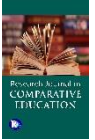


**Building bridges and walls: Education and COVID-19 in Nigeria**

Review article

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**Abstract**

The outbreak of the Coronavirus pandemic in present time has widened the gaps in the education industry across the globe. Despite that COVID-19 remains new, its impact on the entire humanity is unprecedented trauma. In order to contain the Coronavirus pandemic has caused disruptions in the academic activities of schools in many countries of the world. School closures because of this pandemic has caused untold hardship academically to students by accounting for over one billion learners out of school, affecting larger percentages of the world's learner population. Therefore, this study x-rays the opportunities that the pandemic can offer our education system in Nigeria. It is not gainsaying that Coronavirus pandemic has exposed the bad state of our education sector and accumulated negative impact of its quality. Government in their successions has paid lip service to education by not invested massively on the sector. However, the novel COVID-19 has emerged to break and collapse the walls that surround our education sector and it is imperative for all stakeholders in education industry particularly teachers and students to embrace digital shift in education by digitally upgrade their technology capacities by following the rising global direction on the usage of technologies in education.

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## Public Interest Statement

Coronavirus disease is a novel virus that has caused health threats to the global community and of which education sector is not spared from this pandemic. Nigeria as a country since independence has been paying a lip service to the education sector. But with the emergence of COVID-19 and the disruptions in school academic activities, the lapses of Nigerian government in their successions on the digitalization of education sector have been exposed. It is from this background that the researchers x-ray the opportunities that the pandemic can offer our education system in Nigeria.

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## Introduction

Globally, education is extremely important and utmost necessary in the development of modern states. To some degree is about primary socialization, about the processes of imparting knowledge and skills, and fundamentally about the preservation as well as serving as frontier of knowledge for progress, growth and development. It is not enough for state or, indeed, for state officeholders to avow commitment to education provisioning and development, in the same vein, not enough for budgetary allocation and disbursement for education in the budget, because all this require ethical management, circumspect planning, profound and balanced reflection and an adequate ideational for committed to the public good, thereby setting up achievable and productive educational system capable of delineating the positive societal values as well as the skilled manpower required for a nation to develop desirably and significantly. The modern states that have advanced both digitally and scientific wise, regardless of ideological exposures only to the extent that they have paid more than lip service to education. They have developed as such only to the extent that they have committed substantial energy, well functional and directed, and resources, in the quest for education.

It seems peculiar in Nigeria, in comparative terms, with very few if there any states in the modern international structure that have the kind of human and material resources that Nigeria has, and still treat education with this kind of putative lack of devotedness and lack of prioritization. For instance, even the capitalist western European countries that our leaders have, historically, tended to imitate and copycat, have placed adequate priorities on education. In virtually all of these countries, primary and secondary education is compulsory and generally free, or at least very highly subsidized.

Coronaviruses (CoVs) are positively sensed single-stranded RNA viruses that belong to the order Nidovirales, family Coronaviridae, subfamily Orthocoronavirinae with 4 genera: alpha, beta, delta, and gamma coronaviruses (World Health Organisation, 2020). Alpha CoVs and beta CoVs originated from bats and rodents while delta CoVs and gamma CoVs have their origins from avian species (Casella, Rajnik & Cuomo, 2020). The beta CoVs including SARSCoV- 1 was isolated from bats in 1992 with civet cats being the intermediary host; MERS-CoV was isolated from dometry

camels in 2003; and of course, the currently circulating SARS-CoV-2 formally referred to as 2019 novel coronavirus (2019-nCoV) causing COVID-19 (Lu, *et al.*, 2020). SARS-CoV-2 has a pleomorphic and circular structure with a diameter of about 60-140 nm. It can be transmitted from human-to-human by respiratory droplets from sneezing, coughing, and aerosols, with symptomatic people being the major source of transmission. It has a dynamic incubation period of about 7 to 14 days (Li, Guan, Wu, Wang, & Zhou, 2020).

In Wuhan province in China, Coronavirus Disease became first known in 2019 as a transmittable disease. Which was encoded later as “COVID-19” by the World Health Organisation (WHO) means Coronavirus Disease 2019. The pandemic will remain in history as one of the most harmful global virus for years to come. The rate of mortality rises exponentially and the disturbing easy of spread. Nevertheless, globally recent happenings on Coronavirus, it is believed that it is only behavioural change can help humanity to contain the scourge of Covid-19. Measures advanced to control the spread of the COVID-19 include, improvement in the individual hygiene, enclose coughing and sneezing, consistently hands washing with soap or alcohol-based sanitizers (at least for twenty minutes interval), and other individual protection practices like physical and social distancing, face masking, avoiding touching of the nostril and face, and reducing contacts or unnecessary social gatherings. This pandemic is a universal threat that requires mass action and global teamwork to efficaciously contain and curtail the scourge and to be battle ready in tackling its reminiscence effects.

### **COVID-19 and Education**

COVID-19 pandemic has resulted to total closure of schools in about 192 countries all over the world with 91.4% of the total number of enrolled learners in these countries temporarily forced out of school (UNESCO, 2020). It is reported that over 1.6 billion learners across the world are currently forced to stay out of schools because of this Coronavirus as physical and social distancing is being imposed around the world either locally and regionally in order to inhold and curtail the spread of the pandemic. Report shows that lockdown of schools is more prominent in some continents such as Africa, South America and in some parts of Europe (UNESCO, 2020). A UNICEF report states that 10.5 million of Nigerian children aged 5-14 years are not in school. Only 61% of 6 to 11-year-olds regularly attend primary school. Some states in the north east and north west of the country have more than half of the girls not enrolled in schools as marginalisation ensures that girls are deprived of basic education. These are the issues struggling with prior to COVID-19 to ensure young children stay in school and have access to proper education, as Nigeria contributes approximately 20% of the total global out-of-school population. Periods that supposed to be used for teaching and learning would be wasted as long as the cessation of schools lasted. The breakup of curriculum could take a long time to return to normal and it also believed that some learners may remain drop

outs even after the end of this COVID-19 epoch. Despite the low cases of Coronavirus in African countries compare to other countries in Asia, Europe and America, it is envisaged that the education of an African child would be most affected post COVID era due to economic and technological backwardness of most African countries (UNESCO, 2020).

It is pertinent to observe that disruption in learning activities in schools affect not only learners, educators, and families, but have sweeping mental, social and economic aftermath. Suspension of the operation of schools in reaction to the scourge have exposed the negligence on the part of government in their successions on e-learning, education infrastructure, displaced persons, as well as access to free and compulsory qualitative basic education and host of other educational facilities (Erika & Nicholas, 2020). Millions of students/pupils in Africa have been affected by the pandemic (UNESCO, 2020). Therefore, African continent is the second most affected continent in the world after Asia that has over 590 million affected children (Figure 1).

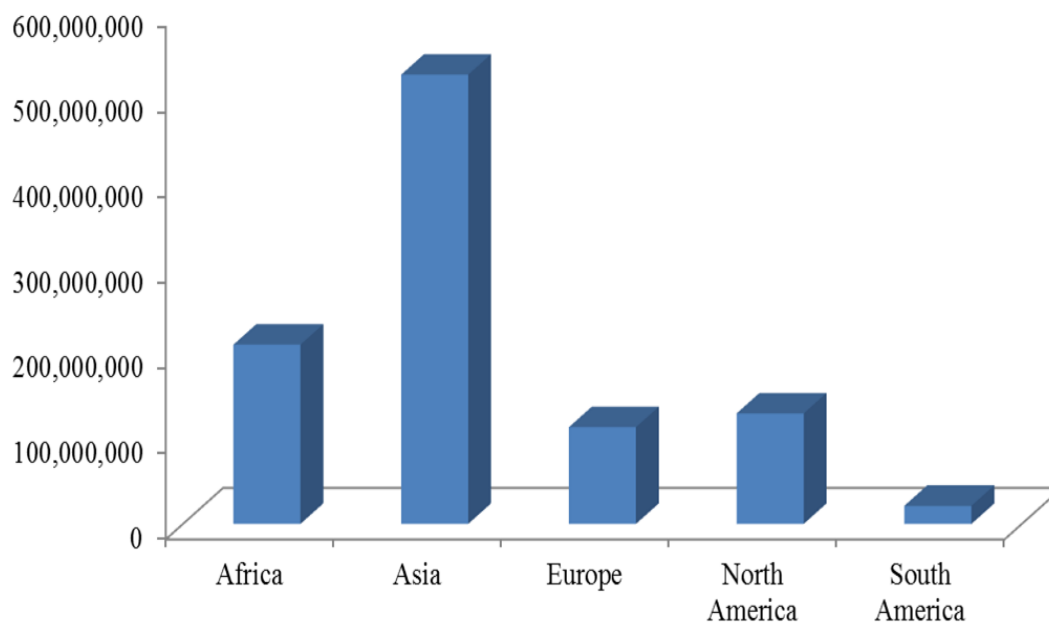


Figure 1: Distribution of learners out of school due to COVID-19 (WHO, 2020).

African countries with the inclusion of Nigeria where schools have been locked down because of Coronavirus in order to impose physical distancing. The affected learners are presented in numbers in Figure 2 and Table 1 respectively.

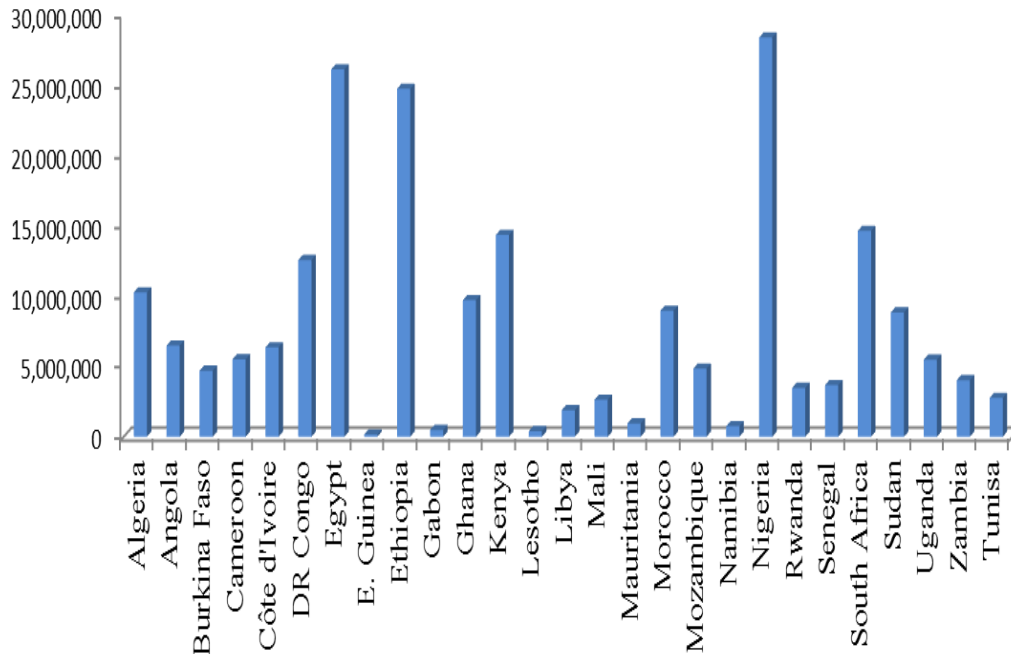


Figure 2: Number of learners Affected by COVID-19 across Africa (WHO, 2020).

**Table 1: Affected Learners most Countries of Africa**

Countries	Number of Learners enrolled) From pre- primary to High School)	Number of Learners enrolled in Territory Institutions	Total	Affected Learners pre capital (%)
<b>Nigeria</b>	26,810,880	1,513,371	28,324,251	13.7
<b>Egypt</b>	23,157,420	2,914,473	26,071,893	25.5
<b>Ethiopia</b>	23,929,322	757,175	24,686,497	21.5
<b>South Africa</b>	13,496,529	1,116,017	14,612,546	24.6
<b>Kenya</b>	13,751,830	562,521	14,314,351	26.6
<b>DR Congo</b>	12077820	464678	12,542,498	14.0
<b>Algeria</b>	9,492,542	743,640	10,236,182	23.6
<b>Ghana</b>	9,253,063	443,693	9,696,756	31.2
<b>Morocco</b>	7,886,899	1,056,257	8,943,156	24.2
<b>Sudan</b>	8,171,079	653,08	8,824,167	20.2
<b>Angola</b>	6221310	253287	6,474,597	19.7
<b>Cote d'Ivoire</b>	6,120,918	217,914	6,338,832	24.0
<b>Cameroon</b>	5207128	290259	5,497,387	20.7
<b>Uganda</b>	5306009	165396	5,471,405	12.5
<b>Mozambique</b>	4622380	213930	4,836,310	15.5
<b>Burkina Faso</b>	4,58,998	117,725	4,686,723	22.4
<b>Zambia</b>	3,955,937	56,680	4,012,617	21.8
<b>Senegal</b>	3,475,647	184,879	3,660,526	21.9
<b>Rwanda</b>	3,388,696	75,713	3,464,409	26.7
<b>Tunisia</b>	2,050,877	272,261	2751424	23.3
<b>Mali</b>	2556278	72603	2,628,881	13.0
<b>Libya</b>	1,510,198	375,028	1,885,226	27.4
<b>Mauritania</b>	928,218	19,371	947.589	20.4
<b>Namibia</b>	689,520	56,046	745,566	29.3
<b>Gabon</b>	468,362	10,07	478,438	21.5
<b>Lesotho</b>	313,968	82,914	396,782	18.5
<b>E. Guinea</b>	160,019		160,019	11.4

Source: (WHO, 2020).

Nigeria has the highest number of learners affected by COVID-19 in Africa. Country-wide lockdown was implemented in Nigeria on the midnight of Monday 20 March 2020 and has resulted to over 30 million learners in the country being temporarily out of school (UNESCO, 2020). Schools particularly the primary and secondary school in Nigeria were at the verge of writing the second term examination by the time the stay at home order became effective in Nigeria. Report shows that Coronavirus pandemic had not peaked in Nigeria and the curve yet to be flattened resulting to easing of lockdown in phases, with hope that crèches and pre-school pupils will resume by 20th of July, 2020 and schools and colleges slated for the 10th of August, 2020, if the spread of the pandemic reduces.

Past researches on recovery after outbreaks suggests that such practices like physical and social distancing during outbreaks tend to continue even after the outbreak (Kekić and Miladinović, 2016). Social interaction in every sphere of lives post outbreak era will take time to become standard. Consequently, social interaction would still influence teaching and learning post Coronavirus pandemic period. The learners, teachers as well as school managers would still be living with the fears of the virus which would invariably prevent learners from interacting with one another in the school (Onyeama *et al.*, 2020). Curriculum recovery would be negatively affected in the long run, while the learners would at the receiving end.

### **Education in danger**

The shutdown of schools would automatically affect the education quality negatively because of disruptions in learning, break in curriculum delivery, impediments in conducting tests and examinations, and reduction in the length of the school year in many countries of the world. It is widely known that, families are placed at the central of education and training and contribute in no small measures to the child's formal training and learning, social cohesion, and culture. It is believed that, home schooling revolves around inspiring, amusing, and discomfiting moments. It is suffice to say therefore, it will completely displace the learner-teacher face to face classroom interaction and learning, this will be determined by science, and time. Furthermore, differences between families may ensue in the extent to which they can engage their children academically and the real potential that some learners maybe left out on the virtual teaching and learning process because of the availability and limited access to resources put in place as well as their functionalities.

It is worth to note that, unexpected closure of schools can cause untold hardships for students, teachers, parents as well as the society greatly. This academic performance and interest of students will be affected negatively. Unproductively engagement of students could lead to youth engagement in criminal activities, demotivation in learning, and deficiencies in academic achievement. It cannot be ruled out that, usage of educational technology can correct the negative

sides of school activities disruptions; however, the result of two-way classroom communication between the students and teachers remains irreplaceable. Beyond that, many students do not have mean to functional educational technology devices which hinder their potentials to at least optimise their academic engagements through technological-packed devices during school closures.

Critical challenge areas include the inadequate time for thorough readiness on the part of the teachers for the online delivery of lesson, insufficient funding commitment, inability of parents to supervise their children at home, inadequate supervision from quality assurance team in assessments and lack of monitoring (Mahaye, 2020). Accessing Information and Communication Technology (ICT) tools is a major challenge viz: the inadequate tools and coverage of internet is always low, with only few governments of countries showcase support or plan to provide free internet package to poor households. While the response is to ensure that learning continues, the conditions may not be ideal as some teachers have not been trained to teaching from home, as this is a different ball game in pedagogical approach.

In some homes radio/TV is monopolised and this is a real challenge, in a situation where there is only one TV in most families. And if the head of the family is not educated or has no interest of his/her children education at heart, he/she will deny the children the chance to be engaged academically and if there is a particular programme to be viewed on the TV. Likewise, traditionally some families believe that the use of the radio is the right of the parents, especially for listening to the news; thus, unless there is a deliberate advocacy and clear communication from governments for parents to permit their wards to use the radio, learning through the device will be impossible.

Some of the negative impacts of school disruptions because of COVID-19 are the following:

1. **Interrupted Learning Activities:** School provides essential learning and when they are closed, learners will be at disadvantaged position to grow and develop academically; this can also expose the learners to social vices, if the closure persists.
2. **School Meals/Nutrition:** A lot of learners are on free meals provided by the government for the purpose of healthy living and it is also used to motivate the learners to attend school particularly where there is low enrolment at primary level of education. This pandemic has put a stop to this for now.
3. **Uneven Access to digital knowledge websites:** The emergence of COVID-19 has furthered widen the gaps in education in terms of access to educational technology. This has put some learners in a corner of out of touch during this pandemic.
4. **Physical and Social Isolation:** It is believed that schools of any kind are beehive of human and social engagements, therefore disruptions in the school activities have taken away from school children socializations that are critical to their learning activities.



**Building the bridges during Coronavirus and not the walls**

Nigerian government in their successions have continued to build walls around our educational system by refusing to invest massively in the education sector but paying lip service with it by allocating meagre amount as education budget annually. Government of Nigeria since independence has ceaselessly building walls around the education sector by refusing through their policies in the sector to be innovative, creative, radical and versatile in advancing with agility the decolonization of education, even they do, implementation had been the major problem.

The unexpected closure of schools for Coronavirus pandemic happened with noticeable possible future effects on the education sector around the world in spite of the fact that the choice for the closure of schools seems to be in a right direction for the purpose of containing and curtailing the Coronavirus pandemic. The providential disruption in schools' activities globally is a sign to revalidate the imperative for the adoption and implementation of greatest advancement technologies in education. The sudden appearance of Coronavirus pandemic has served as leverage for paradigm shift in the demand for online education globally. Use of technology in education has possible force to facilitate education from any location including remote areas and homes. Consequently, as the whole world is battle ready to contain and curtail Coronavirus pandemic or any other future occurrences, the use of digital or technology in education in any platforms would become the emergence of actuality for schools, teachers as well as students (Mahaye, 2020).

It is imperative in a sincere manner to select means and make attempts in order not to abandon students with little or no access to Information and Communication Technology devices. The hurting actuality of the digital divide on Africa and Nigeria in particular has to be in a strategic manner and methodologically managed so as to extend it to millions of vulnerable students must be prioritised by the state in this time of crisis. Remaining at home under the lockdown maybe difficult for students especially the digitalised ones who have ability to make use of technology devices and curious to seek for knowledge. On that ground, with the assistance of digital devices, students as well as teachers could be engaged constructively and academically in order to reduce the state of being weary that could push them to social vices. The role of technology in teacher-learner relationship particularly in impacting knowledge in this hard time of lockdowns, obligatory isolations and physical distancing cannot be overemphasized.

Technologies in education should be seen as the mover of teaching and learning processes ahead in the face of the pandemic, as digital technologies drive the 21st century education system where educators are seen as facilitators, motivators and mentors of learners and not the sole owners of knowledge. Any government that jettison the idea to adopt and adapt to the rapid advancements in technology in education system will soon learn in hard ways as the world remains global village and the technology is the only key to globalisation of knowledge. The e-

learning zone is the combination of android and computer applications for the purpose of teaching and learning. The following are the android and computer software applications that are proposed to be used by teachers and students particularly in Nigeria during this Coronavirus pandemic:

**Google Classroom:** This is an online platform designed by Google for teaching and learning purposes. It is created to help learners and educators to communicate and collaborate thereby encouraging paperless classroom engagements. It is an educational tool that gives room for two-way communication and also ensures feedback on teaching and learning engagements.

**Zoom:** This is an educational tool also which allows for many participants, it includes audio and video sharing. It can be used to record classroom engagements and then transcribe automatically. It is interesting to note that Zoom is one of the most used platforms for teaching and learning during this Coronavirus pandemic by teachers, students and non-students alike because of its coverage.

**WhatsApp:** WhatsApp is an online platform owned by Facebook. It is always run on mobile devices particularly the Android and Iphones, it can also be used through desktop computers with internet connection by the users. It is one of the most widely used online platforms during this COVID-19 pandemic between the teachers and the learners and it allows them to exchange video, audio and written texts as a mean of imparting knowledge.

Creating the new lease of life, the education sector in Nigeria requires massive investment by governments and partners, if Nigeria is to prepare adequately for the smooth continuity of education in the face of future crises such as Coronavirus pandemic. The submission in some quarters that digital education or E-learning is not practicable in Nigeria is debasing. It is not only lowering the quality of our educational system but also question our readiness in the comity of nations to transform the beauty of teaching and learning using current technology gadgets with the contemporary reality of the 21st century, the century of technology. It should be noted that, not only that the E-learning is needed in our educational sector because of the present unprecedented happenings but there is need to equip the learners as well as the educators with the 21st century skills to contend favourably with their contemporaries globally. It is worthy to note therefore, that the best way to revamp our educational system is through digitalisation of education at all levels of schools.

### **Conclusion and Recommendations**

It is not a gainsaying that Coronavirus pandemic has been accompanied by untold hardship on all aspects of human engagements throughout the whole world, viz: education, social interactions, sports, religion worship, economy, and even political activities. Unarguably, the pandemic has caused anguish on people globally the fact of the scenario was herculean to endure, and the teaching and learning activities suffer the most devastating effect of the COVID-19. With

emergence of Coronavirus in Nigeria, the lapses and shortcomings in our education system has been exposed to the world to see, particularly non-digitalisation of the sector. It is time for Nigerian government to invest heavily on education sector, if possible, the implementation of UNESCO recommendation of 26% of budgetary allocation for education. The measures embark upon by Nigerian government are just conservative in nature and the fact remains that the government is yet to consider that fact that this pandemic could remain longer than expected because the curve has not flattened yet. Thorough planning backed with policy thrust is imperative in education sector in order to reduce any heavy blow from future occurrences.

Millions of pupils/students across the globe are perpetually gate kept from schools because of imminent danger of their health. Brooks (2014), reports that good health and emotional competencies are among the major factors that enhance learners' academic performance in schools. Fundamentally, education can only survive when the lives of the learners as well as that of teachers are free from the threats of the pandemic and also in healthy school environment as contacting the virus can result to death. There is need to leverage on the use of technology to support the delivery of education, and it is a high time that Nigerian government invested in digital learning despite the fact that it is capital intensive to venture into it, the fact remains that the journey begins now. Establishing a sustainable and integrated parallel system for learning online to provide a fall-back arrangement as usual learning engagements is therefore very important (Mahaye, 2020). The unexpected shutdown of schools because of Coronavirus is a big lesson as well as omen for Nigeria education system, since Nigerian government is yet to adopt the digitalisation of education through online education. Nigerian education think-tanks should develop a wholesome blueprint to deal with post-COVID-19 period.

The new Coronavirus pandemic in Nigeria's case straightens out the conventional education system and it arrays the abundance of golden opportunity and perception to be innovative, creative, radical and versatile in advancing with deftness the decolonization of education. The pandemic on the other side of the coin provides for Nigeria government the chance to rectify the abnormality and lopsidedness in the educational system in which pupils/students in the rural settings have been left behind for years because of their peculiarities. Equal access and opening in education be prioritised this time around as well as facilities. It is necessary therefore that curriculum implementation should be in uniform for all categories of students and that teaching and learning online should be for all so as to attain uniformity in curriculum repossession aftermath of the pandemic.

Through the Ministry of Education and State Ministries of Education, the government should figure out arrangements for curriculum recoupment through this period and after. Teaching and learning media should be available to learners via online platforms, viz: television and radio programmes and in other gadgets. Of which, at present the Ministries of education have making

frantic efforts to reduce the negative effects of Coronavirus on education. Part of the efforts includes the launching of COVID-19 Learner Support programme on National and Private Televisions and Radios. It is time for Nigerian government to compulsory Computer Applications Technology (CAT) as a subject in our schools. This should be combined or integrated with primary and secondary schools' curriculum.

Finally, training and retraining of teachers on online teaching and learning approaches and on how to assess/evaluate students are quite fundamental at this critical time and for future. As this guarantees the teachers' proficiency footings are sufficient to maintain the utilisation of instructional technology media in the curriculum content delivery. There is no other time than this to advance major curriculum re-design and development in practical terms.

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**References**

- Brooks, F., (2014). *The link between pupil health and wellbeing and attainment*. Public Health England, Wellington House, 133-155. Retrieved from [www.gov.uk/phe](http://www.gov.uk/phe).
- Cascella M, Rajnik M, & Cuomo A. (2020). *Features, evaluation and treatment coronavirus (COVID-19)*. Treasure Island (FL): Stat Pearls Publishing.
- Coronavirus. (2020). Retrieved April 21, 2020, from World Health Organization website: [https://www.who.int/health-topics/coronavirus#tab=tab\\_1](https://www.who.int/health-topics/coronavirus#tab=tab_1)
- COVID-19 Educational Disruption and Response. (2020, March 24). Retrieved April 21, 2020, from UNESCO.org website: <https://en.unesco.org/news/covid-19-educational-disruption-and-response>
- Education International News; COVID-19 tracker*, Published 25/03/2020. Accessed online (18/4/2020), From: <https://www.ei-ie.org/en/detail/16669/education-international-covid-19-tracker>.
- Erika, C. & Nicholas, A. C. (2020). *Closing the schools is not the only option*. The Atlantic. <http://www.theatlantic.com/ideas>.  
<https://en.unesco.org/news/teacher-task-force-calls-support-63-million-teachers-touched-covid-19-crisis>  
<https://en.unesco.org/themes/education-emergencies/coronavirus-school-closures>
- Impact of the 2019–20 coronavirus pandemic on education*. (2020, April 19). Retrieved April 21, 2020, from Wikipedia.org website: [https://en.wikipedia.org/wiki/Impact\\_of\\_the\\_2019\\_20\\_coronavirus\\_pandemic\\_on\\_education](https://en.wikipedia.org/wiki/Impact_of_the_2019_20_coronavirus_pandemic_on_education)
- International Task Force on Teachers for Education 2030*. (27 March 2020). Response to the COVID-19 Outbreak: Call for Action on Teachers.
- Lu, R., Zhao, X., Li, J., Niu, P., Yang, B., & Wu, H., (2020). Genomic characterisation and epidemiology of 2019 novel coronavirus: Implications for virus origins and receptor binding. *Lancet*, 395(10224), 565-574.
- Mahaye, N. O. (2020). *The impact of COVID-19 pandemic on education: Navigating forward the pedagogy of blended learning*. Research online.
- Onyeama, M. O., Nwafor, C. E., Obafemi, F. A., Shuvro, S., Atonye, F. G., Sharma, A., & Alsayed, A. O. (2020). Impact of Coronavirus pandemic on education. *Journal of Education and Practice*, 11 (13), 108-121.
- UNESCO. (2020). How to plan distance learning solutions during temporary schools closures. Retrieved 2020-03-16.
- UNESCO: 290 Million Students Stay Home due to Coronavirus. (2020, March 7). Retrieved April 21, 2020, from learningenglish.voanews website: <https://learningenglish.voanews.com/a/unesco-290-million-students-stayhome-due-to-coronavirus/5317148.html>
- United Nations Education Scientific and Cultural Organization (2020). COVID-19 Educational Disruption and Response. Retrieved from: <https://en.unesco.org/covid19/educationresponse>
- World Health Organisation Coronavirus. [Online]. Available from: <https://www.who.int/healthtopics/coronavirus>. (Cited on 14 March 2020).