

Geographical Impact of Coronavirus (COVID-19) on Nigeria Education System: Issues, Challenges, and Way Forward

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Submitted: 05-12-2021

Revised: 17-12-2021

Accepted: 20-12-2021

ABSTRACT:

The unexpected occurrence outbreak of coronavirus disease in 2019 (COVID-19) which originated from the city of Wuhan, China, has become a significant public health challenge for not only China but also countries all over the world. Therefore, the pandemic has led to the total lockdown of the global human activities in the geographical regions of the world. The World Health Organization announced that the world population are in danger as a result of the novel coronavirus outbreak which have constituted a public health emergency of international concern. As of February 26, 2020, COVID-19 has been recognized in 34 countries, with a total of 80,239 laboratory-confirmed cases and 2,700 deaths, there was a sudden shoot up of confirmed cases of 4.9 million in at least 188 countries with 323,300 deaths and nearly 1.7 million recoveries as at 20th of May 2020. Infection control measures are necessary to prevent the virus from further spreading and to help control the epidemic situation. One of the control measures is the total lockdown of schools at various levels in the whole world, on March 19, 2020 Nigerian government through the federal ministry of education ordered the closure of all schools at various levels that is Federal, States and local government respectively. There is no doubt that the interference of the coronavirus pandemic has caused so many challenges on the Nigerian education system, especially in the northern Nigeria and the like. This paper reveals the Geographical impact of coronavirus (covid-19) on Nigeria education system, issues, and challenges on the sustainable development of the educational system in Nigeria.

Keywords: Nigerian Education System, Coronavirus and Insecurity

I. INTRODUCTION

The World Population is in Danger following the first identification of Coronavirus (Covid-19) case in December 2019 for the first time and this pose a threat to global insecurity, the World Health Organization (WHO) declared that Covid-19 is a global pandemic in March 2020, and warned about its danger to the humanity globally (WHO, 2020). As a measure to slow down its spread, all countries around the world followed strict protocols such as complete or partial lockdowns, social distancing regulations, and curfews. To reduce the chances of humans infecting each other with Covid-19, places where humans interact closely were shut down, including educational institutions. Though the interruption of education has occurred previously in many local instances as in cases of strikes, civil unrest, war, and famine as it is being experienced more acutely and affectively by educators, parents and students at a global level for the first time (Williamson, Eynon, & Potter, 2020, p. 107). Therefore, to ensure the continuity of education, emergency remote education was put in practice in varying delivery modes. As of April 21th, 2020, approximately 1.723 billion learners have been affected with the sudden closures of school in response to the COVID-19 pandemic. On 23 March 2020, many educational institution around the world shut down its activities to curtail the spread of COVID-19 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. Nigeria as a country have as well ensured all schools and personnel experience a compulsory stay at home order so as to prevent further spread of this deadly virus from spreading among school personnel and

students since it can easily be contacted through direct contact with the carrier of the virus. In fact many unified examinations have to be suspended. Around 54 countries in Africa are now with confirmed cases and death tolls due to COVID-19, many have closed their borders and banned international flights, local and international trade are declined drastic. The Nigeria, Rwanda, Tunisia, Democratic Republic of the Congo, South Africa, and most of the African countries have declared complete lockdowns.

Geographical modeling has shown that transmission of an outbreak may be stepped down by closing of schools which are the major atmosphere for social gathering. However, effectiveness of this move depends on the contacts and social distancing principles, children maintain outside their schools. School closure helps a lot when it is introduced at the early stage, but if it occurs late to an outbreak, it may be less effective and may not have any impact at all because by then the disease could have gone out of hands in the school system. This is why over the years educational sector have remain a sensitive part of the sustainable development of any country; because the tune in the development of any country is major dictated by the educational sector. Again in some cases where necessities are not properly managed, the reopening of schools after a period of pandemic closure may result in increased infection rates, in fact doubled the initial figures. The closures as a result of the pandemic does not only affect the educational sector, it has also led to the suspension of all public gathering; closure of major markets, movement of people were also restricted, religious organizations were restricted from worshipping together and many other gatherings' activities were on hold during the trying period. Even with all these, it is difficult to measure the specific impact of school closures, because it varies from place to place, persons to persons; the impact may be positive or effective on individuals as the case may be.

II. PANDEMIC AND CLOSURE OF SCHOOLS

During the period of 1918-1919 influenza pandemic in the United States, school closures and public gathering bans were introduced which helps in the reduction of mortality rates. It was recorded that cities that implemented such interventions earlier had greater delays in reaching peak mortality rates. Schools were closed for 4 weeks according to a study of 43 US cities' response to the Spanish Flu. School closures were shown to reduce morbidity from the Asian flu by 90% during the

1957, 58 outbreak, and up to 50% in controlling influenza in the US, 2004-2008. Multiple countries successfully slowed the spread of infection through school closures during the 2009 H1N1 Flu pandemic. The closures of schools in the city of Oita in Japan helped in the successful decrease in the number of infected students even at the peak of infection. Mandatory school closures and other social distancing measures were associated with a 29% to 37% reduction in influenza transmission rates. Early closures of schools in the United States delayed the peak of the 2009 H1N1 Flu pandemic. Despite the overall success of closing schools, some studies of school closures concluded that it is not the best measure in the control of pandemic and that the process is ineffective. For example a study conducted in Michigan found that "district level reactive school closures were ineffective."

In the year 2009 when there was an outbreak of swine flu in the United Kingdom, in an article titled "Closure of Schools during an Influenza Pandemic" published in the Lancet Infectious Diseases, a group of epidemiologists endorsed the closure of schools in order to reduce the further spread of the infection, and buy time to research and produce an effective vaccine. They studied previous influenza pandemics including the 1918 flu pandemic, the influenza pandemic of 1957 and the 1968 flu pandemic, they reported the effect of school closure would have, particularly with a large percentage of doctors and nurses being women, of whom half had children under the school going age of 16. Unlike western countries, the Federal Ministry of Education's school-closure directive did not produce policy measures on how to ease learning disruptions for children and how to address the digital mean of learning which may be alternative method to physical teaching learning process in the dynamic society. In an account of Taibat Hussain [15], the Coordinated Education response to COVID-19 pandemic on the landing page of the Ministry website is vague and does little to address the learning needs of the most vulnerable and disadvantaged. The single well-documented response is the Nigeria Education in Emergency Working Group.

III. IMPACT OF COVID-19 ON THE NIGERIAN EDUCATION SYSTEM

In Nigeria, the outbreaks of Lassa fever, bird flu, monkey pox, Ebola disease and others didn't weigh down the socio-economic and educational system as of the case of coronavirus, this has been raising dust in the country, educational system and heartfelt burden to the concern personnel, knowing well the possible

effects of the prolong holidays as a result of the pandemic.

3.1. IMPACT ON SCHOOLS

Going to school is the best public policy tool available to develop skills and potentials, school time can be fun, and from an economic point of view the primary point of being in school is that it increases a child's ability to become a useful and acceptable member of the society. Even a relatively short time in school has a longer impact in the life of a child; a short period of missed school may have consequences for skill growth in future. This is why we cannot estimate how much the COVID-19 interruption will affect learning; it is only the visible effect we can see, the gradual decay of inbuilt abilities may not be easily noticed very precisely. We are now in a new world far different from the things we use to know. The school time tables and schedules have changes, and in fact at the resumption of the school after the lockdown, so many grounds needs to be covered in order for the educational system of Nigeria to be able to compete with the world's educational system. Facilities in schools are been underutilized during lockdown, some might have damaged as a result of not been used for a long period of time.

In detail account of UNESCO, about 35.9 million primary and secondary school learners are currently out-of-school as a result of the school closures. For primary schools, this number totals approximately 25.6 million students, of which about 87 percent (23.5 million) are students enrolled in public schools. The numbers are just as stark for secondary school learners. Of the roughly 10.3 million secondary school students who are out-of-school as a result of the closures, approximately 81 percent (8.4 million) of them are public school students. There is no assurance that all the learners who left the school will be back in school the pandemic lockdown; some may have change their lives' view seeing going to school as a waste of time, some may have died, some will change school, some may have join bad groups shifting their attention away from school. Etc. this is where the work of parents and guidance should come in to ensure the proper welfare of learners even while they stayed back home. Unfortunately learning within the homes are as well limited looking at the literacy level of some parents in Nigeria; not every parent could handle well the pedagogy aspect of parenthood and besides other commitments of parents are to be considered.

3.2.IMPACT ON EDUCATION: EDUCATIONAL FINANCE

The sudden interruption of the education system in Nigeria as a result of the pandemic has led the government, parents, individuals, ministries of education at various levels and other concerned personnel to have shift in the plans and strategies to finance the education of their children and the education system at large. There is no doubt the school calendar is going to be extended, and while this is on, there is going to extra payments at various levels of the educational system. During the lockdown some parents were forced to procure laptops, android phones, television cables and other means of ICT, this is to ensure their wards move with the new innovative of the online classes at various levels designed for teachers to reach out to their students. Most of the developing private schools in Nigeria could not afford the payment of their staffs during the period of lockdown because students are not in school, some have not paid the school levies before the emergence of the pandemic leading to school proprietors not having access to inflow of income to welfare their staffs working in their respective schools, in fact there is fear of whether private some schools in Nigeria will be able to survive and keep existing after the pandemic lockdown. Even when there is a standing order that says no work no pay in Nigeria, during the lockdown the governments at some levels still ensured continuous payments of staff in schools, ministries of education knowing well that they are not working for their earnings during the lockdown. There is no doubt that the expenses run as workers payment during the period of lockdown are mere gifts and not payment for work done, this will surely have effect on the future educational finance because the working time does not tallies with the staffs payment. The sad truth about this development is if it persists, it may have serious impacts on the commitment of governments towards the education system in the face of competing demands from the healthcare, business and other sectors serving vulnerable segments of the society at large.

3.3.IMPACT ON EDUCATION: GRADUATES AND SCHOOL LEAVERS

There is no doubt that students in terminal classes in lower and higher levels of education system of Nigeria has been held on a spot; they were unable to graduate or even move to the next level in their academic pursuit this has led to the set a great back of the smooth running of educational sector of Nigeria and the world at large. They have experienced majorly teaching interruptions in the

final part of their studies, interruptions in their assessments, and finally they are likely to graduate at the beginning of a major global recession, because there is no doubt there will be global recession in the economy of the world at large at the end of the pandemic lockdown. While there was boom in the economy of Nigeria in the past, some graduates still find it difficult to get their desired jobs in the labor market, now that there is every tendencies that the economy of the country could experience a drastic meltdown after the covid-19 pandemic, how will graduate get menial jobs talk less of their desired jobs. Unfortunately if this persists for a longer period of time, there might be a great hit on the smooth running of the economy, educational and other sectors of the country at large. Oreopoulos et al. show that graduates from programmes with high predicted earnings can compensate for their poor starting point through both within- and across-firm earnings gains, but graduates from other programmes have been found to experience permanent earnings losses from graduating in a recession.

3.4.IMPACTS ON EDUCATION: LEARNERS WELFARE

According to Thelma & Adedeji Learners in Nigeria are also losing access to the daily meals made available by the federally-funded school feeding programs. Without any doubt, Nigeria has one of the largest school feeding programs in the world, with the World Food Programme estimating that in 2019, Nigeria's Homegrown Schools Feeding Initiative provided access to daily meals to over 9 million children in over 40,000 public schools. The benefits of school feeding programs extend beyond the immediate education benefits of the meals provided, such as encouraging enrollment in schools, and boosting learning. School feeding programs yield larger socio-economic benefits for children, their families, and society at large, which are especially pertinent to children of low socio-economic groups: boosting health and nutrition, and providing social protection and safety nets.

Some learners especially those from disadvantaged and vulnerable backgrounds, the daily meals provided at schools are their primary source of healthy and nutritious meals. Now that the schools are closed, over 9 million public school students are currently being deprived of this benefit. Beyond feeding, Nigeria's feeding program also offers health services, including application of anti-worm treatments and immunizations for learners in public schools across 17 states. Unfortunately the pandemic lockdown involving the schools will as well affect access to some basic

health services for poorer children in underdeveloped societies of Nigeria. Some homes in this categories depend so much on this free meal to cater for their children in this because they have opportunity to safe little expenses to be incurred on their children, which on the long run such savings are use to take care of other expenses in their homes. Now that the school is on lockdown, many parents in this category will surely find it difficult to adjust because their children's welfare has fully fallen back on them coupled with the tight economy whereby there is drastic reduction in the economic development of the country at large.

3.4.IMPACTS ON EDUCATION: FAMILIES

During the pandemic manyparents and guidance might have been seeing it from the inception of the coronavirus lockdown which has forced the gates of all the schools to be locked and reopen on November 2020. The idea is that they continue their education at home, in the hope of not missing out too much. Parents and concern family members are to be involved in the continuous education of their children while at home, but the question here is how many parents or guidance are educated or even have time to attend to their children academics? A case study of parents who didn't have opportunity to attend schools while growing up; they were not sent to school, they are into trades, farming, fishing and the likes. Such parents could do nothing than to provide financial and material needs for their children while the aspect to guide their children academic suffers. Though some illiterate Parents still have the basic knowledge of simple arithmetic and reading due to their daily businesses, such parents supplement a child's mathematics learning by practicing counting or highlighting simple mathematics problems in everyday life; or they illuminate history lessons with trips to important monuments or museums. Being the prime driver of learning, even in conjunction with online materials which many do not have access to; but while many parents round the world do successfully school their children at home during the pandemic lockdown as a result of being educated a little, some are far lacking behind because they were not well informed and couldn't help their children in continuous education while staying back with them at home. For example a road side mechanic in Nigeria who has never being to school in his life, he has a wife who sells foods in the market square; she is as well not educated, a child in such parents care during the period of pandemic lockdown may end up losing interest in schooling and choose to become a road side mechanic or a fish seller all

because that was what he was able to lay his hands on. This supports the assertion that families are central to education and are widely agreed to provide major inputs into a child's learning, as described by Bjorklund and Salvanes [2].

While global home schooling will surely produce some inspirational moments, some angry moments, some fun moments and some frustrated moments, it seems very unlikely that it will on the average replace the learning lost as a result of school closure because the teaching-learning at homes varies while there is uniqueness in the teaching-learning activities in school though it may not be accurate as the school setting's learning; there will likely be significant disparities between families in the extent to which they can help their children learn, since parents have varying

MANAGING CORONAVIRUS PANDEMIC IN NIGERIA EDUCATION SYSTEM

According to the coronavirus response monitoring plans by Unicef Nigeria (2020), Nigeria Education sector maintains a Response Monitoring Tool named 5W Matrix (Who is doing What, Where, When and for Whom) for monitoring Education Sector partners activities under the current COVID-19 contingency response. While the pandemic is still on, partners are submitting their reports on a monthly basis to the Education Sector secretariat appointed team.

The sector has on a regular basis conducting monitoring meetings on COVID-19 response at least twice a month since the inception of pandemic lockdown in Nigeria. These meetings have been holding online (via Skype, zoom, webex etc) in line with the social distancing rules and all implementing partners and other stakeholders have been partaking in the meetings to come out with substantial plans in managing the educational sector in such the trying times of the covid-19 pandemic lockdown. Information on partner activities and reports from periodic meetings is being shared directly with the Federal Ministry of Education and SUBEB for considerations and implementations in which education data collection strives to use the official Education Management Information System (EMIS) school codes to allow for seamless integration with Federal Ministry of Education's data. Therefore, Unicef Nigeria response team to coronavirus, designed a framework according to a specific need resulting from COVID19 crisis. This framework is to give partners concrete information on the impact of the pandemic so far on the educational sector and further suggest ideas of how they can support in term prevention, how they can continue to support learners during the pandemic lockdown period that

schools are on complete lockdown and more detailed guidance on how the education partners can support both the federal and states' Ministries of Education to re-start learning on a gallant note and the activities to prioritize once the shutdown of schools is lifted.

According to Unicef Nigeria, there were three strategic selected objectives linked to the COVID-19 main consequence on school system: School closure: Before, during and after (School reopening) the school closure.

- a. Prevent spread and transmission of coronavirus through and among learners, teachers, parents and School Based Management Committee (SBMC).
- b. Mitigate/Minimize the impact of school closure due to COVID19 on learning and Wellbeing of learners, teachers, parents and SBMC through alternatives solution.
- c. Ensure effective, inclusive and safe return to quality learning for learners, teachers, and SBMC.

As at April, 2020 many states in Nigeria have switched to the radio-television means of communicating with learners whereby teachers go on air teaching their respective subjects and topics to learners listening and watch at home, some learning channels were lunched on various satellite networks even though not every home in Nigeria can afford the purchase and monthly subscriptions of satellite networks. At least with this development some of learners are still being updated in their academics. Some private universities in Nigeria took this advantage to further develop their ICT section to create platforms in reaching out to their students' even while in their respective homes with their parents/guidance. A case study of Bowen University Iwo, Osun State immediately swift to action at the beginning of the lockdown; the university's ICT unit developed a software to reach out to their students in their various homes, they teach and even conducted examinations as at when due. This software was able to view learners in the comfort of their homes, to detect the students face, and ensure nobody is helping them write their exams. This was a commendable effort from Bowen University's management in ensuring there is continuous education even in the face of corona virus pandemic. Unfortunately the development was unable to get down to government universities because the period of the pandemic lockdown came after the academic staffs of universities union declared indefinite strike action as a result of unmet demands from the government. Along the line, on April 22nd 2020, President Muhamadu Buhari

ordered the payment of all university staffs to further encourage them in carrying out relevant researches in finding a lasting solution and vaccines to prevent the spread of corona virus in Nigeria, but this move wasn't effective because there was still strike action in place. For how long will education system of Nigeria continue to suffer strike action as a result of mismanagement of staffs in the sector? Nobody knows, but we all hope that one day Nigeria will rise again and takes its place in the world developmental ranking.

The coronavirus pandemic has exposed the insecurity and socio-economic inequalities of the Nigeria education system; many wealthy families in Nigeria send their children to private schools leaving the poor resources and facilities in public schools all because of the increase in mismanagement of resources allocated to the education system. The children in private schools might experience little disruption in their learning, because the authorities of most standardized private schools do ensure their schools are well equipped with ICT infrastructures and they can afford remote learning. Learners from vulnerable and disadvantaged communities without access to computers and other devices outside school will however be left struggling. In many cases, these children live in communities with poor or non-existent internet connectivity and epileptic power supply. Inevitably, if this digital innovative is the only alternative to switch to during the lockdown it will make worse learning disparities among these children because not many parents can afford an android phone talk less of other sophisticated ICT tools used in aiding learning

While trying to curb the further damage of the corona virus pandemic on the educational sector, the state government of Oyo on the 15th June 2020 ordered the reopening of schools on 29th June 2020 for students in terminal classes such as

Primary 6, JSS 3, and SSS 3 to prepare them for their respective external examinations. This was carried out even while there was still a standing order by the federal government of Nigeria that all schools are to remain close till further notice and directives. While doing this, the Oyo state government promised to ensure all health precautions are in place to prevent staffs and learners in this category from being effected with the virus. Another control measure made by the federal government of Nigeria on the effect of covid-19 pandemic on the education sector was the step to reopen schools to terminal students; the directive came from the president on 29th June 2020 with the advice of Nigeria Center for Disease Control and Presidential Task Force on Covid-19

after uninterrupted school closure since March 19th 2020. With this, learners in primary six, Junior Secondary School three, and Senior Secondary School three are to resume on the 6th of July 2020 for adequate preparations for their terminal exams, other classes and all tertiary institutions are to remain closed till further notice.

IV. CONCLUSION

The coronavirus outbreak (Covid-19) has exposed the insecurity posed on educational sector of Nigeria off its strength. In fact, looking at the trend of the pandemic, it could be something we are going to live with for a long period of time. There is no doubt that there is going to be a serious set-back in the development of Nigeria education system if the coronavirus pandemic lockdown is not properly managed by the government and concern personnel. Schools calendar have been disrupted, there is reduction in the economic development of the country which has affected the education finance as well. Unfortunately the illiteracy level of some parents in Nigeria is not helping the matter because not every parents or guidance could handle the black and white teaching of their children. This on a long run will cause children in these category to experience a great set-back in their academic endeavors, in fact many of them may from there drop out of school and take some other things.

The pandemic lockdown has led to the shortage of funds for the educational system, parents as well are been faced with the reality of having to pay extra cost on their children academics whenever they resume to school. The outbreak of the corona virus coupled with the lockdown of schools at various levels of education in Nigeria has served as test for the education technology interventions for teaching-learning activities. Unfortunately the Nigeria education system arrived at this point not fully prepared. It was observed that even the e-Learning chosen as the alternatives to be used in reaching out to the learners in the period of lockdown has not successfully work because of non-unemployment of expert to manage the IT section of the Nigeria Education system, huge tariff charges from various network providers in Nigeria. Also with the move to reopen schools to the learners in terminal classes, there will be adequate time to prepare them for their respective terminal examinations, but this can only be possible if the government and the schools authorities make available preventive measures and facilities to prevent the spread of coronavirus in our schools. The good question here is will this move be effective now that the

government and the nation at large are experiencing economic meltdown? Nobody knows the answer to this until the move is been reevaluated after a period of operation in that trend.

V. RECOMMENDATIONS

Therefore, it was observed that there were no proper plans in place to check and manage the influence of coronavirus on the educational system, because geographically man environment relationship is not conducive and it is highly recommended for the government and concerned educational personnel should ensure there are futuristic plans to, in case of another similar experience. This is COVID-19, nobody knows what other occurrences will happen in future and will lead to interruption of the activities of the educational system of Nigeria, therefore plans are to be made in ensuring the future of the education system is secured and not been disrupted with emergence of disease.

Having observed that even the e-Learning chosen as the alternatives to be used in reaching out to the learners in the period of lockdown has not successfully work because of non-unemployment of expert to manage the ICT section of the Nigeria Education system, huge tariff charges from various network providers in Nigeria. Therefore it is advisable for the Nigeria ministry of education to employ experts in the area of ICT to further introduce programs that will enhance the productivity of the education sector in order to compete with the outside world even in the period of global pandemic lockdown. These experts should design the teaching learning activities through social media platforms such as Google Classroom which is a free web service that is developed by Google for schools that aims to simplify creating, distributing and grading assignments in a paperless way with the purpose of streamlining the process of sharing files between lecturers and students. Telegram group, WhatsApp group, which is freeware, messenger by Facebook etc, Inc. It allows users to send text messages and voice messages, make voice and video calls and share images, documents, user location and other media. Zoom which is a video communication that provides video telephone and online chat services through a cloud-based peer-to-peer software platform that is used for distance education and social relations. All these will still maintain the social distancing rules, helps the teacher to teach, reach out to learners through voice, written words or even video conversations. Learners won't have to miss a lot as a result of not physically present in class. Also if after a period of time, the move to

reopen schools for learners in terminal classes works perfectly, it can also be extended to other levels of education enforcing all related health rules and regulations are been followed to details in order to ensure much damage is not done to the development of the Nigerian educational sector.

Teachers and tertiary institutions staffs are to soft-pedal their actions with the government on the reopening of schools, they can as well volunteer to make provision for the preventive kits in schools and other related health facilities to curb the further spread of coronavirus in our schools, the Parent Teachers Association, Alumni, Schools Board of Governors etc...are advised extend more supportive hands in upholding the education sector of Nigeria. The future of the country's educational system is in the hands of every one of us and we can't afford to allow it to be soiled with the interference of the coronavirus, private sectors and concerned individuals should as wellcome in to rescue the system from the impending doom which may spring up after the lockdown caused by covid-19 pandemic

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