LEARNING IN A PANDEMIC
Nigeria’s response to teaching and learning during the COVID-19 pandemic

Supported by:
COVID-19 - Coronavirus Disease 2019
EdTech - Educational Technology
EiE - Education in Emergencies
FCT - Federal Capital Territory
FMoE - Federal Ministry of Education
GSMA - Groupe Spéciale Mobile Association
HND - Higher National Diploma
IBM - International Business Machines Corporation
ICT - Information and Communication Technology
IT - Information Technology
JSS - Junior Secondary School
LHP - Learn at Home Programme
NIRSAL - Nigeria Incentive-Based Risk Sharing System for Agricultural Lending
OGTV - Ogun State Television
OND - Ordinary National Diploma
PGDE - Professional Graduate Diploma in Education
PhD - Doctor of Philosophy
SGC - Successor Generation Community
SSCE - Senior Secondary Certificate of Education
SSS - Senior Secondary School
STEM - Science Technology Engineering and Mathematics
SUBEB - State Universal Basic Education Board
TV - Television
UNESCO - United Nations Educational, Scientific and Cultural Organization
UNHCR - United Nations High Commissioner for Refugees
UNICEF - United Nations Children’s Fund
WACCSE - West African Senior School Certificate Examination
WAEC - West African Examinations Council
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About TEP Centre

The Education Partnership Centre (TEP Centre) is Nigeria’s pioneering education partnership organisation with a mission to improve the overall design, implementation and evaluation of education initiatives through effective, enduring and scalable partnerships.

TEP Centre serves a broad range of education sector stakeholders including policymakers, corporate organisations and foundations, development agencies, donor-funded and assisted programs, civil society organisations, philanthropic organisations and educational institutions.

TEP Centre has offered support to programmes funded, assisted or managed by organisations such as the UK Department for International Development (DFID), USAID, World Bank, MacArthur Foundation, Hewlett Foundation, Google.org, Oxford University, Open Society Foundations, Results for Development Institute (R4D), Ford Foundation, Dalberg, Misean Cara, British Council, USAID, the Lagos State Ministry of Education, MDF Netherlands, Corona Schools Trust Council, Lafarge PLC and Oando Foundation.

TEP conceptualised and hosts the annual NEDIS Education Innovation Summit: an annual event that focuses on identifying innovation in the education sector with a view to systematically scaling these innovations. NEDIS is a recognized event in the sub-region’s education calendar. TEP Centre implements the LEARNigeria Assessment, Advocacy and Action programme.

In this capacity, it oversees a nationally representative and citizen-led household survey of learning in Nigeria. The study ascertains numeracy and literacy competencies in Nigeria’s children and strengthens the agency of various stakeholders to take action which will strengthen the quality of teaching and learning in Nigeria.

The programme is implemented in partnership with institutional stakeholders including the Federal Ministry of Education (FME), the Universal Basic Education Commission (UBEC), the Nigerian Educational Research and Development Council (NERDC), the National Bureau of Statistics and the Nigerian Population Commission as well as state ministries of education, academics, civil society organisations and corporations.

For more information on TEP Centre, visit www.tepcentre.com and www.learnigeria.org.

Visit our social media pages via @tepcentre and @learnigeria.

Write us at info@tepcentre.com or call us on +234 809 111 5403.
Our demonstrated competencies include:

1. Leveraging the technical expertise of the organisation to develop the capacity of individuals and the corporations - in both the public and non-state sector - through the TEP Learning Academy.

2. Rigorous research and studies to provide evidence for policy making and programme design.

3. Development and implementation of a range of curriculum and competency-based assessments that inform the design of learning interventions and strengthen evidence-based policy making.

4. Expertise in measuring and assessing the performance of projects, programmes and institutions across the public and non-state sectors.

5. Advising corporate, philanthropic, and non-profit organisations on the strategic design and implementation of mission-aligned Social Responsibility Programmes.

About NESG

The Nigerian Economic Summit Group is a non-profit, non-partisan private-sector led think tank with a mandate to promote and champion the reform of the Nigerian economy into an open, globally competitive economy.

In 1993, a group of passionate and concerned private sector leaders representing key economic sectors conceived the Nigerian Economic Summit (NES) and sustained it as a platform for bringing together private sector leaders and senior public sector officials to discuss and dialogue on the future of the Nigerian Economy.

Three years later, in 1996, the Nigerian Economic Summit Group (NESG) was established and incorporated as a non-profit, non-partisan private sector organisation with a mandate to promote and champion the reform of the Nigerian economy into an open, private sector-led globally competitive economy.

Over the years, NESG has achieved significant progress in the areas of research outputs, execution of programmes, seminars, conferences and workshops aimed at facilitating the formulation and implementation of social and economic reform programmes for the growth and transformation of the Nigerian economy.

NESG has emerged as the most notable platform for public-private dialogue in Nigeria. During this period, the Group has established an excellent working relationship with the Government of Nigeria, the public sector, private sector, and other stakeholders.

The flagship of the Group’s advocacy efforts is the annual Nigerian Economic Summit (NES), which provides government and private sector an opportunity to review the progress made in our economic reform effort and agree on practical ways to manage issues which may have constrained effective policy implementation.

For more information on NESG, visit www.nesgroup.org.

Write us at info@nesgroup.org or call +234 1 2952849, 2952003.
On the 19th of March, 2020, the Federal Ministry of Education in Nigeria, approved the closure of schools and tertiary institutions (Nlebem, 2020)

- 73.8% of world school population affected
- 36,400,000 Primary and Secondary school learners
- 10,200,000 Out-of-school children in Nigeria
Executive Summary

The Education Partnership (TEP) Centre and The Nigerian Economic Summit Group (NESG), with support from Hewlett Foundation, drew on their competencies in education and economic research, to study and report education stakeholders’ responses to learning in the wake of the COVID-19 pandemic.

The aims of the study were to analyse the responses of key education stakeholders in Nigeria (supply side) and understand the adoption of learning alternatives by students and parents (demand side) in the wake of the COVID-19 pandemic and the subsequent restriction of movement across Nigeria.

The survey used in this study was administered to 1,901 respondents between April 22 and May 16, 2020. These respondents included government officials, teachers, private organisations, private school representatives, parents and students. They represented 35 of the 36 states in Nigeria, including the Federal Capital Territory. The survey was administered via Google Forms with telephone calls placed to potential respondents.

The study identified that significant activities which support learning continued during the pandemic. Teachers and parents provided ongoing learning support to students through e-learning, social and traditional media platforms. The accessibility and affordability of technological or internet enabled devices, as well as poor electricity supply were also identified as challenges limiting efficient learning. In spite of these challenges, opportunities to change the pre-COVID-19 status quo in the education space were highlighted. These opportunities are being maximized through innovative stakeholder partnerships that are promoting accelerated digital skills acquisition, blended learning experiences for students and teacher development.

Key recommendations -from the study results- have been outlined. These recommendations include the prioritisation of teacher development and well-being, the provision of support for parents and the availability of infrastructure for remote teaching and learning.
1. Introduction and Background

The COVID-19 pandemic has affected the lives of many individuals, negatively impacting the global economy and sources of livelihoods. Due to measures to contain the pandemic, about 1.2 billion learners are out of school and 73.8% of the world’s school population have been affected by school closures (UNESCO, 2020a). Although this has affected education access, quality and equality, it has propelled the reshaping of education delivery across the world.

On March 19, 2020, the Federal Ministry of Education in Nigeria approved the closure of all learning institutions (Nlebem, 2020). This abrupt closure led to significant disruptions in the education system in Nigeria; including learning modes, access to school related services, parenting routines, and crisis management capacities of the federal and state ministries of education. As at the time of writing of this report, students have been at home for over three months, causing relevant stakeholders to adapt quickly and developed solutions to minimize the potential learning slide resulting from the pandemic.

According to UNESCO (2020a), the closure of schools has affected 36,400,000 primary and secondary school learners across Nigeria, including those in internally displaced camps. Few of these learners - mostly from financially privileged households - have access to quality learning opportunities from the comfort of their homes. Major causes of this inequity include limited or non-availability of smartphones or computers and internet services in most homes, and the large number of schools that lack the financial and technical capacity to transition from in-school to remote learning facilitation. Many schools are limited in their capacity to purchase the required infrastructure for remote learning and often do not have teachers with the appropriate digital skills. For schools that may be better resourced, it has been challenging facilitating practical-oriented subjects and courses that typically engage students through laboratory experiments. With the closure of schools, there are very few schools that can afford set up and maintain virtual science laboratories where students and the teachers or lecturers can work together to simulate experiments (Abbey & Hoxley, 2020). These students will have to make do with learning the theoretical aspects of science subjects alone, until schools re-open.

The COVID-19 pandemic has also threatened the education of children or youths with special needs and disabilities. Without a crisis, this group of the society already experience some form of marginalization. Hence, the likelihood of losing learning opportunities during and post-COVID; due to combination of factors including the socio-economic income of their families, the non-availability of special needs teachers and the inexperience of parents or guardians in facilitating their learning needs. For children with disabilities, remote home-schooling not only requires access to adequate information technology (IT) resources and internet, books and other learning materials; but also, access to specific assistive devices or special education curricula that allow for a continuous education at home and accommodates the child's specific learning needs (UNICEF, 2020).

The COVID-19 pandemic presents unique challenges for Nigeria’s already fragile education system (Obiakor & Adeniran, 2020). Before the pandemic, there was an estimated total of 10.2 million out-of-school children. In
response to this education emergency, the federal and state governments and private sector are implementing various learning interventions using technological platforms, internet-based tools and traditional media to mitigate the impact of the closure of schools.

With the increasing adoption of remote learning interventions, there is limited evidence of their effectiveness. Given that many of these interventions have been adopted as immediate responses to the crisis (without prior large-scale implementation), it is important to interrogate if and how they are working. It is also imperative to generate data that can strengthen the decision-making power of key stakeholders within the Nigerian education landscape, during and post-COVID-19.

In light of this, The Education Partnership (TEP) Centre and the Nigerian Economic Summit Group (NESG) have drawn on their competencies in education and economic research, to contribute to knowledge on education provision in emergency contexts, by identifying and mapping education interventions that are being implemented in Nigeria during the COVID-19 pandemic. On the supply side, this study seeks to understand the nature of the response; who is doing what, how they are implementing interventions, the extent of their reach, and the results or effects of the interventions being delivered. On the demand side, this study seeks to understand what children and young people are learning, how they are accessing learning opportunities, the pros and cons of the adapted ways of learning, and the resources they need to access learning at this time.

This section has highlighted the background of this study and the overview of the COVID-19 pandemic with respect to learning. Section 2 reviews the literature on education in emergency contexts; Section 3 presents an overview of the data collection and methodology; Section 4 covers the results and findings from the study, while Section 5 concludes with a discussion and recommendations.
2. Literature Review

2.1 COVID-19, School Closures and Education in Emergencies

Although the scope of educational disruption caused by COVID-19 is unprecedented in history, there are valuable insights within the education in emergencies field for countries across the world. In individual countries and regions, education is almost always disrupted by crises caused by armed conflict, natural disasters and sometimes, epidemics. In West Africa, the Ebola virus epidemic which killed over 11,000 people, kept at least 5 million children out of school (World Bank, 2015a).

Education in emergencies (EiE) generally refers to providing safe, relevant and quality education to people affected by conflict, health-related crises or natural disasters. It focuses on the cycle of prevention of, preparedness for, response to, and recovery from emergencies (Winthrop, 2020). EiE is a critical response in emergency contexts as it offers numerous benefits. First, it helps to meet the psychosocial needs of children and youth affected by trauma. Second, it provides physical and social protection for children and youth who face higher risks such as unwanted pregnancies, violence, sexual assault, substance abuse, among others. Third, EiE helps young people keep familiar routines by maintaining study skills to mitigate the number of school dropouts and easily reintroduce schooling. Finally, EiE is important in conveying survival and peace building messages and skills (UNHCR, nd).

Despite the differences between the COVID-19 pandemic and previous emergencies, Winthrop (2020) highlights four good practices from EiE that can be relevant to the current pandemic. First, the current educational responses – whether by remote learning, printed packets, or online learning – are lacking COVID-19 public health messages and training. Although, the emphasis on continued learning is vital, it is equally important to provide information on how schools can actively support ongoing public health campaigns. Second, it is important to consider that school closures may last for months and not just weeks. Hence, education administrators and educators need to see current remote learning interventions as immediate response strategies with long term goals. Third, given that crises tend to exacerbate inequalities, education activities in this period need to be safe, appropriate and inclusive. Education planners should consider potential risks related to the design and implementation of education responses and seek to mitigate them. Fourth, post-crisis recovery should be leveraged to build better and more resilient school systems. In the COVID-19 case, the author suggests that potential areas for improvement include: increased parental engagement, integration of technology into education, and better emergency preparedness in schools.

In West Africa, the Ebola virus epidemic which killed over 11,000 people, kept at least 5 million children out of school
2.2 Learning from the Ebola Epidemic in West Africa.
Education was one of the first casualties of the 2014-2016 Ebola outbreak in West Africa, which hit Sierra Leone, Liberia and Guinea the hardest. At the height of the pandemic, school closures lasted between six to eight months leaving about five million children out of school (World Bank, 2015a). Although the asymptomatic transmission of COVID-19 poses unique challenges, there are lessons from how Ebola-affected countries handled education and child safety during and after the epidemic.

2.2.1 Finding the ‘Right’ Technology
Amid claims that COVID-19 could trigger a spike in online, screen or mobile-based learning, evidence suggests that radio has more potential in low income countries. In terms of technology, radio most likely has the widest reach, lowest cost and quickest start-up period (Bangay, 2020; Hallgarten, 2020). According to UNICEF (2017), more than one million children were reached through radio education during Ebola. For instance, an existing project was quickly adapted into a radio education programme ‘Pikin to Pikin Tok’, targeted at Kailahun - one of Sierra Leone’s poorest districts. Through its 36 existing ‘young facilitators’, the programme created content in three languages and distributed radios to 252 facilitators who led listening groups. The programme recorded high levels of engagement and adults affirmed the programme’s contribution to their children’s learning. According to its initiators, the programme shows how smaller organisations with strong community links, can produce great results during and after a crisis (Hallgarten, 2020).

Paper-based self-study materials could also be necessary, especially for students who might not have literate parents/guardians. These materials should cater for students at different attainment levels, that is, entry, moderate and stretching. It is however important to consider the hygiene surrounding logistics, as COVID-19 can live for long hours on paper (Bangay, 2020).

2.2.2 Maintaining Student Engagement
Drawing from its past experience with Ebola, the radio learning initiative in Liberia seeks to maintain pupil engagement to allow for easy reintegration into school and increased rates of return. To supplement radio lessons, Rising Academies (a network of about 140 schools in Liberia and Sierra Leone) seeks to engage pupils through text messages and teacher phone-ins to improve learning outcomes.

2.2.3 The Gendered Impact of Crises
Beyond aiming for learning gains, educational responses need to factor the gendered impact of crisis on vulnerable children - especially girls. The Ebola outbreak triggered a spike in gender-based violence and teenage pregnancies, which also lead to broader and longer-term consequences. With emerging trends in countries like Kenya (Odhiambo, 2020) and Nigeria (Sahara Reporters, 2020); experts warn against an expected increase in sexual abuse following COVID-19 related lockdowns (Fakoya, 2020).

In 2015, when schools were reopened in Sierra Leone, the government placed a ban on pregnant girls attending school, with the claim that it was not good for their health and could influence other students negatively. Alternatively, the government launched a back-to-school initiative for new and expectant teenage mothers to get back into education. The girls were taught a mix of personal mentoring and curricular subjects (Ghouri, 2015). The aforementioned ban was only recently overturned in March 2020 – after five years (Watt, 2020). Some potential ways to protect adolescent girls from sexual abuse include: disseminating public health messages and promoting parental participation in distance learning (Rouse, 2020).

2.2.4 Reopening Safe Schools
While schools project a sense of normalcy, they should only be reopened when it is safe to do so. Schools also need to be prepared for reopening. Given that many schools were used as isolation and treatment centres during Ebola, it was necessary to clean and disinfect them publicly - with key stakeholders represented - to allay any fears. This also included equipping schools with safe water and handwashing facilities, and public health supplies such as thermometers, rubber gloves and buckets. The decision to reopen schools should also be data-driven - as it was in Sierra Leone. Schools were only reopened in April 2015 after the number of cases fell to six (6) the week before (Davis, 2020).

2.2.5 Learning should include psychosocial support
As with Ebola, COVID-19 patients are quarantined and isolated which could trigger post-traumatic stress. UNESCO (2020b) points out that many countries - especially high-income ones - are concerned about the effect of school closures on student’s health and wellbeing. Thus, education interventions in health-related crises should prioritise mental wellbeing. Some informal learning programmes that provided psychosocial support during the Ebola outbreak showed remarkable impact. In Liberia, a community based psychosocial expressive arts programme demonstrated significant differences in reported mental health symptoms (Decosimo et al., 2019).

2.2.7 Accelerated learning
In spite of mitigation measures, school closures would reduce the pace of learning progress, and poorer children would be mostly disadvantaged than their richer counterparts. Through large-scale assessments when schools reopen, educators can identify learning gaps and design remedial/transition programmes to level the playing field for children.
In the aftermath of Ebola in Sierra Leone, the government designed and delivered an accelerated curriculum to help students catch up (Davis 2020).

2.2.7 Investment in data, evidence and evaluation

Despite capacity and resource allocation pressures to prioritize action over research, quality data and evidence have longer term benefits ahead of the next inevitable crisis. Countries like Sierra Leone, Liberia, and Guinea perhaps have developed a better sense of data utilization, which would be useful in the ongoing crisis. In Sierra Leone, real time data was crucial to school reopening decisions as the government used mobile phones to get monthly updates and track schools with pressing needs. It is also important to track learning during the pandemic to know the reach and effectiveness of learning interventions (Hallgarten, 2020; Davis, 2020).

2.2.8 Adopt a multisectoral approach to recovery

Health crises like Ebola and COVID-19 have cross-sectoral and multidimensional implications, hence recovery approaches should be aligned across sectors to ensure effectiveness. In Sierra Leone, the Presidential Recovery Plan sought to synchronize investments and efforts across livelihoods, social protection, education, and health (Davis, 2020).

2.3 COVID-19 Related Disruptions in the Education Sector in Nigeria

Since schools closed due to the COVID-19 pandemic, there have been efforts by governments, private sector and key education stakeholders to promote continued learning and bridge potential learning gaps. These efforts range from large-scale, low tech solutions that do not require internet-enabled devices (radio and television), to high tech alternatives (virtual classrooms, video conferencing, animated lessons and online resources libraries) that require internet-enabled devices. According to Vegas (2020), while about 90% of high-income countries are providing remote learning opportunities, less than 25% of low-income countries are offering any type of remote learning at all. Consequently, the former majorly engage learners via online platforms, while the latter mostly use television and radio to reach learners. In fact, only about 23% of countries in sub-Saharan Africa, combine online and broadcast media platforms, and only 11% rely exclusively on online platforms.

For parents, the shutting down of schools has necessitated deeper and more technical levels of involvement in their children’s education. This has been challenging for most parents, as school teachers were mostly directly responsible for driving the learning outcomes of school children. A number of parents have had to balance working or managing their families with actively facilitating or monitoring the home-schooling of children (Babatunde, 2020). Children whose parents cannot afford remote learning facilities may have to wait for schools to re-open to continue learning, as such, it is uncertain the number of children that will return to school when the pandemic is over (Obiakor & Adeniran, 2020).

The education crisis during the pandemic has also challenged the leadership style of government agencies working in education. These agencies have had to deploy crisis management skills in ensuring that the number of Nigeria’s out-of-school children does not increase permanently by working with stakeholders to provide distance learning opportunities for as many children as possible. They however have not provided an enabling environment for public tertiary institutions to transition from traditional schooling to remote schooling. Nigeria requires massive training of teachers to teach at a distance and in the use of e-learning. Teaching online is much more difficult than teaching face-to-face (Lawal, 2020).

The global technological space has experienced positive disruption and Nigeria is not excluded. A number of technological tools and services that can facilitate remote teaching and learning have been tailored to meet current educational demands. More than ever before, radio platforms are being used to disseminate lesson instructions to a large number of children at the same time. Most education technology service providers have also adapted their platforms to support remote learning at scale. Websites for learning have - during this period - expanded their content offerings to include other subjects that primary and secondary school children are required to learn asides from Mathematics and English. Generally, education technology tools have been remodelled during the pandemic to include features that would facilitate the participation of parents or guardians in their children or wards’ remote learning (Adegboye & Henshaw, 2020).

Third sector and development organisations that implement programmes in the education space have also been impacted by the pandemic and the shutdown of schools. Most of these organisations depend significantly on financial aid from local and international sources, but the global focus on combating COVID-19 has meant that more money is invested in the health sector and centred around keeping people alive. This implies that funds are more limited in financing education projects, and even where funds are available, they are being redirected to projects that donors perceive to be more relevant in these precarious times. The closure of schools has also placed demands on these organizations to realign their goals and to make the necessary shifts in their service delivery models. For instance, organizations that work directly with schools have had to make efforts to preload lesson
instructions on tablets that allow children to learn without needing internet services.

2.4 Research Questions
In light of the above, this study seeks to answer the following research questions:

1. What is the immediate effect of the COVID-19 pandemic on children’s learning in Nigeria?

2. What are the innovations that are aiding learning-from-home at this time?

3. What are the major challenges learners and parents are facing in utilising these alternative learning innovations?

4. What are the implications of learning-from-home on equality of access to education in Nigeria?

It is also important to track learning during the pandemic to know the reach and effectiveness of learning interventions.
3. Data and Methodology

This study was carried out using primary and secondary sources. For the primary data, we administered an online and phone interview survey. Data collection began on the 22nd of April 2020 and closed on the 16th of May 2020. Data was collected via Google Forms and the phone interview responses were also filled using the same platform. For the secondary data, we conducted a desktop review to map out learning interventions both in Nigeria and beyond. In achieving the research objectives, our sample of study included 1,901 key education stakeholders in Nigeria, which were broken down into the following five (5) respondent categories:

1. Government officials including SUBEB, Commissioners for education, Special Advisers on education and Permanent Secretaries
2. Representatives of private organisations and schools
3. Teachers
4. Students at primary, secondary and tertiary levels
5. Parents of school aged children in Nigeria

The same questions used in the self-administered online survey were used in the phone interview survey.

The Total Number of Respondents in the Survey (online survey and phone interviews)

Number of Respondents: 1901

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parents</td>
<td>100</td>
</tr>
<tr>
<td>Teachers</td>
<td>277</td>
</tr>
<tr>
<td>Students</td>
<td>624</td>
</tr>
<tr>
<td>Government Officials</td>
<td>47</td>
</tr>
<tr>
<td>Private Organizations</td>
<td>106</td>
</tr>
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</table>

Share of respondents in the survey

- Parents: 23%
- Teachers: 57%
- Students: 29%
- Government: 23%
- Private: 5%
The survey respondents represent residents of 35 states across Nigeria as shown in figure below. The data has been analysed using descriptive statistics, textual analysis and graphical analysis. Section 4 below discusses findings across the respondent categories highlighted above.

**Share of Respondents across States.**

2 Majority of the respondents were from Lagos state. This was for a number of reasons, including the highly urban nature of the state and the relatively higher access of its residents to high-tech and low-tech devices and platforms alike. Lagos was also acknowledged by the Universal Basic Education Commission as the first state to announce a programme aimed at preventing a learning slide during the pandemic.
4. Result and Findings

4.1 Government’s Response to Learning During The COVID-19 Pandemic

4.1.1 Overview of Government Respondents
We surveyed 101 government officials across 22 states and the Federal Capital Territory (FCT). 16% of these officials reported that their states were not currently implementing any learning alternatives for students to continue schooling\(^3\) while 84% of the respondents reported that their states were providing a number of learning alternatives during the pandemic.

80% of the government officials that responded to our survey agreed that the COVID-19 pandemic has caused a major disruption in the education system. Most states across Nigeria responded to the pandemic by providing television (77%) and or radio programmes (75%) for students to continue learning. 49% of the states reported that internet-based learning platforms were created for students to learn and only 4% were pursuing offline learning alternatives. With regards to length of time, 53% of respondents stated that it took them between 1-2 weeks to deploy the learning alternative platforms for students.

\(^3\) At the time this survey was being conducted, respondents from the following states reported not offering any learning alternative amidst COVID-19 – Bauchi, Bayelsa, Benue, Cross-river, Gombe, Plateau and FCT.
4.1.2 Funding the learning interventions

42% of the respondents reported that funding for interventions came from private partnerships; 32% reported that the government funded the interventions while 32% also reported that the interventions were financed through the diversion of funds from other projects. Only 30% of the respondents reported donations as the source of funding for the learning interventions.

Figure 4.1.1 Types of Learning Interventions Implemented in the States

<table>
<thead>
<tr>
<th>Source of Funds</th>
<th>Percent</th>
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<tr>
<td>Diversion of funds</td>
<td>32%</td>
</tr>
<tr>
<td>Government Funded</td>
<td>32%</td>
</tr>
<tr>
<td>Private partners</td>
<td>42%</td>
</tr>
<tr>
<td>Donation</td>
<td>30%</td>
</tr>
</tbody>
</table>

4.1.3 Intervention effectiveness

When we asked about tracking of the learning interventions, only about 50% of the respondents agreed that there were methods in place to track the effectiveness of the interventions. The three (3) major methods for tracking the intervention effectiveness as reported by the respondents were: online - through website back-end and online questionnaires; offline - through direct feedback from the parents, field visits and through the community leaders; and mobile platforms - through calls from parents during broadcast programmes, mobile tutors and WhatsApp messages.

In states that have adopted radio (and) or television lessons broadcasts, phone calls and text messages are a popular way to gauge the effectiveness of the lesson. States like Lagos, Ekiti, Taraba and Osun reported the use of this method.

In some other states like Taraba and Osun, phone calls and messages are supplemented with door-to-door/community outreaches to know if students in targeted communities are accessing the programmes. In Kaduna, religious and community leaders are also engaged as a way to ensure proper supervision of the interventions.

Edo seems to have a well-structured tracking system that combines both online and offline methods. Respondents reported the use of a digital tool called Tawk.to which provides data analytics on website engagement and has a live chat function. Trained officers get responses from this platform and assign mobile tutors to students based on need. Teachers also follow up with students offline and students are required to submit weekly assignments both online and offline.

In states like Lagos, the Ministry of Education and State Universal Basic Education Board (SUBEB) conduct regular monitoring and supervision activities to ensure learning objectives are being met. There were contradictory findings in Ogun state on the tracking of the intervention’s effectiveness, where one school principal mentioned that the scheme of work was being used as a tracking method, another said tracking would only be possible when the school resumes. The recently announced deployment of an online assessment of learning by the government offer insights as various models of assessing learning will be explored by educators in the near future.4

4.1.4 Challenges of implementing the intervention

When we asked the government officials what challenges were affecting the implementation of remote learning interventions in their states, the majority of respondents (75%) reported lack of resources for children as a huge challenge.

One official in Delta state reports that:

“The interventions are more beneficial to those students in the urban centres who might have the resources to participate in the interventions compared to their counterparts in rural areas.”

The resources that were identified as unequally accessible by the students include - but are not limited to - digital tools, internet access and electricity. Another challenge that was highlighted in the study was getting access to student data, which could also inhibit tracking of the intervention implemented by the state. A school principal in Ogun state reported that effective intervention tracking would only be possible when school resumed.

4.1.5 Impact of COVID-19 on the education system

86% of the respondents believe that the education system in Nigeria could change significantly as a result of the COVID-19 pandemic. Majority (84%)

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believe that education planning in the future will be affected and 79% of the respondents believe that learning processes will be impacted (see figure 4.1.3).

4.1.6 The government’s response beyond the primary survey

In addition to our findings from the survey of government officials, we conducted secondary research and found evidence of other learning interventions and responses by the federal and state governments to prevent a learning slide in the education system.

Federal Government Interventions:
The Federal Ministry of Education and the Universal Basic Education Commission set up the Nigeria Education Sector COVID-19 Response Strategy (FMoE, 2020). This strategy includes plans for the Learn at Home Programme (LHP), and is aimed at minimizing the learning slide during the pandemic. Through the LHP— in partnership with educational technology companies—, FMoE has launched virtual learning platforms and provided links to e-learning resources.

These virtual learning platforms include SchoolGate, Mobile Classroom, WAEC E-learning toolkit and Unity Schools virtual learning platforms. Other e-learning resources whose links are provided on the FMoE websites are Khan Academy, Seesaw, National Open University, UNESCO School Meets Learner Approach, Teacher Development Programme, British Council, state government owned e-resources, Oracle Academy, IBM University Relations and Development Learning Partners Educational Resources.

The SchoolGate virtual platform gives primary school children free access to instructional materials for subjects ranging from Mathematics to Civil Education resources. The platform also states that learning materials on basic programming, web development and STEM education will be provided by the end of July 2020. The Mobile Classroom e-portal provides resources that are relevant to secondary and post-secondary school students. Users of the portal have access to courses ranging from Chemistry to Business Statistics to Operations research.

The Unity Schools virtual learning platform was set up for students enrolled in the federal government owned unity secondary schools, but is open to students from other schools. To access the platform, students join a telegram group where codes for JSS1 to SSS3 classes are provided. These codes are then used to access content for their classes on Edmodo, a free learning management platform. The WAEC E-learning toolkit provides students with resources needed to effectively prepare for the West African Senior Secondary School Certificate Examination (WASSCE). On the website, students have access to detailed answers to past WASSCE questions.

In addition, the Federal Government in partnership with 9mobile telecommunications has provided data-free access to Khan Academy, SchoolGate, Seesaw, Mobile Classroom and Centre for Entrepreneurship and General Studies for 9mobile data users. The FMoE website has compiled the schedules of distance learning programmes implemented by 31 states. Through these programmes, lessons are broadcasted on radio, television and on-line platforms to reach a large number of children. These lessons encompass content on core primary and secondary school subjects. On the 29th of June, 2020, the Federal Government announced the reopening of schools but only graduating students in Primary 6, Junior Secondary School (JSS) 3 and Senior Secondary School (SSS) 3, have been allowed to resume in order for them to write the examinations required to progress to the next level of education. With regards to individuals with special needs, the Director General of the Nigerian Copyright Commission, on the World Book Publishers Day, reaffirmed the commission’s commitment to encouraging publishers to provide more books in accessible formats for persons who are blind, visually impaired or otherwise print disabled in Nigeria (Nigerian Copyright Commission, 2020).

State Government Interventions:
The Lagos State Government, in collaboration with Microsoft Office, represented by ATB Techsoft Solutions, trained 18,000 teachers in the state (Akoni, 2020). The Programme tagged; Work-From-Home, Remote Teaching and Learning for Lagos State Secondary School Teachers is aimed at equipping teachers with remote teaching skills using mobile devices and computers. The teachers are being trained on remotely diagnosing and understanding learning needs and challenges, assigning homework, giving...
feedback, auto-grading quizzes or tests and engaging internal stakeholders. Also, First Bank of Nigeria has partnered with the Lagos State government to equip and empower primary, secondary and tertiary institutions with e-learning solutions and devices as part of efforts to minimize the effect of disruption of schools’ academic calendar due to the COVID-19 pandemic (Thisday, 2020). The low-end devices, which are preloaded with a government accredited curriculum are designed to work offline. The Lagos state Government also announced that 10,000 radios will be distributed to students in Lagos State beginning from the 29th of June, 2020. The radios were purchased through crowdfunding efforts that the Lagos State Honourable Commissioner for Education initiated with several partners (Technext, 2020).

Following the closure of schools in Ogun State, the state ministry of education together with SUBEB came up with a one month broadcast of education programs on the state television (OGTV) scheduled in the morning (9am-11am) and afternoon (1pm-2pm). Also, the Ogun Digital Classroom (Ogun Digiclass) focuses on educating primary and secondary school students in the state. To cushion the effect of the pandemic, Teach for Nigeria, a non-profit organization partnered with the Ogun state government to deploy online capacity building workshops for teachers on programming using an application called Scratch (a block-based visual programming language and website targeted primarily at children). The workshops are aimed at developing the skillsets of teachers and students for STEM education.

Following several weeks of teaching through the Ogun state television and radio programmes, which were also streamed on YouTube and the official Ogun Digiclass website, the Ogun state government rolled out an online assessment of learning to assess students who have been learning while at home.

The assessment was implemented through the website and students in their final year of senior secondary school (SS3) took part across the 20 local government areas in Ogun state. The assessment reached a total of 17,375 students in both public (46%) and private schools (54%). Microsoft forms was used to implement the assessment and students answered a total of 60 multiple choice questions each. Overall, 34% scored below 40% on the assessment.

4.1.7 Insights from the Government’s Response

In concluding this section, we highlight some key findings from the survey of government officials in Nigeria. COVID-19 has had significant impacts on education in Nigeria but students in rural areas or from low-income households may be more negatively affected as they have limited or no access to resources like data, digital tools and electricity.

Given the infrastructure issues prevalent in Nigeria, low-tech options like radio and television are the most popular platforms of remote learning due to the government’s capacity and the relative accessibility of these platforms compared to online alternatives. This is largely comparable to interventions in other African countries like Kenya and South Africa where the national governments have rolled out similar broadcast programmes (World Bank, 2020).

However, e-learning is growing in relevance and the government seems to recognise this based on the numerous initiatives that have been rolled out. Consequently, many states seem to have employed a mixed media approach, that includes both low-tech and high-tech alternatives. This has also informed the emergence of low-tech adaptations of high-tech options, such as pre-recorded lessons rather than live lessons.

While this serves to meet the needs of diverse population groups, it could also increase education inequality between the rich and the poor.

Furthermore, monitoring the effectiveness of the different initiatives has not been seamless. Many states do not have a comprehensive structure for assessing their multiple initiatives. It was also evident that school-level capacity for monitoring learning interventions is still quite limited. Large-scale initiatives (radio and television lessons) are more difficult to assess and do not provide the kind of rich and personalised data that high-tech or internet-based platforms typically provide. This also speaks to the larger issues of poor pre-pandemic data management and utilisation within the education sector.

Private sector participation in providing education is equally important. COVID-19 has allowed for greater collaboration between state and non-state actors at an unprecedented
4.2 The Non-state Response to Learning during the COVID-19 Pandemic

4.2.1 Overview of Private Organisations and Private School Representatives

We surveyed 178 representatives of schools and private organisations working in the education sector across 25 states in Nigeria. Majority (46%) of the organisations represented in our survey operated small businesses and 26% are micro businesses. Only 13% are large businesses (200 staff and above) as represented in Figure 4.2.1. In terms of years of operation, 34% percent have been in operation for 3 years and less and 24% have been in operation for more than 10 years.

4.2.2 Education Intervention

Of the 178 responses, 49% reported that they are implementing interventions to aid learning during the pandemic. The target audience for their interventions ranged from parents to students at different education levels. However, the majority reported that their interventions targeted primary and secondary school students. Majority of the interventions provided by our respondents are accessible via social media and phone applications. We asked respondents about the interventions deployed to aid learning during the pandemic and Figure 4.2.5 reports their responses. 76% of the interventions captured in our survey data were developed as a result of the pandemic which speaks to the rate of responsiveness of these organisations to support students learning.

4.2.3 The Support Required to Scale Interventions

In responding to the question on the support that the organisations need to scale the reach of their interventions, majority of the respondents reported that they needed financial (funding) support. Others cited technical equipment for producing pre-recorded educational content, access to learning management systems, partnerships, reliable internet access and internet enabled devices for parents, students and teachers, cooperation of parents and electricity as reported by Figure 4.2.6. We went further to ask the respondents about the sort of organisations that could provide the support they required to enable them to increase the reach of their interventions (Figure 4.2.7).
Specific Learning Interventions and Approaches Implemented

4.2.9 Insights from the Non-state Sector Response

The data shows that majority (76%) of the learning innovations amidst COVID-19 did not exist pre-pandemic. Qualitative data also confirms that many pre-pandemic innovations were revised or scaled according to the learning gaps that emerged in the wake of COVID-19. It is interesting to see that some of the mid-pandemic innovations (e.g. SGC WhatsApp School), are entirely volunteer-led with no profit motives; highlighting education as the collective responsibility of citizens, businesses and governments.
It is also evident from the data that learning in Nigeria amidst COVID-19 is largely driven by mobile devices. This could be as a result of the country's growing mobile penetration, making the consumption of internet-related services largely "mobile-first" (GSMA, 2018). Being the primary platform for digital services across various sectors including education, it is not surprising that the majority (66%) of the respondents indicated social media and mobile applications as the platforms through which beneficiaries are accessing learning interventions.

The innovations deployed by private schools also reflect the rural-urban and socio-economic inequalities that still exist in Nigeria. Given the growing demand and supply of private education in Nigeria, there are marked differences between the quality of education provided by elite schools compared to low fee private schools. This study showed that elite schools (Babcock University Schools, Livingspring Schools) situated in urban centres used sophisticated (and mostly paid) platforms like Moodle, Zoom and Microsoft Teams with higher data consumption. While some middle or low fee private schools, including those away from city centres used options that required minimal or no internet connectivity such as WhatsApp and printed materials.

While private organisations have provided a wider range of learning solutions that catered not just to students, the survey reveals that only a few innovations are addressing tertiary education and teacher development and training. Private universities have employed e-learning platforms to ensure learning continues amidst this pandemic. However, state-owned universities are still lagging behind the e-learning transition for reasons including large student population, existing student and teacher capacity, poor internet facilities and incessant union strikes (Adeoye et al., 2020). Teacher development and training is also still largely neglected especially in rural areas and marginalised communities.

### 4.3 Teaching remotely during the COVID-19 Pandemic

#### 4.3.1 Overview of Teachers

We surveyed 439 teachers across 31 states plus the FCT. The average age of the teachers in our sample was 37 years. We had more female respondents at 56% of the sample and male teachers made up 44% of the sample. 28% of the teachers had been teaching for less than 5 years while 72% of the sample had been teaching for more than 5 years.

54% of the teachers were public school teachers and 46% taught in private schools (figure 4.3.1). Majority of the teachers in our survey taught at the upper secondary school level.
4.3.2 Teaching during the Pandemic

When we asked the teachers how they are keeping their students engaged during the pandemic, majority (41%) of them reported that their students were learning via virtual platforms. 39% of the respondents also reported that the students were learning through radio and television programmes, while 20% reported that students were learning via social media. 28% of the sample of teachers reported that their students were not actively learning during the pandemic. Table 4.3.1 summarises the different and multiple ways the teachers were engaging students during the pandemic.

The teachers selected multiple options and 65% reported that they were engaging with zoom during the pandemic, 56% selected social media as the tool they were engaging with less than 10% used Cisco Webex, Microsoft teams, Google team, Edmodo and school books. The teachers were asked the specific tools they engaged with during the pandemic, Figure 4.3.3 describes the tools the teachers reported using.

4.3.3 The Effectiveness of Teaching Tools

We asked teachers the rate the effectiveness of the teaching tools they were using to teach during the pandemic. As seen in Figure 4.3.4, 34% reported that the teaching tools were good, 31% reported that the tools were neither good nor poor (neutral). We went further to investigate the reasons for the ratings teachers reported above. We report broad and specific reasons for the poor ratings in table 4.3.2.

The major challenges cited by teachers as indicated in Table 4.3.2 are infrastructural and pedagogical challenges. Teachers complained about not feeling connected to their students through the virtual platforms. In particular one teacher reported that:
“Though I can make audio recordings as if I am teaching in the class for them but the students don’t ask questions and not all the students are involved for whatever reasons.”

Another teacher in citing the inaccessibility of virtual learning platforms by students reported that: “I have more than 40 pupils in my class, only 17 parents are on WhatsApp.

“Other teachers who believed the platforms they used for virtual teaching were effective, rated the platform as either good or very good”.

One teacher who used WhatsApp to teach his students reported that:

“The students feel as if they are in a normal class. The students are given assignments and they are doing it. The only difference is that you can’t touch them but the normal classroom activity is achieved.”

4.3.4 The Ease of Using Virtual Teaching Platforms
We asked the teachers who reported that they were supporting their students virtually, how difficult it was to support their students learning. Majority (34%) reported that it was fairly easy to support their students learning virtually and 27% reported that they found it difficult to support their students learning virtually.

We asked teachers if their students were effectively utilizing the learning tools they were engaging with during the pandemic. 62% reported that their students were effectively utilising the learning platforms during the pandemic, while 38% reported that they found it difficult to support their students learning virtually.

We asked teachers if their students were effectively utilizing the learning tools they were engaging with during the pandemic. 62% reported that their students were effectively utilising the learning platforms during the pandemic, while 38% reported that they found it difficult to support their students learning virtually.

Subsequently, table 4.3.4 describes the challenges reported by teachers whose students were not utilising the learning platforms and the reasons why their students were not utilising the platforms.

<table>
<thead>
<tr>
<th>Broad reason for low ratings</th>
<th>Specific reasons for low ratings</th>
</tr>
</thead>
</table>
| **Infrastructural challenges** | • Data costs  
• Electricity  
• Limited or no internet access including for students and parents in rural areas  
• Poor internet quality |
| **Pedagogy** | • Low technological penetration and lack of prior digital skills on the part of students and teachers  
• Non-familiarity with the platform being used  
• No room for assessments  
• Low student responsiveness  
• Technical difficulties in submitting assignments  
• Lack of interpersonal relationship between students and teachers  
• Limited parental capacity to support learning  
• Low engagement or online attendance rates  
• Limited teachers’ ability to ensure compliance |

<table>
<thead>
<tr>
<th>Broad reason for high ratings</th>
<th>Specific reason for high ratings</th>
</tr>
</thead>
</table>
| **Pedagogical benefits** | • Interactivity and flexibility on platforms like Zoom and Google Classroom.  
• Availability of learning resources.  
• Structure for grading, quizzes, real time monitoring, etc.  
• High response rates.  
• Positive feedback from parents.  
• Wide reach (radio and WhatsApp).  
• Encourages self-study |
### 4.3.5 Teaching Preferences

We asked the teachers in our survey if they preferred remote teaching or teaching in person or a blend of both teaching methods. 69% of the respondents reported that they preferred a blend of teaching in person and remote teaching.

*Figure 4.3.5 How Easy Has Supporting Your Students’ Virtual Learning Been in this Period?*

![Pie chart showing difficulty levels of supporting virtual learning.]

Only 3% of our sample of teachers would prefer to continue full teaching remotely. Perhaps this speaks to the challenges of remote teaching that they encountered during the COVID-19 pandemic.

*Figure 4.3.6 Are Students Effectively Utilizing Learning Tools?*

![Pie chart showing the effectiveness of learning tools.]

### Table 4.3.4 Challenges Associated with Virtual Learning Platforms and the Reasons Why all Students are not Utilizing Them

<table>
<thead>
<tr>
<th>Learning Platforms</th>
<th>Specific Challenges Associated with each Learning Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>WhatsApp and other Social media platforms</td>
<td>• Limited internet access for students and teachers</td>
</tr>
<tr>
<td></td>
<td>• No access to internet-enabled smartphones or devices</td>
</tr>
<tr>
<td></td>
<td>• Limited digital skills of parents</td>
</tr>
<tr>
<td></td>
<td>• Internet costs</td>
</tr>
</tbody>
</table>

### Table 4.3.5 Resources Teachers Need to Continue Remote Teaching

<table>
<thead>
<tr>
<th>Broad Support Required</th>
<th>Specific Support Required</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Infrastructural and financial support</strong></td>
<td>• Electricity</td>
</tr>
<tr>
<td></td>
<td>• Internet data for students and teachers</td>
</tr>
<tr>
<td></td>
<td>• Stronger network infrastructure in rural communities</td>
</tr>
<tr>
<td></td>
<td>• Consistent salaries</td>
</tr>
<tr>
<td></td>
<td>• Internet-enabled and high storage smartphones</td>
</tr>
<tr>
<td></td>
<td>• Computers</td>
</tr>
<tr>
<td></td>
<td>• Funds to get relevant materials</td>
</tr>
<tr>
<td><strong>Parental and community support</strong></td>
<td>• Digital devices for parents</td>
</tr>
<tr>
<td></td>
<td>• Digital training for parents</td>
</tr>
<tr>
<td></td>
<td>• Parents’ collaboration in the supervision of their children</td>
</tr>
<tr>
<td></td>
<td>• Sensitization of relevant stakeholders -particularly in rural areas- on remote learning alternatives</td>
</tr>
<tr>
<td><strong>Pedagogical support</strong></td>
<td>• Trainings on online/virtual teaching</td>
</tr>
<tr>
<td></td>
<td>• Access to online learning platforms</td>
</tr>
<tr>
<td></td>
<td>• E-learning instructional materials/printed packets</td>
</tr>
<tr>
<td></td>
<td>• Feedback from students</td>
</tr>
<tr>
<td></td>
<td>• Comprehensive student data</td>
</tr>
</tbody>
</table>
4.4.1 Overview of Student Respondents in the Survey
We surveyed 557 students across 31 states in Nigeria and the FCT. The average age of student respondents was 17 years. 59% were female respondents and 41% were male respondents. Majority of the respondents were currently attending higher institutions (38%) and 26% of the respondents were at senior secondary level of education (see figure 4.4.1). 51% of the respondents attended private schools while 49% of the respondents attended government schools.

4.4.2 How Are Students Learning while at Home?
When asked about their academic engagement while at home, only 70% agreed that they had been learning. We asked about the subjects they were learning at home and the most selected subjects were English and Mathematics. However, differences exist between primary school and secondary school students. Table 4.4.1 below reports the top 10 subjects that students are currently learning across primary and secondary schools.

<table>
<thead>
<tr>
<th>Top 10 Subjects' Students Are Currently Learning Across Primary and Secondary Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary School Students</strong></td>
</tr>
<tr>
<td>English</td>
</tr>
<tr>
<td>Mathematics</td>
</tr>
<tr>
<td>Civic education</td>
</tr>
<tr>
<td>Elementary science</td>
</tr>
<tr>
<td>Social studies</td>
</tr>
</tbody>
</table>
From table 4.4.1 above, more students are studying English language at home, followed by Mathematics and Civic education. Inversely, more secondary school students are studying Mathematics, followed by English language, Biology and Chemistry. However, with the current pandemic, it is unclear how the students are partaking in the science practical sessions from home. When we asked how students were learning at this time, we found notable differences between the responses of students in higher education institutions and those at the primary and secondary school levels. Younger learners (primary and secondary schools) were more likely to select being taught by their parents while at home. Table 4.4.2 outlines the different ways students are learning at home at this time by education level.

Parents of younger children are bearing the burden of teaching their children while at home, while students in higher education institutions are more independent and can pursue learning on their own. We also find that a number of students are learning through WhatsApp during the pandemic. 27% of students from higher education institutions are learning via WhatsApp and 41% of primary and secondary school students are learning via WhatsApp lessons.

When we asked them specifically for the main learning platform, 37% reported online learning as the main form of learning, 26% reported books as the main form of learning and 23% reported learning through WhatsApp.

Figure 4.4.2 The Main Form of Learning Used while at Home

4.4.3 Rating the Effectiveness of the Learning Platforms

The following challenges were identified as responsible for the respondents rating of the learning platforms as very poor, poor and neutral: lack of access to devices or limited access to parent’s devices, quality and speed of internet, internet costs and electricity supply.

A 15-year-old female secondary school student that reported learning mostly through online platforms, noted that this form of learning was always limited by technical problems due to network challenges. Another student reported:

Table 4.4.1 Top 10 Subjects’ Students Are Currently Learning Across Primary and Secondary Schools

<table>
<thead>
<tr>
<th>Subject</th>
<th>Primary and Secondary Schools</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religion</td>
<td>21%</td>
<td></td>
</tr>
<tr>
<td>Civic Education</td>
<td>34%</td>
<td></td>
</tr>
<tr>
<td>Local languages</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Economics</td>
<td>33%</td>
<td></td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>Social studies</td>
<td>21%</td>
<td></td>
</tr>
<tr>
<td>Literature</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Elementary science</td>
<td>18%</td>
<td></td>
</tr>
<tr>
<td>Phonics</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Religion</td>
<td>18%</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.4.2 How Are You Learning While at Home?

<table>
<thead>
<tr>
<th>Higher Institutions Students Learning from Home</th>
<th>Percent</th>
<th>Primary and Secondary School Students Learning from Home</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Through online classes/courses that I find on my own</td>
<td>47%</td>
<td>My parents teach me at home</td>
<td>44%</td>
</tr>
<tr>
<td>I receive online courses/classes from my school</td>
<td>31%</td>
<td>Lessons through WhatsApp</td>
<td>41%</td>
</tr>
<tr>
<td>Lessons through WhatsApp</td>
<td>27%</td>
<td>Lessons on TV</td>
<td>33%</td>
</tr>
<tr>
<td>I read on my own</td>
<td>15%</td>
<td>I receive online courses/classes from my school</td>
<td>32%</td>
</tr>
<tr>
<td>I get tutorials from my class teacher online</td>
<td>6%</td>
<td>Through online classes/courses that I find on my own</td>
<td>27%</td>
</tr>
</tbody>
</table>

I’m just on holiday-no studying or schoolwork 3% Lessons on Radio 20%
Facebook class 1% I get tutorials from my class teacher online 14%
Lessons on Radio 1% I read on my own 11%
“Sometimes I don’t have data and I have to borrow my dad’s phone”

We found that the major challenges faced by students that mainly learnt through online platforms was that of access to devices and other related infrastructure.

Respondents that rated their learning platforms as good and very good identified pedagogical benefits as the reason for their ratings. Specifically, the following were cited as the areas that led to the ratings: broad content including core skills outside the school curriculum (e.g. critical thinking and problem solving), preference for the flexibility and independence gotten from self-study and more learning time, opportunity to build or practice independent learning, mental toughness, digital skills acquisition and the quality and experience of tutors. One respondent in particular noted that;

“The learning is specific and targeted at the future. It’s very engaging, and because it’s online, I get to read for myself without the content being quickly erased. There’s more time for questions and answers, and time for learning core skills. Which are not readily taught on a regular school day”.

4.4.4 Resources Needed for Online Learning

We asked what resources the respondents needed to aid their learning at this time. Majority (66%) said they would need a laptop to learn from home on their own terms. We further examined students’ needs across school types. Figure 4.4.4 shows some differences in how students in private and government school responded to this question. More students in government schools reported the need for laptops, internet and internet enabled mobile phones, while students in private schools were more likely to respond to needing nothing. However, some were likely to need tablets and radios.

4.4.5 Insights from Students’ Responses

Despite the apparent learning gaps, the students’ responses show that learning is taking place and it is not necessarily limited to one platform. Students seem to be combining a number of learning platforms based on their school type, education levels, personal preferences, access to internet and devices, among others.

Students’ responses also reaffirm WhatsApp as an emerging learning platform within the Nigerian context. 41% of students in primary and secondary school levels and 27% of those in tertiary institutions indicated using the instant messaging platform for learning purposes. The repurposing of WhatsApp for education might be due to its high usage rates (84%) among mobile internet users in Nigeria, reducing the barrier to entry for those who want to learn online (NOI Polls, 2019).

It is also evident from the data that not all students especially at primary and secondary school level can learn without the supervision of a guardian or teacher. This emphasizes that students learn at different rates and in different ways and would therefore require different levels of support.

Given the relationship between schooling opportunity and income level in Nigeria, the data shows that public school students are more likely to need internet-enabled phones, internet and computers than their counterparts in private schools. Consequently, the ability of students in public school students to take advantage of remote learning opportunities - especially those online - might be significantly lower than those in private schools due to limited infrastructural access (Obiakor & Adeniran, 2020).

4.5 Parental Support of Children’s Learning during the COVID-19 Pandemic

4.5.1 Overview of Parent Respondents in Our Survey

We surveyed 626 parents across 30 states and the FCT. The average age of the parents in our sample was 40
years and they were aged between 20 to 75 years. There were more female (58%) respondents. Figure 4.5.1 below shows the educational attainment of the parents in our survey. 34% of them had attained a bachelor’s degree as the highest education level and 26% had a master’s degree, while 13% had senior school leaving certificate and only 1% had a PhD.

Figure 4.5.1 Educational Attainment of Parents

Of 38% of them had 2 school-aged children while 21% had 1 school-aged child. One parent reported having 9 school-aged children. In Figure 4.5.2 below, we see the distribution of the students whose parents took part in the survey by school type. 34% had children in pre-primary school, 35% had children in private lower primary schools and 21% had children in public senior secondary schools. Only 3% were parents with children attending private higher education institutions.

Figure 4.5.2 School Type and Educational Levels of Children

For parents whose children were actively learning, we asked how they were supporting their children’s learning during the pandemic and 67% reported that they encourage them to read books and participate in online classes. 46% reported that they read with them, and 19% of the respondents outsourced the teaching of their children to someone else.

Table 4.5.1 How Are you Supporting Your Children’s Learning at this Time?

<table>
<thead>
<tr>
<th>How Are you Supporting Your Children’s Learning?</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encouraging them to read books and participate in online lesson</td>
<td>67%</td>
</tr>
<tr>
<td>Reading with my children</td>
<td>46%</td>
</tr>
<tr>
<td>Encouraging them to listen to educational programmes on radio</td>
<td>45%</td>
</tr>
<tr>
<td>Online classes</td>
<td>33%</td>
</tr>
<tr>
<td>Downloaded online educational materials</td>
<td>31%</td>
</tr>
<tr>
<td>I get someone else to teach them</td>
<td>19%</td>
</tr>
<tr>
<td>School follow up</td>
<td>7%</td>
</tr>
<tr>
<td>Teaching them by myself</td>
<td>3%</td>
</tr>
<tr>
<td>Improvised teaching using arts and craft, WhatsApp</td>
<td>3%</td>
</tr>
<tr>
<td>Siblings teach one another</td>
<td>2%</td>
</tr>
<tr>
<td>Teaching them using their textbooks</td>
<td>1%</td>
</tr>
</tbody>
</table>

On average, the parents had 5 school-aged children. 38% of them had 2 school-aged children while 21% had 1 school-aged child. One parent reported having 9 school-aged children. In Figure 4.5.2 below, we see the distribution of the students whose parents took part in the survey by school type. 34% had children in pre-primary school, 35% had children in private lower primary schools and 21% had children in public senior secondary schools. Only 3% were parents with children attending private higher education institutions.

4.5.2 How Are Parents Helping Children Learn?
When we asked if the parents were helping their children learn during the pandemic, 83% affirmed that they had been actively helping their children learn during the pandemic. Only 60% of the parents were aware of the learning alternatives/interventions which their children could use.

4.5.3 Main Learning Platforms Used for Learning
Parents reported that the main platforms their children were learning with were mainly the television, radio, and WhatsApp. Others cited books, home lessons and other online platforms as the main learning platforms.
4.5.4 The Effectiveness of the Learning Platforms

We asked parents to rate the effectiveness of the main learning platforms their children use. The ratings ranged from very poor to very good, as seen in Figure 4.5.4 below. 38% of respondents reported that the effectiveness of the main learning platforms was good and 33% were neutral in their responses.

The major reasons parents gave a low rating (very poor, poor or neutral) for the effectiveness of the learning platforms their children used were access to devices or infrastructural challenges. Specifically, they cited lack of devices (laptops/tablets), quality and speed of internet, internet costs, electricity supply and costs of other learning support materials (e.g. printer). Other reasons for low ratings were centred on pedagogical challenges. Specifically, parents reported that: children are not familiar with the new learning platforms, there was low concentration amongst younger children, they were unavailable to support the students, the students are unable to ask questions and their children prefer face-to-face learning. In particular, one parent reported that:

"Children are used to seeing the teacher physically and participating in practical activities. This is limited in online learning. Also challenges with the network and the level of IT competence of the teacher are important variables that can affect the quality of learning. Not to mention distractions from siblings, television and others"

Parents who reported the effectiveness of the learning platforms as good and very good also cited pedagogical benefits as the reason for their ratings. Specifically, they reported that the online content was engaging and afforded students the opportunity to build digital skills, and the platform was level-appropriate with relevant content especially for students preparing for high-stakes examinations. One parent reported that:

"Because I see the impact of home learning on my children. They didn’t lose any of their academic values since they have been home."
Table 4.5.2 Parents’ Feedback on Learning Platforms that Children Learn With

<table>
<thead>
<tr>
<th>Platform</th>
<th>Benefits</th>
<th>Gaps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile (WhatsApp, Telegram)</td>
<td>• Keeps children learning and engaged</td>
<td>• Insufficient funds, data and electricity to access learning materials at any time</td>
</tr>
<tr>
<td></td>
<td>• Children are able to keep up with school work and curriculum</td>
<td>• Some children are not fond of WhatsApp for learning; hence it discourages them from using it</td>
</tr>
<tr>
<td></td>
<td>• Given good network, they can foster interactive learning as well as bonding amongst students</td>
<td>• Some children prefer physical student-teacher interaction</td>
</tr>
<tr>
<td></td>
<td>• Children who have personal internet mobile devices can learn anytime and at their own pace</td>
<td>• Children could get easily distracted</td>
</tr>
<tr>
<td></td>
<td>• It helps improve digital skills by helping children learn how to use the internet</td>
<td>• It can be difficult to get individualized answers to questions as everyone is asking different questions at the same time</td>
</tr>
<tr>
<td></td>
<td>• Could be as effective for teachers, since teachers and students are able to send and share audio and video lessons</td>
<td>• Feedback is poor as teachers too are dealing with data and network limitations</td>
</tr>
<tr>
<td></td>
<td>• It improves listening and writing skills</td>
<td>• Lack of parental support or limited internet skills of parents</td>
</tr>
<tr>
<td></td>
<td>• Comprehension and communication can still be achieved</td>
<td>• Practical activities can be difficult to execute online</td>
</tr>
<tr>
<td></td>
<td>• There’s room to ask questions</td>
<td></td>
</tr>
<tr>
<td>Social Media:</td>
<td>• Learning can be achieved</td>
<td>• For practical lessons, it can be difficult for children to engage in learning</td>
</tr>
<tr>
<td>YouTube, Facebook</td>
<td></td>
<td>• They consume a lot of data</td>
</tr>
<tr>
<td>Virtual Conferencing</td>
<td>• Learning can be achieved and for schools with prior digital capacity, the learning experience can wonderful for the students</td>
<td>• Lack of organization/structure on the part of some schools which makes learning ineffective</td>
</tr>
<tr>
<td>(Microsoft Teams, Zoom, Cisco Webex)</td>
<td>• Children can meet new teachers and have access to visual content which helps their learning process</td>
<td>• Lack of full concentration as virtual learning is alien to the children in addition to network challenges</td>
</tr>
<tr>
<td></td>
<td>• It keeps them busy</td>
<td>• Insufficient funds, data and electricity to access learning materials at any time</td>
</tr>
<tr>
<td></td>
<td>• Learning materials are up to date</td>
<td>• Challenging for parents who don’t have internet enabled mobile devices</td>
</tr>
<tr>
<td></td>
<td>• Children can see their classmates online</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• It facilitates comprehension for visual learners</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Children are able to learn digital skills they would not necessarily learn or use in the classrooms</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• There’s room to ask questions and children can refer back to learning materials</td>
<td></td>
</tr>
<tr>
<td>Method</td>
<td>Pros</td>
<td>Cons</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Radio                       | - For those that don’t have access to internet learning materials, this is a good medium for learning  
- It improves children’s listening skills and helps them to make use to their writing materials  
- It keeps the children engaged, which is better than learning nothing  
- Learning can still be achieved | - It can never be as effective and efficient as physical learning, children still prefer face-to-face interactions with their teachers in the classrooms  
- Learning programs are fast and short  
- No room for questions  
- Comprehension might be low for children who prefer visual learning  
- Limited provision for evaluation  
- Children could get distracted  
- There could be language barriers for those who don’t speak English |
| Television                  | - Children see and hear what is being taught  
- It keeps children engaged through interactive lessons  
- Comprehension and communication can still be achieved  
- It improves spelling and writing skills as children have to jot down what they learn  
- Students are able to prepare for their SSCE exams | - No electricity to access learning programs at the time it’s airing live  
- Does not provide the same experience as classroom learning, making it difficult for children to adapt  
- Concentration and comprehension might be low as there’s no room for questions  
- Learning programs tend to be too fast giving no time for children to comprehend  
- Limited provision for evaluation |
| Home schooling/Personal Tutoring | - Children are more involved in one on one learning  
- Parents are able to monitor and supervise their children's learning  
- Children are able to learn what they need to learn at their and at their own pace  
- Children are able to keep up with the subjects’ curriculum  
- Comprehension and effective communication can be achieved | - Learning speed can be slow if there’s no access to sensory learning materials to boost learning  
- It can be challenging for parents who don’t have teaching experience and the patience to teach  
- Some children prefer lessons from their teachers |
| Learning Management Systems (School website, Moodle, Google Classroom, Skooleeo, EdVes, Edmodo) | - They ensuring children learn at their level.  
- They are is highly interactive for children that have good network and know how to use the platforms.  
- They can be interactive and can provide quick feedback on homework.  
- Children are able to keep up with their curriculum from the school’s website  
- They are able to give assignments, quizzes, lessons and ensure that they are completed  
- They are inclusive in design  
- Children learn how to use the internet  
- They blend audio and written form of teaching that is consistent | - Ineffective communication and interaction to aid easy and fast learning for those with poor network  
- Learning systems/websites can be too sensitive, which makes them slow and difficult to access  
- Executing practical activities can be challenging  
- Network can be slow and data gets exhausted quickly  
- Scheduling enough time for each subject can be challenging due to insufficient data and network issues |
4.5.5 Parents not Supporting Children’s Learning
We asked the parents who were not helping their children learn while at home during this pandemic, 38% reported that they didn’t know how to help because they are not teachers. 35% reported being too busy to help their children learn and 13% couldn’t afford the cost of doing so.

<table>
<thead>
<tr>
<th>Reasons</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>I don’t know how to since I am not a teacher</td>
<td>38%</td>
</tr>
<tr>
<td>Somebody else does it</td>
<td>30%</td>
</tr>
<tr>
<td>I am too busy</td>
<td>35%</td>
</tr>
<tr>
<td>I can’t afford the cost of doing so</td>
<td>13%</td>
</tr>
</tbody>
</table>

Table 4.5.3 Reasons Why Parents Are Not Supporting Children’s Learning during the Pandemic

4.5.6 What Children Need to Learn the Way They Want during the Pandemic
We asked parents about their children’s needs for remote learning. Majority of parents reported that their children need laptops, internet and internet enabled phones. Only 18% of respondents reported that their children had all they needed for learning.

Figure 4.4.5 What Children Need to Study the Way They Want from Home

4.5.7 How the Government Can Support Parents
Table 4.4.5 below summarises the requests parents had when we asked them how the government could provide support to them during this pandemic. One parent in particular responded as follows;

“We are spending a lot of money on data and need to pay some school fees at this time. However, I haven’t received a salary for March and there’s no sign of one for April. The government seems to think only the very poor need money, so nothing has been targeted at the working class except the NIRSAL loans. But who takes a loan to buy food and other consumables? How will you pay back an interest loan whose principal was consumed? Verified taxpayers deserve a lot more from the government…”

<table>
<thead>
<tr>
<th>Palliatives</th>
<th>Curriculum/Pedagogical Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free or reduced internet costs</td>
<td>Free education materials</td>
</tr>
<tr>
<td>Stable electricity and discounted electricity bills</td>
<td>Provision of devices like laptops and tablets</td>
</tr>
<tr>
<td>Subsidized tuition fees</td>
<td>Create content for younger children in pre-primary level</td>
</tr>
<tr>
<td>Loans or financial support especially as some parents are not receiving salaries</td>
<td>Extend the duration, classes and subject areas for broadcast programmes</td>
</tr>
<tr>
<td></td>
<td>Remedial/accelerated learning programmes for those left behind</td>
</tr>
<tr>
<td></td>
<td>Redesign learning platforms to make them easier to follow</td>
</tr>
<tr>
<td></td>
<td>Provide pedagogical support materials for parents</td>
</tr>
</tbody>
</table>
Given that the school has over time taken over the role of caregiving while parents go to work, parents in COVID-19 have to perform the difficult balancing act of actively helping their children learn while still managing work obligations or - more recently - an unstable income. In the same vein, the responses by many parents that their children are distracted or unable to learn shows how much learning at home is not the norm in many Nigerian homes. Furthermore, devices like television, radio, smartphones and tablets have been typically deployed for leisure purposes - sometimes positioned as a reward for good behaviour. Hence, it has been difficult for parents to reconcile these different values while gauging factors like screen time and digital safety.

4.5.7 Insights from Parents’ Responses
The data from different respondent categories infer that remote learning is more effective when parents can provide the required tools and are also actively involved in their children’s learning. While 83% of parents in the survey reported actively helping their children learn during COVID-19, it comes at a great cost for them in terms of finances, time, among others.

Many of the parents in the survey have at least a secondary school certificate but those who are unable to actively support their children attributed this to not having the pedagogical skills or time to do so.
5. Discussion, Recommendations and Conclusions

5.1 Discussion, Limitations and Summary of findings
This study has highlighted key issues relating to learning in Nigeria during the COVID-19 pandemic. The main objective of this study was to understand the effect of the pandemic on learning specifically and the education sector in general. We also sought to understand the challenges affecting learning, the opportunities for innovation and technological advancement or adoption, and the access to learning for all children during the pandemic. Primary and secondary data on learning and learning innovations were collected and 1,901 respondents completed the survey in May 2020. The respondents represent individuals, government and organizations across 35 states plus the Federal Capital Territory in Nigeria.

Like every research study, this study also encountered some limitations, one of them being the sample size as a result of the low response rates expected when conducting online surveys. While we accept that the sample size of 1,901 respondents may not be fully representative of all aspects of the country, we believe that our findings from this study provide substantial information on the current situation of teaching and learning during the COVID-19 pandemic in Nigeria. We were able to reach a diverse group of respondents by including phone interviews to ensure that respondents not able to access the online survey were captured.

In ensuring the validity of the data collected by phone interviews, we also conducted data verification by selecting a random sample of about 10% (87) of the respondents who were interviewed. Of the respondents that were called, 86 respondents confirmed they were interviewed. Approximately 99% of the randomly selected respondents for verification, confirmed that they were interviewed. The other limitation of the study is the timeframe. Our study period only covers the first three months of the pandemic and subsequent closure of schools in Nigeria, so we cannot say how teaching and learning will evolve in a protracted pandemic situation but we believe that our key findings hold potential to guide decision makers on the key issues that should be addressed with regards to remote learning. From this study we can discuss the following broad issues based on our findings.

5.1.1 The Effect of COVID-19 Pandemic on the Education Sector in Nigeria
There is no doubt that the COVID-19 pandemic caused a serious disruption to education in Nigeria. As the pandemic began to spread globally, many countries instituted a lockdown which meant that education services as we traditionally know them to be were suspended. In Nigeria however, the school session was approaching the end of the second term; for many students it was a transition into the second term holiday season. For some others it was an abrupt end to the term and end of term exams were affected in some cases. Notwithstanding, government and private organisations swung into action to ensure that learning continued for students in Nigeria. We found through this study that there was high level responsiveness of both state and non-state actors in the education sector. In a short period of time, many
innovations sprung up online and children began to access alternative means of learning. While we can conclude from our study that the COVID-19 pandemic was overall disruptive to the education system, we found that it also gave rise to innovation and technological disruption that many parents, students and teachers have come to accept and adapt to for learning. Most teachers in our study reported that they will prefer a blended approach to learning going forward. Government officials believe that education planning and learning process will forever be changed by the COVID-19 Pandemic.

5.1.2 The Challenges of Learning in Nigeria during the COVID-19 Pandemic

Undoubtedly, EdTech and distance education offer unique opportunities to strengthen education in Nigeria. There have been discussions about how the current state-led education responses to COVID-19 are driven by broadcast media rather than modern ICTs. Nigeria’s ICT in education landscape is still rife with many challenges. According to the Digital 2020 Global Overview Report, 58% of Nigerians are not connected to the internet. However, mobile devices show more promising trends. The report points that 169.2 million people - 83% of Nigerians have access to mobile phone connections; but 50% of these are urban dwellers (We are Social & Hootsuite, 2020). If we consider subscribers with multiple devices and subscriptions, the numbers would be significantly lower raising concerns for inequality of access to learning for many children. Specifically, we can highlight the following challenges from our study.

Access to digital devices and internet access: From our study, we found that among those with internet access, digital devices and other resources to learn remotely, majority attended private schools, placing them at an advantage over their counterparts in public or lower quality schools, with no such privileges. Private school students were more likely to report that they had all they needed to study the way they wanted. The quality of the internet network access was also highlighted as a major challenge for students to access learning online. These findings were reiterated by teachers' experiences of teaching their students remotely: students who lived in rural areas experienced more challenges accessing learning via the e-learning platforms. Teachers also faced challenges teaching their students through the online platforms because of access to internet services and network quality.

The multidimensional aspects of access: This study also shows that access is not restricted physical access to technology, but social dimensions that do not allow for complete digital inclusion when it comes to remote learning. In line with DiMaggio and Hargittai’s (2001) argument, respondents pointed to inequalities in: technical apparatus (slow internet connections), inequality in autonomy of use (having to share devices with parents), skill (not knowing how to use a platform efficiently), and social support (technical assistance from family members).

Financial implications of learning remotely: Parents and teachers highlighted that the cost implications of learning remotely were significant owing to the fact that internet data costs in Nigeria are still relatively expensive. Some parents in our study reported that their inability to support their children’s learning during the pandemic was as a result of the costs of remote learning. Children from poorer households are more likely to experience these challenges relating to the affordability of learning online because they have even less access to internet connectivity, devices, power supply, functional ICT skills, and active parental support, among others.

Electricity supply: Another major challenge identified through our study was the challenge of electricity supply. We found that most students were adopting learning through television programs as an alternative to online platforms which could substantially mitigate the issues around internet access and the costs of learning online. However, at the times when the learning programmes are being aired power cuts become a major obstacle to their learning.

Student concentration and the need for physical connections: Parents reported that children are not familiar with the new learning platforms, there was low concentration amongst younger children. The inability of students to ask their teachers questions directly and children’s preferences for face-to-face learning were also highlighted as challenges with remote learning. Teachers complained about not feeling connected to their students through the virtual platforms. Their students were not actively engaging with learning platforms because they were not asking questions after the teaching. Students reported missing their friends and their teachers. They mentioned that they were not able to get immediate feedback from their teachers when they had challenges with learning.

Other challenges identified through the study were: assessing the effectiveness of remote learning platforms, teachers’ and parents’ inexperiences with teaching and supporting students remotely, and students with learning disabilities and the issues around keeping children safe online.

5.1.3 Opportunities Presented by the COVID-19 Pandemic

The closure of schools due to the COVID-19 pandemic presents an opportunity for education stakeholders to play their part in developing and executing strategies that
will position the education system to prepare students to compete in the global scene.

**Blended learning:** Schools and tertiary institutions can develop frameworks that allow them to provide a blend of traditional classroom and distance learning opportunities for their students even after the pandemic. Our study found that the majority of teachers now prefer a blended teaching approach where they can have both physical and online teaching with their students. This provides an opportunity for school owners to minimize operating costs of running traditional schools and also explore flexible school fee payment arrangements with parents. This period of home-schooling also presents parents with opportunities to better diagnose their children’s academic strengths and weaknesses and make more informed decisions.

**Innovative partnerships:** Several avenues for the government to partner with education technology companies and internet service providers to create online academies and provide related services that would cater to the learning needs of students have risen as a result of the COVID-19 Pandemic. A number of educational innovations that were assessed during this study were developed in partnership between governments and private organisations. Private organisations also provided funding and donations for a number of interventions reported by the government officials in this study.

**Business opportunities:** The current situation also presents entrepreneurial opportunities for the private sector. These opportunities can be maximized by private investors, individuals interested in education franchising, Original Equipment Manufacturers (OEMs) focused on education related equipment (Ikoku, 2020). This would be a chance for these companies to make exponential profit while also creating social impact. It would also allow internet service providers to engage in more meaningful corporate social responsibility projects. The online education business has grown massively over the last decade and the COVID-19 pandemic has seen even more people accessing education online. The internet has provided the opportunities for many online school owners to access students from all over the world.

**Accelerated digital skills acquisition:** The COVID-19 pandemic has led to a higher adoption of digital teaching learning and innovation amongst teachers, students, parents and private organisations. Much more than was ever before, stakeholders in the education sector have been exposed to digital skills because of the pandemic. Some parents reported that their children have adapted well to learning online and this has improved their digital skills. As the world changes and we move to a post-COVID era, these skills are likely to become even more important for the future of work and the productivity of workers.

### 5.2 Recommendations

**Provision of Infrastructure for Remote Learning**
The effectiveness of remote learning is highly limited by the infrastructural deficiencies in Nigeria. The government and other relevant education stakeholders need to intensify investment in accessible and quality internet connections, stable electricity, and remote learning tools like radios, mobile phones, laptops among others. The lack of these infrastructural provisions continually excludes students from public schools and low-income households.

**Embracing an Evidence-based Approach**
In making education policy and planning decisions, it is also important for stakeholders and decision makers to note that no platform is a panacea, and different learning platforms could complement each other depending on the learning context. Hence, it might be more beneficial for education stakeholders (governments, researchers, school owners) to continually observe and engage a range of learning platforms/innovations, while generating evidence on which is more suitable in specific contexts. This should be done bearing issues of equity, quality, inclusion and safety in mind. All stakeholders must commit to establishing monitoring and evaluation frameworks to generate measurable outcomes on the effectiveness of their different learning interventions.

**Teacher Development and Wellbeing**
Teacher development and wellbeing cannot be overemphasised. Given the pedagogical, financial and infrastructural support that teachers require, school owners and administrators need to increase investment in teacher training to increase their capacities for using digital tools and ultimately create a pipeline of teaching talent to curb the massive learning loss during and post-pandemic.

**Keeping Children Safe Online**
As students spend more time with digital technologies, there are also increasing concerns about the optimal amount of screen time and associated digital safety risks for children (UNESCO, 2020b). Children and youths spending more time on digital learning platforms are at risk of being exploited by online predators if appropriate measures are not put in place to safeguard them. Digital learning platforms should have inbuilt security measures to prevent the invasion of online paedophiles or marauders. Ministries of Education should also have back-end access to all e-learning platforms within their regions to monitor activities going on. Most importantly, parents also have to protect their children by limiting their exposure to online platforms.
Training and Support for Parents
In light of increasing demands for parents to be more actively involved in their children’s learning, it is important that they are equipped with tools and resources to effectively navigate this “new” terrain by understanding their children’s learning needs and how to best meet them. Parents need active and contextual support (such as learning groups, help lines, tutorials, how-to guides, etc) especially in dealing with issues like online safety, screen time, distractions, among others. Home schooling and play-based learning methodologies can be explored by parents who want to engage their younger children at home at this time. Furthermore, the unstable economic conditions have made it financially straining for many parents. Governments and relevant stakeholders can provide economic palliatives for parents such as interest free loans, free/heavily subsidised online learning materials, subsidised digital devices, among others.

Increased Support for Organisations Supporting Learning
The private and non-state sector have generally been responsive to the learning needs in the education system amidst COVID-19. There is also a growing demand for more home-grown solutions that are sensitive to the socioeconomic realities of Nigeria; for instance: mobile apps that require minimal data. With an enabling environment, greater financial support, and strategic partnerships, there is a lot of room for education innovators (private schools, volunteer-led groups, EdTech start-ups) to scale and improve their learning innovations in Nigeria.

Decisively Activating Remote Learning in Tertiary Institutions
This study shows that the majority of the learning innovations understandably targeted primary and secondary school learners. However, students in tertiary institutions, majority of which are state-owned, are continuously lagging behind. Although the federal government has announced the conditions for safely reopening schools, resumption dates are largely uncertain (Olisah, 2020). Hence, relevant stakeholders need to decisively and speedily activate remote/online learning options for the tertiary level such that no one is left behind. The National Open University of Nigeria could offer a useful model on how higher education can be delivered through Open and Distance Learning (ODL).

5.3 Conclusion
This report has highlighted key issues and findings from an extensive study of the learning situation in Nigeria during the COVID-19 pandemic. Our research study period covers the first three months (April to June 2020) of the pandemic in Nigeria before the ease of lockdown and resumption of schools. We found that although COVID-19 disrupted education like other sectors significantly, the responses of educational stakeholders in Nigeria provided a quick cushion to reduce the learning slide among Nigerian students. A number of challenges with regards to remote learning were identified, and some of the major challenges were related to infrastructure, accessibilities of digital tools and internet facilities for learning.

The key implications of the unequal access to remote learning facilities are likely to be inequality of educational outcomes. Where children from wealthier households may access more learning online than their counterparts in poorer households. This raises the need for the government to ensure learning for all children in Nigeria; by creating measures to ensure that no child is left behind, support is required for different groups of students, from financial to infrastructural to alternative remote learning options. Measures that ensure that teachers and parents are well equipped with the necessary skills and tools for supporting the continuous learning of children should be top of the government’s priority at this time. The support of the private (non-state) sector was also identified as highly significant through the findings of this study. A system where such support can be highly maximised is critical to ensure that learning is not only taking place but can be assessed and improved for better outcomes for children.

The COVID-19 situation has also led to a number of opportunities that should be adequately exploited. However, education remains key to the success of any nation and its people; even in the midst of a global pandemic, the opportunities that arise from this situation are more accessible to countries whose leaders prioritise education and knowledge.


United Nations High Commissioner for Refugees (UNHCR). (nd). Learning for a future: Refugee education in developing countries. unhcr.org/3b8a1ba94.pdf


