The Concept of E-Learning amid Coronavirus (Covid-19) Pandemic in Nigeria: Issues, Benefits, Challenges, and Way Forward

Adelakun Iyanuoluwa Samuel
Department of Educational Management and Business Studies
Federal University Oye-Ekiti. Nigeria

Abstract

The place of ICT and E-Learning can-not be overlooked in the dynamic world of today where the crude ways of teaching and learning process is gradually changing to digital forms. The days of you must seat physically with the teacher before learning can take place is now becoming the thing of the past. Nigeria as a developing country is trying to meet up with the standards of advanced countries in order to be able to fit in into the changing world. The sudden outbreak of coronavirus disease 2019 (COVID-19) which originated from the city of Wuhan, China, has become a major public health challenge for not only China but also countries all over the world, this have on the long run led to the closure of schools all over the world; on March 19, 2020 Nigerian government through the federal ministry of education ordered the closure of all schools at various levels, nevertheless learning must continue if we don't want our learners in all levels to misplace their priorities in life; in the quest of this, E-leaning which is the alternative method to physical classroom teaching-leaning process is gradually being uphold during the pandemic lockdown of schools. Unfortunately this has not been more effective because of the noticeable challenges facing this new development. This paper is to examine what e-learning is, it place during the coronavirus pandemic in Nigeria; the challenges of e-learning during this period will be look into and suggestions will be made as way forward in order to have effective and efficient e-learning processes amid coronavirus pandemic and subsequent outbreaks that may lead to the closure of school without interruption of teaching-learning process.

Keywords: E-Learning; Coronavirus (Covid-19) Pandemic....

Introduction

Over the years, the introduction of ICT in schools at various levels has brought about developments in the Nigerian education sector. Technology is the best supporting link to enhance teaching and learning in physical classroom setting, as well as distance and online instruction programs, aimed at preparing citizens to participate in the dynamic technologically driven environment. The place computer in the development of the world can-not be put aside, it is a vital tool in aiding the standard of the world; in the current world nothing make sense or is easy to do without the influence of ICT products and programs. Access to learning materials in pictures and writings through the internet have become so flexible to get even at the comfort of someone's home anytime any day with availability of educational opportunities. Because of the easiness attached to it, the use of ICT in education has become increasingly trendy globally. According to W. Craige (2007) E-learning is the computer and network enabled transfer of skills and knowledge for the diffusion of innovative teaching. Ahmad (2012) as well maintained that e-learning is all about learning with the use of technologies presumably computers and other modern day tools. There is no doubt that E-learning involves the use of electronic technology innovated tools to communicate ideas to learners who are relatively inexperienced, it can as well be used to

monitor learner's performance and to report the learner's progress to the appropriate personnel. Rosenberg (2013) viewed e-learning as the process by which people acquire skills or knowledge for the purpose of enhancing their performance through the internet or intranet and multimedia which leads to reinforced learning by means of video, audio, quizzes and other forms of interaction. The truth is E-Learning have helped the education sector move on a fast lane in achieving its predetermined aims, goals and objectives.

While this innovation was going on in the educational sector, the outbreak of Coronavirus (Covid-19) came on board and in an attempt to prevent the continuous spread of the virus the government of Nigeria on march 19, 2020 through the federal ministry of education ordered the closure of all schools at various levels forcing the total lockdown of the education sector of Nigeria; three months at stretch this was still on. The novel Coronavirus disease 2019 (COVID-19), first identified in Wuhan China in December 2019, has rapidly spread to almost every region of the world. The disease is caused by a new and severe type of Coronavirus known as Severe Acute Respiratory Syndrome Coronavirus 2 (SARS- COV-2). The infection has no immediate treatment and vaccine, and it has according to World Health Organization (WHO, 2020) become a worldwide pandemic causing significant morbidity and mortality. There are 1,603,428 confirmed cases, 356,440 recoveries from the illness and 95,714 deaths worldwide as of April 9, 2020 (World meters, 2020). On February 27, 2020, an Italian citizen became the index case for COVID-19 in Nigeria and fast forward to march 15, 2021, there were 160,895 laboratory confirmed cases of COVID-19 in Nigeria with 145,752 discharged and 2,016 deaths (Nigeria Centre for Disease Control, NCDC, 2021).

The Coronavirus pandemic is seen as the most trying time in the history of mankind. This period prompted the concerned personnel and government to give more attention to the alternative to physical teaching-learning process called eLearning; audio, audio-visual, virtual learning and all forms of nonphysical contact teaching-learning process were more utilized. Though as good as it was, this exposes the major strength and huge weakness of the system owing to the fact that very many things still needs to be put in place to take eLearning in Nigeria to its supposed place in the developmental trend of the world at large.

What is E-Learning?

The word E-Learning from inceptions means electronic learning; it is the use of Information and Communication Technology commonly called internet/ICT to enhance and support teaching and learning process. E-learning enhances the use of wireless and internet technologies in delivering a wide arrangement of training learners who are relatively inexperienced. With this e-learners access their respective learning from computers and related facilities via the use internet, the most common one lately is the use of a hand held device like mobile phone, iPads, etc. In 2001 Marc Rosenberg defined e-Learning as "the use of Internet technologies to deliver a broad array of solutions that enhance knowledge and performance". According to Eze et al. (2018), e-learning education is concerned with the holistic in Corporation of modern telecommunication equipment and ICT resources into the education system. Parks et al (2013) posits that the word "e" should refer to "everything, everyone, engaging and easy" in addition to „electronic". Collis, 2008; Oye et al, (2011) viewed e-learning as an alternative to the face-to-face teaching method or as a complement to it; it usually allows the student a greater choice as well as responsibility for their own learning. For so many years back, face-to-face learning usually being anchored by an instructor who is an expert of the subject matter was the best way of teaching learners, the emergence of e-Learning created an environments where learners on their own interacts with learning materials without the interference of a physically available teacher; teacher and other learners from various locations engage in teaching-learning activities with the use of network technologies; looking at this e-learning offers significant flexibility as to when and how

learning occurs. E-learning can be independent, facilitated, or collaborative in nature. Independent learning refers to individual learner completing learning activities or modules on their own pace, schedules and in their convenient environment. Learner is independent and doesn't have the interference of tutors and the other learners in person. Though this does not mean that the learner does not have access to other resources such as facilitator or coach, but rather the learner is in control of whether to contact them, and when to contact them if needed. Hence collaborative learning refers to working with other learners in an online environment. Explaining this Falana (2015) used a typical example of an email discussion with other learners on a particular topic or everyone posting to a course room or a forum educational group discussing on a particular subject matter, topic or issue. In contrast, facilitated learning is intended to be completed through interaction with the teacher. For example, Falana (2015) said a learner might complete a section of learning online then discuss key concepts via e-mail with the instructor or with classmates. Salleh, Oye and Iahad, 2010 described e-learning as the use of Information and Communication Technology e.g. Internet, computer, mobile phone, Learning Management System (LMS), Radios, Televisions and other to enhance teaching and learning activities. Folayan and Folayan saw e-learning applications and processes include web-based learning, computer based learning, virtual classrooms and digital collaboration.

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Origin of eLearning in the World

In an account of Sarka (2015), evolution of eLearning is connected to development, technical improvement and also better affordability of computers. Already in the late eighties and the nineties of the last century the first form of electronic education- Computer-Based Training (CBT) was born. This is considered as the cornerstone of today´s eLearning (Eger, 2005). The CBT system requires connection of personal computer to some other multimedia, for example CD-ROM. Sarka (2015) further explained that the system itself meant a tremendous progress, although it´s content was not that thoroughly elaborated and it was still missing some later features of eLearning like no limitation by time or place. In analogous with this, the development of Computer Base Test was the technology which was developed to enable easy evaluation process; learners are given relevant series of questions with answers, this gave rise to the use of internet and creation of the web system in some sectors of the Nigeria system, educational sector inclusive. Technology had its progress, at the very beginning the information could be delivered only in text format, but in the early nineties there were created browsers which enabled users to enrich the text by graphics. Internet spread quickly, its price declined and so it was more affordable and accessible also for the middle class. Sarka (2015) opined that the web system was improved into the now well-known and widespread www (World Wide Web). The publication Introduction to eLearning by (Kveton, 2003), which was written and published on the occasion of tenth anniversary of this learning method, explains its forming and connects it with the web adjustment to the resource of information, which is stored here and is offered to all users via Internet connection, the new Web- Based Training (WBT) was formed leading to the new era in the history of technology (Baresova, 2003). Kopecky, 2006, penned that new programs were created not only to teach, but also to allow the communication between the teacher and the student, this new system corresponded already with the today´s one, but it got its name in 1999. Web- Based Training (WBT) system was spreading quickly, improving and so were also the connected programs. "Together with the pedagogical approach, which started in 2002 to be more and more enforced, with professional management, blended learning and with

clearly positive results of some universities and companies it shows, that eLearning has its advantages and can be effectively used not only for the distance but also the for face to face education" (Eger, 2005). Summit of the Council of the European Union held in 2002 architect the currently used eLearning in Europe. The meeting designed the recommended amount of costs for eLearning development functional for all affiliated countries and significantly defined the material basis of enhancement of new forms of teaching. This development in eLearning started mainly in the content and form of new courses and programs recommended for universities. The subproject ODL NET (Open and Distance Learning Network for Exchange Experiences) played a great role in contact with other countries, whereby domicile courses in the European universities can be easily accessed in distance learning forms via the use of relevant ICT tools; thereby teaching-learning process is not been interfered with anytime, any day and anywhere. This propagated the distance education based on information and communication technologies, though it wasn't only to publish eLearning, but also to clarify its theoretical base learning process of which it was meant for teachers who picked up the use of these forms for authors of new programs and also for students who could benefit from these new styles of learning in the first place. The most important goals of this program are well thought-out to:

- Improve the quality of online teaching by using new learning and methodical approaches and
- To inform the academic society about technologic development in area of education on internet.

Great Britain, Ireland, Portugal, Spain, Greece, Finland, Cyprus and Czech Republic were the eight countries involved in this project. Czech Republic, represented by FIM UHK, was involved as the only country from middle and east Europe. Fundación Universidad-Empresa de Valencia, ADEIT, Spain – coordinator of the project University Hradec Kralove, Faculty of informatics and management, Czech Republic University of Limerick, Ireland University of Oulu, Finland Portuguese Open University, Portugal Centre of Higher Education in Theatre Studies, Greece University of Hull, and Great Britain University of Cyprus, were institutes that took part in a project since 2004.

Development of e-Learning in Nigerian Education System

The evolution of e-learning in Nigeria could be traced back to the development of telecommunication which began in 1886 when e-cable connections was established by the colonial masters between Lagos and the colonial office in London to transmit information and receive feedback on what is going on in Nigeria. Then fax machines were used to update the colonial office in London on developments carried out by the colonial masters here in Nigeria. By 1893, all government offices in Lagos has telephone services for easy communication, feedback and easy access which later was extended to all other parts of the country. A lot of innovations was introduced and witnessed in the telecommunication industry since 1886; the provision of telecommunication services was initially monopolized by the Nigeria Telecommunication (NITEL) until sometimes in 90's when the federal government of Nigeria commenced the liberalization policy of telecommunication industry. This gave birth to some private telephone service providers; Mtel-NITEL, Econet which have been sold out a couple of times to Vmobile, Zain and currently in the hands of the administration of Airtel, Etisalat now 9Mobile, MTN, Communication Investment Limited-CIL which the licensed was withhold and given to Globacom (Glo) Nigeria, and others were primarily licensed to provide General System for Mobile Services. On the long run, the uses of browsing phones were introduced which the constant availability of data network is needed to ensure effective usage. This development encourages these private telecommunication companies to ensure upgrading their services and facilities to meet up

with the dynamicity of the telecommunication world. Data services was introduced in forms of 1G,2G,3G,4G and now 5G which was flagged up in the year 2018. With these developments, relevant educational materials can be easily accessed via the internet services, the introduction of virtual communication via the use of facilities mounted with cameras in which the sender and the receiver of messages can easily be communicated facially, this was as well introduced to the educational sector where teaching-learning takes place at the comforts of both the teacher and the learners provided there is availability of data network.

During corona virus (Covid-19) lockdown, the introduction of the use of various applications such as zoom, and the likes were on the high side. Teachers were able to teach from their homes to the students in their respective homes. Unfortunately because of the economy of Nigeria, not everyone has the financial capacity to acquire phones, laptops and other related ICT tools to enable all to participate in the online teaching-learning process, in fact when it comes to adequate usage of ICT products, Nigeria is still far behind; only few are versatile in this, but we hope that all things been equal, by 2030 virtually all citizens of Nigeria should be able to make good use of ICT tools for their daily dealings.

Disruptions of COVID-19 in the Nigerian Educational Sector

In Nigeria, the past outbreaks of Lassa fever, bird flu, monkey pox, Ebola disease and others didn't weigh down the socio-economic and educational system as of the case of coronavirus, this became a major concern in the country. Concerned personnel of the educational system knowing well the possible effects of the prolong pandemic, seek for the possible ways learning must continue, e-learning process was thereby given attention to during this period. Since the closure of schools due to the COVID-19 pandemic, several efforts have been made by governments, private sector and concerned personnel to uphold continued learning so as to bridge the learning gaps created by the partial closure of schools. These innovations came in various forms such as large-scale, low tech solutions that do not require internet-enabled devices (radio and television leaning platforms), to high tech alternatives (virtual learning, video conferencing, animated lessons and several E-resources) which requires active internet devices. In an account of Vegas (2020), while about 90% of high-income countries are providing remote learning opportunities, less than 25% of low-income countries are offering any type of remote learning at all. Thus, the former majorly engage learners via online platforms, while the latter mostly use television and radio to reach learners. In actual fact, Vegas (2020) further explained that only about 23% of sub-Saharan Africa countries have been combining online and broadcast media platforms, and only 11% rely exclusively on online platforms. On the part of parents, the temporal closing of schools has prompted deeper and more technical levels of active involvement in their children's education since their children were with them and they were able to understand in details the academic capacity of their children. Though to some parents this has been challenging because they were responsible for the school teachers task functions of directly responsible for driving the learning outcomes of school children. On the other hand some parents find it interesting picking the responsibilities of teachers and ensuing they impact desirable knowledge into their children who were relatively inexperienced, this helped parents in this category to prepare their children to taste on how best they should become useful and acceptable members of the society. With this development, a number of parents had no choice than to balance working or managing their families with actively facilitating or monitoring the home-schooling of children (Babatunde, 2020). Children whose parents cannot afford remote learning facilities may have to wait for schools to re-open to continue learning, as such, it is uncertain the number of children that will return to school when the pandemic is over (Obiakor & Adeniran, 2020).

The erupting crisis in the educational sector of Nigeria during the pandemic also challenged the leadership style of government agencies working on education because agencies had to deploy disaster management skills in ensuring that the number of Nigeria's out-of-school children does not increase permanently by working with stakeholders to provide distance learning opportunities for as many children as possible. Unfortunately this became so uneasy for the concerned personnel because the occurrence of lockdown as a result of pandemic was never foreseen talk less of having adequate preparation to ensure proper management of such. In fact most of the management skills introduced to ensure there is continuous running of the educational sector were copy and paste from foreign countries; this exposes the weakness of the management of the educational sector in Nigeria. It was so bad that an enabling environment for public tertiary institutions to transit from traditional schooling to remote schooling couldn't be provided; tertiary institutions had to stay longer at home than the lower education levels during the ragging wave of corona virus. According to Lawal (2020), teaching online is much more difficult than teaching face-to-face. Therefore Nigeria requires massive training of teachers to teach at a distance and in the use of e-learning.

Though in an attempt to ensure the proper management of the educational sector during lockdown, there was introduction of a number of technological tools and services that can facilitate remote teaching and learning which were tailored to meet current educational demands. More than ever before, radio network were being used to communicate lessons to a large number of children at the same time, even when the class size is not known. Most education technology service providers also modified their platforms to support remote learning. There was increase in websites for learning during this period where they had several learning contents to further engage primary and secondary school children. This period gave rise to the remolding and remodeling of the educational technology tools in which features that would facilitate the participation of parents or guardians in their children or wards' remote were included.

Benefits of e-Learning during the Covid-19 Pandemic in Nigeria

E-Learning, virtual learning and other related ICT products as alternatives to physical teaching-learning process have over the years been supportive to the sustainability of the educational sector of the country. Over the years, E-learning has been accessible, affordable, cheaper, flexible to use, this is because the online teaching-learning process lowers the cost of transportation, accommodation, and the overall cost of institution-based learning. A learner as well can schedule or plan their time for completion of courses available online thereby offers a great deal of flexibility in terms of time and location. Coupled with this, there are so many online tools available to intended learners to aid effective and efficient learning setting. During the covid-19 pandemic lockdown in Nigeria, teachers use audio, videos, and text in reaching out to their students. In an account of Adelakun (2020), as at April 2020 many states in Nigeria have switched to the radio-television means of communicating with learners whereby teachers go on air teaching their respective subjects and topics to learners listening and watching at home, some learning channels were lunched on various satellite networks even though not every home in Nigeria can afford the purchase and monthly subscriptions of satellite networks. At least with this development some of learners are still being updated in their academics. Some private universities in Nigeria took this advantage to further develop their ICT section to create platforms in reaching out to their students' even while in their respective homes with their parents/guidance. Adelakun (2020) sited a case study of Bowen University Iwo, Osun State that immediately swift to action at the beginning of the lockdown; the university's ICT unit developed a software to reach out to their students in their various homes, they teach and even conducted examinations as at when due. He penned that this

software was able to view learners in the comfort of their homes, to detect the students face, and ensure nobody is helping them write their exams. This was a commendable effort from Bowen University's management in ensuring there is continuous education even in the face of corona virus pandemic. Unfortunately the development was unable to get down to government universities because the period of the pandemic lockdown came after the academic staffs of universities union declared indefinite strike action as a result of unmet demands from the government.

E learning can help in creating a collaborative and interactive learning environment where students can give their immediate feedback, ask questions, and learn fascinatingly. The sweetness of the e learning process is anywhere-anytime feature which is highly beneficial in the phases Covid-19 pandemic. As at present many Nigeria universities have switched to the proper usage of virtual teaching-learning in order to maintain mutual contacts between the learners and teachers, lectures now hold via the social media platforms, though this hasn't been more effective because very many lecturers are still lacking the basic knowledge in the use of ICT tools in teaching owing to the fact that they were not trained with this during their days of learning in order to become a useful and acceptable member of the society. Coupled with this is the lack of adequate funds for both the learners and the teachers in acquiring the relevant ICT tools in aid virtual teaching-learning process in our various levels of education. Ceteris paribus, we all hope that one day Nigeria will rise again and takes its place in the world developmental ranking. During the ravaging peak of corona pandemic lockdown, there was introduction of closure of places, gatherings and unsafe traveling by roads to curb the fast spread of the virus, the place of e-learning was able to help concerned individuals in getting access to education in their homes or workplaces. In fact it can be said categorically that COVID-19 propels the importance of eLearning platforms which hasn't been considered serious since late 90s to a new height.

Challenges of e-Learning amidst ravaging Covid-19 Pandemic in Nigeria

As beneficial the e-learning is to the educational sector during the covid-19 pandemic, there were still some noticeable challenges, it is so bad to the extent that ICT seem not to be fulfilling the purpose of existence even when more attention and resources allocated to this is substantial. What then can be wrong? The answer to this comes in diverse ways; the under listed paragraphs are considered in the context of this write up as factors responsible for the ineffectiveness and inefficiency of e-learning in Nigeria.

Underfunding/Misappropriation of funds; little attention has been given to the finance of the use of ICT in the educational sector until the mounting pressure surfaced during the pandemic lockdown; government now saw the need for the proper finance of the sector, this prompted the government to procure and input more funds to be used to design befitting eLearning platforms which serves as alternative to physical teaching-learning process. Unfortunately the effect of this wasn't a lasting one as the available funds were not enough to support this mission, coupled with the fact that government was majorly concerned on getting health precautions and lasting solutions to prevent the further spread of the virus. Again corruption which is the major cancer eating deep into the flesh of the sustainable development of the country has led to the downturn of the sustainable development of the educational sector, there are so many account of misappropriation of funds allocated to the procurement of the ICT facilities in the educational sector, some were even used for personal use of the personnel involved, it is so bad to the extent that monkey and snakes now have access to the allocated funds in some parastatals in which they swallow money at will. The lasting effect of this is been felt even till date whereby some sectors suffers for shortage of developmental funds. The global focus on combating COVID-19 has meant that more funds are been invested in the health sector and centered around keeping people alive. The

implication of this is that funds are more limited in financing education projects, and even where funds are available, they are being redirected to projects that donors perceive to be more relevant in these precarious times. I.e. the policy of saving life first before acquiring education was adopted during the covid-19 pandemic.

High cost of data; privatization of network providers gave rise to the autonomy in allocating cost of data to customers in Nigeria. Very few among students, parents and teachers were able to afford the procurement of data to stay connected online, coupled with the fact that people were unable to move freely during covid-19 pandemic lockdown in search of daily foods talk less of having more funds on them to procure data to actively stay online and have easy access to online teaching-learning process.

High cost of ICT facilities; the procurement of ICT facilities have over the years become difficult for an average Nigerian, owing to the fact that Nigeria is rated as one of the developing countries in the world, the economy of Nigeria is still witnessing a lot of setback even in the phase of introduction of different policies to uphold the sustainability of the economy. Due to the naira value in the world market, very many Nigerians find it difficult to acquire sophisticated ICT tools to further enhance their continuous education during the pandemic lockdown and it became so bad that teaching learning process had to be on hold in some schools since there were no face-to-face interactions between the teacher and the learners.

Poor Technological Infrastructure: according to Davies et al. (2019) technological infrastructure that could facilitate projects in Nigeria and other developing countries, has not received the required attention from relevant authorities, they further explained that libraries are subdivisions of their parent bodies and several of their projects depend on decisions from such bodies and low attention to such infrastructures from the parent bodies makes libraries appear as though they have no capabilities to execute ICT projects. The lingering effect of this poses a great challenge to the implementation of effective and efficient use eLearning during the covid-19 pandemic in Nigeria. It becomes so worse that the few available ICT infrastructures in many schools in Nigeria are either obsolete or not even functioning anymore.

The most difficult process in life is change, an average human is never satisfied with accepting new innovation, learning at various levels of the educational sector of Nigeria have been the didactic method of teaching where the teacher have face to face encounter with the learner, when the use of ICT was introduce as a way of relating information to learners who are relatively inexperienced, it then became so difficult for both the teachers and learners to adapt with the revolution; teachers were used to crude way of discharging their duties while learners were also not feeling too well with the use of ICT in acquiring the necessary information for them to be useful and acceptable members of the society.

Low level of contribution of students; the student-teacher interaction via eLearning channels during covid-19 pandemic lockdown seem not to be very effective due to student loss of interest in learning having been exposed to various alternatives to school activities which were said to be more beneficial than passing through the four walls of the classroom. In fact lately, a common saying arose among the school going age students in pigeon English (*School na Scam*) meaning that going to school is a scam, and that education is no longer the key to success in life. This claim was further established by Adelakun (2020) where he said education is no more influencing the national development, many nations are moving ahead of Nigeria simply because we have abuse the so called education. He added that an educated man is an expensive machine for the development of a nation, an average Nigerian student don't want to go to school because education has failed in Nigeria especially when millions of Nigerian graduates are been turn over to the labor market without available jobs. Couple with this is some of the graduates suffering from Diploma Diseases who are unskilled

graduates who can-not defend their certificates as a result of being products of a sick education system and negative effect of politics. Education in Nigeria is playing roles of underdevelopment and at the same time the role of sustainable development. Education in Nigeria is becoming sources of frustration because graduates are not well equipped to function in the current society. Adelakun (2020) further ascertained that there is a disconnection in the development of Nigeria because education is no more giving what it's supposed to give to the people. He then concluded by saying one day Nigeria will rise again.

Though these problems are not limited to Nigeria, some other countries as well experienced some difficulties in the effective and efficient application of eLearning during coronavirus pandemic lockdown; Makhija and Bharad (2020) penned that these difficulties and problems associated with modern technology range from downloading errors, issues with installation, login problems, problems with audio and video, and so on. Sometimes student finds online teaching to be boring and un-engaging. They further explained that personal attention is also a huge issue facing online learning. Students want two way interactions which sometimes gets difficult to implement. The learning process cannot reach its full potential until students practice what they learn. Sometimes, online content is all theoretical and does not let students practice and learn effectively. Mediocre course content is also a major issue. Students feel that lack of community, technical problems, and difficulties in understanding instructional goals are the major barriers for online learning. E-learning hamper the communication between the learner and the educator, that is, direct communication and human touch are lost. Time and location flexibility, though it is the strength of online learning these aspects are fragile and create problems. Student's unserious behavior in terms of time and flexibility can cause a lot of problems. All students and learners are not the same; they vary in degrees of their capabilities and confidence level. Some do not feel comfortable while learning online, leading to increased frustration and confusion. Inadequate compatibility between the design of the technology and component of psychology required by the learning process; and inadequate customization of learning processes can obstruct teaching process and create an imbalance (Makhija and Bharad, 2020).

Conclusions

The place of ICT and E-Learning can-not be overlooked in the dynamic world of today where the crude ways of teaching and learning process is gradually changing to digital forms. The sudden outbreak of the corona virus coupled with the lockdown of schools at various levels of education in Nigeria served as test for the education technology interventions for teaching-learning activities. Unfortunately the Nigeria education system arrived at this point not fully prepared. The country was still battling with the economic meltdown when corona virus surfaced; cost of procurement, installation of needed ICT tools for eLearning and maintenance became more tedious now that the Naira is losing its value in the world market. Coupled with this is the misappropriation of funds allocated to the educational sector as a result of corruption and politic. It was observed that even the ELearning chosen as alternative to physical teaching-learning process in the lingering period of COVID-19 pandemic has not been fully effective because of non-unemployment of expert to manage the IT section of the Nigeria Education system, huge tariff charges from various network providers in Nigeria is becoming unbearable on daily bases. Now that a larger percentage of schools have resumed to physical teaching-learning process, some of students are losing full interest in acquiring education to aid them to become a useful and acceptable member of the society; this is due to so many distractions they were exposed to during the pandemic lockdown. The good question here is when will Nigeria be able to survive the lasting effects of covid-19 on the educational sector? Nobody knows the answer to this, but

we all dream of a better Nigeria to be able to fit into the developmental trend of the world thereby making the world a better place for everyone.

Recommendations

Owing to the fact that the concept of eLearning in the sustainable development of the educational sector of Nigeria cannot be overlooked, it is highly imperative for the government and concerned personnel to ensure all hands are to be put to work to ensure there is effectiveness and efficiency of the use of eLearning channels in reaching out to learners. Government are thereby been advised to ensure there is adequate funding of the educational sector; this should be used to procure relevant ICT tools for learning in school, training and retraining of teachers and students in the use of ICT tools in school, and ensuring proper implementation/management of eLearning tools and policies in the educational sector. Orientation programs are to be conducted for students, parents, teachers, and concerned education personnel on the importance of eLearning. Now that is crystal clear that Covid-19 prompted the use of eLearning channels as means of teaching-leaning, it is highly advisable for every governmental arms to put in place futuristic approaches and plans to manage the sudden emergence of pandemics which may leads to the interruption of physical teaching-learning in schools. COVID-19 has stayed with human race more than a year now, when it's going to be a thing of the past nobody knows. Therefore considerations should be made to further restrain the spread of any subsequent pandemic that may interfere in the smooth running of the Nigerian educational sector.

With the continuous innovations going on in the whole world and educational sector, there will be a time in the near-near future when physical teaching-learning will become archaic method of communicating with the learners, therefore government and Nigeria ministries of education should forecast and employ experts in the area of ICT to further introduce programs that will enhance the productivity of the education sector in order to compete with the outside world even in the period of global pandemic lockdown. Teaching learning activities should be designed via social media platforms such as Google Classroom, modules and the likes which are free web services developed by Google and others for schools that aims to simplify creating, distributing and grading assignments in a paperless way with the purpose of streamlining the process of sharing files between lecturers and students. Parents are highly advised to ensure the provision of relevant needed ICT tools for their children in order for them to be fit into the dynamicity of the education and the world at large that is becoming a global computer village.

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