

Omicron Variant of COVID-19 Pandemic as Correlates of Periods Allocation of Basic Science Curriculum Implementation in Junior Secondary Schools in Nigeria

Funmi Florence Adegbola¹

¹ Department of Science Education, Faculty of Education, Ekiti State University, Ado Ekiti, Nigeria

Correspondence: Funmi Florence Adegbola, Department of Science Education, Faculty of Education, Ekiti State University, Ado Ekiti, Nigeria.

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Abstract

This study investigated the Omicron Variant of the COVID-19 pandemic as a correlate of Periods Allocation of Basic Science Curriculum in Junior Secondary Schools in Ekiti State. The research procedure involves descriptive research of survey type. Participants were 320 Basic Science students who were randomly selected across four Local Government areas in Ekiti State. Data were collected with the instruments titled Implementation of “Basic Science Curriculum Questionnaire (IBSC) and Teachers Assessment Questionnaire (TAQ).” The reliability of the instruments was determined through Cronbach Alpha, and this yielded a correlation coefficient of 0.74 and 0.78 for IBSCQ and TAQ, respectively at 0.05 level of significance. Descriptive statistics such as frequency count, percentages, means, graphs and standard deviation were used to analyse the data. The results revealed that the Omicron Variant of the COVID-19 Pandemic affects enough periods on the school timetable for the implementation of the Basic Science curriculum.

Keywords: Omicron variant, COVID-19 Pandemic, correlates, period allocation, basic science, curriculum

1. Introduction

The appearance of the Omicron variant of the COVID-19 pandemic presently seems to make the implementation of school curriculum far from achieving the goals of Basic Science in the junior secondary schools in Ekiti state. Omicron Variant of COVID-19 is the most transmissible variant which is capable of spreading faster than the previous variant. This disease has the tendency to move faster, spread and undergo changes from one person to another including both adults and children. It has been noted that the omicron of COVID-19 has caused an unprecedented surge of infection globally as several sub-variants emerge through the virus. The information provided by the World Health Organization (WHO) (2022) said the risk related to this variant is very high. The effect is more severe than that of COVID-19. Although, the Omicron sub-variants and WHO-approved COVID-19 vaccines had been introduced to provide strong protection against illness and death. However, the information revealed that many countries had lifted public measures such as the use of masks and physical distancing especially in Nigeria. This seems to contribute mostly to the spreading of the virus.

The implementation of the school curriculum is very essential for students to learn. The school curriculum is a structured document which contains all activities, outline, designs, and plans, organised for training learners. It is also referred to as course components. It is an important instrument which anchors the school programme. It is obvious that the planning strategy adopted and working with the time allocated for the period by the teacher determines the success or failure of his teaching which adversely would also affect learning. Hence, for every course unit and lesson to be taught effectively in the classroom, the teacher should work effectively with the time allocated to the periods to be taught. It is one thing for schools to provide a course of study or syllabus, but it is

another thing for teachers to cover the syllabus at the appropriate time. Daniel (2020) noted that school timetables are very important for a variety of reasons for both teachers and students. Timetable reminds the teacher of his time of teaching, the number of periods to teach per week, and the time frame to which he must strictly adhere and shows where the instruction is taking place to both teachers and students (Igbojinwaekwu 2004). This researcher further stressed that a timetable allows students and teachers to know exactly when a specific subject is to be taught and also allows teachers to modify lesson plans during preparation periods. All these are the reasons why, the teacher is not scheduled for too many classes at the same time. A well-constructed timetable establishes a natural rhythm and routine, to ease the work of teachers and students. In Ekiti State, the school timetable mandated period length is 40 minutes per period from Monday to Thursday and 35 minutes on Friday. This has helped the specific subject teacher to prepare for each period allocated for him with sufficient resources to cover the most important aspects of the curriculum. Curriculum implementation involves investing much time into the practice of the officially prescribed subjects of study, syllabuses and subjects (Chikumbi and Makamure in Folayan, 2019). In line with this, Asiabaka (2009) noted that for curriculum goals and objectives to be achieved, educational activities are highly programmed in hours, days, weeks, months and years. However, more research showed that much of what is planned does not get implemented (Asia Pacific Research Association on Curriculum Studies). This arises because of the lockdown experienced during the emergence of the COVID-19 pandemic. Explicit curriculum entails the lesson plans to follow their sequence and objectives (Sharpe, 2013). No matter what the system has provided to aid the teacher in carrying out his assignment in the classroom if the teacher fails to follow the guidelines within the stipulated time for the assignment, the efforts will be fruitless. The outcome of the course rests squarely upon the teacher and the use of time. Teachers are supposed to plan the course laid out to meet up with the time and suit the interests, needs and abilities of students. They also needed to decide on the objective in order to determine the nature of the approach to be adopted in teaching and learning within the stipulated period assigned to the subject. The implication of this is that much time must be given to it. Time is a very important tool in carrying out educational duties by the teachers and students in the classroom. Maintenance of the time allotted for each period is very essential to ensure that various portions of the course receive the attention they deserve.

Some researchers such as Okigbo and Akusoba (2009) noted that when a teacher follows the time and presents his lesson in an interesting way, no matter the length/ period of instruction, students will pay attention. This shows that a good teacher always attracts his students' attention if he can manage his time judiciously with his students. Edikpa (2019) also submitted that every event that takes place in life involves time utilization and its management. It was observed that the emergence of the Omicron variant of COVID-19 is having a profound impact on teaching and learning in schools. Among the most important challenges created by this variant is the frustration of remote learning, absence of students and teachers, and cancellation of school activities, all this has thrown a wrench in the school's plans not to continue with the school curriculum Schwartz and Gewertz (2022). The improper management and planning for studies arose during this time in Nigerian schools. Due to this, some activities in schools are closed down because most teachers and students are unable to appear in schools. The inability of teachers and students access to information and communication technology compounds the situation. Nigerian Government tried to respond to the problem by the introduction of online learning programmes to support teachers and students, but this gesture was abortive, due to the absence of internet service most times in the country.

However, schools require teachers and students to be present and ready to work at particular times for quality achievement, but partial reopening of school could not allow them to execute their work simultaneously. This seems to keep them to a certain pace not to complete their work as required. Obviously, Basic Science students are likely to lose most of the terms they are supposed to spend in school and educational outcomes. When time is applied properly it facilitates effective learning. A timetable is the means to provide the greatest possible educational opportunities for students to cover the syllabus in the most effective manner. It is an educational resource needed for quality teaching and learning and for the achievement of school curriculum goals and objectives in the school. Effective teaching and learning are functions of time. Nwabueze, Edikpa and Chukwuma (2018) said efficient and effective time management procedure leads to achieving outstanding results with limited resources.

1.1 Purpose of the Study

The purpose of this study is to investigate the Omicron COVID-19 pandemic as a correlate of the period's allocation of the Basic Science Curriculum in the junior secondary schools in Ekiti State, Nigeria. Specifically, the objectives are to examine the Omicron variant of the COVID-19 pandemic as a correlate of the period allocation of the Basic Science curriculum. It is to find out if, the Omicron variant of the COVID-19 pandemic could allow teachers and students to make use of the timetable judiciously for curriculum implementation.

1.2 Research Questions

The following research questions were raised for the study.

- 1) Will the presence of the Omicron variant of the COVID-19 pandemic allow enough periods on the school timetable for curriculum implementation?
- 2) Are the teachers cooperating with the time in the implementation of the Basic Science curriculum despite the Omicron variant of the COVID-19 pandemic?

1.3 Research Hypotheses

The following research hypotheses were tested at a 0.05 level of significance.

- 1) The Omicron variant of the COVID-19 pandemic will not significantly allow enough periods on the school timetable for the implementation of the Basic Science curriculum.
- 2) The Omicron variant of the COVID-19 pandemic will not significantly allow Basic Science teachers to cooperate with time in the implementation of the Basic Science curriculum.

2. Methodology

2.1 Research Design

The study adopted descriptive survey-type research and correlation design to examine the Omicron variant of the COVID-19 pandemic as a correlate of period allocation of the Basic Science curriculum. This design seems suitable for this study because it involves the correlation of the period's allocation of Basic Science curriculum with the influence of the Omicron variant of the COVID-19 pandemic which also involves the collection of extensive and cross-sectional data to describe and interpret an existing situation under study.

2.2 Sample and Sampling Procedure

The sample for this study was made up of 320 junior secondary II students and 24 Basic Science teachers which were selected using a multistage sampling procedure. The first stage involved the use of a random sampling technique for the selection of four local government areas. The second stage involved the purposive selection of two schools in each of the local government areas (making a total of eight junior secondary schools). The third stage involved the random sampling sample selection of 40 students from each school (making a total of 320 students). The fourth stage was the selection of two Basic Science teachers from each school (making a total of 16 teachers). In all, a total sample of 320 Basic Science students and 16 Basic Science teachers were selected for the study.

2.3 Research Instruments

Two instruments were used to elicit information from the respondents, and they are: Teacher Assessment Questionnaire (TAQ) and Implementation of Basic Science Curriculum (IBSC). Implementation of the Basic Science Curriculum (IBSC) has two sections. Section A seeks information on students' biodata. Section B requests information on the inventory that elicits the information on the state required for the teacher use of timetable as correlates to the implementation of the Basic Science curriculum (IBSC). This evaluates the topic and sub-topics stated in the national Basic Science curriculum produced by the Federal Ministry of Education (2004) for the collection of Basic Science curriculum content. IBSC has three options: Not taught (NT), Partially Taught (PT) and Fully Taught (FT). The scoring followed this order: NT = 0, PT= 1, FT=2. It has 30 items requesting respondents on the level of coverage of the contents of the curriculum. These items were given to three experienced curriculum experts and two experts in the area of Tests, Measurement and Evaluation from Ekiti State University, Ado Ekiti for face and content validities respectively. Cronbach alpha was used to determine the reliability of the instruments which yielded reliability coefficients of 0.79, 0.86, and 0.83 respectively.

3. Results

The data collected were analysed using descriptive statistics such as frequency counts, percentages, means and standard deviation.

3.1 Descriptive Analysis

Research Question 1: Will COVID-19 pandemic allow the objectives and contents of basic science curriculum fully implemented?

Research Question 1: Will the presence of the COVID-19 pandemic allow enough periods on the school's timetable for curriculum implementation?

Table 1. Mean and Standard Deviation of presence of COVID-19 pandemic and School Timetable

Variable	N	Mean	S. D
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COVID-19 Pandemic	320	24.16	13.15
School timetable	320	40.36	19.31

Table 1 shows the mean and standard deviation of the presence of the COVID-19 pandemic as it allows enough periods on the school timetable for the curriculum implementation to be 24.16; 13.15 and 40.36; 19.31 for COVID-19 Pandemic and school timetable respectively. The mean is apparently higher enough on the timetable than the presence of COVID-19.

Research Question 2: Are teachers cooperating in the implementation of Basic Science curriculum implementation due to the Omicron variant of the COVID-19 pandemic?

Table 2. Mean and Standard Deviation of COVID-19 Pandemic and Teachers' Cooperation Towards the Implementation of Basic Science Curriculum

Variable	N	Mean	S. D
COVID-19 Pandemic	16	10.27	8.63
Teachers' Cooperation	16	11.23	8.31

Table 2 shows the mean and standard deviation of the COVID-19 Pandemic and Teachers' Cooperation to be 10.27; 8.63 and 11.23; 8.31 respectively. Both variables have moderate mean scores.

4. Discussion

The result of the study revealed that the mean is apparently higher on the Objectives and contents of the Basic Science Curriculum taught during the COVID-19 pandemic. This shows that the objectives and contents of Basic Science are averagely taught despite the effects of the COVID-19 pandemic. The result is consistent with the findings of Seweje (2004) and Sharpe (2013) who supported that Instructions are sequentially organized through explicit curriculum to guide the teachers and students for effective teaching and learning to take place. However, the result of this study is in contrast with that of the Asia Pacific Research Association on Curriculum Studies which showed that much of what is planned does not get implemented.

5. Recommendation

Based on the findings above, it is recommended that teacher's greater commitment is required in the teaching of students for better implementation of curriculum objectives and contents. There is a need for government and school management to create a conducive learning environment that will give room for the maintenance of COVID-19 pandemic protocols that will guarantee the effective implementation of curriculum objectives and contents adequately. Also, the school management should maintain and ensure strict adherence to the actual school timetable and also organize extra lessons for students for proper implementation of the school curriculum. Students should also show their commitment and cooperate with the teachers for adequate implementation of the school curriculum contents and objectives.

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