Journal of Economics and Sustainable Development
ISSN 2222-1700 (Paper) ISSN 2222-2855 (Online)
Vol.11, No.16, 2020

ICT Competences and Level of Its Application for Educational Studies in Nigeria in the Amid of Covid- 19

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Abstract
With all learning institutions pre-maturely closed on March 2020 and all citizens advised to self-isolate in a bid to control the spread of COVID-19, this would negatively impacted on the educational studies. A lot of attention is paid to implementing ICT into educational process at all levels (primary, secondary, polytechnic, university, etc.). The purpose of this study is to examine the ICT competences and level of its application for Education studies in Nigerian schools in the midst of COVID-19. The paper also investigated the challenges of using ICT facilities for e-learning and teaching in the Nigerian education sector. Descriptive survey was adopted for this study. A self-designed questionnaire was used to collect the data for the study. The sample for the study is made up of 30 teachers and 40 lecturers randomly selected. Findings revealed that challenges included lack of enough computers, shortage of Internet facilities, students' lack of access to e-learning facilities and erratic power supply (a major challenge.). The government should increase funding for the entire aspects of educational sector with emphasis on the use of ICT facilities in schools in place of face-to-face interactions. This will help improve the level of ICT competences among teachers and students. There should also be continuous and periodic training of teachers on application of computer and ICT facilities for e-learning teaching.
Keywords: ICT competences, ICT facilities, e-learning teaching, educational studies
DOI: 10.7176/JESD/11-16-11
Publication date: August 31st 2020

Introduction

Education is essential for human societies; it is a fundamental leverage for social preservation and economic growth. For centuries, the way education is performed remained the same: the teacher talks and acts, while pupils listen, watch and write. Printing machines made textbooks widely available and knowledge rapidly spread; educational institutions appeared and developed all over the world. However, the way education was performed did not change so much and remained teacher centered. With the emergence of new technological devices for handling picture and sound, new possibilities for knowledge transmission emerged. Instead of handmade drawings, photos could be used to present study subjects, for example, in biology or physics courses. Using audio recordings, pupils learning foreign languages could at their convenience listen to native speakers and practice their lessons. With animated pictures and movies, a chemistry course could be illustrated with the visual transcription of a complex experiment. Television took education a step further as lectures and seminars could be broadcasted. Fast development in Information and Communication Technologies (ICT) is shaping a new world in which education at all levels can no longer be assimilated to a group of learners in a classroom listening and watching a teacher with a textbook following a fixed curriculum. With ICT, learning is shifting from teacher-centered to learner-centered and can potentially be undertaken anytime and anywhere, from classrooms to homes and offices.

The novel Coronavirus disease 2019 (COVID-19) emerged at the end of December 2019 in Wuhan city of China, surprisingly spread so fast across China and other parts of the world Wickramasinghe, Steele, Gorezynski, Temple, Tokoro, Wallis, & Klyce (2020). The authorities in Wuhan took unprecedented steps and locked down the city on January 23, 2020, to lower the risk of further disease transmission Xiang, Yang, Li, Zhang, Cheung, & Ng (2020). Later on, the same measures were taken in other places in China. Within a few weeks, cases of COVID-19 were detected in several other countries and soon it became a global threat Spina, Marrazzo, Migliari, Stucchi, Sforza, & Fumagalli (2020). The World Health Organization (WHO) first declared COVID-19 a world health emergency in January 2020 and later declared the coronavirus epidemic a pandemic WHO. Coronavirus disease (COVID – 19) pandemic (2020). As of March 29, the virus had spread to more than 190 countries, and the emergency has evolved into a global public health and economic crisis that has affected the global economy beyond anything experienced in nearly a century. The rate at which COVID-19 has rapidly been spreading has made every sector of human life to immediately feel its impact.

There is currently little or no literature on COVID-19 in relation to educational studies. The only literature available is directly related to medical studies Chinazzi et al (2020), Hopman et al (2020), Kraemer et al (2020), Wu & McGoogan (2020), Zu et al (2020). This is not because education is not directly affected by the effect of the COVID-19 epidemic but rather because studies in education rarely incorporate effects of disease on the effective provision of education to learners across the globe. The outbreak of COVID-19 forced the government of the World to close all schools and encouraged all citizens to self-isolate to curb the spread of the epidemic. The

untimely closure of schools was a positive response by governments to protect school children/students and teachers from possible risks of contracting COVID-19 because school environments are places where hundreds of students meet, and this makes them dangerous places where disease can rapidly spread. While schools are closed, many countries have turned to distance e- learning using digital remote teaching as a means of mitigating for lost time in continuing education services.

In Nigeria, on the 27th February, 2020, it was announced that an Italian man who flew into Nigeria tested positive of Coronavirus (COVID – 19), since that date, more numbers continues to be affected. On the 19th March 2020, the Nigerian government through the Minister of Education directed that all tertiary institutions in the country be close with effect from Monday, 23th March 2020 amid fears of the spread of the COVID-19 outbreak. All state governments follow the suit by close down all schools (public and private). Federal Ministry of Education an agent of Nigerian government directed all schools to embark on-line teaching using ICT digital sphere. The purpose of this study is to examine the ICT competences and level of its application for Education studies in Nigerian schools in the amid of COVID-19. The paper also investigated the challenges of using ICT facilities for e-learning and teaching in the Nigerian education sector.

Methodology

The descriptive survey design was used for this study. The population for the study consisted of the teachers and lecturers of selected five (5) Schools in Mubi metropolis, viz: Mudndra Model Schools, Haliberth Science College, Mubi College/High School, Federal Polytechnic Mubi and Adamawa State University Mubi. The sample for the study is made up of 30 teachers and 40 lecturers randomly selected. A self-designed questionnaire tagged "ICT competences and its application for E-learning teaching" was used to collect the data for the study. All lecturers/teachers at the participating schools were asked to complete a questionnaire to collect data about their competencies, uses and attitudes related to ICT in educational studies. The questionnaire was administered by the researcher with the help of research assistants in the individual schools. Personal contacts of the researcher with the respondents enhanced good and prompt response from the respondents. Data collected were analysed using frequency counts and percentage scores.

Conceptual Definitions

ICT is interchangeably and synonymously used with Information and Communication Technologies (ICTs) often, and are electronic technologies used for information storage and retrieval purposes. ICT can be regarded as the collection of various technological gadgets and resources to communicate, generate, distribute, collect and administer information among others. This is the totality of methods and tools that could be used to gather, store, process, communicate and share information in diverse ways. The coming of ICT is consequential to growth and development of any nation in all areas of life endeavour. It is noted today, if not in all walks of life, that almost everything is tailored to online transactions with the application of ICT strategies. Fast development in Information and Communication Technologies (ICT) is shaping a new world in which education at all levels can no longer be assimilated to a group of learners in a classroom listening and watching a teacher with a textbook following a fixed curriculum. With ICT, learning is shifting from teacher-centered to learner-centered and can potentially be undertaken anytime and anywhere, from classrooms to homes and offices.

The field of ICT is very dynamically developing. However, the most important thing about ICT in education is not the governmental policy but teachers themselves; their attitude towards ICT and its use at their lessons, their competencies to work with it and to involve it into teaching and learning, their willingness to further education in this field. To make the best use of ICT, teachers must be equipped with adequate ICT competencies. In the process of integrating ICT into education, both teachers ICT competencies and how they perceive the role of ICT in their teaching/learning processes play key roles.

Competency has been defined as "personal characteristics (e.g. skills, knowledge, attitudes) that an individual possesses or needs to acquire, in order to perform an activity within a specific context, whereas performance may range from the basic level of proficiency to the highest levels of excellence" Sampson & Fytros (2008).

E-learning refers to learning via the Internet; it provides learners with a flexible and personalized way to learn (Zhang & Nunamer, 2003). E-learning make use of ICT's facilities to enhance and support the teaching and learning process. It allows for efficient transfer of knowledge anywhere and anytime, regardless of subject matter, and opens up a world of learning unavailable in most corners of the world. At the same time e-learning empowers learners with the information technology awareness and skills crucial to succeed in today's global knowledge economy. Ajadi, Salawu, & Adeoye (2008) explain that the commonest type of e-learning adopted in Nigerian schools is in the form of lecturers' notes on CD-ROM, which can be played as and when the learners desire. Although most of the educational institutions (private and public) have started setting up ICT centres for Internet services alone, without taking into consideration other components of an e-learning centre Ajadi, Salawu, & Adeoye (2008).

ICT in Teaching and Learning process

Teaching and learning has gone beyond the teacher standing in front of a group of pupils and disseminating information to them without the students' adequate participation Ajadi, Salawu, & Adeoye (2008). With the aid of ICT, teachers can take students beyond traditional limits, ensure their adequate participation in teaching and learning process and create vital environments to experiment and explore. This new development is a strong indication that the era of teachers without ICT skills are gone. Any classroom teacher with adequate and professional skills in ICT utilization will definitely have his students perform better in classroom learning.

E-learning refers to learning via the Internet; it provides learners with a flexible and personalized way to learn Zhang & Nunamaker (2003). It offers learning-on-demand opportunities and can significantly contribute to reduce teaching and learning costs. E-learning is the enabler for a massive transformation in the education world; new teaching and learning opportunities are continuously challenging traditional schools, colleges and higher education (Oliver, 2002; Collins & Halversion (2009). However, effective and innovative use and integration of ICT in education is a complex and multi-facetted problem. Complexity lies in the intertwining of technology, pedagogy, user adoption and institutional policies (John & Sutherland, 2004). ICT encompass many different things, and can address multitude challenges; in fact, to teach and to learn with ICT remains partially understood, and all its benefits are still not fully exploited (Cuban, 2003; & Kirkwood, 2009). Furthermore, from primary schools to higher education, scientific evidence is still insufficiently available about the effectiveness of ICT integration in education (U. S Dept. of Education, 2010).

Various studies have shown the multifaceted problems militating against the effective use of ICT in the teaching learning process in schools. These include: irregular power supply (Yusuf, 2005; & Ofodu, 2007); inadequate computer literate teachers (Oyebanji, 2003; Dabesaki, 2005; & Kwache, 2007) inadequate fund (Ogunmilade, 1998; & Ofodu, 2007), reluctance to change (Selwyn, 1997) among others. Simple learning objects (e.g. a video sequence or a quiz) can be composed into more complex educational resources and made available on their own in the form of a CD-ROM or interactively online. They can also be part of complex software application dedicated to providing learners with specific assistance while learning particular subject, e.g. mathematics. For primary and secondary school, simple and composite learning objects are a common way to integrate ICT in teaching. In higher education, this approach is particularly common as well: learning objects are integrated in face-to-face lectures; they can also be part of courses provided online through a learning platform. Learning platforms can be used either for blended learning where face-to-face alternates with and complements online teaching, or for fully online learning where no face-to-face occurs (i.e. virtual learning). In both cases, different communication and information diffusion tools (e.g. blog, wiki) can be used in combination with the learning platform. The various ICT facilities used in the teaching learning process in schools according to Babajide, & Bolaji, 2003; Bryers, 2006; Bandele, 2006; & Ofodu, 2007) include; radio, television, computers, overhead projecttors, optical fibres, fax machines, CD-Rom, Internet, electronic notice board, slides, digital multimedia, video/VCD machine and so on.

Teachers and ICT

Teachers are critical change agents at the academic work floor; they are the instrument by which changes in education will become true. In an extensive literature review, Mumtaz (2000) summarized what influence teachers' attitude towards technology use in school: available and easy to use digital resources, incentives to change and support from colleagues and school managers, clear and understandable school and national polices, and background in formal computer training. A worldwide educational survey at primary and secondary education confirmed these early indications. Pelgrum (2001) assessed ICT integration in teaching and ranked three factors as most significant barriers: (i) computers insufficiently available, (ii) teachers' lacking of ICT knowledge and skills, and (iii) difficulties in integrating ICT in instruction in a relevant manner. Furthermore, teachers tend to ignore the full potential of ICT to power learning environment.

Nonetheless, teachers' adoption of ICT use in teaching cannot be restricted to merely technology-related factors: "integration of educational computer use in professional competencies of teachers implies a more complex approach" (Tondeur, Hermans, Van Sraak, & Valcke, 2008). Beyond factors related to technology resource and education management, teachers' beliefs about teaching and learning with ICT are essential and need to be fully taken into account (Cloke, & Sharif, 2001). Teachers' beliefs are understandings, premises, or propositions felt to be true about education purpose and educational process. They are rooted in teachers' perception of their role and mission as knowledge owners and knowledge transmitters (Tondeur, et al, 2008). Established typologies distinguish between ''traditionalistic" or behaviorist, teacher-centered, and more ''progressive" or constructivist, student-centered beliefs (Tondeur, et al, 2008). These two types are not exclusive; research in the last decades on the dimensionality of educational beliefs has acknowledged a multidimensional vision of the belief system. For example, (Tondeur, et al, 2008) found that most frequent adoption of all types of computer uses is amid teachers with relatively high constructivist beliefs and also high traditionalist beliefs.

To make teachers adopt a more constructivist perspective, they primarily need to gain a broader and deeper

understanding of what is expected from ICT integration in class. They also need to acquire higher self confidence through improving their ICT self-efficacy and their awareness of ICT potential. Furthermore, encouraging teachers' experimental behavior and training them with pedagogy-oriented ICT skills can be strong determinants of ICT adoption in teaching (Kreijns, Van Acker, Vermeulen, & Van Buuren, 2013). In fact, the knowledge and skills that teachers need to acquire will differ depending on the content that is taught and the pedagogical goal. This can vary from improving learning effectiveness in school subjects to promoting the development of specific skills such as lifelong learning and learning to learn.

Different learning management systems (LMS) are widely used in teaching practices in educational institutions. For example, Moodle, Blackboard, have built-in wiki tools, which are designed to collaborate, share and build online content and are especially useful for learners who are separated by time and place (Richardson, 2006). Teachers can create a variety of products from virtual libraries and language laboratories to simple testing in LMS. A learning management system is a software application for the administration, documentation, tracking, and reporting of training programs, classroom and online events, e-learning programs, and training content. LMSs range from systems for managing training and educational records, to software for distributing courses over the Internet with features for online collaboration. Student self-service (e.g., self-registration on instructor-led training), the provision of on-line learning (e.g., computer-based training, read and understand), on-line assessment, management of continuous professional education (CPE), collaborative learning (e.g., application sharing, discussion threads), and training resource management (e.g., instructors, facilities, equipment), are dimensions to Learning Management Systems. Some LMSs are Web-based to facilitate access to learning content and administration and are used by educational institutions to enhance and support classroom teaching and offering courses to a larger population of learners across the globe (Belias, & Athanasies, 2012; Ellis, 2009; & Aberdour, 2007).

So, application of ICT, contributes to the individualisation of education, as it allows to study at one's own pace and, on the other hand, is an effective means of forming communicative culture of the students. The latter is of vital importance due to the global integration. In order to implement ICT successfully teachers should have enough knowledge and skills to work with it, and be willing to use it while preparing for the lessons as well as in the class.

Learners and ICT

Learner acceptance is a key issue when using ICT in education. It will depend on two sets of intertwined factors: the first concerns ICT role in the educational process and how it contributes – directly or indirectly – to better performance, the second relates to learner's own experience while using ICT for educational purposes. For example, when instructors make available to students recorded lectures as audio and video podcasts to download, learners' attitudes and opinions will depend primarily on the extent to which this facility can contribute to successful grading in the course. In turn, this will depend on podcasts' content, and how it complements – or supplements – face to face lectures. Beyond traditional lectures, availability as podcasts of short revision summaries were, for example, highly appreciated by students (Copley, 2007). On the other hand, learners' attitudes will also depend on their experience in downloading, storing and using the audio and video digital files. File size, file format, text size and video resolution play then a key role; in addition, the ease of use and flexibility of podcasts will contribute to learner satisfaction.

Let's illustrate how multiple factors intertwine in shaping learners' perception according to educational contexts and scenarios. Kay, & Knaack, 2008) report a large survey to better understand how teachers and students perceive learning objects in secondary schools. Although students were less positive than teachers, they rated positively visual support, ease of use and animation with learning objects; they also felt better engaged with the course. Negative remarks mentioned inadequate level of details in certain graphics and the use of different wording and explanation methods than those used in class. Kirkwood, 2009) investigated how undergraduate learners use online resources. He finds that most learners use the internet for "personal, domestic, social and employment purposes as well as for educational goals", but seeking information resources is most frequent when it is directly useful for their ongoing studies, particularly in relation with assessment. He insists however on the importance of adequate ICT literacy in terms of copyright and plagiarism issues, identifiers and passwords management and protection against malicious software.

Nonetheless, it is the student's perception of distance education through the Internet (i.e. e-learning) that received highest attention. Researcher regularly investigates the extent to which e-learning is appropriate for all students and is an effective manner to provide education. Allen, Mabry, Mattrey, bourlis, Titsworth, & Burrell, 2004) analyzed previous empirical studies; results showed that distance learning slightly outperformed face to face classes on the basis of performance (i.e. ability to master content and skills). Highest improvement was for teaching specific contents, e.g. foreign languages (Kirkwood, 2003; Concannon, Flynn, & Campbell, 2005) surveyed students in an undergraduate blended course – lectures and laboratory sessions were supplemented with online course content. They found that e-learning adoption depended on the learner's general attitude and skills with

computers, awareness of online resources availability, peer influence and instructor support. Complaints concerned difficulties in navigating through the resources and technical problems in accessing the platform. Hence, authors issue some tips to ease students' use of learning platforms: email notification when new material is online (students often did not notice that new material was published on the platform), high quality tutorials on how to use the system and feedback on students' questions along with comments. Globally, although students "experienced a real improvement in the quality of their education experience" ICT is a valuable support to the learning process. A more fine grained study of students' perception of e-learning showed that students favored face-to-face learning over online learning when confronted with acquisition of certain specific knowledge and skills, e.g., "conceptual knowledge in the subject matter, skills in the practical application of one's knowledge, knowledge and skills in using scientific work routines, or in communication" (Paechter, & Maier, 2010). Another study found comparable results when analyzing students' attendance (Larkin, 2010): "contrary to popular belief, Generation Y students in general, do not aspire to replace lectures with downloadable, online versions" in fact, they "valued the opportunity for interactive learning provided by face to face teaching" (Larkin, 2010).

Indeed, the actual tendency is to align learner's adoption models with general models of technology adoption, i.e. TAM (Technology Adoption Model) (Lee, Kozar, & Larsen, 2003). Hence, perceived system quality, e.g. platform ease of use and learner's interface user-friendliness, is the first global factor that directly impacts learners' adoption (Chang, & Tung, 2008; Shee, & wang, 2008). The second factor measures the global usefulness of technology based educational process for attaining learners' goals. Paechter, Maier, & Macher, 2010) found "achievement goals proved to be more important than other course characteristics, e.g., the design of the learning material or the user friendliness of the learning platform". Thus, they suggest that instructors should increase learners' motivation by adapting instruction accordingly, e.g., clarifying learning objectives, providing self-tests to assess progress all along the course.

As learning is a complex and sophisticated process in which individual traits and characteristics can interfere, adaptive learning systems seek to adjust the content, the appearance or the process to learner's knowledge level, goals and other characteristics (Papanikolaou, Grigoriadou, Magoulas, & Kornilakis, 2002). The aspiration is to break the "one size fits all" educational paradigm and to provide personalized content, to protect learner from cognitive overload and disorientation, and to better assist him through the learning process. The basic ideas behind such approaches is to classify learner according to a certain user model, and then match learner profile with adequate content, representation or process (De Bra, Kay, & Weibelzahl, 2009). A basic and widely known user model is prior knowledge: students are grouped into groups that have similar ability and knowledge. Adaptation (i.e. automatic personalization) in such case is relatively straightforward: a quiz or a test determines learner level, and accordingly, directs him to specific learning material. However, most of existing research on adaptive learning is devoted to model learner according to his learning preferences, i.e. learning style. Learning style is the person's preferred way to learn and the way he/she learns best. More complex definitions include cognitive characteristics, in addition to affective and psychological behaviors. Adequately tailoring learning material in with student learner style is a complex and open problem, and actual results seem – for the moment – contradictory and controversial (Brown, Brailsford, Fisher, & Moore, 2009). However, it is widely acknowledged that personalization and adaptability in technology-enhanced learning will have enormous potential for improving the user experience.

Research Questions

In this study we focus on three research questions:

1. To what extent are the ICT facilities available for teaching in schools;
2. To what extent are teachers and students exposed to using ICT facilities in schools; and
3. What are the challenges facing the ICT utilization in schools.

Results and Discussion

The results of this study are presented below

Research question 1: To what extent are the ICT facilities available for teaching in your school?

Table 1 showed that ICT facilities like computers, radio (tape recorders), television sets, video disc players, bullet boards were available in schools, while some facilities like projectors, electronic notice boards, internets, filmstrips are scantly available in schools.

Research question 2: To what extent are teachers and students in your school exposed to using ICT facilities?

Table 2 showed the extent to which the teachers and students are exposed to the use of ICT facilities in schools. Only 17.8% of the respondents agreed that there were functional internet facilities for browsing in the schools, while 25.6% of them agreed that teachers were competent to the use of ICT in teaching. 39.4% of the respondents also agreed that there were enough ICT materials to teach the students. Of the respondents, 23.9% agreed that students are exposed to the use of ICT, while 26.1% of them agreed that students were knowledgeable in the use of ICT. Of the respondents, 6.9 and 6.1% agreed that there was periodic training for teachers in the use of ICT and periodic training for students on the use of ICT respectively. On the average 18.2% of the respondents agreed that

teachers and students had the necessary exposure to the use of ICT. This means that teachers and student were to a little extent exposed to the use of ICT.

Research question 3: What are the challenges facing the ICT utilization in your school?

From Table 4, it shown that the major challenge facing the adoption of e-learning using ICT digital remote teaching in Nigerian schools is irregular power supply (98.1%). Another challenge is lack of computer literate teachers (89.4%). Other major challenges is the inadequate number existing of ICT facilities in schools (84.7%); lack of ICT facilities to support the application of teaching/learning process in schools (82.2%) and the fear of exposing one's in-competencies on the application of internet facilities (82.2%).

This study revealed that ICT facilities such as computer, projectors, electronic notice boards, internet filmstrips were not available in Nigerian schools. This could be as a result of inadequate funding of the schools by the government. This finding has grave consequences on the resourcefulness of the teachers. Even if these teachers are willing to learn and use ICT in their teaching, the non-available of the ICT facilities will hinder them. The study also revealed that teachers and students were to a little extent exposed to the use of ICT. This is a pointer to the low level of application in the teaching- learning in Nigerian schools. The implication is that most of the teachers are still fond of the old teaching method using chalk and talk, the practice which will make them lag behind in the world of technology. It was also revealed that the perceived benefits of using ICT facilities in schools include making teaching-learning interesting; helping the distance learning programme; help teachers to be up-to-date technologically; enhancing quality of work by both teachers and students. This finding might not be unconnected with the fact that the teachers know the importance inherent in the use of ICT facilities in the teaching and e- learning. This finding corroborates Kwache (2007) who submitted that the application of ICT facilities makes learning more efficient and productive, enhance and facilitate pedagogical activities. He further, posited that the fact that ICT is accurate, fact and reliable and has the capacity to store and disseminate large information within the shortest periods, makes it a veritable and indispensable instrument for e-learning programme. The study revealed that irregular power supply is major challenge facing the application of ICT in Nigerian schools. The epileptic power supply is a national phenomenon that has a detrimental effect on all sectors of the economy. This can also be attributed to low level of funding in the school system. If schools are well funded, the management of the school can always make provision for alternative power supply in the schools. This finding support Yusuf (2005); & Ofodu (2007) who submitted that irregular power supply in the country is a major obstacle to the usage of ICT facilities in all spheres of the economy. The study showed that all the sampled schools in the areas have few numbers of computer literate teachers. Ths might not be unconnected with the non inclusion of ICT in teacher training programmes in school curriculum at all levels of education in Nigeria. This finding is in support of Kwache (2007); Dabesak (2005), & Oyebanji (2003) who submitted that lack of skilled manpower to manager available system and facilities for ICT hinders its use in schools. Computer literate teachers and ICT experts that would support and manage the internet connectively and / or application of computing in the teaching – learning process. Other problems facing the application of ICT in schools include reluctance to adapt to use of ICT facililties in teacher- learning. This finding also corroborates that of (Akubuilo, 2007).

Conclusion and Recommendations

The application of ICT in Nigerian schools is clouded with a mirage of challenges in all tiers of the nation's educational system. There is the challenge of infrastructure cum electricity to power ICT facilities in schools; and non-enough numbers of computer competent teachers to change to digital remote teaching in the various sphere of education in Nigerian school system. The ICT facilities are lacking in schools, the knowledge for using ICT by both teachers and students is also very low. These are some of the challenges that inhibiting the successful adoption of e-learning in Nigerian schools in the midst of COVID-19 epidemic. In order to fit into the new scientific order, it is necessary for Nigerian schools to develop a culture that places a high value on the adoption of information and communication technology in teaching/learning. The following recommendations are therefore made. The government should increase funding for the entire aspects of educational sector with emphasis on the use of ICT facilities in schools in place of face-to-face interactions. This will help improve the level of ICT competences among teachers and students. There should also be continuous and periodic training of teachers on application of computer and ICT facilities for e-learning teaching. This will help provide them with practical and functional knowledge of the computer, the internet and associated areas of ICT with the hope of integrating it with instructional methods of teaching and learning.

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Table 1. Availability of ICT facilities for teaching in schools:

S/N	Items	Available	%	Not Available	%
1	Computer	28	40.5	42	59.5
2	Radio/Tape recorder	41	57.8	29	42.2
3	Projectors	10	14.7	60	85.3
4	Television sets	41	58.9	29	41.1
5	Video	38	53.6	32	46.4
6	Slides	25	35	45	65
7	Film trips	21	30	49	70
8	Electronic notice boards	11	15.6	59	84.4
9	Internet	16	23.1	54	76.9
10	Disc player	28	40.5	42	59.5
11	Bulletin boards	42	59.7	28	40.3
	Mean		**39**		**61**

Table 2. Competences and Exposure of and teachers/students to the use of ICT facilities in schools:

S/N	Items	Agree	%	Disagree	%
1	There are enough ICT facilities to teach students	28	39.4	42	60.6
2	Teachers are competent in the use of ICT to teach	18	25.6	52	74.4
3	There are functional internet facilities available for browsing	13	17.8	57	82.2
4	Students are exposed to the use of ICT facilities in schools	17	23.9	53	76.1
5	Students are knowledgeable in the use of ICT facilities	18	26.1	52	73.9
6	Training is organized for teachers on the use of ICT facilities	5	6.9	65	93.1
7	Training is organized for students on the use of ICT facilities	4	6.1	66	93.9
	Mean		**18.2**		**81.8**

Table 3. Challenges facing ICT utilization in schools

S/N	Items	Agree	%	Disagree	%
1	Most schools lack computer literate teachers	63	89.4	07	10.6
2	There is lack of ICT facilities in the school	58	82.2	12	17.8
3	Irregular power supply hinders the use of ICT	69	98.1	01	01.9
4	The cost of purchasing computers is high	40	57.1	30	42.9
5	There are inadequate ICT facilities in school	51	72.9	19	27.1
6	The non-inclusion of ICT programmes in teachers training curriculum	57	81.7	13	18.3
7	Teachers are very reluctant to adopt ICT skills	50	71.1	20	28.9
8	There is inadequate ICT facilities in the schools	59	84.7	11	15.3
9	There is fear of exposing one's ICT competences on the internet	58	82.2	12	17.8