



## **A COMPARATIVE ANALYSIS OF EARLY CHILDHOOD AND PRIMARY EDUCATION STUDENTS' ACADEMIC PERFORMANCE BEFORE AND DURING COVID-19 PANDEMIC IN KWARA STATE UNIVERSITY, MALETE**

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### **Abstract**

*The Covid-19 pandemic has led to major disruptions in social and economic activities as well as educational sector in all countries of the world. The primary aim of this study was to conduct a comparative analysis of Early Childhood and Primary Education students' academic performance before and during Covid-19 Pandemic in Kwara State University, Malete. The research design used was descriptive research design. The respondents were 150 students and were purposively selected. The research instrument was Proforma on Students Academic Achievement (PSAA). Five hypotheses were tested at 0.05 level of significance. Data obtained from respondents were analyzed through the use of descriptive statistics (percentages and frequency counts) and inferential statistics (t-test and Hypothesis (Analysis of Variance). The results of this investigation showed that there was no significant difference between students' academic performance before and during the COVID-19 pandemic. Since female students perform better than male students, there was a significant difference in academic performance between students before and during the COVID-19 pandemic depending on gender (t-cal was 0.19, degree of freedom 148, F was 1.92, and significant level of 0.01, P0.05). Students' academic performance differed significantly between before and during the COVID-19 pandemic based on level since 300L (F (2,149) = 0.537; P 0.05).students perform better than 200l and 400l. Based on the research findings, Researchers recommended that, governments, policy makers and curriculum planners should modify curriculum to accommodate both physical and virtual learning, parents should provide technological(teaching and learning) tools to enable their children to meet the standard of 21<sup>st</sup> century teaching and learning, teachers should update their knowledge on daily basis.*

**Keyword:** Covid-19 pandemic, Academic performance



## Introduction

Education is the bedrock of economic development of any nation. Corona virus disease 2019 (COVID-19) which originated in Wuhan, China, in December 2019, was declared as a pandemic by World Health Organization (WHO) on 11th of March, 2020 after it has spread to many countries of the world. It also caused more than 171 countries of the world to close their educational institutions for several months in the year 2020 (Agbele & Oyelade, 2020). Several governmental measures have been taken to counteract the risk of disease spreading. These measures include travel restrictions, mandatory quarantines for travelers, social distancing, bans on public gatherings, schools and universities closure, business closures, self-isolation, asking people to work at home, curfews, and lockdown (Bedford et al., 2020; Gostin and Wiley, 2020). Authorities in several countries worldwide have declared either lockdown or curfew as a measure to break the fast spread of virus infection (Paital et al., 2020). These measures have a negative worldwide effect on business, education, health, and tourism.

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These measures have a negative worldwide effect on business, education, health, and tourism. COVID-19 pandemic has affected all levels of organizations including education system (Nicola et al, 2020). Educational institutions around the world have either temporarily closed or implemented localized closures affecting about 1.7 billion student populations worldwide (UNESCO 2020). Many Universities around the world either postponed or canceled all campus activities to minimize gatherings and hence decrease the transmission of the virus. However, these measures have had to higher economical, medical, and social implications on both undergraduate and postgraduate communities (Nicola et al, 2020; Esposito and Principi, 2020). Due to the suspension of classroom teaching in many colleges and universities, a switch to online teaching for undergraduate and graduate students become effective (Sahu, 2020; Yamin, 2020)]. This form of learning provides an alternative way to minimize either the contact between students themselves or between the students and lecturers (Pragholapati, 2020). However, many students have no access to online teaching due to a lack of either the means or the instruments due to the economical and digital divide (UNESCO 2020). There is a paradigm shift in the way educators deliver quality education—through various online platforms. The online learning, distance and continuing education



have become a panacea for this unprecedented global pandemic, despite the challenges posed to both educators and the learners. Transitioning from traditional face-to-face learning to online learning can be an entirely different experience for learners and educators, which they must adapt to with little or no other alternatives available.

Through a variety of online channels, the educational system and instructors have accepted "Education in Emergency," forcing them to use a system for which they are not ready. Students, parents, and educators all over the world have been affected by the unforeseen ripple effect of the COVID-19 epidemic as schools have been closed to deal with the global pandemic. Governments, first responders, and health officials are working hard to stop the spread of the disease, but education systems are still making an effort to provide high-quality instruction to everyone during these stressful times. Many students have experienced psychological and emotional turmoil at home, which has prevented them from contributing effectively to their academic work. The best practices for online homeschooling are yet to be explored (Petrie, 2020). The use of suitable and relevant pedagogy for online education may depend on the expertise and exposure to information and communications technology (ICT) for both educators and the learners. Some of the online platforms used so far include unified communication and collaboration platforms such as Microsoft Teams, Google Classroom, Canvas and Blackboard, which allow the teachers to create educational courses, training and skill development programmes (Petrie, 2020). They include options of workplace chat, video meeting and file storage that keep classes organized and easy to work. They usually support the sharing of a variety of content like Word, PDF, Excel file, audio, videos and many more.

These also allow the tracking of student learning and assessment by using quizzes and the rubric-based assessment of submitted assignments. The flipped classroom is a simple strategy for providing learning resources such as articles, pre-recorded videos and YouTube links before the class. The online classroom time is then used to deepen understanding through discussion with faculty and peers (Doucet et al., 2020). This is a very effective way of encouraging skills such as problem-solving, critical thinking and self-directed learning. The virtual classroom platforms like videoconferencing (Google Hangouts Meet, Zoom, Slack, Cisco, and WebEx) and customizable cloud-based learning management platforms such as Elias, Moodle, Big Blue Button and Skype are increasingly being used.

According to Aji (2021), Covid-19 affect academic performance of secondary students in Gashua town of Yobe State, because they perform low during covid-19. Report showed that 100% of the respondents agreed that Covid-19 pandemic school closure have impact on research program of higher institutions in FCT and all of the respondents agreed that Covid-19 pandemic affects the flow of international research grants into higher institutions in FCT, 92%, the respondents agreed that Covid-19 pandemic affects government



funding of research higher institutions in FCT and 100% agreed that higher institutions as part of their community services by creating awareness to the general public on prevention of Covid-19 (Jacob, 2021 ) Most Nigerian students and other African or underdeveloped countries were more disadvantaged because most educational institutions in Nigeria still follow the traditional set-up of face-to-face lectures in the normal classroom settings. (Agbele & Oyelade, 2020). Middle-class families were able to maintain higher standards of education quality in a critical context, while children from socially disadvantaged families had few learning opportunities both in terms of time and learning experiences (Bonal & González, 2020).

### **Statement of the problem**

Covid-19 pandemic has led to major disruptions in social and economic activities as well as educational sector in all countries in the world. In Nigeria, the first case of Covid-19 was recorded on February 27, 2020. As the number of confirmed cases continued to increase, the Federal Government of Nigeria responded by restricting movements of persons for two weeks in the country's capital Abuja, as well as in Lagos and Ogun States, among other things. Different states followed immediately. Kwara State Government directed all levels education to closedown schools and Kwara State University management directed all lecturers to embark on virtual learning few months later. It was observed that some students did not have access to android phone, laptop, internet, stable electricity, uninterrupted network and others; this has negative impact in teaching and learning. This prompted the researchers to carry out a comparative study on students' academic performance of Early Childhood and Primary Education, Kwara State University before and during covid-19 pandemic.

### **Purpose of the Study**

The purpose of this study is to determine difference between students' academic performance before and during covid-19 pandemic

The specific purposes for this study are to:

1. Determine the difference between Early Childhood and Primary Education students' academic performance before covid-19 pandemic on based on gender.
2. Determine the difference between Early Childhood and Primary Education students' academic performance during covid-19 pandemic on based on gender.
3. Determine the difference between Early Childhood and Primary Education students' academic performance before and during covid-19 pandemic based on level
4. Determine the difference between Early Childhood and Primary Education students' academic performance before covid-19 pandemic based on level



- Determine the difference between Early Childhood and Primary Education students' academic performance during covid-19 pandemic based on level

### Research Hypotheses

The following hypotheses were tested at 0.05 of level of significance

**H<sub>0</sub>1:** There is no significant difference between Early Childhood and Primary Education students' academic performance before and during covid-19 pandemic

**H<sub>0</sub>2** There is no significant difference between Early Childhood and Primary Education students' academic performance before covid-19 pandemic based on gender.

**H<sub>0</sub>3** There is no significant difference between Early Childhood and Primary Education students' academic performance during covid-19 pandemic based on gender.

**H<sub>0</sub>4:** There is no significant difference between Early Childhood and Primary Education students' academic performance before covid-19 pandemic based on level.

**H<sub>0</sub>5:** There is no significant difference between Early Childhood and Primary Education students' academic performance during covid-19 pandemic based on level.

### Methodology

A descriptive research design was adopted for this study. This research work was carried out in Kwara State University, Malete, Nigeria. There are a total number of 150 students (200 to 400) in the department of Early Childhood and Primary Education. The total population of the study was 150 students (200 to 400) all were sampled for the study because this number is manageable. The research instrument was Proforma on Students Academic Achievement (PSAA). Data obtained from respondents were analyzed through the use of descriptive statistics (percentages and frequency counts) and inferential statistics (t-test and Analysis of Variance).

### Result

Ho1: there is no significant difference between Early Childhood and Primary Education students' academic performance before and during Covid-19 pandemic Kwara State University.

Table 1: Summary of t test result showing Early Childhood and Primary Education students' academic performance before and during Covid-19 pandemic Kwara State University.

Period	N	Mean	Std. Deviation	t-cal	df	F	Sig	Decision
Before	150	2.46	0.56					



Academic Performance	During	150	2.52	1.07	0.59	298	0.62	0.06	Not Sig
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Table 1 shows the summary of t-test result showing Early Childhood and Primary Education students' academic performance before and during Covid-19 pandemic Kwara State University. It was revealed that academic performance before Covid-19 pandemic had mean 2.46 and standard deviation 0.56 while academic performance during Covid-19 pandemic had mean 2.52 and standard deviation 1.07, the t-cal was 0.59, degree of freedom 298, F was 0.62 and significant level of 0.06 ( $P>0.05$ ). This implies that there is no significant difference between Early Childhood and Primary Education students' academic performance before and during Covid-19 pandemic Kwara State University. Therefore the null hypothesis that states that there is no significant difference between Early Childhood and Primary Education students' academic performance before and during Covid-19 pandemic in Kwara State University was not rejected.

Ho2: there is no significant difference between Early Childhood and Primary Education students' academic performance before Covid-19 pandemic based on gender.

Table 2: Summary of t test result showing significant difference between Early Childhood and Primary Education students' academic performance before Covid-19 pandemic based on gender.

	Gender	N	Mean	Std. Deviation	t-cal	df	F	Sig	Decision
Academic Performance before Covid-19	Male	69	2.34	0.57	2.57	148	0.52	0.01	Sig
	Female	81	2.57	0.51					

Table 2 showed the summary of t-test result shows Early Childhood and Primary Education students' academic performance before Covid-19 pandemic based on gender. It was revealed that male students' academic performance before Covid-19 pandemic had mean 2.34 and standard deviation 0.57 while female students academic performance before Covid-19 pandemic had mean 2.57 and standard deviation 0.51, the t-cal was 2.57, degree of freedom 148, F was 0.52 and significant level of 0.01 ( $P<0.05$ ). This implies that there was significant difference between Early Childhood and Primary Education students' academic performance before Covid-19 pandemic based on gender. The difference can be



seeing in students mean scores where female students had better mean score than male. Therefore the null hypothesis that states that there is no significant difference between Early Childhood and Primary Education students' academic performance before Covid-19 pandemic based on gender is rejected.

Ho3: there is no significant difference between Early Childhood and Primary Education students' academic performance during Covid-19 pandemic based on gender.

Table 3: Summary of t test result showing significant difference between Early Childhood and Primary Education students' academic performance during Covid-19 pandemic based on gender.

	Gender	N	Mean	Std. Deviation	t-cal	df	F	Sig	Decision
Academic Performance during Covid-19	Male	69	2.33	0.59	0.19	148	1.92	0.04	Sig
	Female	81	2.68	1.34					

Results from table 3 shows the summary of t-test of Early Childhood and Primary Education students' academic performance during Covid-19 pandemic based on gender. It was revealed that male students' academic performance during Covid-19 pandemic had mean 2.33 and standard deviation 0.59 while female students academic performance during Covid-19 pandemic had mean 2.68 and standard deviation 1.34, the t-cal was 0.19, degree of freedom 148, F was 1.92 and significant level of 0.01 ( $P < 0.05$ ). This implies that there was significant difference between Early Childhood and Primary Education students' academic performance during Covid-19 pandemic based on gender. The difference can be seen in students mean scores where female students had better mean score than male. Therefore the null hypothesis that there is no significant difference between Early Childhood and Primary Education students' academic performance Covid-19 pandemic based on gender is rejected

Ho4: there is no significant difference between Early Childhood and Primary Education students' academic performance before Covid-19 pandemic based on level.

Table 4: Summary of ANOVA result showing significant difference between Early Childhood and Primary Education students' academic performance before Covid-19 pandemic based on level.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.



Corrected Model	1.074 <sup>a</sup>	2	0.537	1.771	0.179
Intercept	911.151	1	911.151	3004.110	.000
Level	1.074	2	0.537	1.771	.174
Error	44.584	147	0.303		
Total	957.340	150			
Corrected Total	45.660	149			

R square = .024, Adjusted R Square= 0.01

Table 4 reveals the significant difference between Early Childhood and Primary Education students' academic performance before Covid-19 pandemic based on level. There was significant difference between Early Childhood and Primary Education students' academic performance before Covid-19 pandemic based on level. ( $F_{(2,149)} = 0.537$ ;  $P < 0.05$ ). The hypothesis is therefore not rejected in the light of the result since the significant value (.00) is less than 0.05. This implies that there was significant difference between Early Childhood and Primary Education students' academic performance before Covid-19 pandemic based on level.

Table 5 revealed the sources of the difference in level.

**Table 5:** Summary of estimated marginal means with groups

Level	Mean	Standard Deviation
200	2.35	0.63
300	2.53	0.56
400	2.52	0.44

This implies that respondents in 300level had better mean score than respondents in other levels

Ho5: there is no significant difference between Early Childhood and Primary Education students' academic performance during Covid-19 pandemic based on level.

Table 6: Summary of ANOVA result showing significant difference between Early Childhood and Primary Education students' academic performance during Covid-19 pandemic based on level.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	2.194 <sup>a</sup>	2	1.097	0.955	0.387
Intercept	953.336	1	953.366	829.961	.000
Level	2.94	2	1.097	0.955	.387



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Error	169.857	147	1.149
Total	1123.057	150	
Corrected	171.051	149	
Total			

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R square = .013, Adjusted R Square= 0.001

Table 6 reveals the significant difference between Early Childhood and Primary Education students' academic performance during Covid-19 pandemic based on level. There was significant difference between Early Childhood and Primary Education students' academic performance during Covid-19 pandemic based on level. ( $F_{(2,149)} = 1.097$ ;  $P < 0.05$ ). The hypothesis is therefore not rejected in the light of the result since the significant value (.00) is less than 0.05. This implies that there was significant difference between Early Childhood and Primary Education students' academic performance during Covid-19 pandemic based on level..

### **Discussion of findings**

These research hypotheses were to compare the academic performance of early childhood and primary education students at Kwara State University, Matete, before and during the Covid-19 Pandemic. According to the findings' summary, there was no significant difference between students' academic performance before and during the Covid-19 pandemic. There was a sizable gender-based difference in student academic performance before the COVID-19 pandemic, and there was significant difference in student academic performance during the COVID-19 pandemic, indicating that female students perform better than male students. Before the COVID-19 epidemic, pupils' academic performance varied significantly. There were significance difference in students' academic achievement during the COVID-19 pandemic based on level. Accordingly, 300L students perform better than 200L and 400L students. This clearly shows that there was no significant difference between students' academic performance before and during the COVID-19 outbreak; this conclusion may be related to their exposure to virtual learning at the time. The results negate that of Aji (2021), who claimed that the Covid-19 pandemic negatively impacted the academic performance of secondary students in Gashua, Yobe State, because they performed poorly during the pandemic. Jacob (2021) also claimed that most Nigerian students and those from other African or developing nations suffered greater disadvantages because most educational institutions in Nigeria still adhere to the traditional model of face-to-face lectures in the normal classroom.

### **Conclusion**

Based on the findings of this study, it concluded that there was no significant difference in the academic performance of students before and during covid-19 pandemic. There was significant difference in the academic



performance of students before and during covid-19 pandemic based on gender, i.e. female students perform higher than male. There was significant difference in the academic performance of students before and during covid-19 pandemic based on level, that is, 300l students perform higher than 200l and 400l. However, based on the findings of this study it was concluded that covid-19 pandemic did not affect academic performance of early childhood and primary education student in Kwara State University Malete.

### **Recommendations**

Based on this study, the researchers make the following recommendations:

1. Government, Policy Maker and Curriculum planner should modify curriculum to suite both male and female students
2. Parent should always provide technological (teaching and learning) tools to enable their children (male and female) to meet the standard (21<sup>st</sup> century teaching and learning strategies)
3. Teachers should update their knowledge on daily bases through training such as seminar, workshop to cater for any educational challenge in future.
4. Government, Policy Maker and Curriculum planner should modify curriculum to cater for all level(200l – 400l) in all tertiary institutions
5. Society/community should always assist students

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