



Online learning environment as a solution for smooth academic activities during pandemics in Nigeria

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Abstract

The unprecedented COVID-19 out-break has instituted reforms and what could possibly be a paradigm shift in the educational sector globally. This is because of the early precautionary steps taken to contain the spread of the COVID-19 in most countries (if not all) which includes lockdown and temporary closure of schools. Thus, prompting the urgency for an alternative approach to cope with the effect on the educational system. Lucidly, the pandemic has revealed emerging vulnerabilities in education system to which society needs to work towards putting in place flexible and resilient education systems due to unprecedented events. The effect and gap is much wide in developing countries like Nigeria which has poor and inadequate online facilities especially in the public institutions instigated by inadequate access to devices, lack of constant power supply, and high cost of reliable internet. Consequentially, little could learn with an impromptu strategy or plan. In the light of the above, the current study adopts an exploratory method in order to appraise the effect of pandemic outbreak on academic activities, though it becomes relatively early to conclude on the long run effect of the pandemic on the education sector. The study also reviewed the strategies adopted by most advanced countries and lastly outlined the lessons to be learnt by Nigeria. Amongst the conspicuous one is the integration of information technology in the education system and transition to digital platforms for learning (online/e-learning).

Keywords: Covid-19, Education online learning, Pandemic, ICT, Nigeria

1. Introduction

The Coronavirus disease popularly known as (COVID-19) was first observed in Wuhan China in December 2019. The coronavirus disease is an unprecedented event that has affected virtually all aspects of human life and livelihoods globally. This prompted the World Health Organization (WHO) to pronounce the disease as a pandemic in March, 2020 due to the heavy toll it has already taken on most countries. The COVID-19 pandemic has spread over 215 countries across the globe with many of them having no option but to face lockdown. The pandemic has also forced many schools, colleges, and universities to discontinue face-to-face teaching in order to contain the spread of the virus.

Undoubtedly, it is revealing to note that the effect of the pandemic has been felt by educators and students in primary, secondary, colleges and universities as academic sessions were disrupted after the coronavirus was declared a public health emergency of international concern. This situation has left many students and educators in a dilemma as some of these institutions were preparing for examination, planning of fresh admission, and to commence a new semester, amongst others (Adeoye et al., 2020). Furthermore, the pandemic has necessitated the closure of academic institutions and schools in over 153 countries affecting about 91% of the world's student population (UNESCO, 2020). Indeed, the COVID-19 pandemic has shaped a new normal for the education



system, particularly the higher education sector across the globe from transforming the online learning platform, restructuring application processes, and stimulating crisis management strategies. To this effect, the role of Information Technology (IT) became more prominent during and after the pandemic.

It is worthy to note that the COVID-19 outbreak has made the relevance of online education and distance learning so glaring, although just a handful of the World's education are taught online. Eduventure (2019) pointed that in the United States of America, only about 15% of undergraduate students are enrolled for online education and distance learning. The nature of disruption encountered due to the virus are enormous. For instance, developed economies such as Canada, United Kingdom and United States have experienced a drop in their educational return as foreign students were forced to make decisions to either quit their studies or halt their studies for the time being. Intuitively, the pandemic has ensued in an obvious severe implication on schools and institutions that lack the online learning platform.

In addition, just like other developing countries, Nigeria have taken its share of the effect of the pandemic on many sectors of its economy. This is evident in the Nigeria educational sector as the Federal ministry of education was forced to halt the academic session in all schools at all levels as well as put on halt national examinations to curtail the spread of the virus in educational institutions. Although, this decision came as a surprise to many educational institutions as many of them were not prepared for the sudden disruption, while others have seen it as a step in the right direction. From the backdrop, it is clear that the pandemic has no doubt affected student's academic pursuit and educational institution's academic calendars. The challenge now is what is the way out especially for public

institutions in Nigeria which has poor and inadequate online facilities instigated by inadequate access to devices, lack of constant power supply, and high cost of reliable internet.

2. Approaches employed during Covid-19 Pandemic on educational activities

Academies were faced with tough challenges resulting from disruption in the educational system occasioned by the COVID-19 pandemic (Theoret & Ming, 2020). Thus, there is strong tendency to probe for opportunities to adopt new techniques suitable for the generation of learners at the present time. Many countries of the world are being compelled to shutdown schools to curb the spread of the virus. Additionally, the COVID 19 guidelines formulated world over which captures social distancing also contributed to the disruption being faced.

Consequently, international organizations started paying particular attention to the UNESCO document on Education Response in Crises and Emergencies. UNESCO stated within the Education 2030 Incheon Declaration and Framework for Action that countries should "Provide alternative modes of learning and education for children and adolescents who do not seem to be in education institutions, and make provision for equivalency and bridging programmes, recognized and accredited by the state, to make sure flexible learning in both formal and non-formal settings, including in emergency situations" (Huang et al., 2020). Arguably, within the emerging and ever-changing COVID-19 context, many countries affected either halt academic activities physically or take the choice of moving towards online and remote learning.

Successively, the Chinese Ministry of Education has launched an initiative entitled Disrupted Classes, Undisrupted Learning to deliver flexible online learning to many millions of students from their homes (Huang et al., 2020). The rapid evolution of Information and



Communication Technology (ICT) and the increasing complexity that comes with its exploding potentials explains why integration of technology in education continues to receive special attention particularly, in wake of COVID-19 pandemic. Additionally, China initiated a Suspending Classes Without Stopping Learning policy in order not to compromise learning at any time during COVID-19 pandemic lockdown (Zhang et al., 2020).

In the same vein, New York University Shanghai and Duke Kunshan University offer instances of successful adaptation and rapid deployment of educational technology products, like the video-conferencing platform, Zoom and Moodle. Significantly, these universities had existing experience with these technologies that they were capable to expand, they were not ranging from scratch with new and untested technology solutions (Czerniewicz, 2020). Likewise, some schools in Australia have struggled with accommodating the rapid switch to online learning. In like manner, institutions have rapidly innovated and implemented online learning, due partially to established familiarity with the required tools, teaching approaches and considerations with online learning. This has resulted in less disruption for several students unable to return to physical classes.

In addition, Italy was the paramount European Union (EU) member state to shut its universities and move courses online before the whole country was placed under quarantine. Thus, the University of Bologna extended deadlines for tuition fees and distributed free Subscriber Identity Module (SIM) cards to students without access to internet. Similarly, Denmark, Greece, Ireland, Hungary, and Poland have followed suit and suspended face-to-face teaching in all its universities. Notably, in Romania, after the government closed all schools, several universities moved their courses online as a precaution. Since social distancing is as important as being locked

out, universities across Europe are scrambling to set up technical systems needed to transfer courses, exams, researches, and other activities online. The University of Warsaw has cancelled all lectures and classes unless conducted online. By the similar token, Belgium has decided to move lectures online to the extent possible and cancelled large-scale events. Staff members are requested to work from home considerably. Literature reveals that universities globally are assuming responsibility in order to hinder further spread of the Coronavirus. As Czerniewicz (2020) pointed out, the change is inevitable as the current COVID-19 situation demands it for the safety of students and the teaching staff.

One important aspect of these policies is that it tends to be all inclusive. Notably, governments of some advanced countries have taken measures to mitigate the gap between the less privileged students and the privileged students. Take for instance, in China, the government has provided computers to students from low-income households and subscribed mobile data packages and telecommunication subsidies. In France, efforts are being made to lend devices to students who do not have access to computers. Similarly, Portugal is partnering with postal services to deliver working sheets to students who do not have access to internet at home.

The situation is different for Nigeria, of which the Federal Ministry of Education announced the temporary closure of all schools to further contain the spread of the virus. Conversely, considering the state of the Nigeria's education sector, pertinent questions arose: Do schools in Nigeria have the technology to cater for the affected students? Do households have the facilities to involve their wards in remote learning? Do teachers have the requisite skills and resources to deliver lessons with the tools of technology? Unlike other countries, the Nigerian Federal Ministry of Education's school-closure directive provided no clear-



cut policy measures on how to mitigate learning disruptions for students or ways to address the digital divide. However, students belonging to the higher socio-economic spectrum may experience less disruption to their learning because the private institutions are well-equipped with ICT infrastructure to which they can afford remote learning resources reception unlike their counterparts in the public institutions. Worse still, the majority that would be left struggling are students from vulnerable and disadvantaged backgrounds, who do not have access to computers and other devices outside school and also poor or non-existent internet connectivity and unreliable power supply. Inevitably, this digital divide will exacerbate the learning disparities among students.

3. Literature Review

There is no common definition of the term online/e-learning. The concept of e-learning has been defined by different authors differently. Rossi (2009) revealed that e-learning as a concept has a variety of applications, as well as learning methods and processes. "Most of the terms (online learning, open learning, web-based learning, computer-mediated learning, blended learning, m-learning) have in common the capacity to use a computer connected to a network, that offers the likelihood to learn from anywhere, anytime, in any rhythm, with any means" (Cojocariu et al., 2014). The term e-learning connotes electronic method of learning which is related with computerized learning in an interactive interface at the convenience of both the learners and lecturers (Adeoye et al., 2020). In a nutshell, e-learning simply implies educationally technology. Eze et al. (2018) indicated that e-learning education is concerned with the wholistic incorporation of modern telecommunication tools and ICT resources into the education system. Parks (2013) posits that the word "e" refer to "everything, everyone, engaging and easy" in addition to electronic". Some of

the online/e-learning platforms existing which are by no means exhaustive include, Zoom, Microsoft teams, google hangout (meet), skype, Bamboo learning, google classroom, Docebo, WIZIQ, Adobe captivate, Elucidat, Blackboard learn amongst others that are used for educational purposes.

3.1 Challenges associated with the adoption of Online Learning in Nigeria

The online/e-learning method of teaching has proven efficient and has been effectively utilized by advanced countries to curb the disruption caused by the COVID-19 pandemic in the educational activities. A study by Ali (2020) found that technology has an influence in conceptualizing pedagogy and practice at educational institutions. Maatuk et al. (2021) carried out a study on e-learning from students' and instructor's perspectives on using and implementing e-learning systems in a public university during the COVID-19 pandemic. Findings revealed some of the issues, challenges and advantages of using e-learning systems instead of traditional education in higher education in general and during emergency periods.

Despite the immense benefits of online learning as an alternative approach for teaching and learning, there are skepticism on whether the Nigerian educational system is prepared to include and facilitate the practice. However, some Nigerian institutions have embraced the online/e-learning platform while others are yet to, prominently the public institutions.

3.1.1. Infrastructure Support

It is pertinent to annotate that it takes ample of resources to afford well equipped and high performing facilities to offer online learning for all students at a massive level. Technological developments often outpace the ability of decision makers to consider preserving the cost and infrastructure support (World Bank, 2020b). It must be established that to deliver effective e-learning, online and blended learning there



is need to provide appropriate ICT support in terms of infrastructure and tools, with hardware and software support structure. There is no doubt that the integration of ICT as an instructional device in academic courses has escalated at a rapid rate. Subsequently universities and colleges have started implementing applications like Moodle and educational Blogs to supplement existing pedagogy and practice (Becker, 2000). Likewise, Ruzgar (2005) agrees with (Becker, 2000) that it is common in universities and colleges to provide online resources to supplement traditional teaching methods. However, students' readiness, access to technological gadgets, constant power supply, and reliable internet should always be considered. In particular, there is a need to accelerate the pace of technology iteration and optimize the technical application of e-learning education programs considering the alarming impact of COVID-19 pandemic.

3.1.2. Politics of Resistance

It is expected that the introduction of technology in education cannot be neutral by education administrators, as any change has certain extent of resistance and contention. Undue protests and oppositions during COVID-19, regarding the decision to use "online" and "blended learning" has become political and is politicized. Blended learning has been drawn into existing political agendas and extreme claims are made like one mode is superior to another (Czerniewicz, 2020). Conspiracies have increased and people with limited ICT knowledge have propelled unsubstantiated lies about online and blended learning (Zhang et al., 2020). Some people believe that face-to face mode is superior to online and blended mode of learning. Literature further entails that fake news such as inferiority of online and blended mode as compared with face-to face mode certainly infiltrates the system and further creates chaos and uncertainty. However, some administrations are arguing and discussing

on what must be done, while some have already started venturing into online learning. The World Bank believes that little attention has been paid to research in documenting and analyzing attempts of education systems moving swiftly and at scale to arrange for online learning with the closing down of schools and universities (World Bank, 2020b). Even UNESCO is mindful that transitioning to online learning at scale is a very difficult and highly complex undertaking for most educational systems, (UNESCO, 2020).

Therefore, acceptance and compliance by all stakeholders will minimize resistance and in turn will facilitate the implementation of online and remote learning in Nigeria especially in times of calamity like COVID-19 pandemic.

3.1.3. Staff Readiness

Meta-synthesis reveals that the desire to embrace change is a major requisite for successful integration of technology. Thus, it provides students opportunities to learn and apply the essential 21st century skills (Ertmer & Ottenbreit-Leftwich, 2019; Fullan, 2013; Lillejord et al, 2018). Given the relentless advent of ICT in education arena, its use in enhancing lesson delivery has been widely discussed and adopted in many academic institutions globally. Apparently, because technology acts as a catalyst and supports staff members in lesson preparation and delivery (Sadegül-Akbaba et al 2011). American Psychological Association recommended that lecturers should be encouraged to reckon implementing ICT integrated learning environment for students (Li et al, 2018). In this regard, Vrasidas (2015) is quite skeptical as institutions may have necessary ICT facilities, but there could be other shortfalls like lack of time for lesson preparation and unsupportive curriculum design. He reiterates that just having the resources does not imply that ICT can be easily implemented but there needs to be the presence of other supportive factors and one such factor is staff readiness (Vrasidas,



2015). In addition, Yunus (2007) is assertive that before ICT can be effectively integrated, lecturers should be provided with adequate training and support in ICT and pedagogy. There is no doubt that staff readiness and motivation need to be considered as important factors for the successful assimilation of technology in academic institutions. Furthermore, lack of confidence is another factor which hinders some staff from integrating technology into their teaching. In a study by Ali (2019), findings revealed that majority (92%) of staff members believed that confidence is still a factor which should be further enhanced. However, the lack of confidence could be due to the deployment of different tools and learning platforms.

3.1.4. Student Accessibility

Students of today are known by many names, like digital natives (Prensky, 2001), millennial (Howe & Strauss, 2000), net generation or igitation (Tapscott, 1998) and digital generation (Ali, 2018). Their entry into the world was at a time when technological expansion was ubiquitous and widely adopted throughout the world. Today's students are exposed to technological gadgets such as mobile phones and tablet from very tender ages the world over (Shava et al, 2016). Similarly, Ali, (2018) reveals that students tend to possess a powerful bonding with ICT. An empirical study undertaken by Jesse (2015) reveal that majority (99.8%) of the students have access to mobile phones and they use it for texting, visiting social media and applications other than talking, and this corroborate the findings by Ali (2018).

Considering COVID-19 pandemic, most students will have great difficulty accessing online learning, especially those staying in places that have poor internet access and are subject to numerous other disadvantages (World Bank, 2020b). Not all the teachers and students have access to any or all digital devices, internet, and Wi-Fi. Unavailability of proper digital tools, no internet connections, or Wi-Fi connections can

cause a lot of distress due to which many students might lose out learning opportunities.

4. Lessons Learnt

Debatably, ICT has become an integral part of daily life and has transformed the educational environment to the extent that ICT literacy has become a functional requirement for nearly all educators. The incorporation of technology in education has not only changed how students learn but has also changed the teaching pedagogies by promoting collaborative activities (Haddad, 2003). Governments' world over are searching for measures which will keep students safe, while finding ways to still provide courses online. Literature shows that education administrators are urging staff to join hands and share know-how and digital infrastructures for teaching online as countries battle with quarantine and locked downs (Czerniewicz, 2020). Notwithstanding, despite the challenges posed by integrating and embracing the online/e-learning system, it has become the most preferred platform to appraise during global pandemic periods like the COVID-19 where movement is restricted and institutions of learning are on lockdown. However, the adoption of online learning requires huge resources in terms of cost and time. Thus, the fact that substantial amount of investment is required to provide the devices, equipment, maintenance, training of human resources, and developing the educational content, it shows that planning needs to go into actualizing by all stakeholders. Therefore, an efficient educational system must be developed to impart education via online mode. Conversely, institutions that lack such preparation and planning measures, must make arrangement to avoid the excessive demands and tensions that come from adopting things quickly.

The adoption of online learning system for institutions in Nigeria will enhance the



efficiency of understanding as both students and lecturers will have easy accessibility to an outsized amount of knowledge globally. In most universities, class space for lectures is typically a controversy as sometimes there is clash in timetable or overpopulated students. The e-learning system will completely reduce the problems of insufficient classrooms for lectures as student can easily take the lectures online without disruption at their convenience. The knowledge of e-learning will expose both lecturers and students to the reality of world outside the classroom since the world is regarded as a global web. The online learning exposure will ease the student's integration into organizations where such platforms are operational. Intuitively, the adoption of e-learning tends to resolve educational challenges especially at a time like the COVID-19 pandemic.

5. Conclusion and Recommendation

The study examined the impact of COVID-19 on academies and various strategies employed by developed countries to continue academic activities and to curtail the spread of the virus. However, Nigeria like most middle and low-income countries, have witnessed tremendous set back in academic activities in the wake of COVID-19 pandemic. This study has established that the existent world pandemic will make the educational sector to look inward to find ways to militate against its disruptive capacity for educational activities. Thus, institutions are adjudged to embrace online/e-learning which serves as alternative to the face-to-face contact learning thereby helping the institutions cover gaps in order to achieve a stable academic calendar.

Thus, online learning in Nigerian educational system cannot be over-emphasized. As such, appropriate policies put in place for the e-learning should be strengthened and implemented. This is because, there is no doubt that the Nigerian educational system can venture into e-

learning especially for the public institutions which are the most affected during the pandemic. It is therefore recommended that governments, academic institutions and all relevant stakeholders in the education sector in Nigeria should address the numerous challenges that may hinder the feasibility, acceptability and uptake of the online/e-learning strategy. In essence, government and all stakeholders in education should invest massively in actualizing e-learning in Nigeria especially the public institutions. In addition, the insecurity experienced in the country is one aspect that the government must look into in promoting the e-learning environment. Also, staff and students should be encouraged to show an adaptive and collaborative attitude towards a smooth and quick transition of the e-learning strategy.

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