



Research Paper

## Protracted School Closure due to Covid-19 (Coronavirus Disease) Pandemic and its Effect on Tertiary Education in Nigeria.

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### ABSTRACT

The purpose of this paper is to find out the impact of the Protracted School Closure due to Covid-19 (Coronavirus Disease) Pandemic and its Effect on Tertiary Education in Nigeria. The Coronavirus disease 2019 (COVID-19) is a communicable respiratory disease caused by a new strain of coronavirus that causes illness in humans. This then prompted the Federal Ministry of Education to direct all educational institutions in Nigeria to shut down and send their students home to help reduce the spread of COVID-19. However, the prolonged close down of tertiary institutions have greatly affected the academic session and program of the institutions. This research shows that 100% of the respondents agree that Covid-19 pandemic school closure has impacted the learning process in Tertiary Institutions in Nigeria, while there was disparity on their readiness on e-learning process due to some conditions. On the effect of the set regulations for curbing the spread of the disease, it was gathered that Nigerian tertiary institutions still had a long way to go, even when the institutions were doing their best on sensitizing the students and their immediate environment on how to safe guard themselves against the disease.

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### I. INTRODUCTION

The Coronavirus disease 2019 (COVID-19) is a communicable respiratory disease caused by a new strain of coronavirus that causes illness in humans. Scientists are still learning about the disease, and think that the virus began in animals. At some point, humans acquire infection from these animals, and they in turn, began transmitting infection to other humans. The disease spreads from person to person through infected air droplets that are projected during sneezing or coughing. It can be transmitted when humans have contact with hands or surfaces that contain the virus and touch their eyes, nose, or mouth with the contaminated hands [1]. Coronavirus disease defined as an illness caused by a Novel coronavirus called Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2; formerly called 2019-nCoV), which was first identified amid an outbreak of respiratory illness cases in Wuhan City, Hubei Province, China. [2]. It was initially reported to the World Health Organization (WHO) on December 31, 2019. On January 30, 2020, the WHO declared the COVID-19 outbreak a global health emergency. [3,4].

According to the CDC, individuals at high risk for infection include persons in areas with ongoing local transmission, healthcare workers caring for patients with COVID-19, close contacts of infected persons, and travelers returning from locations where local spread has been reported. The CDC has provided recommendations for individuals who are at high risk for COVID-19-related complications, including older adults and persons who have serious underlying health conditions including [5]

- Cancer
- Chronic Kidney disease
- Heart conditions
- Immunocompromised state from solid organ transplant
- Obesity
- Pregnancy

- Sickle Cell disease
- Smoking.
- Type 2 diabetes mellitus.

Such individuals should consider the following precautions<sup>[5]</sup>.

- Stock up on supplies.
- Avoid close contact with sick people.
- Wash hands often.
- Stay home as much as possible in locations where COVID-19 is spreading.
- Develop a plan in case of illness.

### **WHAT IS CORONAVIRUS?**

On January 30, 2020, the World Health Organization (WHO) announced that this outbreak had constituted a public health emergency of international concern. The novel coronavirus was initially named 2019-nCoV and officially as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). As of February 26, COVID-19 has been recognized in 34 countries, with a total of 80,239 laboratory-confirmed cases and 2,700 deaths <sup>[6]</sup>.

### **CLINICAL SYMPTOMS.**

Most patients with COVID-19 represent asymptomatic/mild symptoms to severe illness and mortality. Symptoms may develop 2 days to 2 weeks after exposure to the virus.<sup>[7]</sup> according to recent studies and relevant data from the National Health Commission of China <sup>[8]</sup>. The following symptoms may indicate COVID-19 <sup>[9]</sup>:

- Fever and chills
- Cough
- Shortness of breath or difficulty breathing
- Diarrhea
- Nausea or vomiting
- Congestion or runny nose
- Sore throat
- New loss of taste or smell
- Headaches

### **IMPACT OF COVID-19 PANDEMIC ON EDUCATION: TERTIARY INSTITUTIONS IN NIGERIA.**

The outbreak of the COVID-19 pandemic all over the world has disturbed the political, social, economic, religious, financial, and educational structures of the whole world. World's topmost economies such as the US, China, UK, Germany, Japan, and many others are at the verge of collapse<sup>[10]</sup>. In a bid to curb the spread of this virus, many organizations took the unprecedented steps to postpone or suspend their activities on the advice of the CDC to avoid gatherings of large amounts of people <sup>[11]</sup>

According to UNESCO monitoring, as of the date above 191 countries have implemented nationwide closures and 5 have implemented local closures, impacting about 98.4 percent of the world's student population. Efforts to curtail the spread of the pandemic through non-medical interventions and preventive measures such as social-distancing and self-isolation have prompted the widespread closure of primary, secondary and tertiary schooling in over 100 countries <sup>[12]</sup>

On 27 February, Nigeria confirmed its first case in Lagos State, an Italian citizen who works in Nigeria had returned on 25 February from Milan, Italy through the Murtala Muhammed International Airport, fell ill on 26 February and was transferred to Lagos State Biosecurity Facilities for isolation and testing. Presently, Nigeria is having 199 COVID-19 cases, two dead and twenty recovered. To contain the spread of the virus in Nigeria <sup>[13]</sup>.

The Federal Ministry of Education directed all educational institutions in Nigeria to shut down and send their students home to help reduce the spread of COVID-19. This is in line with global acceptable preventive measures and part of the country's overall strategy to contain the spread of the virus <sup>[14,15,16]</sup>. Nigeria as a country has as well ensured all schools and personnel experience a compulsory stay-at-home order to prevent further spread of this deadly virus amongst students and school personnel since it is easily contacted through having direct contact with the carrier of the virus. It is a fact that many unified examinations have been suspended <sup>[17]</sup>.

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 <sup>[18]</sup>. Higher Education refers to a system that embraces much of the country's research capacity and reproduces the majority of skilled professionals that are required in the labor market <sup>[19]</sup>. The Nigerian educational system is structured into three levels: Basic education lasts for Nine Years, Post-basic or Senior

Secondary education lasts for three years, then tertiary education lasts for four to seven years, depending on the course of study [18,20].

The tertiary education level consists of the University, Polytechnics, Monotechnics, and Colleges of Education. These institutions offer tertiary educational services and give opportunities for students to acquire knowledge, vocational skills, and technical education. Universities are governed by the National University Commission (NUC); Polytechnics and Monotechnics are governed by the National Board of Technical Education (NBTE); Colleges of Education are governed by the National Commission for Colleges of Education (NCCE) [18]. The objectives of Higher education in Nigeria including the following;

- The development of the intellectual capacities of individuals to understand and appreciate the environment;
- The acquisition, development, and inculcation of the proper value orientation for the survival of the individual and societies;
- The acquisition of an overview of the local and external environments;
- The acquisition of both physical and intellectual skills will enable individuals to develop into useful members of society. [18].

The National Policy on Education again 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; by being a store-house of knowledge.

According to UNESCO, 9.8 million African students are experiencing disruption in their studies due to the closure of higher education institutions [11]. The danger of contamination has triggered institutions to move their courses online. However, going online is not that simple on a continent where only 24% of the population has access to the internet, and poor connectivity, exorbitant costs, inability to acquire laptops, and frequent power interruptions are serious challenge.

#### **PURPOSE OF THE STUDY.**

This research was conducted to find out the impact of school closure on tertiary institutions within Nigeria, and the perception of undergraduate students on the impact of Covid-19 on higher education in some universities in Nigeria.

#### **RESEARCH QUESTIONS**

The following research questions were developed for the study; they include;

- To evaluate the adverse effect of prolonged lockdown on institutions of higher learning.
- To investigate the preparedness of Nigeria's tertiary institutions for e-learning.
- To evaluate what the higher institutions are doing to contain the spread of Covid-19 in Nigeria.
- And to analyze how effective the set rules for curbing Covid-19 for Schools re-opening.

## **II. METHOD AND MATERIALS**

The study used a descriptive survey design. The population of the study constituted all public higher institutions in Nigeria. Out of these, 400 researchers within the four sampled institutions. This can be regarded as the total population of the study. The population of the study is members of staff of universities, Polytechnics and Monotechnics, and students attending these tertiary institutions across Nigeria. These include the University of Abuja, Nasarawa State University, Keffi, and Kogi State Polytechnic Lokoja. A random sampling technique was used to select the respondents. The reason for the choice of respondents for this study is because they are students and lecturers of the stated tertiary institutions selected and are the first point of contact in any tertiary institution. The instrument for data collection was a 6 item questionnaire adapted by the researchers titled "Protracted School Closure due to Covid-19 (Coronavirus Disease) Pandemic and its Effect on Tertiary Education in Nigeria questionnaire" (PSCCPETENQ). Cronbach Alpha reliability coefficient was adopted to determine the internal consistency of the questionnaires items. The reliability coefficient collected was 0.74 which shows that the questionnaire is reliable for the study. Some of the questionnaire was sent to the respondents via mail while others by hand. The return of answered questionnaire was 100% sent through their emails to the researchers. The data collected was analyzed using simple percentage. Interpretation of collected data will be analytic, logical, and comprehensive. Findings will be discussed concerning.

Results will be interpreted to reiterate the research problem being investigated by comparing and contrasting the findings with the research questions underlying the study. Trends, comparisons, and relationships will be drawn among variables. Implications of the results will be discussed to understand how they have filled gaps in the research problems. The deliverables for this research work will consist of two parts:

- i. A collection of data from a cross-section of Nigerian students and institutional heads.
- ii. A detailed evaluation plan and interpretation approach.

**Data Analysis**

Quantitative methods emphasize objective measurements and the statistical, mathematical, or numerical analysis of data collected through polls, questionnaires, and surveys, or by manipulating pre-existing statistical data using computational techniques. Quantitative research focuses on gathering numerical data and generalizing it across groups of people or explaining a particular phenomenon [21].

**Sample Size;**

Therefore, the sample size for the study is calculated thus;

$$n = \frac{N}{1 + N(e)^2}$$

Where n= The required samples size

N= The total population of the study

E= The expected error (0.05)

1= Constant.

So,

$$n = \frac{400}{1 + 400 (0.05)^2}$$

$$n = \frac{400}{1 + 400 (0.0025)}$$

$$n = \frac{400}{1 + 1}$$

$$n = 200$$

Therefore, the required sample size for the study is 200.

**III. DATA ANALYSIS AND DISCUSSION**

**Research Question 1: Does the COVID-19 pandemic prolonged lockdown of Tertiary Institutions affect the learning process?**

RESPONSES	FREQUENCY	PERCENTAGE %
Very ready	80	40
Ready	65	32.5
Not ready	40	20
No idea	15	7.5
Total	200	100

RESPONSES	FREQUENCY	PERCENTAGE %
Strongly Agree	160	80
Agree	40	20
Disagree	0	0
Strongly Disagree	0	0
Total	200	100

**Table 1:** COVID-19 pandemic school closure affected the learning process in Nigeria.

To find out if Covid-19 pandemic school closure has impacted the learning process in Nigeria. Results collected from research question one revealed that 80% of the respondents strongly agree that the closure of Tertiary institutions has impacted the learning process in Tertiary Institutions in Nigeria.

While 20% of the respondents agree that the closure of Tertiary Institutions has impacted their learning process in Tertiary Institutions in Nigeria. This means that 100% of the respondents agree that Covid-19 pandemic school closure has impacted the learning process in Tertiary Institutions in Nigeria.

**Research Question 2: Is the Nigerian Tertiary Institution prepared for stay-at-home e-learning due to the closure of schools as a result of the Covid-19 pandemic?**

Table 2: Nigerian Tertiary Institutions are prepared for stay-at-home e-learning due to school closure as a result of Covid-19 pandemic?

To find out if the Nigerian Tertiary Institutions are prepared for stay-at-home e-learning due to the closure of schools as a result of the Covid-19 pandemic. Results collected from research question two shows that 40% of the respondents are very ready for the e-learning process, while 32.5% were ready for the e-learning process, another 20% stated they weren't ready and finally, 7.5% of the respondents did not have any idea on whether their various institutions were ready for e-learning due to school closure. This means that there is a small range of disparity about the state of 100% of the respondents agree that Covid-19 pandemic school closure has impacted the learning process in Tertiary Institutions in Nigeria.

**RESEARCH QUESTION 3: What are the higher institutions doing to contain the spread of Covid-19 in Schools?**

**Table 3:** What are the higher institutions doing to contain the spread of Covid-19 in schools.

S/N	Higher institutions are doing the following to contain the spread of Covid-19 in schools.	SA	%	SD	%	TOTAL
1	Public awareness to contain the spread of Covid-19	200	100	-	-	200
2	Collaborating with other institutions on the research for Covid-19 vaccines	200	100	-	-	200
3	Manufacturing Face masks	125	62.5	75	37.5	200

The research also wanted to know what the higher institutions are doing to contain the spread of Covid-19 in schools. The result collected and collated showed that in research 3, item 1, 100% of the respondents agreed that the Tertiary institutions are creating services such as awareness campaigns as part of their community services to the students and environment at large on prevention of Covid-19.

Item 2, revealed that 100% of the respondents agreed that higher institutions are also collaborating with other institutions on the research of Covid-19 vaccines,

While item 3, showed that 62.5% of the respondents agreed that higher institutions are producing face masks and sanitizers for distribution to students to help protect them from contracting the disease and 37.5% strongly disagree that higher institutions are producing face masks and sanitizers for distribution amongst their students to help curb the spread of Covid-19.

**RESEARCH QUESTION 4: How effective is the set rules for curbing the spread of Covid-19 pandemic for Schools re-opening?**

**Table 4:** How effective are the set rules for curbing the spread of Covid-19 pandemic for schools re-opening?

RESPONSES	FREQUENCY	PERCENTAGE%
Very Effective	60	30
Normal	80	40
Not effective	40	20
Should be stopped	20	10
Total	200	100

To find out the effectiveness of set rules in curbing the spread of Covid-19 pandemic for schools re-opening. Results show that 30% of the respondents stated that it's very effective thus far, while 40% of the respondent think it's moving at a normal rate, where the schools try to enforce it. Another 20% set of respondents says it hasn't been effective as some students do not abide by these set rules, while 10% of these respondents thinks it should be stopped. This result just means that Nigerian Tertiary institutions still have a long way to go in curbing the spread of Covid-19 in schools.

#### IV. DISCUSSION OF RESULTS

**To find out if Covid-19 pandemic school closure has impacted the learning process in Nigeria.** Results from Table 1, revealed that 80% of the respondents strongly agree that the closure of Tertiary institutions has impacted the learning process in Tertiary Institutions in Nigeria.

While 20% of the respondents agree that the closure of Tertiary Institutions has impacted their learning process in Tertiary Institutions in Nigeria. This means that 100% of the respondents agree that Covid-19 pandemic school closure has impacted the learning process in Tertiary Institutions in Nigeria.

**To find out if the Nigerian Tertiary Institutions are prepared for stay-at-home e-learning due to the closure of schools as a result of the Covid-19 pandemic.** Results from Table 2, shows that 40% of the respondents are very ready for the e-learning process, while 32.5% were ready for the e-learning process, another 20% stated they weren't ready, and finally, 7.5% of the respondents did not have any idea on whether their various institutions were ready for e-learning due to school closure. This means that there is a small range of disparity about the state of Tertiary Institutions in Nigeria being prepared for stay-at-home e-learning due to the Covid-19 pandemic.

**The research also wanted to know what the higher institutions are doing to contain the spread of Covid-19 in schools.** The result from Table 3, showed that in research 3, item 1, 100% of the respondents agreed that the Tertiary institutions are creating services such as awareness campaigns as part of their community services to the students and environment at large on prevention of Covid-19.

Item 2, revealed that 100% of the respondents agreed that higher institutions are also collaborating with other institutions on the research of Covid-19 vaccines,

While item 3, showed that 62.5% of the respondents agreed that higher institutions are producing face masks and sanitizers for distribution to students to help protect them from contracting the disease and 37.5% strongly disagree that higher institutions are producing face masks and sanitizers for distribution amongst their students to help curb the spread of Covid-19.

**To find out the effectiveness of set rules in curbing the spread of Covid-19 pandemic for schools re-opening.** Results from Table 4, show that 30% of the respondents stated that it's very effective thus far, while 40% of the respondents think it's moving at a normal rate, where the schools try to enforce it. Another 20% set of respondents says it hasn't been effective as some students do not abide by these set rules, while 10% of these respondents thinks it should be stopped. This result just means that Nigerian Tertiary institutions still have a long way to go in curbing the spread of Covid-19 in schools.

## V. CONCLUSION

The purpose of this paper is to find out the impact of the Protracted School Closure due to Covid-19 (Coronavirus Disease) Pandemic and its Effect on Tertiary Education in Nigeria. Specific objectives include:

- To evaluate the adverse effect of prolonged lockdown on institutions of higher learning.
- To investigate the preparedness of Nigeria's tertiary institutions for e-learning.
- To evaluate what the higher institutions are doing to contain the spread of Covid-19 in Nigeria.

- And to analyze how effective the set rules for curbing Covid-19 for Schools re-opening.

From the result collected in this study, it can be established that the Covid-19 pandemic school closure has impacted the learning process of students in higher institutions in Nigeria, as schools have been shut down for a very long period, this result also shows that most of the students and lecturers of these higher institutions are ready and willing to participate in the stay-at-home e-learning process orchestrated by the government of Nigeria for all schools in a bid to curb the spread of the pandemic. It was also gathered that higher institutions are collaborating with other institutions in Nigeria on the search for the Covid-19 vaccine while higher institutions in Nigeria are producing and distributing free face masks and sanitizers to their students and people in the community in which they are situated, to protect them from the Covid-19 disease.

Based on these finding, this paper hereby recommends that;

- The government should help sensitize its citizens on the need for diversifying educators (means all hands must be on deck to give full education on different aspects of life to students and pupils within Nigeria, the parents, teachers and even religious organization, skill acquisition companies e. t. c)
- Higher institutions should be equipped with learning materials to enable the schools to catch up to the school academic calendar.
- Further and compulsory regulations must be put in place in schools in a bid to help curb the spread of Covid-19 as school re-open ad punishment melted out to defaulting schools and individuals who violate these rules.
- Higher institutions around the world should come together and collaborate to research the vaccine for Covid-19.

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