

SCHOOL CALENDAR AND ELECTRONIC LEARNING IN NIGERIA: AN ANALYSIS.

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Abstract

The onset of corona virus COVID-19 sent waves of panic across Nigeria, like in every other country. Corona – Virus Disease 2019 (COVID-19) is an RNA virus with a typical crown-like appearance under an electron microscope due to the presence of glycoprotein spikes on its envelope. Coronaviruses are a family of viruses that cause illnesses ranging from common cold to more severe diseases such as severe acute respiratory syndrome (SARS) and the middle East respiratory syndrome (MERS). As a result, many countries are suggesting various levels of containment in order to prevent its spread. Hence, schools and universities are closing down and moving abruptly to online (e – learning) platforms and remote education, though no one knows whether the move to online learning could be the catalyst to create a new, more effective method of educating students. Having seen the effects of the disruption of the school calendar by the Covid-19 pandemic and prospects and consequences of the electronic learning platforms, the article argues that Government should create holistic contingency plan that goes beyond addressing school-based safety measures, but also identify ways to ensure learning continuity and provide support for both students and teachers during times of crisis. The government must invest in the provision of solar-powered education gadgets, preloaded with offline academic resources to learners in disadvantaged and vulnerable communities. Government needs to be firmer in their handling of public universities administration by helping to prepare them for the adoption of ICT and e-learning in their pedagogy. The knowledge of e -learning will expose both lecturers and students to the reality of the world outside the classroom since the world is a global web. The article made use of newspapers, internet materials, textbooks, reputable journals etc. While the methods adopted were critical analysis and expository methods.

Keywords: COVID-19, E -learning, School Calendar, Nigeria.

Introduction

At the end of December, 2019 a novel coronavirus was recognized as the reason of a group of pneumonia cases of unidentified etiology in Wuhan, Huanan sea food wholesale market, the preliminary site to which cases of coronavirus 2019 were related, a city in the Hubei Province of China. The novel coronavirus has rapidly become wide spread resulting in an epidemic

throughout China, followed by a pandemic, an increasing number of cases in various countries throughout the world. The number of confirmed cases is constantly increasing worldwide and after Asian and European Regions a steep increase in cases is currently being observed in low-income countries Globally, the world is faced with the Covid-19 pandemic which has held the economy at ransom not exempting the educational sector. It has brought about recent changes and disruptions in the educational sector which serves as a catalyst for the development of any nation. Initially, the spread of the Coronavirus through the globe from China initially spared Nigeria like many other African countries with zero recorded case as at January 2020. On the 2nd of march, 2020, 67 territories outside the mainland China had reported 8565 confirmed cases of COVID-19 with 132 deaths as well as significant community transmission occurring in several countries worldwide including Iran and Italy and it was declared a global pandemic by the World Health Organization on the 14th of March, 2020.

By 28 February however, Nigeria reported their first case, a Nigerian UK returnee. Nearly two months later, there are 373 confirmed cases, 99 recoveries and 11 deaths. On 19 March 2020, the Federal Ministry of Education announced the temporary shut-down of all schools in Nigeria, effective 23 March in a bid to contain the spread of the Coronavirus. (<https://worldliteracyfoundation.org>). That is to say that all learning facilities were closed in order to safeguard the health and general wellbeing of our children, youths, teachers, and educational personnel. The school closure measure means learners previously in school are no longer going to school. In Nigeria, the nationwide school closures have disrupted learning and access to vital school – provided services for a record number of students. The temporary school closures mean educators, funders and policy makers are rethinking the way learning is delivered and accessed. Almost 40 million learners have been affected, of which over 91% are primary and secondary school learners. This is similar with the experience of Sierra Leone where the Ebola crisis led to school closures for about 9 months. According to the report by UNESCO (2020), the closure of educational institution has impacted over 91% of the world's student population and it comes with high social and economic costs with severe impact on children from disadvantaged background.

However, countries are suggesting various levels of containment in order to prevent the spread of coronavirus, or Covid-19. It is interested to note that WHO issued detailed guidelines for preventing COVID-19. They include (1) to use facemasks (2) to cover coughs and sneezes with tissues (3) to wash hands regularly with soap and disinfection with hand sanitizer containing at least 60% alcohol(4) to avoid contact with infected people(5) to maintain an appropriate distance from people and (6) to refrain from touching eyes, nose, and mouth with unwashed hands. (World Health Organization coronavirus Disease 2019. Situation Report availableonline:)https://www.who.int/docs/default-source/coronavirus/situation-report/20200326-sitrep-66-covid-19.pdf?sfvrsn=9e5b8b48_2. Moreover, while an individual without respiratory symptoms is not required to wear a medical mask when in public, people

with respiratory symptoms are advised to use medical mask both in health care and home care settings.

However, COVID-19 disrupted the school calendar and also changed the method of teaching and learning. Some developing countries evidence from the Nigeria experience are posed with the challenge of shifting from the traditional teaching method to the e-learning during the pandemic. This prompted a set of questions: Do households have the facilities to engage their children in remote learning? Do teachers have the skills and facilities to deliver live lesson or record massive open online course (MOOC) styled lessons? The answer is yes and no. For instance, in America, universities such as Harvard University have embraced e-learning platforms but in most African countries such as Nigeria, traditional forms (physical contact) of learning have been the norm.

Meaning of coronavirus

Coronaviruses are a family of viruses that cause illnesses ranging from common cold to more severe diseases such as severe acute respiratory syndrome (SARS) and the Middle East Respiratory Syndrome (MERS). COVID-19 is an acronym: CO stands for coronavirus, VI stands for virus, D stands for disease, 19 stands for the year it was discovered, 2019. The first human cases of Covid-19, the disease caused by the novel coronavirus causing COVID-19 subsequently named SARS – Cov-2 were first reported by officials in Wuhan City, China, in December, 2019. Retrospective investigations by Chinese authorities have identified human cases with onset of symptoms in early December, 2019. While some of the earliest known cases had a link to a wholesale food market in Wuhan, some did not. Many of the initial patients were either stall owners, market employees, or regular visitors to this market. However, environmental samples taken from the market in December, 2019 tested positive of SARS-Cov-2, further suggesting that the market in Wuhan city was the source of this outbreak or played a role in the initial amplification of the outbreak. Then, the market was closed on 1 January, 2020.

The COVID-19 epidemic expanded in early December, from Wuhan, China's seventh most populous city throughout China and was then exported to a growing number of countries. The first confirmed case of COVID-19 outside China was diagnosed on 13th January, 2020 in Bangkok (Thailand). The period from the onset of COVID-19 symptoms to death ranges from 6 - 41 days with a median of 14 days. This period is dependent on the age of the patient and status of the patient's immune system. It was shorter among patients 70 years old compared with those under the age of 70 years. The most common symptoms at onset of COVID-19 illness are fever, breathing difficulties, pneumonia, dry cough and fatigue while other symptoms include headache, diarrhoea, dyspnoea, haemoptysis and lymphopenia. Symptoms of COVID-19 disease vary from patient to patient. Sometimes, it may be asymptomatic. Less common symptoms are nausea or vomiting, muscle or joint pain, sore throat, loss of sense of

smell or taste or both, nasal congestion, conjunctivitis, different types of skins rashes, shivering and dizziness. In the disease's progression stages the patient will face severe shortness of breath, blood oxygen (hypoxia) destruction of the lungs, and several organs dysfunction.

Coronavirus disease 2019 is spread through large droplets produced during coughing and sneezing by symptomatic patients as well as asymptomatic individuals before starting of their symptoms. The scale of COVID-19 disease is diverse varying from clinically and asymptomatic to ARDS and multi organ failure. The authors of the Chinese CDC report categorized the clinical symptoms of the COVID-19 by the severity. Mild disease (example with no/mild pneumonia) was described in 81%. Severe disease (example with dyspnea, tachypnea $\geq 70/\text{min}$ (< 1 year), $\geq 50/\text{min}$ (≥ 1 year), hypoxia (oxygen saturation $< 92\%$) or 75% pulmonary involvement on imaging within 24 to 48 hours, disturbance of consciousness and feeling difficulty or food refusal with signs of dehydration was observed in 14%. Critical disease (example with respiratory collapse, shock or multiple organ failure) was reported in 5%.

Coronavirus crisis

The novel Coronavirus disease 2019 has spread rapidly around the world, sending billions of people into lockdown. The pandemic gripped the world with a shock, thereby overwhelming the health system of most nations. It has caused global social disruption by limiting global social relations. In the views of Amzat and Razum (2018), the idea of "social distancing" negates regular social interaction, which is the bedrock of international society. For most people, COVID-19 infection can will cause mild illness, however, it can make some people very ill and, in some people, it can be fatal. The vulnerable citizens face the hunger-virus amidst the coronavirus lockdown. As at 3 September, 2020, more than 20 million cases of Covid-19 have been reported in more than 188 countries and territories, resulting in more than 863,000 deaths, while more than 17.2 million people have recovered. (*Covid-19 Dashboard by the centre for systems Science and Engineering (CSSE) at John Hopkins University (JHU)*. Retrieved 3 September, 2020,

The coronavirus pandemic has no doubt adversely affected the global economy. It has forced many businesses to temporarily shut down and governments across the world to place restrictions on movement, while exempting providers of essential services who are to strictly observe social distancing rules while providing services as a way to contain the spread of the virus.

In the education sector, it has disrupted the landscape of learning. It has magnified the education inequality in Nigeria such that only those with access to digital learning resources will keep learning in the comfort of their homes while those without access are left behind. This learning crisis is widening the social gaps instead of narrowing them. In the future, this gap will show up as weak skills in the workforce, thereby making it less likely for this category

of young people to get well paid and satisfying jobs. When this happens, these young people will become nuisances in the society, championing courses that aren't noble, just to make ends meet. (nairametrics.com/2020/04/i8/covid-19-is-exacerbating-the-problem-of-educational-inequity-in-nigeria). The COVID-19 pandemic poses an enormous risk to the health and safety of learners, teachers, parents, school administrators, education practitioners and the wider community. It may not be the last crises that will threaten school continuity in Nigeria, given the increase in the number of infectious diseases worldwide and the conflict in the Northeast. The crisis has pointed to a number of fundamental action steps, two of which are crucial now and beyond: (1) the imperative need to embed appropriate technology into learning and (2) the urgency to bridge educational divides that currently exist, and could further be exacerbated with a shift in education approaches. However, opportunities to learn within the homes are also limited, given that a parent's ability to produce educational support to their children will be shaped by their own level of educational attainment, general literacy level, and other commitments. (<https://media.africaportal.org>)

Electronic learning

Electronic learning or e-learning as popularly called has been variously defined by various authors/scholars. As the name sounds, electronic learning is learning via electronic means. E-learning involves the use of electronic media (the internet, DVD, CD-ROM, Video tape, Television, Cell phones etc) for teaching and learning at a distance. In the views of Parks (2013) the word "e" should refer to "everything, everyone, engaging and easy" in addition to "electronic". (Parks, E. (2013) *what's the "e" in e-learning?* Askinternational.com). E-learning according to Timothy, Ibrahim, Femi (2008) is the use of electronic technology to deliver education and training applications, monitor learner's performance and report learner's progress. Hedge and Hayward (2004), defined it as an innovative approach for delivering electronically mediated, well-designed learner centered and interactive learning environments to anyone, any place, any time by utilizing the internet and digital technologies in concern with instructional design principles. It is all about learning with the use of computers. Learning with the use of computer is simply online ways of acquiring knowledge through the internet or through the offline-CD-ROM. The online involve the use of internet Explorer/Navigator. It may be in form of audio, visual or audio-visual. Thus, the convergence of internet and learning or internet enabled learning is called e-learning.

The applications and process of e-learning include computer-based learning, web-based learning, virtual classroom and digital corroboration where contents is delivered via the internet, intranet/extranet, audio and or video tapes, satellite, TV and CD-ROM. It is a truism that information and communication technology and its use have impacted on the way learners and educators acquire and deliver information, hence computer has made tremendous impact in enhancing learning.

The term e-learning connotes electronic method of learning which is associated with computerized learning in an interactive interface at the convenience of both the learners and lecturers. E-learning in the views of Eze, Bello, Chinedu-Eze (2018) is concerned with the holistic incorporation of modern telecommunication equipment and ICT resources into the education system. Several e-learning platforms have been adopted by universities and they include zoom, Microsoft teams, google hangout (met), skype, google classroom, Adobe Captivate, Elucidat, video lessons, massive open online courses (MOOCs) and broadcasts through radio and television. The success of these recommendations hinges on the use of high technology or low-technology solutions which are based on the reliability of local power supply, internet connectivity and digital skills of teachers, parents and caretakers. Once synonymous with distant learning, e-learning has quickly evolved to include not only courses that are taught online and cover a distance, but also to include traditional “brick and mortar” courses that have been enhance with electronic elements.

The development of e learning in Nigeria could be traced back to the development of telecommunication which began in 1886 when e cable connections was established by the colonial masters between Lagos and colonial office in London to transmit information and receive feedback. By 1893 all government offices in Lagos where provided with telephone services for easy communication and later other parts of the country were provided with telephone services. In Nigeria schools the commonest type of e learning adopted is in form of lectures note on CD ROM which can be played as at when the learners desires. The challenge of this method is that the numbers of students per computer in which these facilities are available are un-interactive as compared to when lectures are been received in the classroom. E-learning has greatly matured over the last couple of years and many valuable lessons have been learnt along the way.

Electronic Learning and its Justification

Globally, the education sector is seen to be shifting towards e-learning in order to cushion the effect of COVID-19 pandemic. Virtual interactions are increasingly adopted to replace face-to-face engagements and limit the total disruption to many sectors. Although this decision came as a shock to many educational institutes as many of these institutions were not prepared for the sudden disruption, others have seen it as a step in the right direction. Electronic learning brought distance learning through adopting multiple learning modalities such as television, radio and SMS-based mobile platform. Hence, introducing innovative technology into classrooms could help in improving learning outcomes across the board. With over 80% of the adult population having access to radios and phones it would be possible to reach most children left behind with targeted instructions via these media.

Other benefits of the e-learning in the views of Adeboye and Adanikin include better context delivery, interactivity, quality content delivery and confidence of both learners and lecturers in

the educational sector. According to them, the e-learning system will completely reduce the issues of insufficient classrooms for lectures, as students can easily take the lectures online without any disruption at their convenience. It provides a platform for students to interact with themselves through the discussion forum which eliminates the barrier of non-participation. The knowledge of e-learning will expose both lecturers and students to the reality of the world outside the classroom since the world is a global web.

Akorful and Abaidoo (2014) discovered that the cost benefit of e-learning in training students is less than that of physical (face-to-face) contact. Almost all the private universities have also embraced the e-learning platform to continue with the academic calendar due to the financial commitment to their workforce as shutting down will bring about difficulty in revenue generation. Also, it is important to note that learning online can be more effective in a number of ways especially for those who do have access to the right technology. (www.weforum.org). As added by Horton (2001) e-learning gives learners an opportunity to broaden their knowledge because they can learn on their own and that increases learner level of confidence and independence.

Furthermore, e-learning is considered to be adequate method for the training of human resources of contemporary organizations and enterprises due to the advantages it offers. Moses (2001) noted that e-learning offers a powerful alternative to traditional form of learning that has worked for many centuries, perhaps as importantly, it has forced us to rethink our working environment, what we need to learn, why we need that learning and how we go about measuring success. In some ways, that success may be as important as the new form of learning implementation. Just as changes in commerce have forced corporation to evaluate how they convey and add to their core capabilities to produce goods and services, so e-learning now offers a chance to rethink learning in many other sectors of society.

E-learning is the best alternative to solve the problem of access to a tertiary education in Nigeria. ICT'S in education offers students considerable benefits including increase access to learning opportunities, convenience of time and place, making available a greater variety of learning resources, improve opportunities for individualized learning and emergence of more powerful cognitive tools. Some schools were able to fully rely on their e-learning programmes as the COVID-19 pandemic forced schools into indefinite closure in many parts of the world and that is the beauty of technology – the flexibility and options it provides. The same video can teach millions of people very easily and there is no limit to how many people can take part or benefit from your online course. These new technologies allow for more flexibility in learning and wider reach for education in many countries worldwide.

E-learning also creates room for blended learning. Blended learning like the name suggests is a mixture of traditional face to face teaching with online lessons in the form of videos and

notes. The obvious advantage of this is that it combines the benefits of both types of learning into one super-effective form. In this way students can watch video and learn at their own pace before a class and then when they attend the class, they already have a good understanding of the topic, so the teacher is simply brushing up the rough edges. Many schools are having success using this approach to improve the quality of education they deliver. Perhaps, successfully completing online or computer-based courses builds self-knowledge and self-confidence and encourages students to take responsibility for their learning.

Electronic learning problems and challenges

The electronic learning platform has various problems associated with it even though it was the only option during the COVID-19 era. The COVID-19 pandemic is revolutionizing digital and online education globally but kids in rural and underserved communities are being left behind, as they are not equipped to adapt to the new methods of learning. While several private schools have begun to initiate distance learning programs and taking advantage of the myriad of ICT learning opportunities provided by the international community, the government limited by funds and persistent deficiencies in planning, is yet to announce any official plans for providing distance learning opportunities especially for public schools. The implication being that these students in public schools currently have no formal learning plans and could be missing learning altogether. In Nigeria, the reality is simple because it implies that majority of students will not be learning while the school closures are necessary to curtail the spread of the COVID-19 virus, until the ban on movement is lifted and schools are reopened, Therefore, the adoption of e-learning during the Covid-19 pandemic has exposed a lot of lapses and gaps to be filled in the Nigerian educational system.

Other challenges include the varying degrees of preparedness of the institutions, lack of infrastructures, paucity of funds, poor budgetary allocation, corruption are contributory factors to the inability of many public tertiary institutions to embrace e-learning during the global covid-19 pandemic in Nigeria. The constraints in the full actualization and utilization of these e-learning platforms are due to the dynamic Nigeria environment. The unstable poor power supply has caused a major setback in technological advancement of many universities in Nigeria. Most rural areas in Nigeria where some students are resident are not connected to the national grid and as such, these students tend to experience difficulty in utilizing the e-learning platform effectively. In some cases, the internet service required to connect to this e-learning platform sometimes requires a lot of data. The cost of purchasing the data bundles in the views of Adeboye (2020) is so high and may be difficult for both students and lecturers. Furthermore, poor Internet connectivity has resulted in low attendance of students during the online classes. This low online class attendance has also been linked to the poverty situation in the country as some families and students might not be able to afford basic needs such as food and clean water let alone the expensive gadgets or resources to sustain them for online learning. The cost of accessing internet is still very high in Nigeria. Most students make use of cybercafé who

charges between #1000 and #1500 per hour despite their poor services and slow rate of their server.

Moreover, the cost of a personal computer (PC) and laptops are still very high in Nigeria considering the income level of an average worker in the country. few students that are privileged to have a PC/laptop are not connected to the internet as this do attracts extra cost which they cannot afford. Another challenge is technophobia, it is a reality because most of the student have no computer education background, hence they are afraid of operating one, some go the the extent of hiring experts at a cost to fill the admission, registration and other documents meant for them to fill online. In some cases, it is right to say that the very few who have access to the computer do not know how to use it and maximize its usage. Apparently, in developing countries, the application of electronic learning (e-learning) in the educational system is yet to gain much grounds and the infrastructure like the availability of electricity, computers and internets is not yet fully in place to enhance the e-learning project.

Coronavirus and education

The ripple effect of this pandemic has been felt by both the educators and students in primary, secondary, colleges and universities as academic sessions were disrupted after the coronavirus was declared a public health emergency. This has left many students and educators in a rude shock as some of these institutions were at the point of preparing for examinations, admitting of freshmen, beginning of a new semester, amongst others. (UNESCO 2020).

The Coronavirus pandemic has exposed the huge socio-economic inequalities in the Nigeria education system. One major issue that may stem from this inequality is that these children who currently cannot keep up with their peers because of inaccessibility to digital tools may never catch up and will continue to fill the effect of this gap, long after the pandemic is over. This pandemic lured many wealthy families in Nigeria to send their children to private schools given the poor resources and facilities in public schools. While learners from vulnerable and disadvantaged communities without access to computers and other devices outside school were left struggling. Inevitably, this digital divide will exacerbate learning disparities among these children.

In Nigeria, some state governments made a lot of efforts to ensure learning continuity. For instance, Kwara and Lagos states use local media channels such as radio programmes to reach out to learners in remote communities. But some youth and adult learners in the system are deprived access to schools and have very limited alternative learning facilities during the pandemic despite their efforts. Hence, it brought further deterioration in facilities and capacities for the delivery of quality education. The other ugly story has it that if there is no effective response, the impact of COVID-19 will further aggravate the already weakened Nigerian education sector which lacks required resilience.

Way forward

In order to promote electronic learning, and then put an end to the gap created by schools' closure during the COVID-19 era, the following solutions were proffered:

- a. There should be a great demand for the use of distant learning programs, open educational applications and applications and platforms by schools and teacher to reach learners remotely.
- b. To curb further widening of the existing education inequalities, there is an onus on the Nigerian government to put in place measures to ensure continuity inclusion and equity for all learners during this pandemic. In China for instance, governments provide computers to students in low-income households and offer students mobile data packages and telecommunication subsidies. In France, efforts are being made to lend devices to learners who do not have access to computers. Similarly, Portugal is partnering with the post office to deliver worksheets to students who do not have access to internet at home.
- c. The government should also partner with telecommunication companies to offer free or subsidised mobile data packages for learners.
- d. It is important that all learners participate in an inclusive arrangement, irrespective of their locations, access to internet and socio-economic background. (*Covid-19 Guideline Safe Reopening*)
- e. PPPs (Public-Private Partnerships) can do much to improve the quality of and increase access to education for poor children in underserved communities.
- f. Conscious effort is also required to bridge the digital divide by ensuring that the cost of technology adoption is low.

Conclusion

The electronic learning platforms have the simplest answer to the problems associated with the disruption of the school calendar by the COVID-19 pandemic. Hence, the government should infuse more monetary resources in Nigeria's educational sector so that its institutions can compete globally. They should also work with the private sector and the civil society to ensure affordable and sustainable access to ICT infrastructure. In all, schools should have at least a basic e learning infrastructure in place because education is too essential to be left to chance like this again.

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