COVID 19 Pandemic: Challenges and Opportunities on Teaching and Learning in Nigeria

Olufunke Oluwatoyin BORIS (Ph.D)

Department of Science Education, Bamidle Olumilua University of Education, Science and Technology, Ikere Ekiti, Ekiti State, Nigeria.

E-Mail: Funkeboris2016@Gmail.Com, Phone Number: +2348135503457

ABSTRACT:

The Covid 19 Pandemic known as corona Virus is a health Crisis that was declared pandemic by the World Health Organization by early March, 2020. Covid-19 pandemic was reported to first arrived in Egypt on 14th February, 2020 involving a Chinese National. The first confirmed case in sub- Saharan Africa was reported to have been in Nigeria on 27th February, 2020, involving an Italian citizen. There was a continuous transmission in the country, spreading across the state become quote worrisome. On March 20th 2020, the Federal Government of Nigeria ordered the closure of educational institutions. There were challenges faced in teaching and learning during and after the lock down, which were discussed in this article, besides rural and urban dwellers in Nigeria definitely had different experiences of coping with the situation for instance disparity in learning factors and opportunity associated with uneven distribution of amenities affected one area than the other. Every challenge has opportunities, the article looked into the opportunities found in Covid-19 pandemic one of which led to the driving force of education and teaching reform, building a new education and teaching mode. However, ability of many school to quickly spring-board into a digital teaching model most especially in the rural areas were discussed in this article, however if online teaching becomes part of daily teaching, it then means there will be a great reform in Colleges and Universities. Recommendations were suggested for future occurrence.

Keywords: Covid-19, teaching, learning, urban, rural, teaching reform, learning reform.

Introduction

Covid-19 pandemic emerged as global crisis. It is also known as corona virus pandemic. It is a new disease that spread from person to person through several different modes especially when people are in close range to one another, it can spread very easily with one infected person infecting between two, three and other people.

The corona virus disease (Covid-19) caused by Corona Virus that manifest in various symptoms such as fever, breathing difficulty, sore throat, sneezing, dry or productive cough, general weakness, pain and other mild respiratory diseases in human WHO 2020.

Corona virus disease 2019 (Covid 19) emerged at the end of December 2019 in Wuhan, China. In December 2019, some patients with pneumonia – like symptom of unknown origin were linked to a local Huanan South China Seafood market in Wuhan, Hubei province, China. In order to conduct an epidemiological investigation and to determine the etiological agent, the Chinese center for disease control and prevention (China CDC) The initial outbreak of covid-19 in Wuhan spread rapidly, affecting some other parts of China, the Wuhan government took in precedence steps and lock down the city on January 23, 2020 to lower the risk of further disease transmission within few weeks, cases of Covid-19 had been detected in several other countries and soon became a global threat The virus had spread to 193 countries and infected many people resulting in more death of so many people dispatched a team, team of its health authorities to respond to the outbreak. A closure notice was served to the market and a day after the market was shut down and fumigated (China CDC) however, no specific animal was linked to the outbreak. Adhikari et al (2020) reported that the spread of the virus throughout china during the Chinese new year was attributed to a high level of human movement among Chinese people during that festive period.

Demographics of the pandemic seem to be associated with age, biological sex, and other underlying health conditions that may serve as catalyst to the corona Virus disease. Mclead (2020) by early March, 2020 (13) Covid-19 was declared pandemic (Public Health Emergency to international concern) by the World health Organization. Two months later 212 countries and territories had been affected globally including Nigeria. As a result of community transmission on daily basis most of these countries have witnessed Plateau of the pandemic cases.

Corona Virus Disease (Covid-19) Pandemic in Nigeria

The index case of the corona virus disease (Covid-19) was reported in Nigeria.

Table 1: Outbreak according to the world health organization in the affected countries from 31 December to 7 May, 2020 between 6:00 and 10:00 cet.

Continent	Total number of cases	Total number of death	Seven countries reporting most cases	Five countries reporting the most death
African	51,239	2006	South African 7,808	Algeria 476
			Egypt 7,580	Egypt 469
			Morocco 5,408	Morocco 182
			Algeria 4,997	South African 153
			Nigeria 3,145	Cameron 108
			Ghana 2,719	Nigeria 108
			Cameroon 2,265	

Source: ECDPC, Situation update Worldwide as of 7 May, 2020.

In Nigeria, with 1.3 billion people (about 16% of the world population) the Covid-19 pandemic was reported to first arrived in Egypt on 14th February 202 involving a Chinese

national and the first confirmed case in sub-Saharen Africa was reported to have been in Nigeria on 27th February 202, involving an Italian citizen. This is a clear indication of the continent contribution to the growing global evidence to understand the virus behaviour outside China. To cub the spread of the disease, the Nigerian government announced a travel ban on it 13 countries considered to be of high risk for Covid-19 with over 1000 confirmed cases on the 18th of March 2020. These countries include China, Italy, USA, Iran, Germany, Span, South Korea, Japan, UK, France, the Netherlands, Switzerland and Norway. Also the closure of land and sea and air borders was not effected until over three weeks of the recorded index case on the 27th of February to Nigeria coupled with intercity movement led to continuous transmission in the country spreading across the state became worrisome (40) most especially in cities like Abuja, Lagos etc. recent increase in the number of positive COVID-19 cases in Nigeria can be attributed to increase in the number of testing laboratories which rose from just 4 laboratories in February when the first index case was reported to 18 labor[a]ties as at May 9, 2020 effort as made to increase this to all the 36 states of the Federation.

As the community spread of the pandemic became a major concern in Nigeria, Nigeria government announced the total lockdown of three states Lagos, Ogun and the Federal Capital territory for 5 weeks between March 23rd and May 4, 2020.

In order to continue to curb interstate transfer of the COVID -19 pandemic, the Nigeria governor's forum announced interstate lockdown, As part of curbing the spread of the pandemic the government declare closure of primary, secondary schools and tertiary institutions and reduced number of individuals at different gatherings to not more than 50 persons and later reduced to 20 to 10 persons. The gathering includes places of worships, open markets, clubs, gym, saloon, while civil servants on levels 1 to 15 specifically in Lagos State were asked to stay at home, other states follow such. However some palliatives that was put in place along the line for the less privilege was poorly coordinated and mismanaged. The revolts attracted by this situation led to the announcement of relaxation or ease of location by the Federal government from Monday the 4th of May. Before the announcement of the lockdown on the 30th of march, the country has only recorded 131 confirmed cases and 2 deaths as of the 4th of May 2020 when the lockdown was eased the number of confirmed cases has risen to 2558 with 87 deaths and by May 9 2020, the first case fatality was reported on the 23rd of March 2020 (43).

As of 9 of May, Nigeria has recorded 4151 confirmed cases from 25, 951 sample tested, 745 (18%) recovered and discharged cases and 128 deaths revealing a case fatality rate (CFR) of 3% across 34 of 36 states including federal capital territory. The demographics of the corona virus disease in Nigeria as reported by NCDC revealed that of 4151 confirmed cases 2828 (68%) were male and 1323 (32%) were female subjects. The most affected Age group is between 31-40years (24%), total number of people of interest are 9305 within 9291 (99.8% - exceeded follow up). The number of people with travel history – 210 (55), contacts – 947 (23%), without epidemiologic link- 2618 (63%), incomplete information – 376 (9%) (44). The 63% of the total confirmed cases without epidemiological link recorded is an indication of community spread of Covid-19 across the country.

The Federal Ministry of Health and the Nigerian centre for disease control put in place some other identified measures immediate by government on Covid-19 which include, washing of hands with soap, use of alcohol base sanitize, no touch of nose, eyes and mouth with unwashed hands social distance use of face mask, physical distancing interstate, temperature checkup, No large gathering, restriction of interstate travel etc.

Some of the factors that militated against the control of Covid-19 by the Nigerians are – unbelieve, deprived of freedom to worship, believe that Covid-19 is meant for the rich and not the poor, ignorance of transmission most especially in the rural areas, distrust of Nigerian

citizen towards government, money making for government,, there are isolation centres with no facilities and equipments, run away victims e.t.c all of these factors could not help the total control of the pandemic in Nigeria with all of these more than 94% of the worlds student population has been affected by closures of school (Primary, Secondary and tertiary: many measures of the government has led to changes in all aspects of lives and many factors have actually contributed significantly to education practices in Nigeria. Hence there was confusion and partial collapse of every sector in Nigeria.

The learning theories of the traditional educational philosopher such as behaviorism construction and congitirism are considered as the foundation of teaching and learning. This theories do not applied directly to the 21st century learner. Hearing at 21st century has undergone profound changes due to the influence in mobile tools and new technologies we are in the age where theories, practice and real life experiments at a convergence are meeting the learners directly in the classroom (Entwistle et al , 2003).

The success of online education depend on factors including good internet connections learning software, digital skills, availability and access to technology.

Educators and students can optimize these technologies to supplement classroom teachings and to improve their digital skills in line with emerging trends on education. In addition knowledge of technology increases teachers and students interest, competence, confidence creativity etc.

Statement of the Problem

Teachers and students in our institution faced a different life during Covid-19 pandemic, educational system was most at a collapse as a result of the pandemic, there was a total lockdown and so many other measures were put in place that restricted the Nigerian citizen from the normal life. This research was carried out to find out these challenges and opportunities in Covid-19 pandemic from the perspective of the teachers and the students of our tertiary institutions.

Research Questions

    (1)   What are the challenges faced during covid-19 pandemic?
    (2)   What are the opportunities encountered during the pandemic?

Methodology

The study adopted quantitative survey research design. Four university were used, two from Ekiti State, Nigeria and two from Ondo State. 25 respondents (teachers) each were also sampled. Data was collected using self- design questionnaire, validated by three senior colleagues. Data collected were analyzed using descriptive statistics.

Results and Discussion

Research Question 1: What are the challenges faced during Covid-19 pandemic?

Teacher's Questionnaire

S/N	ITEM	SA (%)	A (%)	SD (%)	D (%)
1	My school could not continue with face to face teaching	98	(0.0) 0	(0.0) 20	2
2	Online teaching was introduced	70	(0.0) 0	(0.0) 99	10
3	My school could not finish the syllabus	(0.0) 95	(0.0) 5		
4	I have never done online teaching before the pandemic		(0.0) 80	(0.0) 15	(0.0) 5
5	My digital skills has been enhanced		(0.0) 50	(0.0) 45	(0.0) 5
6	I do not have tools to design quality online teaching	(0.0) 20		(0.0) 75	(0.0) 5
7	I like online teaching		(0.0) 80		(0.0) 20
8	I preferred face to face teaching				
9	Student teacher relationship		(0.0) 65	(0.0) 15	(0.0) 20
10	I like face to face and online teaching be combined		(0.0) 70	(0.0) 15	(0.0) 15
11	Light is a problem to my use of internet		(0.0) 25		(0.0) 15
12	Property are given to some subject then others during the pandemic		(0.0) 50	(0.0) 40	(0.0) 10
13	There is poor internet collection in my house			(0.0) 90	(0.0) 10
14	Student assessments were carried out online with trial and error.		(0.0) 70	(0.0) 25	(0.0) 5
15	There is internet connection in my school		(20)		(80)

Students Questionnaire

S/N	ITEM	SA (%)	A (%)	SD (%)	D (%)
1	My parent supported my learning during the pandemic.	(60)	(10)		(30)
2	I do not always have data	(60)	(15)		(35)
3	I could not afford smart phones	(45)		(50)	(5)
4	I do not have access to digital devices	(33)			(67)
5	There is poor internet collection in my house	(10)	(25)		(65)
6	Online teaching don't allow me to have interaction with my teachers	(60)		(30)	(10)
7	I like online teaching	(70)	(5)	(35)	

8	I want face to face and online teaching be combined	(80)	(100		(10)
9	Online learning had he help me to organize my work better	(70)			(20)
10	I am not familiar with operation of WhatsApp, facebook e.t.c.	(20)		(80)	(20)
11	I prefer face to face teaching	(40)			(60)
12	I do not have electrical gadget in my house	(5)	(25)	(70)	
13	Online teaching improves my critical thinking	(50)	(30)		(20)
14	Independent learning was encouraged through online learning	(75)		(5)	(15)
15	My digital skills has been enhanced	(83)		(2)	(15)

Challenges to teaching and learning

The outbreak of Covid-19 has caused a significant consequence on the education system of Nigeria and a great challenge social distancing, restrict of movement policies, has disturbed traditional education policies. Repouring of schools even after relaxation of restriction is another challenge with new standard of operation procedures in place. Accessibility to funds and food became limited and psychologically there was depression, anxiety about news of death been heard, also there was lack of self esteem among the students. Closure of schools, colleges and universities also coincides with a key assessment period and many exams were postponed or cancelled hence child progress could not be measured. Therefore students are among the most strongly affected by Covid-19 because of uncertainty regarding academic success, future carriers and social life, other psychological challenges faced by Nigeria students are decrease family income and even future employment, anxiety and a compromised willingness to learn, traumatized experience about news of death and the sudden change.

On the part of the institutions, they were at a loss on how to proceed with teaching and learning as universities colleges and other institution in Nigeria use mainly the didactic lecturing model As the lockdown proposed, it became imperative to the institutions to set up e-learning media for continued instructions of students while some institutions came to a standstill and this has caused a loss of valuable time and a change in the calendar of the school year, most schools reported that what they ought to have finished during Covid-19 period is what they are just starting to do.

According to Luberman (2020) remote learning most often consisted of fully online instruction using video conferencing platforms such as zoom or goggle meets and learning management systems such as goggle classroom canvas or see saw to post assignment and video lectures. many teachers   (80%) had never taught online and had never used the platforms and systems necessary to teach online successful, Researchers outside Nigeria even conference this that remote learning presented many new challenges for teachers and presented unique challenges for different content areas of grade levels Herold (2020) and Mupinga (2005) and that remote instructions is not often used with younger students or to teach some topics Dammers (2012) Tallop (2019) (45) of the teachers responded that they still lack the require knowledge, skills and tools to design quality online learning material. Apart from teachers embracing digital tools audio, video etc) teachers also demanded for training in the basic principles of how to effectively use these tools for students engagement and learning. This opinion is supported by Adeleye (2021) which recognizes the need for

technology in education particularly in time of emergencies. This is also in line with Onyema (2019) that integration of emerging technologies in education is no longer a choice but necessary for educators considering the changing learning environment demands for flexibility in methodology and the need to enhance creativity and innovations is learning.

Face to face teaching though offers opportunities for students –teachers interaction that are difficult to replicate at a distance especially where there is inadequate training for distance education e-learning has really served to replicate face to face teaching with greater or lesser degree of efficacy, however some of the students and teacher (35%) advocate for face to face teaching while (65%) still advocate for digital learning and (90%) advocate for combination of the two, even though this entails some challenges. These challenges can affect various aspects of education, including the student teacher relationship that is so crucial for students success (25%) this in support of Adeyanju & Efunwole (2018) that said learning that is limited to the classrooms, student found it monotonous and boring. The further said that student growing up in this digital age have extensive exposure to a variety of media. Therefore it is difficult to educate this generation of young one using the traditional face to face mode so also in line with Adekomi (2019) who called for adoption and enhancement of new approaches to teaching and learning in schools of respondents under challenges said, asking student to set and watch videos, read document online through presentations is really dull and that the worst form of learning is to sit passively and listen without doing anything interesting. Adeleye (2021) confirm that technology can be used to remedy some of the fallots from schools closures but cannot replace the important effect of vitual interactions by students and teachers and many students do not have the necessary access to support technologies which makes it harder to maximize the potentials of learning technology during school closure.

Teachers had little or no notice about the school closing and shifty to online learning, majority of the respondents (80%) said it was strange finding themselves in new ways to ensure learning continues

Also with e-learning, protection and safety of the students will be harder to safeguard. Use of screen could also cause adverse effect in future and some other parts were highlighted by the respondents.

Research has shown that there is always a disparity between rural and urban centres dwellers, Boris (2021) also in line with this study Owoeye & Yara (2011) who find out that student in urban areas had better academic achievement then their rural counterpart also in line with Osokoya & Akuche (2000) who showed that school location had a significant main effect on student congnitive attainment in practice skills. For instance school closures widen the equity gap during the pandemic, progress had been made in the number of students who have access to devices and connectivity, while the rural dwellers could not be reached, because they do not have access to digital devices or internet connectivity, this limitation according to them, said they could not afford it, said there was no money available for data purphate rather thy use available money for survival (food) of the rural dwells responded that they are not even familiar with how to operate WhatsApp, facebook etc.

Educational programme were launched by the government of these state but were only accessible to those with internet access and those that have availability of light.

Some students continued their education many were deprived of adequate opportunities to do so because of lack of essential services and tools such as technology equipment or learning support services hence some of this schools had to establish specific priorities and emphasized some subjects more than others in school curricular. This research is in line with Adeleye (2021) that Corona virus pandemic created multiple problem for education sector leading to decrease education opportunities for poor student and those in rural areas.

Also most parent from rural dwellers could not support children at mom about (25%) respondent from rural dwellers confirmed this, most of them said their parents are not educated, and do not have knowledge of e-learning, the kind of handset that is found among these people are the one with no e-learning facilities while in the urban centre only (60%) parents could really support them children majority of learners are from rural village where parents are mostly illiterate farmers therefore students engaged in assisting parents in farm activities majority of the students (25%) do not have access to smart phones on television at home in addition to poor internet connectivity.

Learning can also expose to potentially harmful and violet condent as well as greater risk of cyber bulging. The level of academic performance of the student dropped for the classes held for both year end examination (internal) due to reduced contact hour for the learners and lack of consultation with teachers where facing difficulties in learning/understanding.

This is because in some schools the students assessments are carried out online with a lot of trial and error, incerlanly and confusion among teachers, students and parent while in some schools examinations were postponed /rescheduled

Respondents (55%) also complaint of restriction of interactions between teachers and students which to them is important.

Research Question 2: What are the opportunities encountered during the pandemic?

This research demonstrate that outside the classroom initiatives and outdoor learning provided added value to the classroom learning experience particularly when these two learning environments are used in a complementary way; for instance. The advantages include a more student own initiatives, both of which faster student engagement and in-dept learning since student are more likely to internalize what they experience. This fostering learning transfer.   respondents stated that e-learning had supported their independent learning many student have been able to continue their education during the school closure period and maintain their social connection with school through telephone, radio, television, e-mail and video conferencing.

Students are able to get their goals and exercise self discipline as well as by given them some control over the choice of methods and tools used to carry out task, respondent said independent learning had help them to organize them work better, more initiative, critical thinking more involved, responsible and accountable and motivated.

Most of the teachers from urban centres and partly from rural concluded that e-learning had enhance their digital skills. The home schooling has forged a strong connection between teachers and parents supported their learning academically and economically. Agreed that Covid-19 pandemic provided us with an opportunity to pave the way for introducing digital learning.

On the part of the teachers, 48 of them reported that they were actively collaborating with one another at their level to improve online teaching methods and the same was applicable with students and even the parent. Hence there is cooperation and willingness to learn from others.

Conclusion

The use of online teaching had turned the adverse effect of the covid-19 epidemic into the driving force of education and teaching reform that is ready to build a new education and teaching mode that will enhance supply of teaching services and implement accurate management of Education and teaching. These new changes brought by large scale online teaching during the epidemic prevention and control period confirm the positive growth of education in Nigeria.

However, the situation in our rural areas need special attention so that there will not be disparity in teaching and learning between students in centers and the rural centers, something has to be done about this. Also teachers and lecturers in our higher constitutions should be trained in digital teaching and student in digital learning so that if it becomes our daily teaching it then means there is going to be a great reform in our tertiary institutions. This must start from the secondary education.

Recommendations

The following are recommended for the research:

- face to face learning, to some people is better than online learning we can reliance the combination to be blended learning, this will create a better learning experience then one hundred period face to face learning.
- Teachers would have started to innovate and experiment with these online tools and may want to continue online pedagogies.
- Resources for digital learning should be made available in all the schools both rural and urban school.
- Teacher collaboration will grow if digital teaching learning is encourage and this will helps to improve learning because teachers can do it draw on what other are doing.
- Experience of Covid-19 pandemic has provided a lot of lessons for decision makers at all levels. It is the view of the researcher that Nigerians had emerged from this crisis stronger and better prepared for the future and better prepared for the future and be more resilent to similar health emergencies in the future.
- Connectivity should be made affordable to all Nigerian citizen.
- Distance learning should be integrated into education
- The Government should invest in the training of teachers on new ideas to enhance that digital skill
- Communities engagement should be strengthened (parents, caregivers etc) in terms of preparedness, cooperation and willingness in future emergencies
- Use of online platforms such as goggle classroom, zoom, virtual learning environment, social media groups like telegram, messager, WhatsApp e. t c can be explored further for additional resources and coaching to the learners.

Reference

Adekomi, B. (2019). *Fundamentals of online education*. Ondo: Concept publishers Limited.

Adeleye, T.M. (2021). Corona virus pandemic in Nigeria Educational sector: impacts and coping strategies. *AAUA journal of Science and Technology Education, 3 (2), 190-195.*

Adhikari, S.P. Meng, S, Wuy. J, Mao Y.P, Ye R.X, Wang Q-Z, Sun C Sylvia, S, Rozelle S, Raat, H & Zhau, H. (2020). Epidemiology, causes, clinical manifestation and diagnosis, prevention and control of corona virus diseases (COVID-19) during the early outbreak period: A scoping Review. Infection Disease of poverty 9, Article No. 29. http://idpjournal.biomedcentral.com/track.pdf/10.1186/540249-020-60646-x

Adeyanju, Efunwole, & Adekomi, (2019). Making them to loose interest. The called for adoption and enhancement of new approaches to teaching and learning in schools.

Adeyanju, J.L. (2013). Principles and practice of teaching in A.A. Aladejana & D.B. Ojerind (Eds). *Journal of Ife education (2nd Edition Pp 54-63).*

Adeyanju, J.L. & Efunwole, G.O. (2017). Development and validation of e-workshop instructional package- An intervention to infrastructural defielencies in Nigeria *Junior Secondary School Basic Science and Technology. Journal of Educational Media and technology,* 21 (2), 179-184.

Awodun, A.O. & Boris, O.O.(2020). Effects of Outdoor Teaching strategy on students' academic achievement in Basic Science in Secondary School in Ekiti State, Nigeria. *International Journal of innovative research and advanced student,* 7 (10), 71-76.

CDC, (2020). 2019 Novel corona virus, Wuhan, China https://www.cdc.gov/c oronavirus/2019-ncov/summary.html

Dammers, R.J. (2012). Technology- based music classes in high schools in the United States. *Bulletin of the council for research in Music Education,* 194, 73-90.

Gallup, (2019). Education Technology use in schools http://www.nesschools,org/wp-content/uploads/2019/09gallupEd-Tech-use-in-schools-2.pdf.

Herold, B. (2020, March 27). **T**he scramble to more America's school online. Education week. retrieve from https://www.edweek/ew//articlescrimble-to-moveamerica-schoolsonline.html.

Holm Hadulla R.M. & Kout Soukou- Argyrial, A (2015). A mental health of students in a globalised belortd. Prevalence of complains and disorders, methods and effectively of counseling structure of metal health services for students mental health, prevention. Elsenier. 3, 1-4 doc 10. 106 a.mhp 2015. 04.003.

Lubeman, M. (2020)**.** Covid -19 remote learning: how to make it work. Between retried from https/www.eduweek.org/ew/issue schools/covid19- remote learning – how- to make-it html.

Nugroho, R,B a Sari, A, Suryaningt yas V.W & Cahyono, S.P. (2020). University students perception of online learning in COVID-19 Pandemic. A case study in translation courses. 2020 International Seminar on Application for Technology of information and Communication. Semarang, Indonesia 225-231.

Mupinga, D.M. (2005)**.** Distance education in high schools benefits, challenges and suggests. *The clearing house*, 78 (3), 105- 108. https://doi.org/10.3200/TCHS.109

Onyema, E.M. (2019). Integration of Emerging Technologies in teaching and learning process I Nigeria; the challenges. *Central Asian Journal of Mathematics Theory and computer Sciences. 1* (August), 135-39.

Osokoya E.U & Akuche (2000). Effect of school location on students learning outcome in practical physics *African journal online.www..ajol.info*

Owoeye J.S. & Yara P.O. (2011)**.** School location and Academic achievement of secondary school in Ekiti State Nigerian. *Asian Social Science, 7(5).*

Question (2014). States that closing of school can affect the quality of teaching and learning and academic achievement.

Mcleod, V. (2020). COVID-19 A history of corona virus lab health and safety.

WHO (2020). Corona Virus Disease 209 (COVID-19). Situation Report – 73

WHO (2020)**.** Novel Corona virus – China https://www.who.int/csr/don/20-February 2020-Novel-coronavirus-china/en/.