

Effects of Corona Virus on Tertiary Institutions Academic Activities in Selected Institutions in South West Nigeria

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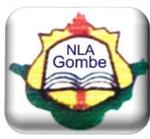
Abstract

The aim of this study is to find out the effects of corona virus on tertiary institutions academic activities in selected institutions in South West Nigeria. This study covers some selected Universities in Ogun state, Nigeria. The Universities are Tai Solarin University of Education and Olabisi Onabanjo University, Ago-Iwoye, Ogun state. In order to contain the spread of the virus in Nigeria, the Federal Ministry of Education has directed all educational institutions in Nigeria to shut down and allow students to go home as cases of reported COVID-19 increases. COVID-19 pandemic has brought drastic changes and interruption in the educational sector which serves as a medium of development as need arises. However, educational sector in most nations is dwindling towards e-learning programme in order to address the effect of corona virus. Hence, with the Nigeria experience, the country is facing the obstacle of moving from the traditional teaching method to the e-learning programme during the pandemic. In recommendation, the government should take adequate measure by increasing the funding of tertiary institutions to enable the institutions to embark on viable research works that would proffer solutions to COVID-19 pandemic.

Key word: Effects of COVID-19 Pandemic, Tertiary institutions, Academic activities,

Introduction

Before the pandemic, the world was already facing formidable challenges in fulfilling the promise of education as a basic human right. In the early days of the crisis, concerns in the Global North focused primarily on the disruption that the pandemic would bring to student flows from China and its economic impact on their higher education systems. Efforts to prevent the spread of the virus ranged from extending or postponing academic terms to banning incoming students (Al-Samarrai, Gangwar and Gala, 2020). Most of Africa's initial response focused on repatriating students stranded in Wuhan or providing assistance from afar. Nigeria, Senegal, South Africa, as well as Algeria and its North African neighbours, succeeded in repatriating their students an achievement that was much celebrated. Other countries lacking the readiness and the resources to do the same had to assume a low profile against public opinion, which favoured repatriation. Despite the near universal enrolment at early grades in most countries, an extraordinary number of children more than 250 million were out of school, and nearly 800 million adults were illiterate. The far reaching impact of misinformation and disinformation, exceed moral panic, and can easily complicate an outbreak situation. To address phenomenal spread of such issues across networks, while providing the needed guidance for the University community, various platforms were adopted for a systematic release of veritable and accurate information to the University community. This effect is not

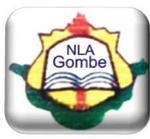


left out in the Nigeria educational sector since the academic activities was halted by the Federal ministry of education in order to curtail the spread of this virus in educational institutions. However, this decision came as a shock to many educational institutes as many of these institutions were not prepared for the sudden disruption. Hence, despite the immense benefits of the e-learning platforms available, so many Nigerian universities have not incorporated it into their system.

According to the World Health Organization (WHO, 2019), corona viruses are a family of viruses that cause illnesses ranging from the common cold to more severe diseases such as severe acute respiratory syndrome (SARS) and the Middle East respiratory syndrome (MERS). These viruses were originally transmitted from animals to people. SARS, for instance, was transmitted from civet cats to humans while MERS moved to humans from a type of camel. Several known corona viruses are circulating in animals that have not yet infected humans. The name corona virus comes from the Latin word corona, meaning crown or halo. Under an electron microscope, it looks like it is surrounded by a solar corona. The novel corona virus, identified by Chinese authorities on January 7th 2020 and since named SARS-COV-2, is a new strain that had not been previously identified in humans. Little is known about it, although human-to-human transmission has been confirmed (Ajazeera, 2020). Chinese health authorities are still trying to determine the origin of the virus, which they say likely, came from a seafood market in Wuhan, China where wildlife was also traded illegally. On February 7, Chinese researchers said the virus could have spread from an infected animal species to humans through illegally-trafficked pangolins, which are prized in Asia for food and medicine. Scientists have pointed to either bats or snakes as possible sources of the virus (Jiang, Yan, & Ying, 2020).

According to the WHO (2019a), signs of infection include fever, cough, and shortness of breath and breathing difficulties. In more severe cases, it can lead to pneumonia, multiple organ failure and even death. Current estimates of the incubation period - the time between infection and the onset of symptoms - range from one to 14 days. Most infected people show symptoms within five to six days. However, infected patients can also be asymptomatic, meaning they do not display any symptoms despite having the virus in their systems (Ajazeera, 2020a). The number of fatalities from the new corona virus has overwhelmingly surpassed the toll of the 2002-2003 SARS outbreaks, which also originated in China. SARS killed about 9 percent of those it infected - nearly 800 people worldwide and more than 300 in China alone. MERS, which did not spread as widely, was more deadly, killing one-third of those infected. As of April 4, more than 60,000 people worldwide have died of COVID-19, the highly infectious respiratory disease caused by the corona virus. The number of people who have tested positive for COVID-19 has exceeded 1 million, according to data compiled by Johns Hopkins University. While the new corona virus is more widespread than SARS in terms of case numbers, the mortality rate remains considerably lower at approximately 3.4 percent, (WHO, 2019b).

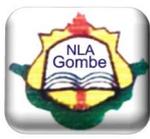
Scientists around the globe are racing to develop a vaccine but have warned it is not likely one will be available for mass distribution before 2021. There have been five global health emergencies since 2005 when the declaration was formalized: swine flu in 2009, polio in 2014, Ebola in 2014, Zika in 2016 and Ebola again in 2019 (Ajazeera, 2020b). As of April 4, more than 60,000 people worldwide have died of COVID-19, the highly infectious respiratory disease caused by the corona virus. Countries around the world are scrambling to halt the spread of the corona virus pandemic. This outbreak of COVID-19 is a global health emergency, the WHO said on January 30, raising the alarm further on March 11 when it declared the crisis a pandemic (Jones, Brown & Palumbo, 2020).



Presently, COVID-19 has spread to about 200 Countries in the World including Nigeria. Countries across the World have in quick succession announced the closure of their schools and universities for a minimum of two weeks or one month in order to contain the spread of the COVID-19 virus which has been declared a global pandemic by the World Health Organization. But authorities in many of the countries acknowledge that closures could last much longer (Livermore, & Shira, 2020). The closures came thick and fast this week after the number of cases began to rise several weeks after countries in North East Asia including Japan, South Korea, Singapore and China where the virus originated – closed their educational institutions in February and March, 2020. Educational institutions have yet to reopen in any of the countries in the region, which includes Hong Kong and Taiwan. In Nigeria, the Federal Ministry of Education has directed all educational institutions in Nigeria to shut down and allow students to go home as cases of reported COVID-19 increased to 13. The Permanent Secretary in the Ministry of Education, Sonny Echono, told reporters on 19 March that the directive was part of the country's overall strategy to contain the spread of the virus. Nigeria joins the growing list of countries in Africa which have closed schools and universities (Muanya, Olaiya, Afolabi, 2020).

The corona virus which is notably known as COVID-19 has disrupted the global educational system as most countries around the world have resulted in temporarily closure of all educational institutions in an attempt to contain the spread of the pandemic. According to the report by UNESCO (2020), the closure of educational institution has impacted over 91% of the world's student population. 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 corona virus was declare a public health emergency. This has left many students and educators in a rude shock as some of this institutions were at the point of preparing for examination, admitting of freshers, beginning of a new semester, among others. Universities around the world including Africa have resulted in looking for ways to cope and adapt to academic changes as a result of this pandemic. This COVID-19 pandemic has shaped a new normal for the higher education sector across the globe from transforming the online learning platform, restructuring application processes, and stimulating crisis management strategies.

The COVID-19 outbreak has opened up the importance of online education and distance learning however, just a handful of the world's education that are taught online. According to Adeoye, Adanikin, and Adanikin (2020), in the United States of America, about 15% of the total undergraduate students are enrolled for online learning and distance learning. Developed countries such as Canada, United Kingdom and United States have experienced a decline in their educational revenue as foreign students either quit their studies or were sent back home. The pandemic has resulted in a more severe consequence on schools that do not possess the online learning platform. Education is administered by the federal, state and local governments. The Federal Ministry of Education is responsible for overall policy formation and ensuring quality control, but is primarily involved with tertiary education. School education is largely the responsibility of state (secondary) and local (elementary) governments. The country is multilingual, and home to more than 250 different ethnic groups. The languages of the three largest groups, the Yoruba, the Ibo, and the Hausa, are the language of instruction in the earliest years of basic instruction; they are replaced by English in Grade 4 (WENR, 2017). Nigeria's education system encompasses three different sectors: basic education (nine years), post-basic/senior secondary education (three years), and tertiary education (four to six years, depending on the program of study). According to Nigeria's latest National Policy on Education (2004), basic education covers nine years of formal (compulsory) schooling



consisting of six years of elementary and three years of junior secondary education. Post-basic education includes three years of senior secondary education.

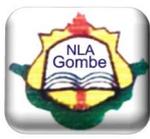
At the tertiary level, the system consists of a university sector and a non-university sector. The latter is composed of polytechnics, monotechnics, and colleges of education. The tertiary sector as a whole offers opportunities for undergraduate, graduate, and vocational and technical education. The academic year typically runs from September to July. Most universities use a semester system of 18-20 weeks. Others run from January to December, divided into 3 terms of 10-12 weeks. The National Policy on Education (2004), defines Higher Education as the Post-Secondary Section of the National education system, which is given of Universities, Polytechnics and Colleges of Technology including courses as are given by the Colleges of Education, Advanced Teachers Training colleges, Correspondence Colleges and such Institutions as may be allied to them. According to Ogunode (2020) the objectives of higher education in Nigeria includes: the acquisition, development and inculcation of the proper value orientation for the survival of the individual and societies; the development of the intellectual capacities of individuals to understand and appreciate environment; the acquisition of both physical and intellectual skills which will enable individuals to develop into useful members of the community; the acquisition of an overview of the local and external environments.

The National Policy on Education (2004) stated that higher educational institutions should pursue these goals through: teaching, research, the dissemination of existing and new information, the pursuit of service to the community; and by being store-house knowledge. The Nigeria higher education system comprised of universities, polytechnics, and colleges offering programmes in teacher education and agriculture. Higher education is a community of scholars, free to pursue knowledge without undue interference from anywhere (Deborah, 2020). 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. However, the public universities largely depend on government subvention and TETFund (Tertiary Education Trust Fund) assistance because of the discounted tuition paid by their students as compared to their counterparts in private universities. The efforts of the National Open University of Nigeria (NOUN, 2009) is worthy of note has the institution currently operate on the e-learning platform where learners and lecturers can interact. The sporadic pace of ICT is seen in the innovative development of advanced countries such as Japan which conducted a virtual convocation ceremony for its students using robotics (Kacerauskas & Kusaityte, 2020). Increasingly, universities across the continent are setting up institution-wide task forces to mitigate the impact of the pandemic. Some are striving to participate in high-end research towards finding a cure for the virus. Many are attempting to shift to online teaching and learning through institutional, national, continental and international initiatives. Most plans are only at their initial stages of implementation and call for ramping up current efforts, forging wider cooperation and sharing experiences and resources across the whole continent. Despite the benefits of the e-learning platform, there has also been constraint in the full actualization and utilization of this platform due to the dynamic Nigeria environment (Adejoro, 2020).

Literature Review

Impact of COVID-19 on Tertiary Education

Currently, there are few publication and limited paper on the impact of COVID-19 pandemic on education. Among the few is that of UNESCO (2020) that submitted that most governments around the world have temporarily closed educational institutions in an attempt to contain the spread of the COVID-19 pandemic. For instance in the United States of America, France and United Kingdom they ensure that adequate measures are in place. The nationwide closure has

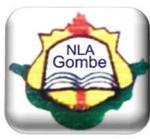


enormous impact over 89% of the world's student population. Several other countries like France, Germany, Italy, Belgium have implemented localized closures impacting millions of additional learners (UN News, 2020). The temporarily closed educational institutions in an attempt to contain the spread of the COVID-19 pandemic across the World has negative effect on students learning. Carlsson, Dahi, Ockert, and Rooth (2015), consider a situation in which young men in Sweden have differing number of days to prepare for important tests. These differences are conditionally random allowing the authors to estimate a causal effect of schooling on skills. Carlsson, Dahi, Ockert, and Rooth (2015) show that even just ten days of extra schooling significantly raises scores on tests of the use of knowledge (crystallized intelligence) by 1% of a standard deviation. As an extremely rough measure of the impact of the current school closures, if we were to simply extrapolate those numbers, twelve weeks less schooling (i.e. 60 school days) implies a loss of 6% of a standard deviation, which is non-trivial. They do not find a significant impact on problem-solving skills (an example of 'fluid intelligence'). This submission is also supported by Simon Burgess & Hans (2020a) who cited Lavy (2015), who estimates the impact on learning of differences in instructional time across countries.

Surprisingly, there are very substantial differences between countries in hours of teaching. For example, Lavy, (2015a) shows that total weekly hours of instruction in mathematics, language and science is 55% higher in Denmark than in Austria. These differences matter, causing significant differences in test score outcomes: one more hour per week over the school year in the main subjects increases test scores by around 6% of a standard deviation. In Nigeria, the loss of perhaps 3-4 hours per week teaching in Mathematics for 12 weeks may be similar in magnitude to the loss of an hour per week for 30 weeks. So, rather bizarrely and surely coincidentally, we end up with an estimated loss of around 6% of a standard deviation again. Leaving the close similarity aside, these studies possibly suggest a likely effect no greater than 10% of a standard deviation but definitely above zero. The temporal closure of educational institutions in an attempt to contain the spread of the COVID-19 pandemic across the world, invariably it has affected the educational sector in many ways. Here are some of the effects we have already seen or expect to see in the coming weeks and months.

To reduce the spread of corona virus, many universities have suspended any on-campus activities like lectures. Where possible, classes are being held online. Exams and thesis defenses may be postponed or held in different formats, which may delay the award of degrees. Many countries are already restricting entry at their borders, and only nationals or permanent residents are allowed in unless there are important reasons. How this will affect foreign students in autumn 2020 is still unclear, but you should follow developments closely so you can plan ahead. Actions taken against COVID-19 can impact education in a way that delays the award of high school diplomas or degrees. This in turn may mean that, when you apply for a study programme, you technically do not meet all requirements. It is possible that universities will adapt to this scenario because this will affect a large number of first-year students. Because the pandemic is affecting not only teaching, but also administration and the eligibility of applicants, it is possible that universities will make changes to their admissions processes, and postpone application deadlines (wikipedia.org, 2020).

According to the Institute of International Education, three-quarters of American Colleges and Universities have reported the negative impact of COVID-19 on recruitment in the year 2020. It is important to keep in mind that 370,000 students, or 33.7% of America's total international students, are from China. Decreased enrolment of Chinese students has already impacted the economies of Australia, New Zealand and Canada (World University Facebook News, 2020). In a survey of more than 2,000 students from Africa, Asia and Australia, conducted by QS,



nearly three in 10 said their plans had changed due to the virus. It is impossible to estimate what percentage of the students responding to this survey would have studied in China (World University Facebook News, 2020). 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 also implies educationally technology. According to Eze, Chinedu-Eze, and Bello (2018), e-learning education is concerned with the holistic incorporation of modern telecommunication equipment and ICT resources into the education system. Parks (2013) posits that the word “e” should refer to “everything, everyone, engaging and easy” in addition to electronic”. The benefits of the e-learning include better content delivery, interactivity, quality content delivery and confidence of both learners and lecturers in the educational sector. Despite the advantages of the e-learning, it is still at its infancy and early adoption stage in Nigeria due to its dynamic structure.

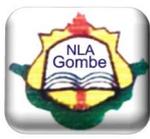
Obstacles of E-learning in Nigeria

E-learning is still confronted with a lot of obstacles in Nigerian Universities especially during this covid-19 pandemic as this is the only medium available for learning. One of these obstacles is epileptic power supply in Nigeria especially in rural areas as there is no guarantee of at least two hours’ power supply at a stretch. Irregular power supply in Nigeria is seen as an age-long problem which has affected almost every aspect of Nigeria economy with no exception to the educational sector. This unstable poor power supply has caused a major setback for technological advancement of many universities in Nigeria. Most rural areas in Nigeria where some students are resident are not even connected to the national grid and as such, this student will experience difficulty in utilizing the e-learning platform effectively. Also, shortage in power supply have brought difficulty in powering of educational gadget such as smart phones, laptops and desktop computers, scanner, printer needed for learning (Guragain, 2016).

Another major obstacle to e-learning in Nigeria is tied towards the high cost of internet data services. The internet service required to connect to this e-learning platform sometimes requires a lot of data. The cost of purchasing the data bundle is so high which might be difficult for both students and lecturers. In cases where is even data, poor internet connectivity by network providers is of major concern especially when it comes to video conferences where both the students and lecturers have to interact. The cost of accessing the internet in Nigeria is still on the high side. Hence, some students find it a challenge to afford. The cost of a personal computer (PC) and Laptop are still very high in Nigeria considering the income level of an average worker in the country earn. Few students that are privileged to have a PC/Laptop are not connected to the internet as this do attract extra cost which they cannot afford. Also, this poor internet connectivity and high cost of data 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. Another challenge posed by the e-learning education is the incapability of lecturers to assists learners develop the skills and training required to make the e-learning platform effective. E-learning creates room for complete absence of physical personal interactions between students and lecturers and among their colleagues.

Opportunities Applicable to Use of E-learning

Despite the challenges posed by integrating and embracing the e-learning system, it has become the most preferred platform to learn during global pandemic periods such as the COVID-19 where movement is restricted and institutions of learning are on lockdown. The adoption of e-learning system for universities will enhance the efficiency of knowledge as both students and



lecturers will have easy access to a large amount of information within the global village. In most universities, class space for lectures is usually a problem as sometimes there is clash in timetable or overpopulated students. The e-learning system will completely reduce the issues of insufficient classrooms for lectures as student can easily take the lectures online without any disruption at their convenience.

Also, e-learning afford students and lecturers to participate in class in their comfort zone with basic amenities they need when compared to the traditional teaching method where sometimes these basic amenities are unavailable for conducive learning. This is supported by the findings of Pingle (2011) that undergraduates in India have a higher acceptance level of comfort working with computers and other e-learning packages than the traditional face-to-face classroom.

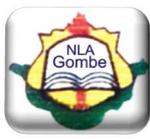
E-learning provides a platform for students to interact with themselves through the discussion forum which eliminates the barrier of participation. It also allows for effective communication and fosters relationship between students and lecturers. It also allows students to study at their open pace and convenience as the lecture material is readily available and the content delivery of the lecturer is quite accessible to them. Hence, it increases satisfaction and decreases stress. 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 e-learning exposure will ease the student's integration into organizations where such platforms are operational.

E-learning can be said to be cost effective as it reduces travel time and infrastructural development in terms of buildings. Arkorful and Abaidoo (2014) discovered that the cost benefit of e-learning in training students is lesser than that of physical (face-to-face) contact. This was arrived at after considering some factors namely: the number of students trained; distance to be travelled; time of training. Guragain (2016) also posit that the value of face-to-face class contact content development, distribution and maintenance cost are exclusively high as compared to e-learning which is of lower cost. All these shows that adoption of e-learning tends to solve educational challenges especially at a time such as the COVID-19 pandemic. Children on the higher end of the socio-economic spectrum may experience less disruption to their learning because their private schools are well-equipped with ICT infrastructure and they can afford remote learning resources at home. The majority that would be left struggling are the students from vulnerable and disadvantaged backgrounds, who do not have access to computers and other devices outside school. In many cases, these children live in communities with poor or non-existent internet connectivity and unreliable power supply. Inevitably, this digital divide will exacerbate the learning disparities among these children.

Conclusion

The study concludes that COVID-19 pandemic is making the educational sector to look inward. On a positive note, this Covid-19 threat and the approaches to overcome it may be catalytic for long-lasting changes in Nigerian higher education. Institutions are now embracing e-learning which serves as alternative to the face-to-face contact learning thereby helping the institutions cover gaps the pandemic might cause the institutions academic calendar.

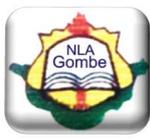
The national lockdown of educational institutions as a result of COVID-19 pandemic in Nigeria and across the World is going to cause major interruption in students' learning; disruptions in academic programme, suspension of examination, cancellation of internal and international conferences, creating gap in teaching and learning and probably may cause manpower shortage in the institutions as a result of death caused by COVID-19.



1. The government should embark on proper integration of all tertiary institutions into online education programme.
2. The Federal government should ensure that tertiary institutions should incorporate effective teaching and research programmes to the online network, organize online teaching that can proffer solutions that would tackle difficulties in teaching method.
3. The schools administrators should provide adequate means and time of conducting the examinations that has been stopped during the outbreak of the covid-19 pandemic.
4. Government should pump in more funds in Nigeria's educational sector so that its institutions can compete effectively with the other tertiary institution of the world.

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