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Unveiling Education in Secondary Schools in Nigeria: Navigating the Challenges of Covid-19 Pandemic on Teaching and Learning

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Abstract

The challenges faced by secondary education in Nigeria amid the COVID-19 pandemic were multifaceted particularly, by school closures that came with a heightened risk of students being deprived of adequate learning, especially when many schools were with little or no access to online resources. Nevertheless, issues such as limited access to technology, unequal distribution of resources, and disruptions to traditional teaching methods during the pandemic have significantly impacted both teachers and students from different backgrounds. In addition to this, the digital divide aggravates disparities in educational opportunities, stressing the need for inclusive strategies such as adapting to a new kind of remote learning to contest the pandemic that posed a lot of difficulty for secondary schools without reliable internet connectivity. Although, addressing these challenges required a concerted effort to bridge the digital divide by providing training for teachers on effective online teaching strategies, and to ensure that all secondary school students have access to quality education regardless of their socio-economic background. This work, therefore, offers a pragmatic direction to teachers, teacher trainers, policy makers, and government at all levels to manage the consequences of disruption in educational systems. It also suggests more effective solutions such as investments in technology infrastructure, teacher training for online instructions, and policies to promote equitable access to secondary education in the face of uncertainty. Moreover, collaborative efforts between government, educators, and communities are crucial for navigating these challenges and to ensure a resilient secondary education system in the kind of COVID-19 pandemic.

Keywords

Education, Pandemic, Online instructions, Remote learning, Inclusive pedagogy

INTRODUCTION

The twenty first century has seen an incredible growth worldwide in the provision of education at all levels. Nevertheless, Nigeria education systems have faced its greatest challenge during the COVID-19 pandemic when schools were ordered to switch from face-to-face instructions to an Emergency Remote Education. This practice is unprecedented in many countries of the world particularly in Nigeria, and it is different from the usual online teaching, e-learning, m-learning or planned practices such as distance learning in education. Although, it is obvious that education system in Nigeria was not designed in a way to prepare for emergency times and situations like the COVID-19 pandemic. This gap was eventually exposed when there was total close of schools, and face-to-face instructions to settle for online lessons, radio and television.

The unexpected switch consequent upon the discovery of novel corona virus pandemic appears to be traumatic for nearly every teacher and even students who have become used to face-to-face instructional delivery. Moreover, parents and other parties that are involved in educational processes were overburdened because of these changes that necessitated alternative methods for monitoring educational progress because of reliance on online solutions. The pandemic and migration to a new normal in instructional delivery was not without its challenges of improvised online

solutions and emergency online methods despite the global usage and popularity of online learning in education (Hodges, Moores, Lockee, Trust & Bond, 2020).

In Nigeria, the threat posed to secondary education by advent of COVID-19 pandemic is unprecedented for many issues including poverty and inequality, internally displaced populations, high population densities, urban-rural divide and out-of-school population (Obiako & Adeniran, 2020). Nonetheless, (Yinka & Adebayo, 2020) have shown that the impact of COVID-19 has really exposed areas to battle with underlying educational challenges that have kept Nigeria behind in getting young people ready for the global dynamic workplace. However, a pragmatic dimension would be to approach it as a working solution for everyone through provision of educational opportunities for all categories of learners. Therefore, for educational system in Nigeria to continuously play its role in the global knowledge economy, the following reflections could be of assistance in redefining the goals of education in the present and in projection for future occurrences.

ADAPTING TO REALITIES OF TEACHING AND LEARNING DURING COVID-19 PANDEMIC

In the context of teaching and learning during the COVID-19 pandemic globally, (Lee, 2020) ascertained that educational system have had to embrace online and hybrid teaching and learning methods in utilizing digital resources to foster a virtual engagement that offers flexible learning options to accommodate the evolving situation. Furthermore, the submission of (Ohia, Bakarey & Ahmad, 2020) also suggested that adapting to teaching and learning during the pandemic mostly involves the usage of technology for interactive lessons, and as well to utilize collaborative tools to offer additional support to ensure a successful transition to remote learning environments in an emergency. In addition to this, (Cavalcanti, Barbosa, Carvalho, Freitas, Tsai, Gašević, & Mello, 2021) who observed the need for regular feedback from students and parents cannot be left out even with a proactive approach to addressing challenges to further create an effective and inclusive learning experience for learners from various backgrounds.

Corpuz (2022) have shown a need to build a better society in time of crisis and this requires that situations are examined in the context and aspect of culture in which adaptations are needed despite the challenges. However, according to Cordero Jr. (2021) there is a need for individuals and every society to exhibit adaptive behaviors during crisis to get along, and this may mean cultural change through various reflections by adaptive individuals to look for alternative ways of doing things, and creative organizations of resources with supportive government actions in the new normal. It is also in contract with Vergara, Lagman, & Sarmiento (2021) that cultural determinant of every community is unique to defining identity and approaches to issues, especially communication in times of pandemic like the COVID-19. It takes adaptation to continuously live in the world and however, the global crisis and its consequences not withstanding has been a time for policy makers, teachers, students and families to learn, and reflect on such experiences for workable educational systems.

It has been suggested by (Bao, 2020) that the multiple roles of teachers during the pandemic have particularly demands for pedagogical adaptations in which teachers are required to adapt their practices and be creative to keep students engaged in an open-ended learning environment. COVID-19 has created a state of emergency on teaching and learning worldwide according to (Murphy, 2020) who suggests that teaching during a pandemic is to carry on teaching by employing multimedia approach to lesson delivery in an unrestricted and inclusive manner that meet the needs of learners regardless of background. Therefore, a unique event such as the COVID-19 pandemic suggests a new mode of instructional delivery and timely practices that will reposition teaching and learning based on pragmatic changes because of the evolving pedagogy (Moorhouse, 2020). The previous submission is furtherance to Tate (2020) who opines that teachers should endeavor to present instructions in a manner by which learners of all categories will be stimulated to learn.

Teachers can adapt to the new realities of teaching and learning during the pandemic to navigate a landscape where flexibility, technology and empathy are key components in ensuring effective teaching and learning experiences (Ibrahim, 2020). Moreover, the previous submission is not different from (Stewart & Lowenthal, 2021) who pronounced the usefulness of online tools, creating and engaging digital content to foster a sense of community through virtual platforms. Furthermore, it involves prioritizing flexibility in lesson planning, providing explicit communication for effectiveness in teaching and learning processes. Although, all the submissions about adapting the new realities in teaching and learning cannot be separated from the view of (Ibrahim, 2020) that continuous professional development is necessary to enhance digital teaching skills of teachers. This will make them stay updated and effective on the current multi-media approaches to teaching and learning and to still be relevant in unprecedented situations.

THE PANDEMIC/PRAGMATIC PEDAGOGY

Teaching is a social work which should be modified with various means, media and mode that can alleviate ill-feelings and anxiety for continuous and inclusive learning despite the new spatial and temporal conditions. The previous statement is consistent on the earlier submission of Ozmon & Gossart (2018) who viewed teaching as a process of action and should be treated with all sense of mobility and dynamism to achieve desirable ends. Additionally, (Ngoc Nguyen, Vo-Thi, Nguyen-Vu, & Tran-Chi, 2022) viewing teaching as form of social work emphasizes the significant role of teachers to shape the student's life, and like social workers serves a crucial purpose of fostering positive development, addressing diverse needs, and contributing to the wellbeing of the students. It also involves effective interactions, promoting equity, and working towards the betterment of the students and society as whole. Moreover, recognizing the teaching profession

as a form of social responsibility underscores the positive influence that a teacher can have in shaping the future generations.

The pedagogical approach in a pandemic requires resilience, adaptation and a focus on maintaining the quality of education while navigating the challenges that students may encounter during a global crisis (De Giusti, 2020). This, however, may involve implementation of remote and online learning, creating flexible lessons plans to accommodate individual differences and different learning environments. Pandemic pedagogy is comparable with (Pokhrel & Chhetri, 2021) who viewed teaching and learning during crisis with the mentality of 'Maslow before Bloom' in which provision for safety and well-being of students of all categories becomes a priority while planning and implementing instructions. It is also a kind of teaching and learning in a context of serious global disorder according to Smith and Hornsby (2020). Moreover, the new normal kind of pedagogy agreeing with (Sison & Bautista, 2021) is not just a shift in means, media and mode of instructional delivery but a framework for teachers to imbibe a new culture, and develop an attitude to teaching that entails a realignment of conventional performance indicators, such that an effective pedagogy is measured by the deployment of appropriate technology to achieve continuous and inclusive learning.

Teaching and learning can be helpful in a pandemic when it is pragmatically approached because human beings are social entities who becomes socially efficient through interaction and meaningful experience (Oboh & oboh, 2020). The kind of teaching environment that adopt or adapt the teaching methods to address the practical needs of students in a remote or hybrid teaching and learning environment has become increasingly important in education. This can be a pragmatic pedagogy which may involve leveraging digital tools for hands-on experiences and focusing on skills that are relevant in a virtual setting while incorporating real-world examples that resonates with current situation (Wang, 2014). Pragmatic pedagogy according to (Ibrahim, 2020) involves a practical and hands-on approach to teaching, emphasizing real-world applications of knowledge by students in their day-to-day activities. Pragmatic pedagogy according to (Boca, 2021) aims at bridging the gap between theoretical knowledge and practical applications while preparing students for future challenges. This can help the students to gain understanding and retention of practical skills and problem-solving abilities that are relevant to their future careers.

TEACHING AND LEARNING IN NIGERIAN SECONDARY SCHOOLS DURING COVID-19 PANDEMIC

Secondary schools in Nigeria were faced with disruptions during the COVID-19 pandemic like other countries in the world. Moreover, the lock downs caused the closure of schools, and prompted a shift to online and remote learning while the submission of (Samuel, 2020) confirmed that, there were a huge number of schools particularly in rural areas with difficulties to adapt, and this frustrated their access to quality education even with conditions and efforts in place to reopen schools with safety protocols in schools in Nigeria. Additionally, studies such as (Agbele and Oyelade, 2020; Azubuike, Adegboye & Quadri, 2021) further established that there were foremost challenges of limited access and non-availability of digital infrastructures against the effective implementation of virtual teaching and learning in Nigerian secondary schools during the pandemic. Furthermore, according to (Amorighoye 2020) the children in rural communities in Nigeria were mainly sidelined from the digital transition and were also partial out of quality education when secondary schools in Nigeria transited into new methods of learning aided by the internet.

Obviously, according to (Awotokun, 2016), there were little or no readiness for implementation of virtual teaching and learning in Nigerian secondary school education systems before the emergence of the COVID-19 pandemic, and this in line with the submission of (Adefuye, Adeola, & Busari, 2021) has created a huge divide and irregularities in emergency teaching and learning at this level. However, the paradigm shift has implications even though, one important function of virtual learning system is its tendency to improve teachers' teaching effectiveness as well as the student's ability to learn even in emergency situations. These implications are as follows.

Implications of the Paradigm Shift on the Students

The digital divide according to (Wordu, 2020) intensifies educational inequalities, heightens socio-economic gaps, as those with limited access to technology struggled to catch up with remote learning, potentially impacting their future opportunities. Additionally, students lacking access to online learning were faced with disrupted regular learning because of limited educational resources causing gaps in academic progress of the students, hindering academic progress and widening disparities in their knowledge acquisition (Adebisi & Pius, 2022). The submission of (World Bank, 2020) have it that many students were isolated while the shift in learning environment lasts during the COVID-19 pandemic, and this contributed to increased stress, addiction and other mental health concerns among secondary school students in Nigeria. It was also documented by (Wordu, 2020) that transition to online assessments favored students with better access to resources, potentially leading to inadequate evaluation in secondary schools in Nigeria. In addition to this, the school attendance which is one of the vibrant public tools to develop the students' skills, awareness and ability were disturbed during the pandemic. However, the long period of school closure has a significant consequence on skill acquisition and the intelligent quotient of many of the students (Amorighoye, 2020). Furthermore, according to (Ibrahim, 2020) many students were awarded scores based on assumption by their teachers, while this would not represent the true performance of the students as teachers may not be accurate in predicting scores for students in an uncertain time such as the COVID-19 pandemic. Moreover, some International and local examinations were canceled or rather postponed due to COVID-19 pandemic which caused deferment or even constraints to studies by many of the students.

Implications of the Paradigm Shift on the Teachers

The digital divide among secondary school teachers in Nigeria during the COVID-19 pandemic has significant implications for education because a good number of the teachers have limited access to digital tools and thereby struggled in online teaching methods, to the detriment of quality of education delivery (Wordu, 2020). This situation however, according to (Ugboma, 2012) aggravates disparities in professional development, with digitally disadvantaged teachers potentially falling behind in acquiring essential technological skills. Additionally, the emergency widens the gap in teacher-student interactions, hindering effective communication and personalized support. Therefore, the COVID-19 pandemic required that secondary school teachers in Nigeria to acquire new technological skills because of the shift to remote teaching, combined with uncertainties and additional responsibilities. Moreover, according to (Ohia, Bakarey & Ahmad, 2020) increased the teachers' workload and stress level of many of them causing a lot of psychological problems such as fear, anxiety, depression, and insomnia that leads to lack of focus and concentration among secondary school teachers in Nigeria. A quite number of the teachers (especially in private schools) were not adequately paid during the lock down, and it rendered some of them helpless or incapacitated to meet the needs for their families (Jacobs & Okeke, 2022). Moreover, like the students' teachers were also faced with mental health challenges due to the uncertainties, disruptions, and increased work pressures consequent upon the pandemic (Ibrahim, Ajide, & Julius, 2020).

Implications of the Paradigm Shift on the Parents

There were series of problems for parents to wrestle during the COVID-19 pandemic such as navigating and supporting their children's education during school closures, often dealing with the complexities of remote learning and assisting with unfamiliar teaching methods (Ibrahim, 2020). This created problems in the lives of so many people particularly, that the situation somewhat favored only few parents who are wealthy enough to arrange online education for their children at home in order not to totally miss out on their education plan (Yinka & Adebayo, 2020). The emergency caused a lot of pressure for parents while striving to balance work responsibilities with childcare and home schooling that presented challenges, especially as many parents had to adapt to remote work arrangements (Obiako & Adeniran, 2020). Moreover, the need to stay with their children to provide childcare and to supervise their children in online teaching and learning processes posed wages loss and subject many parents to unnecessary burdens while striving to make ends meet during the pandemic (Ezeaku & Asongu, 2020). In the same vein, majority of students whom parents could not cope abandoned their education during the lock down and it caused risks of child labor, early marriage or unwanted pregnancies and exploitation among others for the children. Furthermore, students' drop-out rates increased while majorities of less privileged students did not return to classroom after the closures. However, (Ohia, Bakarey & Ahmad, 2020) verified that the cumulative stressors, uncertainties, and changes in daily routines of parents apparently contributed to an increased physical and mental health challenges for some parents after the pandemic in Nigeria.

Implications of the Paradigm Shift on the Community

The school mostly is a commercial environment in every community, and it serves as a platform to generate income for so many people within the community. However, school closures affected local economies, particularly businesses that relied on school related activities such as vendors, transportation services, and other small-scale businesses such as selling of sachet water, snacks, pencil, pen and the likes to the students (Fariyibi & Asongu, 2020). In addition, and according to (Ohia, Bakarey & Ahmad, 2020) life was made difficult for many adjunct workers in the school system such as cleaners, gardeners and other external people that render some services to the school because of sudden disengagement. Moreover, by the submission of (Amos, Adebisi, Bamisaiye, Olayemi, Ilesanmi, Micheal, Ekpenyong & Lucero-Prisno, 2021) the presence of a school which should influence public health dynamics of a community was unexpectedly disrupted due to closure, and this reduced community gatherings to stop the spread of infections but also potentially affecting community cohesion. This also affected the availability of school facilities such as sports fields and many more to hinder access to recreational spaces within the community.

CONCLUSION

This work concludes that.

- 1. The COVID-19 was indeed a shock for Nigerian Educational system, and this has really thrown Government and particularly the education sector to chaos because of its demands and responsibilities.
- 2. There was little or no readiness of for implementation of virtual teaching and learning in Nigerian secondary school education systems before the emergence of the COVID-19 pandemic.
- 3. The digital divide increases educational inequalities and worsens socio-economic gaps among students with limited access to technology that struggled to catch up with remote learning against their future opportunities.
- 4. Teachers, students and even parents were also faced with mental health challenges due to the uncertainties, disruptions, and increased work pressures consequent upon the pandemic.
- 5. Teachers' workload and stress level aroused a lot of psychological problems such as fear, anxiety, depression, and insomnia that leads to lack of focus and concentration among secondary school teachers in Nigeria.
- 6. School closures affected local economies and recreational spaces in the host communities to the detriment of public health dynamics within the communities.

RECOMMENDATIONS

Recommendations were made that.

- 1. Government in Nigeria should address non-availability of digital infrastructure to promote inclusive education and mitigate the long-term effects of the pandemic on students.
- 2. COVID-19 implications on students requires concerted efforts to bridge the digital divide, and by provision of socio-economic support for secondary school students in Nigeria.
- 3. Government should prioritize the mental health wellbeing of students by provision of recreational resources for students in Nigeria.
- 4. There is a need for Government to provide support for professional development of teachers, and as well bridge the digital gap for teachers to ensure the students equitable access to quality education.
- 5. The parents can be given the necessary support to bridge the digital gap essential to foster a collaborative learning environment for students from all backgrounds.
- 6. Moreover, schools in Nigeria should prepare for emergency situations like the COVID-19 pandemic to be resilient and should find new ways to continue teaching and learning activities during uncertainties.
- 7. The implications of COVID-19 require comprehensive support systems, including financial assistance, mental health resources, and strategies to enhance work life balance and family well-being in the aftermath of the pandemic in Nigeria.
- 8. Government should make plans for a holistic community-based approach, focusing on economic recovery, educational support, and strategies to rebuild and strengthen community connections in the post-pandemic period.

REFERENCES

- 1. Adebisi YA, Pius M. (2022). Nigeria's scientific contributions to COVID-19: A bibliometric analysis. Ann Med Surg (Lond). 2022 Aug; 80:104316. doi: 10.1016/j.amsu.2022.104316. Epub 2022 Aug 6. PMID: 35958287; PMCID: PMC9356628.
- 2. Adefuye, A.O. Adeola, H.A. & Busari, J. (2021). The covid-19 pandemic: The benefits and challenges it presents for medical education in Africa, *Pan African Medical Journal*, 40, 10.11604/pamj.2021.40.42.28489
- Agbele, A. T., & Oyelade, E. A. (2020). Impact of COVID-19 on the Nigerian Educational System: Strengths and Challenges of Online/Virtual Education. *Asian Journal of Education and Social Studies*, 13(1), 26–35. https://doi.org/10.9734/ajess/2020/v13i130322
- 4. Agbele, A.T. & Oyelade, E.A. (2020). Impact of COVID-19 on the Nigerian educational system: Strengths and challenges of online/virtual education, *Asian Journal of Education and Social Studies*, *13* (1) Pp. 26-35, 10.9734/ajess/2020/v13i130322
- 5. Adesoji O. Farayibi & Simplice A. Asongu, (2020). Consequences of the Covid-19 Pandemic in Nigeria, Research Department of African Governance and Development Institute, WP/20/042.
- Amorighoye T.A. (2023). Coronavirus has exposed the education divide in Nigeria. *The World Economic Forum COVID* Action Platform. 2020 https://www.weforum.org/agenda/2020/06/education-nigeria-covid19-digital divide/ Accessed 30 December 2023.
- Amos O.A., Adebisi Y.A., Bamisaiye A., Olayemi A.H., Ilesanmi E.B., Micheal A.I., Ekpenyong A., & Lucero-Prisno D.E. (2021). 3rd COVID-19 and progress towards achieving universal health coverage in Africa: a case of Nigeria. *Int. J. Health Plann. Manag.* 2021 Sep; 36(5):1417–1422. doi: 10.1002/hpm.3263. Epub 2021 Jun 23. PMID: 34161625; PMCID: PMC8426814.
- 8. Awotokun, A.O. (2016). Information and Communications Technology (ICT) in Nigeria educational assessment system Emerging challenges, *Universal Journal of Educational Research*, *4* (6), pp. 1351-1356. 10.13189/ujer.2016.040612
- Azubuike OB, Adegboye O, & Quadri H. (2021). Who gets to learn in a pandemic? Exploring the digital divide in remote learning during the COVID-19 pandemic in Nigeria. *Int J Educ Res* Open. 2:100022. doi: 10.1016/j.ijedro.2020.100022. Epub 2020 Dec 15. PMID: 35059664; PMCID: PMC8718379.
- 10. Boca, G.D. (2021). Factors influencing students' behavior and attitude towards online education during covid-19 Sustainability (Switzerland) (13), Pp. 13, 10.3390/su13137469.
- 11. Bao W. (2020). COVID-19 and online teaching in higher education: a case study of Peking University. *Hum. Behav. Emerg. Technol.* 2 113–115. 10.1002/hbe2.191
- 12. Cavalcanti, A.P., Barbosa, A., Carvalho, R., Freitas, F., Tsai, Y.S., Gašević, D., Mello, R.F. (2021). Automatic feedback in online learning environments: A systematic literature review, *Computers and Education: Artificial Intelligence*, 2, 10.1016/j.caeai.2021.100027
- 13. Corpuz, Jeff Clyde G. (2022). The 'new normal' in time of COVID-19: a response to Cordero, Journal *of Public Health*, 44,2, Pages e293 e294, https://doi.org/10.1093/pubmed/fdab209
- 14. De Giusti, A. (2020). Policy brief: Education during COVID-19 and beyond Revista Iberoamericana de Tecnología En Educación y Educación En Tecnología , Article e12, 10.24215/18509959.26.e12
- 15. Ekene Francis Okagbue, Ujunwa Perpetua Ezeachikulo, Ilokanulo Samuel Nchekwubemchukwu, Ilodibe Emeka Chidiebere, Obisoanya Kosiso, Cheick Amadou Tidiane Ouattaraa, Esther Onyinye Nwigwe, (2023). The effects of Covid-19 pandemic on the education system in Nigeria: The role of competency-based education, *International Journal of Educational Research Open, Volume 4*, https://doi.org/10.1016/j.ijedro.2022.100219
- 16. Ezeaku, H. C., & Asongu, S. A., (2020). "Covid-19 and Cacophony of coughing: Did International commodity Prices catch influenza?" African Governance and Development Institute Working Paper, No. 20/040, Yaoundé. S.
- 17. Hodges, S. Moore, B. Lockee, T. Trust, and A. Bond, "The difference between Emergency Remote teaching and Online learning," *Education Quarterly Review*, 2020.
- Ibrahim RL, Ajide KB, & Julius O (2020) Easing of lockdown measures in Nigeria: implications for the healthcare system. Health Policy Technology 9(4):399–404. https://doi.org/10.1016/j.hlpt.2020.09.004

- 19. Jacobs, E.D., & Okeke, M.I. (2022). A critical evaluation of Nigeria's response to the first wave of COVID-19. *Bull Natl Res Cent* 46, 44 (2022). https://doi.org/10.1186/s42269-022-00729-9
- 20. Lee, Kyungmee (2020). Who opens online distance education, to whom, and for what? Distance Education, 41:2, 186-200, DOI: 10.1080/01587919.2020.1757404
- Lowenthal, P. (2021). Experiences and perceptions of exchange students learning online during the COVID-19 pandemic in the Republic of Korea: An exploratory descriptive study. *Asian Journal of Distance Education*, 16(1), 119-140. Retrieved from https://www.asianjde.com/ojs/index.php/AsianJDE/article/view/551.
- 22. Moorhouse, B.L.(2020). Adaptations to a Face-to-Face Initial Teacher Education Course 'Forced' Online Due to the COVID-19 Pandemic. Journal of Education for Teaching,1-3. https://doi.org/10.1080/02607476.2020.1755205
- Murphy, P. (2020) "COVID-19 and Emergency eLearning: Consequences of The Securitization of Higher Education for Post-Pandemic Pedagogy". *Contemporary Security Policy*," pp. 1–14, 2020, doi:10.1080/13523260.2020.1761749. ISSN 1352-3260. Stewart, W., &
- 24. Ozman, Muge & Gossart, Cédric. (2018) Digital Social Innovation: Exploring an Emerging Field. https://ssrn.com/abstract=3434363 or http://dx.doi.org/10.2139/ssrn.3434363
- 25. Pokhrel, S., & Chhetri, R. (2021). A Literature Review on Impact of COVID-19 Pandemic on Teaching and Learning. Higher Education for the Future, 8(1), 133-141. https://doi.org/10.1177/2347631120983481
- Sison, M. O., & Bautista, S. C. (2021). Technical Capability, Instructional Strategies and Learners' Engagement in Online Learning Instruction: Basis for Framework Development. International Journal of Academic Research in Progressive Education and Development, 10, 261-287.
- 27. Smith, Heather & Hornsby, David. (2020). Towards a Pandemic Pedagogy: power and politics in learning and teaching, DO 10.13140/RG.2.2.29280.64005
- 28. Vergara, R.J., Lagman, J.D & Sarmiento, P.J. (2021). Building public trust: A response to COVD-19 vaccine hesitancy predicament, *Journal of Public Health*, 33, 10.1093pubmed/fdaa282
- 29. Nguyen, Bich Thi Ngoc., Vo-Thi, Tuong-Vy., Nguyen-Vu, Nguyen-Ha., and Tran-Chi, Vinh-Long. (2022). Collaboration between Social Workers and Educational Forces in Schools: *Advantages, Objectives, Content, and Form Journal for Educators, Teachers and Trainers*, 13(5). 170-180.
- Obiakor, T., & Adeniran, A. P. (2020). Covid-19: Impending situation threatens to deepen Nigeria's education crisis. Centre for the study of the Economies of Africa (CSEA). Retrieved: https://media.africaportal.org/documents/COVID19-ImpendingSituation-Threatens-to-Deepen-Nigerias-Education-.pdf
- 31. Oboh Stephen, O. & Oboh Omonyemen, J. (2020). Covid-19 and its effect on secondary school students learning in Benin City, Covid-19 and its effect on secondary school students learning in Benin City, Edo State, Nigeria, *International Journal of Advanced Education and Research International*, 5 (3), pp. 111-117, 10.25215/0802.071
- 32. Samuel, A.I. (2020). Coronavirus (COVID-19) and Nigerian education system: Impacts, management, responses, and way forward, *Education Journal*, *3* (4), pp. 101-102, 10.31058/j.edu.2020.34009
- 33. Stewart, W.H. & Lowenthal, P.R. (2021). Distance education under duress: A case study of exchange students' experience with online learning during the COVID-19 pandemic in *the Republic of Korea, Journal of Research on Technology in Education*, 0 (0), pp. 1-14, 10.1080/15391523.2021.1891996
- 34. Ugboma, M.U (2012). Bridging the digital divide: with special reference in Nigeria. *Journal of Information and Technology Management. 3* (1&2)
- 35. Yinka, D. L. & Adebayo, A. (2020). COVID-19 is exacerbating the problem of educational inequity in Nigeria. Teach For Nigeria Fellowship Programme: Op-Ed Contributor.
- Wang, Y.D. (2014). Building student trust in online learning environments, *Distance Education*, 35 (3), pp. 345-359, 10.1080/01587919.2015.955267 Digital Divide among Wordu, Hillary. (2020). Teachers in Urban and Rural Secondary Schools in Rivers State, Nigeria, *International Journal of Innovative Education Research*, 8(3):54-62.
- 37. World Bank (2020). "Assessing the Economic Impact of Covid-19 and Policy Responses in Sub-Saharan Africa". Africa's Pulse, 21, pp 22-26.