

## ONLINE LEARNING, A PANACEA TO POST COVID-19 PANDEMIC FOR TEACHERS IN NIGERIA TERTIARY EDUCATION

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### **Abstract**

*COVID 19, pandemic created the largest disruption in education system, in human history. This has brought far-reaching changes in all aspects of our lives. All public and private schools had to shut the doors of their schools following government directives. The pandemic unmasked substantial inequalities in the educational sector. Some institutions engaged their students through online teaching, a large number of students who are less privileged or are in rural areas were left out. The pandemic affected all levels of the educational system, from pre-school to higher education. The need of the hour is to innovate and implement alternative educational plan and assessment strategies. The COVID -19 pandemic, provided us with an opportunity to pave the way for introducing digital learning. The paper provided answers on how governments and institutions of learning in Nigeria scaled up teaching and learning to make up for the disruption and strengthen education. How tertiary education can build the systems and processes for lifelong learning and what government can do to prepare teachers to meet the challenges of the 21<sup>st</sup> century and create a sustainable educational infrastructure that is resilience. Hence the need for this paper.*

### **Introduction**

Distance and online learning have been embraced globally. There is now the advocacy for open and distance learning. Open and distance learning (ODL) can be a key feature for fast tracking the transformation of education for the

future. This future must be based on the principles of equity, inclusion and environmental conservation where the role of ODL will be more important than ever before.

Covid-19, has had a significant impact on education and training. To build the resilience of education systems, innovative approaches will be required. Innovations relate not just to technology but to developing appropriate models, methods, policies and processes. During the COVID -19, pandemic, all stakeholders responded to the crisis with a sense of urgency and tried to develop solutions appropriate to their contexts. The need of the hour is to innovate and implement alternative educational system and assessment.

The COVID-19, pandemic, provided us with an opportunity to pave the way for introducing digital learning. The first case of COVID-19, was reported in Nigeria by the Federal Ministry of Health on 27<sup>th</sup> February, 2020. This was the case of an Italian citizen, who works in Nigeria and returned from Milan, Italy to Lagos, Nigeria on the 25<sup>th</sup> of February, 2020. Then, was confirmed cases of infection both in Nigeria and across the globe. Nigeria placed a travel ban in some countries with high cases of the virus. On 11<sup>th</sup> March, 2020, World Health Organization (WHO) declares COVID-19, a pandemic.

However, COVID-19, pandemic, ravaged the globe thereby interrupting the educational processes in several ways, it led to closure of schools which caused serious drawbacks for learners and deprived them of their right to education and positioned them to future risk.

As part of measures to contain the spread of COVID-19 in Nigeria, the Federal Ministry of Education, through the Permanent Secretary in the Ministry, on 19<sup>th</sup> March, 2020, ordered the immediate closure of tertiary institutions, secondary and primary schools across the nation over the outbreak of the disease in the country. Restriction was placed on inter-states movement, market places were locked, religious gatherings of more than ten persons were banned, and social activities such as parties, ceremonies and club meetings, were placed on hold.

All public and private schools had to shut the doors of their schools,

following the government directive. The pandemic, unmasked substantial inequities in the education plan. While some private schools in urban areas engaged their students through online teaching, a large number of students who are less privileged or in rural areas were left out. Most schools lack facilities which could have helped them to partake successfully in online teaching. Research highlights some weakness of online teaching infrastructure, to include the limited exposure of teachers to online teaching, the information gap, non-conducive environment for learning at home, equity and academic excellence in terms of higher education.

### **COVID-19 Education Disruptions:**

The importance of education for the economic, social and moral development of nations cannot be under-estimated. It is of significant concern that education at all levels was threatened during the emergence of the novel corona virus disease. The corona - virus disease is a highly infectious disease that plagued the world population for over two years. The disease spread through droplets (World Health Organization, 2020) and affected more than 9.1 million persons, and resulted in about 473,000 deaths world-wide (Aljazeera News, 2020). As a result, countries relied on several containment measures, including a range of physical and social distancing measures to flatten the epidemiological curve 'and avert morbidity and mortality. Different countries engaged in various measures to implement physical distancing, such as complete closure of the economy, including educational institutions. The pandemic affected all levels of the education system, from pre-school to higher education.

School closure was intended to control the spread of the virus within schools, prevent carriage to other vulnerable individuals, and sustain public health; these closures had widespread socioeconomic impacts. The far-reaching effects of social/physical distancing and the associated lockdown measures, as well as school closures, thwarted the educational plan and left an indelible mark on the education system (Impey, 2020; Yinka & Adebayo, 2020; Nicola et al., 2020). Over 188 out of 195 countries implemented nationwide school closures and restricted education facilities

(UNESCO, 2020). It was estimated that more than 1,576, 021, 858, which constituted about 91.3% of all the learners across the globe, were affected by the closure of educational institutions (Brown et al., 2011; UNESCO, 2020).

Apart from the impact on learners, school closures have high economic, health and social costs. Timely responses were in place in most countries, with regard to online learning before the pandemic (Crawford et al., 2020). Researchers have shown that the pandemic, has posed significant challenges to education in many countries. Hence, it is expected that the pandemic would have a more adverse effect on schools that had no online learning platforms before the pandemic.

The indirect effects of the pandemic include disrupted schooling and lack of access to school. The impact of COVID-19, was a threat to education given that educational systems have been working on substandard platforms. It was a challenge in overcrowded resource constrained schools to provide a safe learning environment for students (Zar et al., 2020). The pandemic has a peculiar dissipating impact on education in Nigeria through decreased level of education, it broadened existing divide in learning access and outcomes and increased school dropouts.

In Nigeria, the threat posed to education was compounded due to peculiar vulnerabilities, such as: poor health systems, poverty and inequality, hunger, internally displaced populations, high population densities, urban-rural divide and out-of-school population (Obiako & Adeniran, 2020). Prior to COVID-19, Nigeria accounts for one in every five of world's out-of-school children. About 10.5 million children aged 5-14 years in Nigeria were out of school, and only about 61% of 6 to 11-year-old children receive primary school education on a regular basis (UNICEF Nigeria.). Hence, while Nigeria is battling with underlying education challenges that have kept the country behind in getting young people ready for the dynamic workplace, COVID-19, impacts further exacerbated this problem.

### **How Nigerian Government Scaled up Teaching and Learning to Make Up for the Disruptions and Strengthens Education: Its Challenges**

Following the COVID-19, pandemic, all schools in Nigeria were closed from 27th March, 2020, as one of the Federal Government measures to limit the spread of the disease. This translated to a contextualized state-wide school closure across the 36 states in the country. In response, different States' Ministries of Education released modalities for radio and TV schooling and internet-based learning for students in public primary and secondary schools. COVID-19, pandemic revolutionised digital and online education globally, primary and secondary school learners in rural and under-served communities remain behind due to lack of skills and resources to adapt or transition to the new learning avenues.

University students who may have the skills to undertake internet-based learning face poor internet infrastructure and a lack of reliable electricity. Thus, learning remotely, (including, TV schooling, and online learning apps for primary and secondary learners, virtual libraries and online classes in the universities) was practically not feasible in most Nigerian communities. Poorly resourced institutions and socially disadvantaged learners where limited access to technology and the internet, as well as students' inability to engage in an online environment, undermine Government response (Zhong, 2020).

Obiako and Adeniran, (2020), found that the pandemic, impacted education in three major ways, with missed learning for the majority of the pre-pandemic students, loss of access to vital school-provided services and leaving more children behind. These impacts widened the gaps in education quality and socioeconomic equality following the school closures in the country. A lesser percentage of learners who are in the urban areas, who hail from higher-income families, stand more chance to access education during school closure through technology leaving behind the majority of learners from poor homes and underserved rural and suburban areas of the country (Zhong, 2020).

Learners in schools that lack the resources or capacity to transition to online delivery missed learning (Leung & Sharma, 2020). Learning within the homes could be a challenge or present challenges for learning. Such depends on parent`s educational attainment and other commitments, leaving a greater percentage of the learners population behind. These problems constituted considerable concerns from all stakeholders in education. Even though most states in the country tried 'responding through radio and television, a good fraction of the learners still experienced some challenges in their education.

Further, to the best of researcher`s knowledge, no study has investigated the impact of COVID- 19 on education with particular reference to tertiary education in Nigeria. Therefore, this study was how governments and University of Lagos, Nigeria, scaled up teaching and learning to prepare lecturers to meet the challenges of the 21<sup>st</sup> century.

### **Importance of the Study**

A study of this type is timely and valuable as the Post -COVID -19, effect is still lingering. It is called the attention of the government and the examination bodies, and all stakeholders to the harm caused by the school closures. The study will be useful for planning education beyond this Post-COVID-19, period. It is expected that the study will guide teachers and schools on how to operate in a critical and unprecedented times.

The study will be of immense benefit to the government, examination bodies, educational planners and all stakeholders to put into consideration the need for online schooling during this Post- COVID 19. The study will enable the stakeholders to plan for the purchase of ICT devices in schools, the training of personnel and logistics to enable continuing learning and beyond.

In addition, it will be a platform for ministers of education, government officials, academics, teachers, administrators, and representatives of civil societies to develop a roadmap to rebuild our education systems and make

them resilience to future shocks. It will be a platform for reflections and discussions on reimagining education systems to foster lifelong learning and empower people to make life choices and improve their livelihoods. Such systems will be based on innovative uses of technology for teaching and learning, and ethical practices for equity and inclusion.

### **Impact of COVID-19, Pandemic**

- 90% of schools closed (UNESCO) - It was remote learning.
- 94% of global workforce affected by workplace closures due to COVID – 19 – remote working.
- Teaching, learning, working from home requires reliable and affordable internet connection, and digital skills.
- But, 44% of the world population was offline – even where connectivity is available.
- Heightened use of technologies and increased provision of the requisite infrastructure which is pivotal for moving forward in higher education enterprise.
- Enhanced awareness of the need for health and safety and increased frameworks and guidelines to assure these.

### **University of Lagos Innovative Approaches to Reach the Learners**

- University ensured all staff and students generated new access credentials through the email services platform.
- All staff and students institutional email is active without which they will not be able to access the email services portal. It is termed “INFORMATION ON UNILAG WIFI ACCESS CREDENTIALS”
- Academic staff was engaged in computer appreciation virtual training. It covered the use of Microsoft PowerPoint preparation for lecture, use of Spreadsheet for result processing, creating of zoom meeting for virtual lecture and the use of branded Unilag Powerpoint.

- University put in place a Learning Management System (LMS) for learning continuity during the pandemic. The LMS supported both synchronous and asynchronous learning mode.
- Academic staff enrolled in the “LMS Tutorial” course which contains self-paced learning modules created to facilitate quick mastery of the LMS.
- Series of virtual training sessions was scheduled for real-time training of academic staff on the use of the LMS.
- UNILAG enrolled students on the LMS to ensure that students fully participated in the online learning.
- Tutorial course were created for easy downloading of the applications (ExamView and MoodleXMLBuidler) for structured questions.
- The Zoom recordings of training were included on the LMS tutorial course page.
- In view of the problems being encountered by staff and students in conduct of tests and quizzes, CITS was informed twenty- four hours before test. They synchronize the examiners and reduce congestions on the platform.
- Classes with more than two hundred students have the test spread over more than five hours or conduct the test in groups to give enough hours. This is to bear in mind that congestions build when everyone tries to log in at the same time.
- Examinations were both Physical and Online. The examinations (online & physical) were conducted seamlessly. Adequate arrangements, in line with COVID-19 protocols.
- The online examinations were recorded and monitored in line with best practices.

- All issues arising from the online examinations were reviewed and genuine cases rescheduled within the examination period.
- University was responsible for data for the conduct of the online examination.
- University distributed licence accounts to members of academic staff, key admin units and research groups.
- Zoom Video Communications. University of Lagos, add all academic staff into their Zoom account and allocated a zoom license.
- Each lecturer sent the created meeting links to students and pastes it in the course page on LMS to join the lecture.
- The recorded lecture video or webinar is given to the students and pasted in the course page in LMS.
- Statistics of courses with contents in LMS is usually taken.
- The work plan is pasted on LMS; the links on needed study materials/textbooks is given.
- We Create YouTube link using the unilag google email for classes above 300 students and paste the link on LMS. We STREAM LIVE FROM OUR ZOOM CLASSROOM TO YOUTUBE.
- First week of virtual lecture, we void any test so as to study traffic.
- We fill google form before conducting online test.
- CITS is always available for synchronous lecture delivery, should the case of no Internet.
- University approves the conduct of online tests using the platform that was used for examinations.

- To improve the integrity of all tests, the test is proctored by the lecturer(s) of the concerned department.
- The LMS was used As the OFFICIAL LEARNING MODE.
- The LMS platform is always active. Continuous assessment for all courses which could not be scheduled via the google form can be conducted on the LMS platform.
- Training for all University of Lagos Students on Coding and Graphics Design was conducted.
- University enlightens the UNILAG community on methods of taking effective care of their Information Technology assets - hardware, software, user files and accounts - thereby avoiding avoidable loss or damages.
- Sessions were held periodically and recorded on the designated CITS YouTube channel for subsequent access and/or reference.
- UNILAG hosted Virtual Graduate Student Conference using an innovative virtual platform, which provided students with an excellent opportunity to network virtually with each other, and established researchers from some top universities.
- On a Final note, academic staff was taught on SELF-ARCHIVING PROCEDURES ON UNILAG DIGITAL REPOSITORY.

Questions that were addressed:

**How Tertiary Education can Build the Systems and Processes for Lifelong Learning that are Financially Sustainable to Educate and Skill a Large Number of People?**

The COVID-19 crisis has forced education systems worldwide to find alternatives to face-to-face instruction. As a result, institutions should adopt online teaching and learning on this unprecedented scale.

### **Institutions Key Priorities and Future Direction:**

Information and communication technologies (ICT) - particularly the Internet – have opened up new possibilities for learning and education, in particular to those excluded from, and left behind by, traditional education practices and during these pandemics. Hence,

- Institutions should enhance the use of modern learning technologies.
- Lifelong learning systems should strive to enable all learners to use these technologies for learning and self-empowerment.
- Educational institutions should train administrators, teachers and educators to use technologies which enhance learning.
- Institutions should expand learners' access to ICT tools and learning programmes; and develop quality e-learning resources.
- Learning should coincide with the four pillars of education; learning to know, learning to do, learning to live together and learning to be. In the context of ESD, UNESCO (2008) which suggested the inclusion of a fifth pillar: learning to transform oneself and society.
- New teaching/learning approaches that enable the development of critical and creative thinking should be integrated by the institutions.
- Institutions should expand infrastructure, ensuring that nobody is excluded from online lessons, and support students and teachers to use online tools and technologies in an effective manner.
- Institutions should promote the transformation of existing education systems into a structure based on lifelong learning.
- The work of higher-education institutions must be relevant. What they do, and what is expected of them, must be seen as a service to society; their research must anticipate social needs; and the products of their research must be shared effectively with society through appropriate knowledge-transfer mechanisms.
- Teachers need support to rapidly adapt their instruction practices to distance learning, whether regular or ad hoc. (Vincent, 2020).
- Institutions should deliver high-quality online classes by providing home schooling broadcast on television or social networks.
- Institutions should collaborate with teachers and educational experts and provides daily lessons to learner's, with videos and interactive

activities aimed at keeping up students' motivation and stimulating their socio-emotional skills (Van, 2020).

- Education systems should strengthen school-parent engagement in order to provide appropriate information and guidance to parents on effective practices for supporting their children's learning. By having Educational TV Channel, which delivers high-quality educational material tailored for different age groups and provides a way for parents to connect with schools.
- Institutions should provide information to parents on how to effectively support their child's learning to improve educational outcomes, both during a lockdown and in normal times.
- Institutions should provide resources aimed to develop disciplinary technical skills as well as creativity, critical thinking or social-emotional skills.
- Institutions must focus on bridging the gaps in: digital infrastructure (connectivity, devices and software); human infrastructure (teacher capacity, student skills and parental support); and) logistical and administrative systems to deploy and maintain tech architecture.
- Provision of platforms for globally networked research to improve quality of teaching and learning.

### **What Government can do to Prepare Teachers to Meet the Challenges of the 21<sup>st</sup> Century and create a Sustainable Educational Infrastructure that is Resilient in the Face of Pandemics?**

- The government should identify the affordable connectivity, device procurement, cloud solutions and multi-modal delivery of education.
- Government should think about a dual role for remote learning: as an insurance policy against future calamities especially in a world experiencing climate change as well as a way to reach out of school children and provide a lifelong education to all citizens.
- Government should explore teachers' competency frameworks, teacher networks, and communities of innovative teachers to support government to empower teachers.

- The World Bank should support countries to define 21st century competencies in students and teachers; explore ways to more effectively measure their skills and accredit these skills in collaboration with external partners sharing knowledge and experience in communities of practice on hard to measure skills and blockchain for education.
- Government and institutions should focus on the social aspects of technology to enhance connections from a distance. Much attention must be directed on how technology will enhance teaching and learning in a blended learning environment reaching students, both in school and at home.
- Government provision of ICT policy for accelerated development and
- Policy makers should engage with partners in private sector, non-governmental organizations and academia to craft the assessment approach that matches the country`s needs and goals.

### **Findings of the Study**

The findings of the study revealed that:

- The outburst of COVID -19, pandemic, affected teaching and learning in Nigeria tertiary education.
- A lot of challenges were faced while transitioning to remote or hybrid teaching during the pandemic.
- Due to the COVID- 19, pandemic, there was a significant increase in students learning loss.
- The difference in educational resources between the urban and rural areas was a challenge to effective education during COVID-19, school closure.

### **Conclusion**

The paper investigated online learning, a panacea to post COVID-19, pandemic, for teachers in Nigeria tertiary education. Many students could not afford devices for online learning during the COVID-19, pandemic. COVID - 19, pandemic, reduced the chances of many students from participating in their practical activities in class. Many staff and students did

not have access to power during COVID -19, school closure, interaction with students in online classes were lower than in face -to face teaching. Many could not participate in the online class as a result of poor network and many students and teachers who had devices could not operate them as a result of lack of training.

However, in University of Lagos, staff and students were trained in the use of online computers programmes. Internet service was provided by the university for online teaching and learning. Staff and students have their learning devices for online teaching and learning, hence, provision of ICT facilities for accelerated development for online teaching and learning.

### **Recommendations**

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

1. The pandemic has made online learning a new way to complement the conventional way of learning and teaching in the Nigeria tertiary education. Therefore, facilities for the online teaching and learning must be put in place in all tertiary education.
2. The challenges experienced during the pandemic should be improved upon to promote the online teaching and learning processes for better performance.
3. Institutions should expand learners' access to ICT tools and learning programmes; and develop quality e-learning resources.
4. Educational institutions should train administrators, teachers and educators to use technologies which enhance learning.

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