IMPACT OF COVID-19 PANDEMIC ON SENIOR SECONDARY EDUCATION IN MAKURDI LGA OF BENUE STATE, NIGERIA

Adejoh, Musa James *Prof.*
Dept of Science Education
Joseph Sarwuan Tarka University
Makurdi, Benue State, Nigeria
&
Adejoh, Gloria Otini *PhD*
Dept. of Educational Foundations and General Studies.
Joseph Sarwuan Tarka University
Makurdi, Benue State, Nigeria
&
Eche, Patrick Inalegu *PhD*
School of Post-Graduates Studies
Benue State University, Makurdi
Benue State, Nigeria

Abstract
The paper investigated the impact of Covid-19 pandemic on secondary education in Makurdi LGA of Benue State. The study employed the survey research design and 120 teachers were selected from 10 public secondary schools in Makurdi LGA of Benue State using the random sampling technique. A researcher developed Covid-19 Impact Assessment Questionnaire for Teachers (CIAQT) was developed and administered to teachers to find out the COVID-19 protocols put in place in the schools as well as the opinions of teachers with respect to the positive and negative impacts of the pandemic as well as other strategies put in place in the schools to mitigate the challenges posed by the pandemic. The instrument was subjected to face validation by two experts in Joseph Sarwuan Tarka University, Makurdi and a reliability coefficient of 0.86 was obtained using Cronbach Alpha formular to determine the internal consistency of the instrument. Data collected were analysed using frequency counts, means and simple percentages. The findings with respect to the negative impacts of the pandemic among others include: disruptions in the academic calendar, loss of academic time and the likes. Some of the positive impacts include deployment of new technologies for teaching and learning, saving of money for schools, among others. The strategies for mitigating the challenges like awareness creation, regular supply of power, putting in place the necessary protocols and embracing innovative teaching and learning

strategies that reduced physical contacts were also highlighted. It is the position of this paper that secondary schools should put in place alternative strategies to combat the challenges posed by the Covid-19 pandemic by embracing innovative teaching and learning strategies driven by new technologies.
Keywords: *Impact, COVID 19, Pandemic, Secondary, Education*

Introduction
Covid-19 is an infectious diseases caused by the recently discovered corona virus in Wuhan, China in December 2019. The disease was recognized officially by the World Health Organisation in March, 12 2020(WHO, 2020) Corona virus is one of the major pathogens that primarily targets the human respiratory system. The genomic sequence analysis of COVID-19 showed 88% identity with two bat-derived severe acute respiratory syndrome (SARS)-like corona viruses (Lu, Zhao, Li, Niu, Yang &Wu, 2020), Wan, Shang, Graham, Baric and Li (2020), indicated that mammals are the most likely link between COVID-19 and humans.

Several reports have suggested that person-to-person transmission is a likely route for spreading COVID-19 infection. This is supported by cases that occurred within families and among people who did not visit the wet animal market in Wuhan, China (Carlos, Dela, Cruz, Cao, Pasnick & Jamil, 2020; Wu, Hao, Lao, Wong, Leung, Wu, 2020). Person-to-person transmission occurs primarily via direct contact or through droplets spread by coughing or sneezing from an infected individual.

The common symptoms of Covid-19 according to WHO (2020) are fever, tiredness and dry cough. Some patients may have aches, pains, nasal congestion, running nose or diarrhea. The symptoms begin mildly and can gradually lead to serious ailment like difficulty in breathing. Older people and those with underlying medical conditions like high blood pressure, heart problems, diabetes are more likely to develop serious illness. Studies to date, show that the disease spread through contact with respiratory droplets expelled by an infected person. WHO (2020) recommends washing of hands regularly under running water for 20 seconds with soap and water or alcohol based rub, maintaining one meter (3 feet) distance between oneself and anyone who is coughing and sneezing. Avoid touching of eyes, nose and mouth, following good respiratory hygiene like covering of mouth and nose with your bent elbow or use of tissue paper when coughing or sneezing and staying at home when unwell.

Covid-19 pandemic has become a serious threat to Nigeria in particular and the world at large. It has impacted the world negatively, it has changed the way we interact with each other, conduct our businesses, trade and earn our livelihoods. Many countries decided to close schools, colleges and universities in order to reduce contact and the rate of infections in order to save lives. To date almost all countries of the world have instructed their institutions to close completely or partially to stop possible spread of the virus among students and the general public. The social distancing and lockdown have made it difficult for students to have face to face interaction with teachers and their fellow students. This no doubt has brought a lot of negative and positive impacts on our educational system. The pandemic according to Akorede (2021) has resulted in a substantial interruption of education, with its universal influence on students and instructors from preschool, primary, secondary schools and tertiary institution. Burges and Sieverson (2020) identified some of the negative impacts of the pandemic to include closure of schools, distortions in the academic calendar and the positive impacts as use of modern technologies, money saved for schools, among others.

Covid-19 has therefore completely changed our lives at all levels of education. It has impacted positively and negatively on the education sector. This paper sought to investigate the impact of covid-19 on secondary education in Makurdi LGA of Benue State.

The following questions were put forward to guide this study:
1. What are the Covid-19 protocols put in place in secondary schools in Makurdi LGA of Benue State?
2. What are the positive impacts of Covid-19 pandemic on secondary schools in Makurdi LGA of Benue State?
3. What are the negative impacts of Covid-19 pandemic on secondary schools in Makurdi LGA of Benue State?
4. What are the strategies for mitigating the challenges of Covid-19 in secondary schools in Makurdi LGA of Benue State?

Method
The study employed the survey research design and 120 teachers were selected from 10 public secondary schools in Makurdi LGA of Benue State using the random sampling technique. A researcher developed Covid-19 Impact Assessment Questionnaire for Teachers (CIAQT) was administered to teachers to find out the Covid-19 protocols put in place in the schools as well as the opinions of teachers with respect to the positive and negative impacts

of the pandemic as well as other strategies put in place in the schools to mitigate the challenges posed by the pandemic. The instrument was subjected to face validation by two experts in Joseph Sarwuan Tarka University, Makurdi and a reliability coefficient of 0.86 was obtained using Cronbach Alpha formular to determine the internal consistency of the instrument. The data collected were analysed using frequency counts and simple percentages.

Results

The results are presented as follows:

Table 1: Covid -19 Protocols in Place in Secondary schools

S/N	Protocols	Yes	No	Total
1	Hand Sanizers	90 (75%)	30 (25 %)	120
2	Face masks	40 (33%)	80 (67%)	120
3	Wash hand basin	60 (50%)	60 (50%)	120
4	Tap running water	20 (17%)	100 (83%)	120
5	Covid-19 rules	20 (17%)	!00 (83%)	120

The results in Table 1 show that the commonly provided Covid-19 protocols from the responses of the teachers is the hand sanitizers (75%) and the least provided protocols include tap running water and Covid-19 rules (17%).

Table 2: Positive Impacts of Covid -19 Pandemic on Secondary Schools in Makurdi LGA of Benue State

S/N	Positive Impact	Yes	No	Total
1	Deployment of Modern Technologies for teaching and learning	110(92%)	10 (8%)	120
2	Money saved for the schools	80 (67%)	40 (33%)	120
3	Students had more time with families	70 (58%)	50 (42%)	120
4	Good moral training for children	80 (67%)	40 (33%)	120

The results in Table 2 show that teachers considered deployment of modern technologies for teaching and learning (92%) as one of the positive impacts of the Covid-19 pandemic and students having more time with their families (58%) as the least positive impact.

Table 3: The Negative Impacts of Covid -19 Pandemic on Secondary Schools in Makurdi LGA of Benue State

S/N	Negative Impact	Yes	No	Total
1	Closure of Schools	110 (92%)	10 (8%)	120
2	Distortion of academic calender	100 (83%)	20 (17%)	120
3	Inequality of educational opportunities	80 (67%)	40 (33%)	120
4	Irregular assessment of students	90 (75%)	30 (25%)	120
5	Loss of teaching time	100 (83%)	20 (17%)	120
6	Increased cost of educating children outside School	80 (67%)	40 (33%)	120
7	Dwindling of students enrolments	70 (58%)	50 (42%)	120
8	Mental health consequences	40 (33%)	80 (67%)	120

The results in Table 3 show that the negative impacts of Covid-19 pandemic according to majority of the teachers (92%) and (83%) include closure of schools, distortion in the academic calendar and loss of teaching time respectively while the negative impact that had the least response from the teachers was the mental health consequences (33%).

Table 4: The Strategies for Mitigating the Challenges of Covid -19 in secondary schools in Makurdi Local Government Area of Benue State

S/N	Strategies	Yes	No	Total
1	Robust ICT to support on-teaching and learning	110 (92%)	10 (8%)	120
2	Regular power supply	90 (75%)	30 (25%)	120
3	Provision of alternative source of power	80 (67%)	40 (33%)	120
4	Training for teachers in the use of modern technologies for teaching and learning	100 (83%)	20 (17%)	120
5	Provision of Covid-19 protocols in schools	110 (92%)	10 (8%)	120

The results in Table 4 show that the highest rated strategies for mitigating the challenges of Covid-19 include robust ICT to support on- line teaching and learning (92%) as well as provision of Covid-19 protocols in schools (92%). Other strategies include regular power supply, (75%) and provision of alternative source of power (67%).

Discussion
The results of data analyses with respect to the Covid-19 protocols put in place by secondary schools in Makurdi LGA of Benue State show that only hand sanitizers and wash hand basins were commonly provided in the schools as shown by the responses of majority of the teachers 75% and 50% respectively. Covid-19 rules and Running tap water had the least percentage responses by teachers 17% each.

The results in Table 2 show that teachers considered deployment of modern technologies for teaching and learning (92%) as one of the positive impacts of the Covid-19 pandemic and students having more time with their families (58%) as the least positive impact. This is consistent with the findings of Burges and Sievertson (2020) who also identified usage of modern technologies for teaching and learning as one of the positive impacts of Covid -19 pandemic in the educational system.

On the negative impacts of Covid-19 pandemic the results of data analysis indicated that the negative impacts of Covid-19 pandemic according to majority of the teachers (92%) and (83%) include closure of schools, distortion in the academic calendar and loss of teaching time respectively while the negative impact that had the least response from the teachers was the mental health consequences (33%). These findings are consistent with Burges and Sievertson (2020) who also pointed out the negative impacts of Covid-19 as closure of schools, distortion of academic calendar, among others.

The results in Table 4 show that the highest rated strategies for mitigating the challenges of Covid-19 include robust ICT to support on- line teaching and learning as well as provision of Covid-19 protocols in schools (92%). Other strategies include regular power supply, (75%) and provision of alternative source of power (67%). The findings are also consistent with Akerode (2021) who also recommended strategies like training and retraining of staff in ICT, provision of adequate ICT facilities, adequate power supply, among others.

Conclusion

Covid-19 pandemic has impacted on Senior Secondary Education both positively and negatively. The positive impacts include deployment of modern technology for teaching and learning, saving of funds for schools, students having more time with their families, among others. The negative impacts include disruption in the academic calendar, loss of teaching time, among others. In view of these developments, all stakeholders in the education sector must ensure that while consolidating on the gains of the pandemic, we must also put in place and observe the necessary procol to prevent the spread of the disease such as avoiding MEN i.e. the touching of M- Mouth, E- Eyes, N- Nose and strictly follow WOMAN W-Wash hands, O-Obey social distancing, M- Mask up, E-Exercise and eat well and N-No to unnecessary travelling. (Anonymous). Measures to mitigate the negative impacts of the pandemic on senior secondary education like regular power supply, provision of alternative source of light, provision of robust ICT to support teaching and learning must be put in place by the relevant authorities to ensure an efficient and effective educational system.

Recommendations

The following recommendations are hereby put forward:

1. Educational institutions should put in place a robust Information and Communication Technology (ICT) to support on line teaching and learning for teachers and students.

2. Government should also ensure regular supply of power in order to enable the ICT equipment to function steadily.

3. Educational institutions should also provide alternative sources of power like generators, solar etc. to augment the public energy supply.

4. Teachers should be made to undergo trainings in the use of modern technologies for teaching and learning.

5. Institutions should continue to create awareness among their students with regards to the Covid-19 pandemic and its negative impacts. They should continue   to encourage students to keep to the precautionary guidelines and protocols established.

References

Akorede, S. F. (2021). Innovative teaching and during Covid-19. In J.O. Adeleke; I. A. Anitia and M.T. Iornenge. (Eds.). *Addressing teaching and assessment during and after Covid-19 era.* Ibadan: Esthom Graphic Prints.

Burges, S. and Sievertsen, H. H. (2020). *Schools, Skills and learning. The impact of Covid-19 on education.* https:voxeu.org/article/impact. Retrieved 30/8/2021

Carlos, W. G. Dela, C.S. Cruz, B. Cao, S. Pasnick, S. Jamil, S (2020). Novel Wuhan coronavirus. *Respir. Crit. Care Med.* 201 (4) 7–8,

Lu, R. Zhao, X. Li, J. Niu, Yang, P. Wu, B. (2020). Genomic characterisation and epidemiology of 2019 novel coronavirus: implications for virus origins and receptor binding. *Lancet* 395, 565–574.

Wan, Y. Shang, J. Graham, R. Baric, R.S. Li, F. (2020). Receptor recognition by novel coronavirus from Wuhan: *An analysis based on decade-long structural studies of SARS, Journal of Virol.* https://doi.org/ 10.1128/JVI.00127-20.

WHO (2020). *World Health Organization*. Retrieved from https:11www. Who. Int/Sontteastasia/outbreaks-andemergencies/novel-corona virus-2019

Wu, P., Hao, X., Lau, E.H.Y., Wong, J.Y., Leung, K.S.M. and Wu, J.T. (2020). Real-time tentative assessment of the epidemiological characteristics of novel coronavirus infections in Wuhan, China, as at 22 January 2020, *Euro Surveill*. 25 (2020).