

Evaluating the Influence of Covid-19 on the Teaching and Learning Process in Secondary Schools in Esan West Local Government Area

Dr Augustina Izehiuwa Efosa-Ehioghiren and Philip Azetta Arhedo

Department of Guidance & Counselling, Faculty of Education,

Ambrose Alli University, Ekpoma, Edo State

ehioghiren2004@gmail.com, jarhedo@aauekpoma.edo.ng; 08108254249

Abstract: *The study evaluated the influence of COVID-19 on teaching and learning processes in Senior Secondary Schools in Esan West Local Government Area of Edo State. Specifically, the study evaluated the various ways Covid-19 has impacted teaching and learning in secondary schools, as well as the effects of Covid-19 on the performance of secondary school students. Two research questions were raised and answered. The study adopted the survey research design approach; the population of the study comprised all students in all public senior secondary schools in Esan West Local Government Area of Edo State. The simple random sampling was used to draw a sample of 100 students from four secondary schools out of the total number of public secondary schools. Data were analyzed with the use of sample means and standard deviations. The study found that teachers actively collaborated to enhance online teaching methods, creating potential for continued use post-pandemic. The study recommends training both teachers and students to enhance their skills with innovative online teaching methods. Therefore, developing countries should enhance broadcast teaching, online teaching, and virtual class infrastructures.*

Keywords: Covid-19, Pandemic, Learning Process, Teaching Process, Influence.

Introduction

The emergence of the Coronavirus disease (COVID-19) in Wuhan, China, in 2019 led to an unprecedented global pandemic that posed significant public health and socio-economic challenges. With its rapid transmission and high mortality rate—especially among older adults and individuals with pre-existing health conditions, COVID-19 has had far-reaching consequences, including widespread disruptions in education. COVID-19 significantly affected education systems across countries of varying income levels (Wajdi et al., 2020). Organizations such as UNESCO acknowledged that the pandemic disrupted education globally (UNESCO, 2020b). While previous coronavirus outbreaks such as SARS and MERS also influenced public health and social systems, the magnitude of the disruption caused by COVID-19 on education was unparalleled.

The World Health Organization (WHO, 2020a) declared COVID-19 a global pandemic on March 11, 2020, after it had spread to 114 countries and infected more than 118,000 people within three months. According to UNESCO (2020b), approximately 87% of the world's student population was affected by COVID-19-related school closures. Niranjana (2020) reported that COVID-19 impacted not only the economy and daily life but also the emotional, mental, and physical well-being of individuals. It caused losses in national and international trade, restricted travel, disrupted cultural and festive activities, and created stress among populations (Evans, 2020). In many developing countries, the initial impact of the pandemic was primarily economic, as governments' implemented lockdowns to limit the spread of infection.

Developing nations experienced severe economic decline and widespread closure of education and transportation systems due to the pandemic (Haleem et al., 2020). To mitigate the impact of school closures, several distance learning solutions were introduced, including digital platforms, educational applications, and online resources aimed at supporting teachers, students, and parents (UNESCO, 2020a). However, challenges such as poor internet connectivity, inadequate educational materials, limited digital skills, and lack of access to technology made distance learning difficult in developing countries (Mustafa, 2020). Some countries resorted to radio, television, and online instruction, but many impoverished families lacked access to these resources. In response, some governments provided alternative resources such as textbooks, radios, and study guides to assist disadvantaged learners (Mustafa, 2020).

In Nigeria, strict lockdown measures were introduced to curb the spread of the virus, leading to the closure of all schools for several months (Nlebem, 2020). This abrupt closure disrupted learning processes, access to educational services, and the operations of both federal and state education ministries. UNESCO (2020a) reported that approximately 36.4 million Nigerian primary and secondary school learners, including those in internally displaced persons (IDP) camps, were affected. Only a small percentage of students from financially privileged households had access to quality remote learning. Many schools lacked the necessary infrastructure and teachers with adequate digital competence to sustain online education.

The pandemic caused significant delays in academic calendars, reduced instructional time, and created disparities in educational access. While some states resumed physical classes earlier, many others struggled with adjusting school schedules. Nigeria's adoption of online learning faced major barriers, particularly for students in rural areas who lacked access to the internet, computers, or smartphones. Consequently, the educational gap between urban and rural learners widened. Private schools, universities, and affluent families adapted to platforms such as Zoom and Google Classroom, but most public schools could not. Furthermore, major examinations such as the West African Senior School Certificate Examination (WASSCE) and the Joint Admissions and Matriculation Board (JAMB) exams were postponed or canceled, disrupting students' academic progression (Sintema, 2020). The pandemic also caused emotional and psychological strain among students, teachers, and parents. Many students experienced uncertainty and isolation, especially those in terminal classes. Parents struggled to balance work and home schooling, while teachers—many of whom lacked online teaching experience—felt overwhelmed and unprepared (OnlineEducation.com, 2020). Private schools faced financial crises due to reduced enrollment, as families struggled economically. Some schools shut down permanently, while others reduced staff or salaries. Although the government launched initiatives such as the COVID-19 Intervention Fund for education, these measures were insufficient to address the broader financial strain (Obiakor & Adeniran, 2020).

The pandemic also widened existing inequalities in Nigeria's education system. Students from wealthier backgrounds and urban areas had better access to digital tools and learning opportunities, whereas those in rural or low-income households were left behind (Abbey & Hoxley, 2020). The education of children with special needs was particularly threatened. For these children, home-based learning required not only internet access and educational materials but also specialized devices and adapted curricula to meet their learning needs (UNICEF, 2020).

Despite these challenges, the pandemic highlighted opportunities for adopting educational technologies to supplement classroom instruction. Digital literacy enhanced educators' and students' confidence, creativity, and employability. However, many capable learners from disadvantaged backgrounds could not access online

education. The reduction in contact hours, coupled with limited access to teacher support, likely contributed to a decline in students' academic performance.

Interestingly, the pandemic accelerated the long-awaited adoption of e-learning in Nigeria. Teachers and students explored platforms such as Google Classroom, Zoom, Learning Management Systems (LMS), and social media tools like WhatsApp and Telegram for educational purposes (Doucet et al., 2020). These innovations fostered collaboration, creativity, and the willingness to embrace new learning tools. Nonetheless, with the rapid adoption of remote learning systems, there remains limited empirical evidence on their effectiveness. It is therefore imperative to examine how these interventions function and to generate data that can inform decision-making for Nigeria's educational system during and after COVID-19.

Theoretical Framework

This study is anchored on Constructivism Theory, which views learning as an active, contextualized process of constructing knowledge rather than passively acquiring it. Learners bring prior experiences and cultural backgrounds to new learning situations, shaping their understanding uniquely. Vygotsky's (1978) theory forms one of the foundations of constructivism and is characterized by three main principles.

The first is Social Interaction Theory, which emphasizes that cognitive development occurs primarily through social interaction. The second is the concept of the More Knowledgeable Other (MKO), an individual with a better understanding or higher ability level than the learner, such as a teacher, peer, or even information from the internet. The third is the Zone of Proximal Development (ZPD), which represents the gap between what a learner can achieve independently and what they can achieve with guidance or collaboration. According to Vygotsky, meaningful learning occurs within this zone. These concepts, particularly social interaction and scaffolding, help explain the difficulties faced by learners and teachers in online learning environments during the COVID-19 pandemic.

Responses to the Coronavirus Pandemic

A proactive response is vital to managing any disease outbreak; however, COVID-19 caught most nations, including global powers, unprepared. In Nigeria, the Federal Government ordered the closure of all schools, a decision endorsed by the National Universities Commission (NUC), which regulates university education. The government also suspended public gatherings and directed many employees to work from home. These measures underscored the need for better disaster preparedness and response mechanisms. In Ghana, the government shut down schools and allocated \$100 million to combat the pandemic. Madagascar reported no COVID-19 deaths and claimed to have developed an herbal cure, though the World Health Organization (WHO) cautioned that the treatment was not scientifically verified.

Effects of Coronavirus School Closures on Education

Erika and Nicholas (2020) distinguished between reactive and proactive school closures. Reactive closures occur after detecting an infection within a school community, whereas proactive closures are preventive measures taken before any cases are reported. Madeline (2020) noted that these closures posed new challenges, including transitioning to online learning and ensuring that students dependent on schools for meals and housing continued to receive support. Erika and Nicholas (2020) further suggested that closing schools should not be the only mitigation strategy. They recommended allowing parents flexibility while strengthening other preventive measures. However, this view contrasts with that of the New South Wales Teachers Federation, which opposed reopening schools during the outbreak.

Despite the difficulties associated with school closures, Michael (2020) argued that they remained one of the most effective measures for curbing the virus's spread. Several studies have documented the diverse impacts of the pandemic on global education. Seble and Worku (2020) found that COVID-19 affected educational systems worldwide, while Odriozola-Gonzalez et al. (2020) observed that confinement had a significant impact—both positive and negative—on students' performance, depending on the nature of learning activities.

As a result, teachers and students had to adapt quickly to new circumstances, often under stressful conditions. This study, therefore, seeks to evaluate the influence of COVID-19 on teaching and learning processes in secondary schools, using Esan West Local Government Area as a case study. The findings are expected to provide insights that may guide further research and policy interventions across Edo State.

Rationale for the Research

Most schools in Nigeria lack the e-learning infrastructure necessary for teacher-student interaction during crises. Even where such facilities exist, unreliable electricity and limited internet access hinder their effective use. Research on COVID-19's influence on teaching and learning in Nigeria remains scarce, despite its profound impact on students' performance and teachers' instructional practices. This study aims to evaluate the influence of COVID-19 on teaching and learning processes in senior secondary schools in Edo State, Nigeria. Specifically, it seeks to determine the extent and nature of the pandemic's impact on education within the state. The findings will have important implications for students, teachers, parents, counselors, and policymakers. They will enhance understanding of COVID-19 as a real and transformative phenomenon in education, highlight its effects on teaching and learning, and propose strategies for mitigation and future preparedness. Furthermore, this study aims to stimulate further research, both locally and internationally—on the educational challenges and opportunities arising from the COVID-19 pandemic.

Research Questions

The following research questions were formulated to guide the study:

1. To what extent has COVID-19 influenced the teaching and learning processes in secondary schools in Edo State?
2. What are the effects of COVID-19 on the teaching and learning processes in secondary schools?

Methodology

The study adopted the survey research design. This design was considered appropriate because it facilitated the collection of self-reported information on the impact of COVID-19 on secondary education. It is a non-experimental design that ensures that the elements of the study are not manipulated but rather observed as they exist naturally. The population of the study consisted of all students in public senior secondary schools in Esan West Local Government Area of Edo State. The sample size was drawn from four secondary schools selected from the total number of public secondary schools in the area. A simple random sampling technique was employed to ensure that all members of the population had an equal chance of being selected. The study comprised a total of 100 students drawn from the four selected secondary schools within the study area.

The instrument for data collection included both primary and secondary sources such as newspapers, journals, media publications, and official reports. The primary data were obtained through a self-developed questionnaire administered to 100 respondents selected from the senior secondary schools in Esan West Local Government Area. The questionnaire was subjected to content validation, and its reliability was established using the split-half method, which yielded a reliability coefficient of $r = 0.72$. This value was considered adequate for the purpose of the study. The data collected were analyzed using frequency counts and percentages.

Results

Table 1

Sex Distribution of the Respondents

Sex	Frequency	Percentage
Male	42	42.0
Female	58	58.0
Total	100	100.0

Table 1 revealed that 42 percent of the respondents were males, while 58 percent were females. This implies that a greater proportion of the respondents were female.

Table 2

Responses of respondents of the on the Effects of COVID-19 on the Teaching and Learning Processes in Secondary Schools

Questionnaire Items	SA	A	D	SD	Rate
Covid-19 affected implementation of academic plan in my school	26	35	16	23	High
Certain school activities were stopped due to the Pandemic	23	38	13	26	High
My school curricula changed due to Covid-19 consequences	18	15	35	32	Low
More theoretical courses were focused during Covid-19 Pandemic	40	33	10	17	High
Teachers got support to help them in virtual teaching/learning	15	14	35	36	Low
Students were supported in virtual learning processes	13	14	33	40	Low
Inconsistent internet services hindered proper teaching/learning	40	36	11	13	High
Time limit allowed for online tests reduced academic performance	40	30	16	14	High
Long time spent online learning made students sleepless / get tired	27	33	10	30	High
Less interaction between teachers and students affect performance	23	43	20	14	High
School calendar adjustment during covid-19 reduced performance	30	33	10	27	High
Health Guideline measures in schools reduced spread of Covid-19	40	33	7	20	High
Isolating persons exposed to Covid-19 reduced the spread/effect	23	34	30	13	High
Utilization of health facilities guaranteed safety of learners/staff	43	54	0	3	High
More time in primary but less in secondary to control Covid-19	26	33	27	14	High
Online enhances levels learning and teaching in secondary schools	33	30	23	14	High

Online learning packages can continue even when schools re-open	20	10	36	34	Low
---	----	----	----	----	-----

Table 2 indicates that COVID-19 had a substantial influence on the teaching and learning processes in secondary schools within Edo State. As shown in the data, 61% of respondents agreed that COVID-19 affected the implementation of academic plans in their schools, while 61% also agreed that certain school activities were stopped due to the pandemic. This implies that the pandemic significantly disrupted normal school operations, timetables, and academic planning. Similarly, 73% of respondents agreed that more theoretical courses were focused on during the COVID-19 pandemic, suggesting that practical learning activities were limited due to lockdown restrictions and the inability to conduct physical classes. This finding aligns with reports by UNESCO (2021) and Okoye (2022), which indicated that many schools in developing countries prioritized theoretical instruction during the pandemic due to a lack of digital and laboratory facilities.

However, only 33% of respondents agreed that their school curricula changed due to COVID-19 consequences, indicating that while teaching methods shifted, the official content of instruction largely remained unchanged. This suggests that schools adapted existing curricula to virtual formats without significant revision or reorganization of content. Furthermore, 76% of respondents reported that inconsistent internet services hindered proper teaching and learning, and 70% indicated that time limits allowed for online tests reduced academic performance. These findings point to infrastructural and technological limitations that affected students' ability to engage fully in virtual learning.

Additionally, 60% of respondents agreed that long hours spent on online learning made students sleepless or tired, while 66% noted that less interaction between teachers and students negatively affected performance. This shows that online learning introduced new forms of academic stress, fatigue, and disengagement. Overall, these findings demonstrate that COVID-19 greatly influenced teaching and learning in Edo State secondary schools, primarily through disruptions to schedules, reduced practical engagement, and inadequate online learning infrastructure.

Table 2 also shows that COVID-19 had both positive and negative effects on the teaching and learning processes in secondary schools. On the positive side, 73% of respondents agreed that health guideline measures in schools reduced the spread of COVID-19, 57% stated that isolating persons exposed to COVID-19 reduced its spread and effects, and a remarkable 97% confirmed that the utilization of health facilities guaranteed the safety of learners and staff. These findings highlight that compliance with public health protocols contributed significantly to maintaining a safe learning environment during the pandemic. However, the negative effects were more pronounced. Only 29% of respondents agreed that teachers received support for virtual teaching and learning, and 27% indicated that students were supported in virtual learning processes. This reflects limited institutional capacity and insufficient training or resources to effectively implement online instruction.

Furthermore, 63% of respondents observed that adjustment of the school calendar during the pandemic reduced academic performance, while 63% agreed that online learning enhanced teaching and learning in secondary schools. Despite this acknowledgment, only 30% believed that online learning packages could continue even after schools reopened, indicating skepticism about the long-term sustainability of e-learning in the current educational context. In addition, 60% of respondents noted that spending more time online made students tired, and 63% observed that reduced teacher-student interaction affected performance. These responses demonstrate that, although online learning allowed some continuity, it was not an effective substitute for face-to-face interaction.

In summary, while COVID-19 stimulated innovations in teaching methods and health management practices, its overall effect on teaching and learning was predominantly negative. The pandemic exposed infrastructural gaps, widened educational inequalities, and led to diminished student engagement and performance.

Discussion of Findings

The results of the study revealed that the COVID-19 pandemic greatly disrupted the implementation of strategic academic plans in schools. This finding is consistent with that of Mwanaidi and Demetria (2022), whose study showed that although educational institutions had established pre-planned teaching goals, the pandemic negatively affected the achievement of these objectives. The disruption to scheduled learning activities, curriculum delivery, and assessment procedures emphasizes the significant impact of the pandemic on educational continuity.

Furthermore, the study found that online learning enhanced the level of teaching and learning in secondary schools. A majority of respondents strongly agreed that distance-learning strategies contributed to advancing learning and teaching processes during the pandemic. This result supports the findings of Omanga and Angiohab (2021), who established a significant correlation between COVID-19 pandemic measures and educational development. Their research emphasized that the adoption of technology-driven learning approaches not only facilitated continuity in education during the lockdown but also expanded access to innovative teaching methods.

Conclusion

The unprecedented school closures caused by the Coronavirus pandemic serve as both a lesson and a warning to the global educational community, particularly to systems that have yet to fully adopt emerging learning technologies such as online and blended learning. The experience underscores the urgent need for stakeholders to embrace flexible learning environments that can support remote education in times of crisis. Consequently, stakeholders in the education sector must develop comprehensive and resilient strategies to effectively address challenges in the post-COVID-19 era.

Recommendations

1. Teachers and students should be trained and equipped with the necessary digital skills to effectively engage in online and blended learning beyond the pandemic.
2. The government and school administrators should improve digital infrastructure in schools by providing stable internet access, digital devices, and adequate funding to support technology-driven learning.
3. Education stakeholders should develop inclusive policies that ensure equitable access to e-learning opportunities, especially for students in rural and disadvantaged areas, to promote sustainable educational development.

References:

- Adeoye, I. A., Adanikin, A. F. & Adanikin, A. (2020). COVID-19 and E-Learning: Nigeria Tertiary Education System Experience. *International Journal of Research and Innovation in Applied Science (IJRIAS)*, 5(5), 28-31
- Al-Samarrai, S., Gangwar, M. & Gala, P. (2020). *The Impact of the COVID-19 Pandemic on Education Financing. Economic Impact of COVID-19*. World Bank, Washington.
<https://openknowledge.worldbank.org/handle/10986/33739>

- Doucet, A., Netolicky, D., Timmers, K., & Tuscano, F. J. (2020). *Thinking about pedagogy in an unfolding pandemic (An independent report on approaches to distance learning during COVID-19 school closure)*. Education International and UNESCO. https://issuu.com/educationinternational/docs/2020_research_covid-19_eng
- Haleem, A., Javaid, M., & Vaishya, R. (2020). Effects of COVID-19 pandemic in daily life. *Current Medicine Research and Practice*, 10, 78-79.
- Mustafa, N. (2020). Impact of the 2019-20 coronavirus pandemic on education. *International Journal of Health Preferences Research*, 1-12.
- Mwanaidi, H. S. & Demetria, G. Mk (2022). The Impact of COVID-19 Pandemic on Teaching and Learning Process in Higher Learning Institutions in Tanzania: A Case of Mwanza Region. *Global Research in Higher Education*, 5(2), 9-23.
- Niranjan, P. S. (2020). Coronavirus pandemic impact on global education: A blessing in disguise. *Sustainable Humanosphere*, 16, 68 - 72.
- Nlebem, A. (2020, March 19). *FG orders closure of all schools in Nigeria as coronavirus spreads*. Business Day. <https://businessday.ng/coronavirus/article/fg-orders-closure-of-all-schools-in-nigeria-as-coronavirus-spreads/>
- Obiakor, T., & Adeniran, A. (2020). *COVID-19: Risk-control measures threaten to deepen Nigeria's education crisis*. Centre for the Study of Economies of Africa (CSEA). <http://cseaafrica.org/covid-19-risk-control-measures-threatens-to-deepen-nigerias-education-crisis/>
- Odriozola-Gonzalez, P., Planchuelo-Gamez A., Irurtia, M. J., & Luis-Garca, R. (2020). Psychological effects of the COVID-19 outbreak and lockdown among students and workers of a Spanish university. *Psychiatry Research*, 290, 113108. <https://doi.org/10.1016/j.psychres.2020.113108>.
- Omanga, A. T., & Angiohab, U. P. (2021). Assessing the Impact COVID-19 Pandemic on the Educational Development of Secondary School Students. *Journal of Information and Visualization*, 2(1), 25-32.
- Owusu-Fordjour, C., Koomson, C. K., & Hanson, D. (2015). The impact of COVID-19 on learning: The perspective of the Ghanaian student. *European Journal of Education Studies*, 7, 88 - 101.
- Sintema, E. J. (2020, April 7). Effect of COVID-19 on the performance of grade 12 students: Implications for STEM education. *EURASIA Journal of Mathematics, Science and Technology Education*, 16(7). <https://doi.org/10.29333/ejmste/7893>
- Skinner, B. F. (1974). *About behaviorism*. Knopf.
- UNESCO. (2020a). Distance learning solutions. <https://en.unesco.org/covid19/educationresponse/solutions>

- UNESCO. (2020b). *UNESCO rallies international organizations, civil society, and private sector partners in a broad coalition to ensure #LearningNeverStops*. UNESCO. <https://en.unesco.org/news/unesco-rallies-international-organizations-civil-society-and-private-sector-partners-broad>
- UNICEF. (2020). Key messages and actions for COVID-19 prevention and control in schools.
- United Nations. (2020). Policy brief: Education during COVID-19 and beyond. https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2020/08/sg_policy_brief_covid-19_and_education_august_2020.pdf
- Vygotsky, L. S. (1978). *Mind and society: The development of higher mental processes*. Harvard University Press.
- Wajdi, M. B. N., Kuswandi, I., Al Faruq, U., Zulhijra, Z., Khairudin, K., & Khoiriyah, K. (2020). Education policy to overcome coronavirus: A study of Indonesians. *Journal of Education and Technology*, 3, 96 - 106.
- World Health Organization (WHO). (2020a, March 11). *Director-general's opening remarks at the media briefing on COVID-19*. <https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020>
- World Health Organization (WHO). (2020b, April 27). Archived: WHO timeline-COVID-19. <https://www.who.int/news-room/detail/27-04-2020-who-timeline---covid-19>Worldometer. (2020). Coronavirus. Worldometers.info. <https://www.worldometers.info/coronavirus/>