT is a fast-growing sector with software and teacher's professional development in high demand. In this 21<sup>st</sup> century, ICT has been progressively infused into the Nigerian educational sector and has undoubtedly affected teaching, learning and research (Yusuf, 2007). In the late nineties, there was paucity of ICT tools in Nigerian schools. Moreover, the federal government policy that addressed the situation resulted only in the distribution of computers to some government secondary schools, which were largely unused due to lack of training for personnel and other limitations (Ashaolu & Fashanu, 2012). Also, the need to have a standardized and coordinated development of ICT in education informed the development of the National Policy on ICT in education in 2010 (Udom, 2013).

Information and Communication Technology has greatly impacted on the quality and quantity of teaching and learning through its dynamic, interactive and engaging content, and it can provide real opportunities for individualized instruction and offer innumerable benefits in enriching the quality and quantity of instructional materials accessible to both teachers and learners (Onasanya, 2009). Information and Communication Technology has the potential to accelerate, enrich and deepen skills; motivate and engage students in learning; help to relate school experiences to work practices; help to create economic viability for workers; contribute to radical changes in school; strengthen teaching and provide opportunities for connection between the school and the world (Kirschner & Woperies, 2003).

In research, ICT provides opportunities for schools to communicate with one another through e-mail, mailing list, and chat rooms. It also provides quicker and easier access to more extensive and current information; it can be used to do complex mathematical and statistical calculations. Furthermore, it provides researchers with a steady avenue for dissemination of research reports and findings (Yusuf & Onasanya, 2004). Evidently, the role of ICTs in education cannot be over-emphasized. Despite this, many developing countries have not fully incorporated ICTs into teaching and learning. In Nigeria, there are serious obstacles to the use of information and communication technology in educational socio-economic contexts. These setbacks reflect problems associated with lack of infrastructural support, lack of access to technologies, lack of training opportunities and skills development (Obijiofor, Inayatullah & Stevenson, 2005). It is pertinent to know that teachers in some of the schools in Kwara State were not making adequate use of ICT tools available in the teaching and learning process which may be attributed to lack of training and access to these technological tools (Ayuba, 2019).

The integration of modern Information and Communication Technologies (ICTs) into the teaching and learning processes in Nigeria is fast gaining momentum. As a result, many local and foreign organizations partner to promote the application of ICTs in schools (Umoetteh, 2007). Owhotu (2006) stated that Nigeria has been in the lead in the integration of ICT tools with a number of initiatives through collaborations with the government, development partners, both international and local Non-governmental Organizations (NGOs), and private corporations. Some initiatives have been adopted to facilitate ICT. Prominent among them are: Computerised Nigeria, Omatek Express, Personal-1initiative, Computer for All Nigeria Initiative (CANi), Mobile Telecommunication Network (MTN) and School Connect Enhancement Project, Education Trust Fund as well as Nigerian Communications Commission (NCC) have been equipping schools with ICT resources. In Kwara State, twenty (20) secondary schools are beneficiaries of this development. Some of them include: Government Secondary School, Ilorin; St. Anthony Secondary School Ilorin; Offa Grammar School, Offa, amongst others (Ministry of Education & Human Capital Development, Kwara State, 2012). Similarly, the Kwara State government through the State Ministry of Information and Communication in conjunction with Ministry of Education, Science and Technology has embarked on seminars and workshops on ICT for teachers in schools across the state (Ayuba, 2019).

Information and Communication Technology for teaching and learning in secondary schools need to be properly and adequately addressed in order to ensure quality teaching and learning. In the bid to ensure that ICT tools were available and effectively utilized in schools, the Federal Government launched a programme tagged school Net Nigeria in September 2001 (Udom, 2013). It also introduced ICT into the primary and junior secondary school curricula following the launching of a new basic education curriculum in the country (Abdullahi, 2013). He further stated that, School Net Nigeria project intended to equip all secondary schools in Nigeria with computers and communications technologies. In addition, Okebukola (2000) opined that effective use of ICT in teaching will to a large extent depend on the availability of the ICT resources and the teachers' competence in using such. Also, ICT has the potential to bridge the gap in terms of improving the quality of instructional resources used in teaching, increasing the quantity and quality of educational opportunities, making the knowledge building possible through borderless and boundless accessibility to resources especially people in remote areas to satisfy their basic right to education (Asian Development Bank, 2009).

However, the move for ICT in education, particularly in developing countries, has been limited to increasing information access for educational institutions in general and specifically for teacher training on ICTs skills acquisition and knowledge. This move was aimed at using ICT-based resources and tools in classrooms. ICT and its usage in Nigeria education have become crucial in the drive to make teachers relevant in the digital era. The Cross River State Ministry of Education distributed laptops and computers to all her primary and secondary school teachers for effective instructional delivery and competency (Udom, 2013). The development in ICT in the last two years in Nigeria shows that lecturers (teachers) have access to a wide variety of ICT facilities, materials and texts to improve their content knowledge and instructional pedagogy (Akuegwu, Ntukjidem & Jaga, 2011). However, the impact of this development is not much felt in the quality of lecturers' instructional service delivery.

Islamic Studies is the totality of learning experiences which centre on the relationship between man and his Creator and between man and his fellow-men (FRN, 2013). Also, Abdur-Rafiu (2013) described Islamic Studies as a subject that is offered at all levels of Nigerian educational system that revolves around the study of Islam with the ultimate goal of building individuals who will act as Allah's khalifah on earth. The Senior Secondary School curriculum in Islamic Studies is primarily designed in a way to reflect education in Islamic sense which aims to produce a cultured, well-behaved, considerate, reasonable and God-fearing man and woman; thus, a total person (NERDC,2008).

At the inception of the 6-3-3-4 system of education, Islamic Studies was among the core subjects offered at both the Junior Secondary School and Senior Secondary School levels. Furthermore, in the present 9-3-4 system of education, Islamic studies is one of the core subjects taught at the upper basic level (Junior secondary school) but as an elective at the Senior Secondary level (Federal Republic of Nigeria, 2013). The Senior Secondary School Islamic Studies curriculum aims at preparing students for adulthood as Muslims and enlightening them with the consciousness of Allah (Fafunwa, 1974 & Lemu, 2004). Similarly, Ahmed (1986) observed that the goal of the Islamic education curriculum is to help learners become knowledgeable and live up to the standard set in the Glorious *Qur'aan* and *Hadiith*.

Abdul Razak, Othman, Hamzah and Zulkifli (2014) stated that teachers of Islamic Studies need to modify traditional teaching methods to reflect the modern day realities by using ICT, such as media presentations, MS Power point, MS Word, MS Excel and LCD projector. Also, Sudin and Mohd.-Noh(2003) noted that information and communication technology (ICT) facilitates both the teaching and learning of Islamic Studies to be more enjoyable, real and fun via the use of e-mail discussion group (e-group), video presentations and teleconferencing (videoconferencing). Abdul Razak, et al. (2014) further explained that the combination of multimedia elements such as text, graphics, audio, video and animation are suitable in teaching and learning of some topics in Islamic Studies such as *sirah* (life history of prophet Muhammad), recitation and memorization of chapters and verses from the *Qur'aan*, *hadiith*, *'ibadah* (*salaah*, *sawm*, *zakaah*, *wudu'* and *hajj*) and *tariikh* (historical development). Similarly, Tamuri, Yusuff, Osman, Awaludin, Rahim, and Razak (2004) observed that Internet provides opportunities for effective teaching and learning of Islamic Studies via Islamic websites ([www.al-Islam.com/artikels](http://www.al-Islam.com/artikels), [www.e-zakat.com.my](http://www.e-zakat.com.my), [www.epondok.com.my](http://www.epondok.com.my)) as teaching aids. Hence, the teachers of Islamic Studies must be willing to adapt and explore ICT tools (radio, television, laptop, Ipad, multimedia projector) as teaching aids (Harun&Tashir, 2001).

### **Impact of Covid-19 on the Teaching and Learning Process**

Genna (2020) noted that 70% of school teachers viewed that students have not adapted well to remote learning amid Covid-19 school closures. He further noted that schools were unprepared for the phased re-opening of campuses. According to the research conducted by Tes Global (2020) revealed that social distancing is a major factor for those working in schools during Covid-19 and school resumption. The study further revealed that the school heads should support both the teachers and the students through the provision of software and support hub for speedy and safety re-opening of schools amid Covid-19 lockdown. James (2020) carried out a study on harnessing the power of AV technology during the Covid-19

lock down in schools. The study revealed that two-third of pupils abandoned the school curriculum during [lockdown](#), due to online teaching and learning during the lock down students' academic performance was relatively low and recommended the use of AV technology to better enhance effective online teaching and learning process. Technology played a greater role in enabling the educational system overcome the physical limitations posed by the pandemic by giving students enabling environment to interact with their teachers and colleagues through virtual learning.

Yekini, Adigun, Ojo and Akinwale (2020) carried out a research on assessment of Adoption of E-learning and M-learning during Covid-19 lock down in Nigeria. Simple random sampling technique was used to obtain data from students and teachers across the secondary, polytechnics, universities, colleges of education and others. The findings revealed that the non-availability of functional and modern information communication technologies resources, power and skills hinders the use of digital devices.

Similarly, eLearning (2020) a UK based company published a book titled "the Effect of Covid-19 on education in Africa" which examined the integration of technology to learning. The findings revealed that radio, television, whatsapp, zoom, facebook and module were mostly used by both teachers and students during Covid-19 lock down. Also, digital device greatly hampered the use of ICT devices in teaching and learning process and primary level pupils may have difficulties in the use of ICT tools required for learning. Though, pupils enjoined educational TV and radio programmers' designed for learning while at the secondary level, online learning was considered to be the best platform for learning process.

### **Statement of the Problem**

The emergence of Covid-19 pandemic in Nigeria on the 27 February 2020 and subsequent announcement of nationwide lockdown put a stop to the traditional method of teaching and learning in the country. As a result of this lockdown schools were closed, virtual teaching and learning was greatly used by schools across the country. Thus, the use of Information and Communication Technology (ICT) tools for teaching and learning of Islamic studies in Kwara State really called for concerned of every stakeholder in the educational sector in Nigeria. Teachers and students of Islamic studies in primary, secondary and tertiary institutions were faced with the challenges of using ICT tools in teaching and learning process. However, the Ministry of Educations bans the face-to-face teaching and learning and recommended e-learning as the only veritable means of impacting knowledge to the students.

Similarly, Islam encourages the use of modern technology as it enhances the development of positive thinking, the ability to innovate and to trigger the drive for self improvement (Ayuba, 2019). He further noted that teachers of Islamic studies should develop interest in the use of ICT tools in teaching of Islamic studies. Umoetteh (2007) opined that technology can empower teachers and enhance teaching-learning in an efficient and sustainable manner, though few educational software or videos are available to teachers and school administrators. Awan (2011) investigated teachers' ICT attitudes and classroom ICT use. He found that in spite of the investments in schools and the diverse moves taken by various governments, ICT use has been low. In view of this observation and emergence of Covid-19 pandemic which caught teachers and students of Islamic studies unprepared for, the present study examined the use

of ICT tools for teaching and learning of Islamic studies during Covid-19 lockdown in Kwara State.

### **Purpose of the Study**

The general purpose of the study was to examine the use of ICT tools for teaching and learning of Islamic studies in Kwara State during the Covid-19 lockdown. Specifically, the study determined:

- a. the use of ICT tools to teach Islamic studies in Kwara State during Covid-19 lockdown.
- b. the use of ICT tools to learn Islamic studies in Kwara State during Covid-19 lockdown.

### **Research Questions**

The following research questions were answered in the course of study:

1. What are the available ICT tools for teaching Islamic studies in Kwara State during the Covid-19 lockdown?
2. What are the ICT tools used in learning of Islamic studies in Kwara State during Covid-19 lockdown?

### **Scope of the Study**

This study investigated the use of ICT tools for teaching and learning of Islamic studies during Covid-19 lockdown in Kwara State, Nigeria. Kwara State has three senatorial districts namely: Kwara Central, Kwara North and Kwara South. The population of the study involved primary and secondary school learners. The target population was the selected pupils, students and teachers of Islamic studies in Kwara state. The simple random sampling technique was used to sample 40 schools across the three senatorial districts of the state while 60 teachers and 600 primary and secondary school students of Islamic studies were also sampled in Kwara State. The researcher-designed questionnaire was used for data collection. The descriptive statistics in form of tables and percentages was used to describe the demographic data and analyzed the result obtained from the questionnaire.

### **Data Analysis and Result**

#### **Demographic characteristics of the Respondents**

**Table 1: Selected Schools that participated in virtual teaching of Islamic studies during the Covid-19 lockdown in Kwara State**

<b>School</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Private	40	100
Public	00	00
Total	40	100

Table 1 reveals that 40 (100%) were private schools while public schools had no score. This implies that only the private schools participated in online teaching and learning of Islamic studies during the Covid-19 lockdown in Kwara State.

**Table 2: Teachers of Islamic studies**

Category	Frequency	Percentage (%)
Primary	28	46.7
Secondary	32	53.3
Total	60	100

Table 2 above shows that 28 (46.7%) teachers of Islamic studies were from Primary schools participated in the study while 32 (53.3%) teachers of Islamic studies were from Secondary schools also participated in the study respectively. This implies that majority of the teachers of Islamic studies that participated in virtual teaching during Covid-19 lockdown in Kwara State were from secondary schools.

**Table 3: Learners of Islamic studies**

Category	Frequency	Percentage (%)
Primary	283	47.7
Secondary	317	52.3
Total	600	100

Table 3 indicates that 283 (47.7%) pupils from primary schools participated in the study while 317 (52.3%) of secondary schools participated in the study. This implies that majority of those learners that participated in the online learning of Islamic studies during the Covid-19 lockdown were majorly students from secondary schools.

### Answering of Research Questions

Two research questions were raised in line with the research objectives and the percentage was used to analyze the results obtained from the respondents to the use of ICT tools for teaching and learning of Islamic studies during Covid-19 lockdown in Kwara state. The items were measured on Yes (Available and used) and No (Not available).

**Research Question 1:** *What are the available ICT tools for teaching Islamic studies in Kwara state during the Covid-19 lockdown?*

The percentage was used to answer the above research question.

**Table 4: ICT Tools for Teaching Islamic Studies during the Covid-19 Lockdown in Kwara State**

ICT Tools	Yes	No	Inferences
Applications (whatsapp, zoom, 2go and others)	51(85%)	9 (15%)	A
DVD Player	23(38.3%)	37(61.7)	N/A
Multimedia Projector	2 (3.3%)	58 (96.7%)	N/A
Radio	56 (83.3%)	4 (16.7%)	A
Smart phone	48 (80%)	12 (20%)	A
Television	49 (81.7%)	11 (18.3%)	A
<b>Cummulative</b>	55 (91.1%)	5(8.9%)	A

Table 4 shows that Radio 56 (83.3%), Television 49 (81.7%), Smart phone 48 (80%) and Applications of different kinds such as Whatsapp, Zoom, 2go, Facebook, Twitter 51 (85%) were the ICT tools used for teaching Islamic studies in Kwara state during Covid-19 lockdown in Kwara state. Also, both DVD Player 37 (61.7%) and Multimedia Projector 58 (96.7%) were not available in different degrees.

However, DVD Player 37 (61.7%) and Multimedia Projector 58 (96.7%) were ICT tools not used at all to teach Islamic studies during the Covid-19 lockdown in Kwara State. Based on the results in table 4, it can be deduced that 55 (91.1%) of the respondents (teachers of Islamic studies) observed that ICT tools for teaching Islamic studies during Covid-19 lockdown were available.

**Research Question 2:** *What are the ICT tools used in learning of Islamic studies in Kwara State during Covid-19 lockdown?*

**Table 5: ICT Tools used in learning of Islamic studies in Primary schools during Covid-19 Pandemic in Kwara State**

ICT Tools	Yes	No	Inferences
Applications (whatsapp, zoom, 2go and others)	81(28.6%)	202(71.4%)	N/A
DVD Player	4 (1.4%)	279 (98.6%)	N/A
Multimedia Projector	5 (1.7%)	278 (98.3%)	N/A
Radio	16 (5.7%)	267 (94.3%)	A
Smart phone	42 (14.8%)	241 (85.2%)	N/A
Television	12 (4.2%)	271 (95.2%)	A
<b>Cummulative</b>	10 (3.5%)	273 (96.5%)	N/A

Table 5 shows that Applications 202 (71.4%), DVD Player 279 (98.6%), Smart phone 241 (85.2%) and Multimedia Projector 278 (98.3%) were ICT tools not used for learning of Islamic studies during Covid-19 in Kwara State. However, Radio 271 (95.2%) and Television 273 (96.5%) were ICT tools used for learning of Islamic studies during Covid-19 in Kwara State. Based on the result in table 5, it can be deduced that 273 (96.5%) of the respondents (learners of Islamic studies) observed that ICT tools for learning Islamic studies during Covid-19 lockdown were not available.

## Conclusion

The study examined the use of ICT tools for teaching and learning of Islamic studies during Covid-19 lockdown in Kwara State, Nigeria. It was concluded that radio, television, Smart phone and applications of various kinds were used by the teachers of Islamic studies during the Covid-19 lockdown in Kwara State. Hence, multimedia projector and DVD player were not used. It was further concluded that radio and television were the ICT tools used for learning of Islamic studies during the Covid-19 lockdown in Kwara State.

## Recommendations

The following recommendations were made based on the findings of the study:

- (1) The federal ministry of education should organize a seminar, conferences or workshop for training of teachers and students of Islamic studies on how to make maximum use of ICT tools for teaching and learning process.
- (2) Teachers and students of Islamic studies should be sensitized on the importance of using ICT tools for effective and efficient teaching and learning.
- (3) Government should ensure that teachers and students of Islamic studies have access to ICT tools that would simplify teaching and learning process.
- (4) Government should provide free internet access to all teachers and students of Islamic studies.
- (5) Teachers and students of Islamic studies should be exposed to all kinds of ICT tools and applications that would facilitate qualitative and quantitative teaching and learning process.

## References

- Ayuba, O. J. (2019). *Availability and use of ict tools for teaching Islamic studies in senior secondary schools in Kwara State*. An M. Ed Dissertation Submitted to the Department of Arts Education, Faculty of Education, University of Ilorin, Ilorin, Nigeria (unpublished).
- Abdul Razak, K. Othman, N. T., Hamzah, M. I., and Zulkifli, H. (2014). Information and communication technology among excellent Islamic education teachers in Selangor, Malaysia. *International Education Studies Journal*, 7, 13, 146.
- Abdullahi, Y. U. (2013). Using information and communication technology (ICT) to enhance the teaching and learning of Arabic and Islamic studies in Nigeria. *Journal for Teaching and Education*, 2, 3:353-368.
- Abdur-Rafiu, J. (2013). *Instrumentality of religious and moral education to peacekeeping in Nigeria schools*. NATAIS 6, 1-10.
- Ahmad, M. A. (1986). Junior secondary school Islamic studies syllabus with emphasis on teaching methods and activities. In I. A. Balogun and P. A. Dopemu (eds.) *Teaching of Religion in Nigeria*. Azzhar Publisher, 90-94.
- Akawu, A. O. (2009). *Teachers' access to information and communication technology for research in South-East, Nigeria* (M. Ed. Dissertation). University of Nigeria, Nsukka, Nigeria.
- Akuegwu, B. A., Ntukidem, P. J., Ntukjidem, E. P., and Jaga, G. (2011). *Information and communication technology (ICT) resources utilization quality instructional service delivery among University lecturers in Nigeria*. Nsukka, Nigeria.
- Ashaolu, O. S. and Fashanu, T. A. (2012). Adoption of ICT and its comparative impact on private and public high schools in Lagos state, Nigeria. *International Journal of Science and Emerging Technologies*, 3, 1, 60-65.
- Awan, R. N. (2011). What happens to teachers' ICT attitudes and classroom ICT use when teachers are made to play computer games? *International Journal of Information and Education Technology*, 1, 4, 354-359.
- Fafunwa, A. B. (1974). *History of education in Nigeria*. Ibadan. NFS Educational Publishers Ltd.
- Federal Republic of Nigeria (2013). National policy on education and 4-year strategic plan for the development of the educational sector: 2011-2015 of Professor Ruqayyatu Ahmed Rufa'i. NERDC Press, Yaba- Lagos, Nigeria.

- Genna, A. (2020). 70% of school teachers think students haven't adapted well to remote learning amid COVID-19 closures. *Journal of Educational Technology*. Retrieved from [www.edtechnology.co.uk](http://www.edtechnology.co.uk). The trusted voice of ICT in Education, Tes Global.
- James, J. (2020). Harnessing the power of technology in a post-COVID world. *Journal of Educational Technology*. Retrieved from [www.edtechnology.co.uk](http://www.edtechnology.co.uk). The trusted voice of ICT in Education, Tes Global.
- Kirshner, P. & Wooperies, I. G. (2003). Mind tools for teacher communities: A European perspective. *Journal of Technology, Pedagogy and Education*, 12, 1, 127-149.
- Lemu, A. B. (2004). *New senior Islamic studies Book 2*. Minna. IET Publication Minna.
- Ministry of Education and Human Capital Development, Kwara State (2012). A seminar organized for the secondary school teachers' on integration of ict in Kwara State. Retrieved from [www.kwaraedu.gov.ng.com](http://www.kwaraedu.gov.ng.com) on 14<sup>th</sup> May, 2017.
- Obijiofor, L., Inayatullah, L., & Stevenson, T. (2005). *Impact of new information and communication technologies (ICT) on the socio-economic and educational development of Africa and the Asia-Pacific Region*. Conference on Information and Communication Technology solutions for Government operations, e-Government and National Development, Accra, Ghana, 27-28 January, 2005.
- Okebukola, P. (2000). *Private sector participation in university development and management*. Abuja: NUC Monograph Series
- Onasanya, S. A. (2009). Information and communication technology (ICT) in education. In I. O. Abolade (Eds). *Fundamental Principles & Practice of Instruction*. Ilorin: Department of Science Education, University of Ilorin, 228-244.
- Owhotu, V. B. (2006). *Building the ICT capacity of language teachers: Empirical insights and lessons for Sub-Saharan Africa*. FORMATEX: Current Developments in Technology-Assisted Education, 3, 5, 311-317.
- Tamuri, A. H., Yusopp, A., Osman, K., Awaludin, S., Rahim, Z. A., and Razak, K. A. (2004). *Kebekesanankaedahpengajaran dan pembelajaranpendidikan Islam keataspembangunandiri murid*. Final Report of Research Project, UniversitiKebangsaan, Malaysia.
- Udom, O. S. (2013). *Secondary school teachers' perception of public-private initiatives on information and communication technology resources in Kwara State, Nigeria* (M. E Dissertation). University of Ilorin, Ilorin, Nigeria.
- Umoetteh, J. (2007). *An overview of ICT in education. Nigeria/ANESA. United States of America department of commerce and technology (ICT) and technology in tertiary institution*. In E. A. Ogunsakin (Ed), *Teaching in Tertiary Institutions*. Faculty of Education. University of Ilorin, Ilorin, Nigeria. 2, 3, 67-76.
- Yekini, N. A., Adigun, J. O. & Akinwale, A. K. (2020). Assessment of adoption of e-learning and m-learning during Covid-19 lockdown in Nigeria. *International Academic Journal of Education & Literature*, 1, 28-34. Available at : <https://www.iarconsortium.org/journal-info/IAJEL>. Published 10/06/2020. ISSN online: 2708-5120.
- Yusuf, M. and Onasanya, S. (2004). Information and communication technology (ICT) and technology in tertiary institutions. In E. A. Ogunsakin (Ed), *Teaching Institutions*. Faculty of Education University of Ilorin, Ilorin, Nigeria, 4, 2, 67-76.