



EFFECT OF COVID-19 PANDEMIC ON STUDENTS' ACADEMIC PERFORMANCE IN PUBLIC SECONDARY SCHOOLS IN EDO STATE FOR SUSTAINABLE DEVELOPMENT



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Abstract

The aim of the study is to find out the effect of covid-19 pandemic on the students' academic performance in some selected secondary schools in Edo Central Senatorial District, to carry out the research, some secondary schools were selected in Edo Centre Senatorial District, out of which 118 population both principals and teachers were used to collect data, a self constructed questionnaire was administered to the respondents in order to answer the raised research questions and to test the formulated hypotheses. The data collected from the respondents was analyzed using simple percentage and T-test of mean difference. The findings revealed that Covid19 pandemic has a significant impact on students' academic performance in selected secondary schools in Edo Central Senatorial district at 0.05% level of significance. The researcher recommended that government should provide vaccine for the students and provide palliatives for the students and staff to reduce the effect of covid-19.

Key words: Covid -19 Pandemic, academic performance.

Introduction

Virtually all students globally missed face-to-face instruction due to COVID-19 in 2020. Many parents and educators thus share a common worry: When the pandemic subsides, students will return to school with lower achievement. There are also concerns that the gap between high and low achieving students will become larger. Corona virus disease is a transferable disease brought about by a recent identified virus. This virus is a pandemic disease, brought about by the serious intense respiratory condition (Danso 2020).

According to the world health Organization (WHO), Corona virus are the family of virus that causes illness ranging from the common cold to more severe diseases such as several acute respiratory syndrome (SARS) and the middle east respiratory syndrome (MERS). These virus were originally transited from animals to the people.

Education is among the sectors with devastating impact of covid 19 pandemic, before the pandemic the Secondary Schools in Edo Senatorial District were adopting face to face approached to teaching and learning in their Schools with the emergence of the lockdown condition and the school closure following the covid -19 pandemic, the students were helpless about how to continue learning in the face of the pandemic. Students from the privileged background supported by their parents were able to learn and could find their way pass closed school doors to alternative learning opportunities, those from disadvantageous background often remained shut out when their Schools were shut down.

However, result from studies shown that the challenges of education during covid-19 pandemic include poor learning, irregular lectures, postponement of examinations, postponement of other educational activities, which alter the schools' academic year calendar, this resulted in educational stakeholders and education service providers seeking alternative teaching means to avoid the complete collapse of the educational sectors, why some governments have temporally instructed the use of public television stations for teaching primary and Secondary Schools, some Tertiary institutions moved to the virtual teaching platforms to reach out to their students.

Owusu (2019) did a study that assessed the impact of covid-19 on Nigeria teaching and learning. The study employed a simple random sampling technique in selecting the respondents for the study. The study revealed some challenges students encountered in the closedown of schools due to the

outbreak of the pandemic. Students are unable to study effectively from the house thus making the online system of learning very ineffective. Again parents are incapable of assisting their wards on how to access the online learning platform, neither can they entirely supervise the learning of their children at home without any complications. It came to light that the pandemic really has had a negative impact on their learning as many of them are not used to effectively learning by themselves. The e-learning platforms, internet and lack of the technical know-how of these technological devices by most Nigeria students, the study then recommends that students should be introduced to e-learning platforms to supplement classroom teaching and learning.

Ogunode (2020) conducted a study to investigate the impact of covid-19 on students academic performance in Abaji area council of FCT, Abuja, Nigeria. There are a total number of eight (8) secondary schools in the area of study. The result shows that 100% of the respondents agreed that the Covid-19 pandemic has led to the suspension of the academic calendar of students in Abuja. Also revealed that 100% of the people sampled agreed that adoption of online education is the measure of reducing the impact of Covid-19 on student's academic performances. To respond to the challenges they face, some governments and civil society organizations have provided them with computers or tables as well as internet accessories, or have organized teaching through television, phones or radio. Until now its effects are still with us.

Statement of the Problem

The closure of Schools and Colleges by the Federal and State government was an urgent need to the current situation which prevailed in most cases in Nigeria, the federal government started taking a preventive decision on covid-19, just after world health organization (WHO) recognized it as a pandemic disease. However the situations of Secondary Schools and Colleges in which the academic year almost get over by February and March had to be adjusted. Also it is seen that the secondary school in Edo Senatorial District have almost completed their academic syllabus and were to concentrate on scheduling their final examinations before the decision taken by the Nigeria government for closing down the Education institutions.

The Secondary School in Edo Senatorial District had to announce for either cancellation or re-scheduling of Examination dates and other schools activities so as to reduce the spread of the virus. This therefore necessitated the study to examine the effect of covid-19 pandemic on the student's academic performance in secondary schools in Edo senatorial district for academic excellence for a sustainable national development.

Purpose of Study

The purpose of this research is to investigate the effect of the covid-19 pandemic on students' academic performance.

1. To ascertain effect of the covid-19 pandemic on the teaching and learning in secondary schools in Edo Senatorial District
2. To examine the effect of the covid-19 on students academic performances in secondary schools in Edo Senatorial District
3. To determine the action and decision taken by government for the intervention of the covid-19 pandemic in Secondary schools in Edo Senatorial District

Research Questions

For the purpose of this study the following research questions were raised.

1. What are the effect of the covid-19 pandemic on the teaching and learning in Public Secondary Schools in Edo Senatorial District
2. What are the effect of the covid-19 pandemic on student's academic performance in Public Secondary Schools in Edo Senatorial District
3. What actions and decisions were taken by the Government as intervention on the covid-19 pandemic in Public Secondary Schools in Edo Senatorial District?

Hypotheses:

Two hypotheses were formulated and tested at 0.05 significant level

H0: There is no statistically significant difference between the affirmative and negative responses of principals in the selected secondary schools in Edo Senatorial District of Nigeria

H0: There is no statistically significant difference between the affirmative and negative responses of teachers in the selected secondary schools in Edo Senatorial District of Nigeria.

Methodology:

The study design was descriptive designed to investigate the effect of covid-19 pandemic on secondary school student's in Edo senatorial district, the population of the study consists of 118 principals and teachers in public secondary schools in Edo Senatorial District from selected public secondary using simple random sampling techniques. The instrument was a self constructed questionnaire, data collected was analyzed using simple percentage for the research questions and independent Sample t-Test for the hypotheses.

Result(S)

The data collected were analyzed and presented in tables. The data on each table was presented and analyzed based on the research questions and the hypotheses of the study.

Responses Of Principals To The Structured Questionnaire

Table 1: Responses to Question 1 -Is there any effect during Covid-19 Pandemic on teaching and learning in secondary schools in schools in Edo Senatorial District of Nigeria?

Response	Respondents	Percentage
Yes	29	87.9
No	4	12.1
Total	33	100

Table 1 above shows the responses of principals to the question as to whether there is any effect of Covid-19 pandemic on teaching and learning. From the table, 29 respondents representing 87.9% answered "Yes" while 4 respondents representing 12.1% answered "No" to the question. Hence, there is effect of Covid-19 pandemic on teaching and learning.

Table 2: Responses to Question 2 -Is there any effect during Covid-19 on students' academic performance in secondary schools in schools in Edo Senatorial District of Nigeria?.

Response	Respondents	Percentage
Yes	25	75.8
No	8	24.2
Total	33	100

Table 2 above shows the responses of principals to the question as to whether there is any effect during Covid-19 on students' academic performance. From the table answered "Yes, 25 respondents representing 75.8%" while 8 respondents representing 24.2% answered "No" to the question. Therefore, there is effect of Covid-19 pandemic on students' academic performance.

Table 3: Responses to Question 3 Are there online teaching and learning in secondary schools in schools in Edo Senatorial District of Nigeria during Covid-19?

Response	Respondents	Percentage
Yes	5	14.3
No	30	85.7
Total	35	100

Table 3 above shows the responses of principals to the question as to whether there were online teaching and learning in secondary schools during Covid-19. From the table, 5 respondents representing 14.3% answered “Yes” while 30 respondents representing 85.7% answered “No” to the question. Hence, there were no online teaching and learning in secondary schools during Covid-19 pandemic .

Table 4: Responses to Question 4 - Does Covid-19 pandemic affect students’ academic performance after shut down?

Response	Respondents	Percentage
Yes	27	81.8
No	6	18.2
Total	33	100

Table 4 above shows the responses of principals to the question as to whether Covid-19 pandemic affect students’ academic performance after shut down. From the table, 27 respondents representing 81.8% answered “Yes” while 6 respondents representing 18.2% answered “No” to the question. Therefore, Covid-19 pandemic affect students’ academic performance after shut down

Table 5: Responses to Question 5 -Does Covid-19 pandemic affect students’ grade after shut down?

Response	Respondents	Percentage
Yes	17	73.9
No	6	26.1
Total	23	100

Table 5 above shows the responses of principals to the question as to whether Covid-19 pandemic affect students’ grade after shut down. From the table, 17 respondents representing 73.9% answered “Yes” while 6 respondents representing 26.1% answered “No” to the question .Hence,. Covid-19 pandemic affect students’ grade after shut down.

Table 6: Responses to Question 6 -Are there actions taken by government on Covid-19 pandemic in secondary schools in Edo Senatorial District of Nigeria for teaching and learning process to continue?

Response	Respondents	Percentage
Yes	15	46.9
No	17	53.1
Total	32	100

Table 6 above shows the responses of principals to the question as to whether there are actions taken by government on Covid-19 pandemic in secondary schools. From the table, 15 respondents representing 46.9% affirmed that there are actions taken by government while 17 respondents representing 53.1% answered is the negative. Therefore, there are no actions taken by government on Covid-19 pandemic in secondary schools.

Table 7: Responses to Question 7 -Are there government decisions on Covid-19 pandemic in secondary schools in schools in Edo Senatorial District of Nigeria to make up the missed academic calendar year?

Response	Respondents	Percentage
Yes	18	56.3
No	14	43.7
Total	32	100

Table 7 above shows the responses of principals to the question as to whether there are government decisions on Covid-19 pandemic in secondary schools .From the table, 18 respondents representing 56.3% answered “Yes” while 14 respondents representing 43.7% answered “No” to the question. Hence, there are government decisions on Covid-19 pandemic in secondary schools.

Table 8: Responses to Question 8 -Are there government intervention on the Covid-19 pandemic in secondary schools in schools in Edo Senatorial District of Nigeria?

Response	Respondents	Percent
Yes	19	59.4
No	13	40.6
Total	32	100

Table 8 above shows the responses of principals to the question as to whether there are government intervention on the Covid-19 pandemic in secondary schools. From the table, 19 respondents representing 59.4% answered “Yes” while 13 respondents representing 40.6% answered “No” to the question. Hence, there are government intervention on the Covid-19 pandemic in secondary schools,

Table 9: Responses to Question 9 -Are there negative effects of the shut down on students’ academic performance in secondary schools in schools in Edo Senatorial District of Nigeria.

Response	Respondents	Percentage
Yes	32	97.0
No	1	3.0
Total	33	100

Table 9 above shows the responses of principals to the question as to whether there are negative effects of the shut down on students’ academic performance in secondary schools .From the table, 32 respondents representing 97% answered “Yes” while 1 respondent representing 3% answered “No” to the question. Hence, there are negative effects of the shut down on students’ academic performance in secondary schools.

Table 10: Responses to Question 10 -Does Covid-19 pandemic affect the secondary schools activities?

Response	Respondents	Percentage
Yes	14	43.8
No	18	56.3
Total	32	100

Table 10 above shows the responses of principals to the question as to whether Covid-19 pandemic affect the secondary school activities. From the table, 14 respondents representing 43.8%

answered “Yes” while 18 respondents representing 56.3% answered “No” to the question. Hence, Covid-19 pandemic affect not Secondary School activities.

Responses Of Teachers To The Structured Questionnaire

Table 11: Responses to Question 1 -Is there any effect during Covid-19 Pandemic on teaching and learning in secondary schools in schools in Edo Senatorial District of Nigeria?

Response	Respondents	Percentage
Yes	58	90.6
No	6	9.4
Total	64	100

Table 11 above shows the responses of teachers to the question as to whether there is any effect of Covid-19 pandemic on teaching and learning in secondary schools. From the table, 58 respondents representing 90.6% answered “Yes” while 6 respondents representing 9.4% answered “No” to the question .Therefore, there is effect of Covid-19 pandemic on teaching and learning in secondary schools

Table 12: Responses to Question 2 -Is there any effect during Covid-19 on students’ academic performance in secondary schools in schools in Edo Senatorial District of Nigeria?

Response	Respondents	Percentage
Yes	59	86.8
No	9	13.2
Total	68	100

Table 12 above shows the responses of teachers to the question as to whether there is any effect during Covid-19 on students’ academic performance. From the table, 59 respondents representing 86.8% answered “Yes” while 9 respondents representing 13.2% answered “No” to the question. Hence, there is effect during Covid-19 on students’ academic performance.

Table 13: Responses to Question 3 -Are there online teaching and learning in secondary schools in schools in Edo Senatorial District of Nigeria during Covid-19?

Response	Respondents	Percentage
Yes	16	25.8
No	46	74.2
Total	62	100

Table 13 above shows the responses of teachers to the question as to whether there were online teaching and learning in secondary schools during Covid-19. From the table, 16 respondents representing 25.8% answered “Yes” while 46 respondents representing 74.2% answered “No” to the question. Hence, there were no online teaching and learning in secondary schools during Covid-19.

Table 14: Responses to Question 4 -Does Covid-19 pandemic affect students’ academic performance after shut down?

Response	Respondents	Percentage
Yes	56	87.5
No	8	12.5
Total	64	100

Table 14 above shows the responses of teachers to the question as to whether Covid-19 pandemic affect students’ academic performance after shut down. From the table, 56 respondents representing 87.5% answered “Yes” while 8 respondents representing 12.5% answered “No” to the question. Therefore, Covid-19 pandemic affect students’ academic performance after shut down.

Table 15: Responses to Question 5 -Does Covid-19 pandemic affect students' grade after shut down?

Response	Respondents	Percentage
Yes	58	90.6
No	6	9.4
Total	64	100

Table 15 above shows the responses of teachers to the question as to whether Covid-19 pandemic affect students' grade after shut down. From the table, 58 respondents representing 90.6% answered "Yes" while 6 respondents representing 9.4% answered "No" to the question. Hence, Covid-19 pandemic affect students' grade after shut down.

Table 16: Responses to Question 6 -Are there actions taken by government on Covid-19 pandemic in secondary schools in Edo Senatorial District of Nigeria for teaching and learning process to continue?

Response	Respondents	Percentage
Yes	31	49.2
No	32	50.8
Total	63	100

Table 16 above shows the responses of teachers to the question as to whether there are actions taken by government on Covid-19 pandemic in secondary schools. From the table, 31 respondents representing 49.2% affirmed that there are actions taken by government while 32 respondents representing 50.8% answered in the negative. Hence, there are no actions taken by government on Covid-19 pandemic in secondary schools.

Table 17: Responses to Question 7 -Are there government decisions on Covid-19 pandemic in secondary schools in Edo Senatorial District of Nigeria to make up the missed academic calendar year?

Response	Respondents	Percent
Yes	34	51.5
No	32	48.5
Total	66	100

Table 17 above shows the responses of teachers to the question as to whether there are government decisions on Covid-19 pandemic in secondary schools. From the table, 34 respondents representing 51.5% answered "Yes" while 32 respondents representing 48.5% answered "No" to the question. Therefore, there are government decisions on Covid-19 pandemic in secondary schools.

Table 18: Responses to Question 8 -Are there government intervention on the Covid-19 pandemic in secondary schools in Edo Senatorial District of Nigeria?

Response	Respondents	Percentage
Yes	36	48.6
No	38	51.4
Total	74	100

Table 18 above shows the responses of teachers to the question as to whether there are government interventions on the Covid-19 pandemic in secondary schools. From the table, 36 respondents representing 48.6% answered “Yes” while 38 respondents representing 51.4% answered “No” to the question. Hence, there are no government interventions on the Covid-19 pandemic in secondary schools.

Table 19: Responses to Question 9 -Are there negative effects of the shut down on students’ academic performance in secondary schools in Edo senatorial district Nigeria?

Response	Respondents	Percentage
Yes	59	92.2
No	5	7.8
Total	64	100

Table 19 above shows the responses of teachers to the question as to whether there are negative effects of the shut down on students’ academic performance in secondary schools. From the table, 59 respondents representing 92.2% answered “Yes” while 5 respondents representing 7.8% answered “No” to the question. Hence, there are negative effects of the shut down on students’ academic performance in secondary schools

Table 20: Responses to Question 10 - Does Covid-19 pandemic affect the secondary schools activities?

Response	Respondents	Percent
Yes	57	89.1
No	7	10.9
Total	64	100

Table 20 above shows the responses of teachers to the question as to whether Covid-19 pandemic affect the secondary school activities. From the table, 57 respondents representing 89.1% answered “Yes” while 7 respondents representing 10.9% answered “No” to the question .Therefore, Covid-19 pandemic affect the secondary school activities.

T-Test Of Mean Difference Of Responses To The Structured Questionnaire

Hypothesis:

H0: There is no statistically significant difference between the affirmative and negative responses of principals in the selected secondary schools in Edo Senatorial District of Nigeria

H1: There is a statistically significant difference between the affirmative and negative responses of principals in the selected secondary schools in Edo Senatorial District of Nigeria

Table 21:Independent Sample t-Test on principals' responses

	<i>Affirmative</i>	<i>Negative</i>
Mean	20.1	11.7
Variance	66.54444444	73.56666667
Observations	10	10
Df	18	
t Stat	2.244104091	
P(T<=t) one-tail	0.018819048	
t Critical one-tail	1.734063607	

Table 21 above shows the independent t-test of difference for responses of principals to the questions in the structured questionnaire. The table showed the mean of affirmative responses to be 20.1 while that of negative responses is 11.7. The computed t-statistic is 2.244 with p-value of 0.01. Since the p-value is less than 0.05, we therefore reject the null hypothesis and conclude that there is a statistically significant difference between the affirmative and negative responses of principals in the selected schools. Consequently this shows that the Covid-19 pandemic has a significant impact on students' academic performance in the selected secondary schools in Edo Central senatorial district at 0.05% level of significance.

Hypothesis:

H0: There is no statistically significant difference between the affirmative and negative responses of teachers in the selected secondary schools in Edo Senatorial District of Nigeria.

H1: There is a statistically significant difference between the affirmative and negative responses of teachers in the selected secondary schools in Edo Senatorial District of Nigeria.

Table 22: Independent Sample t-Test on teachers' responses

	<i>Affirmative</i>	<i>Negative</i>
Mean	46.4	18.9
Variance	246.0444444	258.5444444
Observations	10	10
Df	18	
t Stat	3.871362619	
P(T<=t) one-tail	0.000559286	
t Critical one-tail	1.734063607	

Table 22 above shows the independent t-test of difference for responses of teachers to the questions in the structured questionnaire. The table showed the mean of affirmative responses to be 46.4 while that of negative responses is 18.9. The computed t-statistic is 3.871 with p-value of 0.0005. Since the p-value is less than 0.05, we therefore reject the null hypothesis and conclude that there is a statistically significant difference between the affirmative and negative responses of teachers in the selected schools. Consequently this shows that the Covid-19 pandemic has a significant impact on students' academic performance in the selected secondary schools in Edo Central senatorial district at 5% level of significance.

Discussion of results

From the findings of the study, Tables 1&2, 4&5 and 7-10 above shows the responses of principals to the questions 1&2, 4&5 and 7-10 with respondents representing 29(87.9%), & 25(75.8%), 27(81.8) & 17(73.9%) and 18(56.3%), 19(59.4%), 32(97%), 14(43.8%) answered "Yes" while respondents representing 4(12.1%), & 8(24.2%), 6(18.2%) & 6(26.1%) and 14(43.7%), 13(40.6%), 1(3%), 18(56.3%) answered "No" to the questions respectively. In a corresponding

hypothesis the independent t-test of difference for responses of principals to the questions in the structured questionnaire. The table showed the mean of affirmative responses to be 20.1 while that of negative responses is 11.7. The computed t-statistic is 2.244 with p-value of 0.01. Since the p-value is less than 0.05, we therefore reject the null hypothesis and conclude that there is a statistically significant difference between the affirmative and negative responses of principals in the selected schools. Consequently this shows that the Covid-19 pandemic has a significant impact on students' academic performance in the selected secondary schools in Edo Central Senatorial District at 0.05 level of significance. This is in collaboration with the work of Ogunde (2020), that COVID-19 pandemic has an impact on public schools finances, retrenchment of staff, and academic programme with suspension of teaching and learning activities.

Result from the study in tables 11&12, 14&15 and 17, 19 & 20 above shows the responses of teachers to the questions 11&12, 14&15 and 17, 19 & 20 with respondents representing 58(90.6%), & 59(86.8%), 56(87.5) & 58(90.6%) and 34(51.5%), 59(92.2%) & 57(89.1%) answered "Yes" while respondents representing 4(12.1%) & 8(24.2%), 6(18.2%) & 6(26.1%) and 14(43.7), 3(40.6%), 1(3%), 18(56.3%) answered "No" to the questions respectively. In a corresponding hypothesis the independent t-test of difference for responses of teachers to the questions in the structured questionnaire. The table showed the mean of affirmative responses to be 46.4 while that of negative responses is 18.9. The computed t-statistic is 3.871 with p-value of 0.0005. Since the p-value is less than 0.05. Consequently this shows that the Covid-19 pandemic has a significant impact on students' academic performance in the selected secondary schools in Edo Central senatorial district at 5% level of significance. This agreed with the various studies carried out by Ogunode (2020), Owusu (2019), Jim, Megan, Beth, Angela, Erik & Jing (2020), (Zhong, 2002; Kachra & Brown, 2019). Zar et al. (2020) pointed out the indirect effects of the pandemic include disrupted schooling and lack of access to school, more especially in low and medium-income countries like Nigeria.

However, the study revealed that the opinion of principals and teachers are the same on all items except in item eighteen did they have a divergent opinions, this ascertained that Covid 19 as impaired the academic achievement of students.

Conclusion

Arising from the findings of the study, the effect of Covid 19 pandemic in the educational sector needs to be conscientiously followed to its logical conclusion as against how it was been done now. The government of Edo State promised the palliative support given to the State will be used for education. It is expected that such should not be a mere promise but be back up with actions. Nonetheless, the researcher hope these analyses, which synthesized what is known from existing bodies of research, will inform tomorrow decision-making.

Recommendations

Based on the findings of this study, the followings are recommended

1. The government should financially support the students by providing basic facilities and other resources that will help to adhere to social distancing measures
2. The government should provide resources to rebuild the loss in teaching / learning during the pandemic
3. The students should be introduced to e-learning platforms to supplement classroom teaching and learning

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