EFFECTS OF COVID 19 ON THE ACADEMIC PERFORMANCE OF SECONDARY SCHOOL STUDENTS

(A CASE STUDY OF SOME SELECTED SECONDARY SCHOOL IN IJEBU-ODE LOCAL GOVERNMENT AREA.

BY

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CERTIFICATION

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DEDICATION

This research work is dedicated to ALMIGHTY GOD, the most merciful and most beneficent God for his guidance, protection and provision through the entire programme. To him be all the glory and adoration.

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ABSTRACT

The purpose of this study is to examine the effect of COVID 19 on the academic performance of secondary school students in Ijebu-Ode, Local Government Area, Ogun State. For this study, 50 respondents were selected and logistic regression was employed. Self-motivated studying time and positive attitudes toward online learning predicted consistent academic performance since the COVID-19 pandemic began. Middle school students' preference toward an in-person classroom format was related to poor academic performance since the COVID-19 pandemic began. A risk perception toward COVID-19 was related to poor academic performance since the COVID-19 pandemic began. It is imperative to provide educational programs which help students develop self motivated studying habits to maintain their academic performance during COVID-19. Policymakers in schools should consider providing in-person options for students who are more academically successful in such an environment.

***Keywords**: COVID-19; learning attitudes; academic performance; middle school*

TABLE OF CONTENTS

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Since the emergence of the COVID-19 pandemic, students at schools around the world, including in Nigeria, have faced challenges related to shifts to online learning, either full-time or in a hybrid model that blends online and part-time, in-person instruction (Byun, S.; Slavin, R.E, 2020). Researchers have found that such shifts to online schooling are effective at decreasing the spread of COVID-19 infection (McGrail, D.J.; Dai, J.; Mc Andrews, K.M.; Kalluri, R, 2020). Researchers have also found that these social distancing measures greatly affect adolescents' mental, physical and emotional health (Xiang, M.; Zhang, Z.; Kuwahara, K, 2020). Shifts toward online learning may also impact adolescents' attitudes toward learning, motivation to learn and academic performance (Aguilera-Hermida, A.P & Tan, C, 2020). Therefore, it is important to examine the extent to which adolescents engage in protective behaviors against COVID-19 as well as their attitudes toward online learning, motivation to learn, and academic performance since the COVID-19 pandemic began.

Coronavirus disease 2019 (COVID-19) is firstly identified in Wuhan city, Hubei Province, China in December 2019 as a pneumonia of unknown origin (1). Later, the international committee on taxonomy of viruses (ICTV) identifies the causative agent of COVID-19 as a novel coronavirus, severe acute respiratory syndrome coronavirus−2

(SARS–CoV−2). COVID-19 outbreak spreads rapidly not only in China, but also worldwide, therefore, the World Health Organization (WHO) has announced it as pandemic on March 12, 2020. The total number of confirmed cases and mortalities are 23,491,520 and 809,970, respectively, in 216 countries as of August 25, 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. Authorities in several countries worldwide have declared either lockdown or curfew as a measure to break the fast spread of virus infection. These measures have a negative worldwide effect on the business, education, health, and tourism. COVID-19 pandemic has affected all levels of the education system. Educational institutions around the world (in 192 countries) have either temporarily closed or implemented localized closures affecting about 1.7 billion of student population worldwide. Many universities around the world either postponed or canceled all campus activities to minimize gatherings and hence decrease the transmission of virus. However, these measures lead to higher economical, medical, and social implications on both undergraduate and postgraduate communities.

Due to the suspension of classroom teaching in many colleges and universities, a switch to the online teaching for undergraduate and graduate students becomes effective

[reviewed in. This form of learning provides an alternative way to minimize either the contact between students themselves or between the students and lecturers. However, many students have no access to the online teaching due to lack of either the means or the instruments due to economical and digital divide.

Few studies highlighted COVID-19 in relation to educational studies. COVID-19 has a profound impact on medical students, dental medical students, and radiology trainee. Recently, the American Veterinary Medical Association (AVMA) showed that COVID-19 adversely impacted veterinary practices based on a large survey including about 2,000 response. However, there is no studies investigated the effect of COVID-19 on students in veterinary medical field. Therefore, the current study was conducted to analyze the impact of COVID-19 pandemic on the academic performance of veterinary medical students and researchers during the lockdown.

Presently, treatment of Covi-19 patients is mainly supportive as no specific antiviral therapy or vaccine exists for covid-19(April 2020). Consequently, the only option available is to apply preventive measures to curtail further inter-human spread of the virus. To this end, many countries adopted public health protocols to control the spread of the virus, most of them related to social distancing, hand washing, and lockdown of cities.

In Nigeria, Covid-19 was first reported in Lagos and then in the capital Abuja. As at 27 April 2020, Nigeria had recorded 1273 cases across 32 states and the federal capital

territory with 40 deaths. The Nigerian government, like other global community, adopted measures to contain the spread of the disease. Some of the strategies implemented included social distancing, ban on public gathering including religious gatherings, continuous personal hygiene such as hand washing and use of hand sanitizers; use of face masks, limiting number of passengers in public vehicles, locking down public places and cities Ilesanmi and Alele (2020). However, compliance with these measures was variable and largely dictated by economic factors.

The virus spreads from one person to another by droplets or by direct contact, and it could take up to 14 days (commonly five days) since the infection by the virus to develop symptoms. Elderly and people with decreased immunity due to a disease or medication are at high risk of infection (Razaq 2020).The main symptoms of COVID-19 infection are dry cough, fever, and shortness of breath. Other symptoms may include fatigue, body ache, and headache. Patients and suspected persons should be isolated to protect them and others around them. Because it is a virus, antibiotics are not effective against it, and the first line of treatment is supportive therapy. No antiviral medication or vaccine is available to the moment, but a strong effort is being made to develop one. The federal government took Precautionary measures to keep its citizens and others living on its soil safe, including suspending all international and domestic flights, schools, churches and Mosque. Schools and universities1Q were closed as a Ilesanmi and Alele (2020). It has been reported that the level of knowledge directly affects the individual perception of

susceptibility to a disease. The lack of knowledge about the COVID-19 disease would be a mediating element in the increase of cases infected by the virus. Knowledge of the infection process and its precautions would modify behavioral pattern and strengthen health care workers willingness to perform their duties.

1.2 Statement of the Problem

The outbreak of corona virus disease (COVID-19) pandemic in Nigeria has increase the level of tension and anxiety among citizens in the country. The virus unlike other cases we have had in this country is highly transmittable with severe signs and symptoms. The outbreaks of corona virus disease (COVID-19) have effect on educational system in Nigeria. Lastly there have been studies on corona virus disease (COVID-19) but not even a single study is based on the knowledge of the causes and prevention of corona virus (covid 19) among students; hence a need for the study.

1.3 Purpose of the Study

The aim of this study is to identify the effect of COVID 19 on the academic performance of secondary school students in Ijebu-Ode, Local Government Area, Ogun State. This main objective leads to the first hypothesis of this study which can be formulated as H1: COVID-19 confinement has a significant effect on students' performance. The confirmation of this hypothesis should be done discarding any potential side effects such as students cheating in their assessment process related to remote

learning. Moreover, a further analysis should be done to investigate which factors of COVID-19 confinement are responsible for the change.

A second hypothesis is H2: COVID-19 confinement has a significant effect on the assessment process. The aim of the project was therefore to investigate the following questions:

1. Is there any effect (positive or negative) of the COVID-19 confinement on students' performance?
2. Is it possible to be sure that the COVID-19 confinement is the origin of the different performance (if any)?
3. What are the reasons for the differences (if any) in students' performance?
4. What are the expected effects of the differences in students' performance (if any) in the assessment process?

1.4 Significance of the Study

The outcome of this research study will be useful for students and teachers on the knowledge of covid 19. Also, the findings of this study are expected to provide useful information to policymakers at this critical time. The findings may also inform public health officials on further public health interventions, awareness, and policy improvements pertaining to the COVID-19 outbreak.

1.5 Research Questions

1. What are the (positive or negative) effects of COVID-19 toward student's academic performance of secondary school students?
2. What are the reasons for the differences in students' academic performance?
3. Is there any significant difference in gender knowledge of prevention of covid 19.

1.6 Scope of the Study

This research will focus on the knowledge of the causes and prevention of corona virus (covid 19) among students in Ijebu-ode Local Government, Ogun State.

1.7 Definition of Terms

Corona virus: Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus. A type of common virus that infects humans, typically leading to an upper respiratory infection.

Virus: infectious agent of small size and simple composition that can multiply only in living cells of animals, plants, or bacteria.

Knowledge: is information and understanding about a subject which a person has, or which all people have.

Prevention: the act of stopping something from happening or of stopping someone from doing something.

Academic performance: Is the measurement of student achievement across various

academic subjects. Teachers and education officials typically measure achievement using classroom performance, graduation rates and results from standardized tests.

CHAPTER TWO

LITERATURE REVIEW

2.0 CONCEPTUAL FRAMEWORK

In 2020, the COVID-19 pandemic has become a severe ordeal for the human population, resulting in urgent measures to limit the spread of the disease and adversely affecting many sectors of the economy. During the lockdowns, alternatives have been quickly found for a lot of economic activities and public services. The closures of entire businesses and travel restrictions caused serious damage to the global economy and fully changed lifestyles worldwide. The risk of COVID-19 in higher education has affected all its degrees and forms of training. Unexpectedly, a whole generation of young people has had to continue its education in a different way in an unusual situation. New factors and rules have appeared and have exerted influence over the successful completion of the current level of their education.

2.1 CONCEPT OF COVID 19

Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus. Most people infected with the COVID-19 virus will experience mild to moderate respiratory illness and recover without requiring special treatment. Older people, and those with underlying medical problems like cardiovascular disease, diabetes, chronic respiratory disease, and cancer are more likely to develop serious illness. The best way to prevent and slow down transmission is to be well informed about

the COVID-19 virus, the disease it causes and how it spreads. Protect yourself and others from infection by washing your hands or using an alcohol based rub frequently and not touching your face.

The COVID-19 virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes, so it's important that you also practice respiratory etiquette (for example, by coughing into a flexed elbow).

2.1.1 Meaning and Origin of Corona Virus

Coronaviruses have repeatedly evolved during the past 1000 years (Forni, 2017). The first recovery of coronaviruses involved the identification of illnesses in animals followed by the isolation of infectious bronchitis virus (IBV) from chickens in 1937 and murine hepatitis viruses (MHV) from mice in 1949. Pigs were found to carry a transmissible gastroenteritis virus (TGEV) in the United States in 1946. Human coronaviruses were first characterized in the 1960s from respiratory tract infections. The two first isolated viruses were B814 and 229E. Since then, several other coronavirus strains have been isolated from humans using tissue culture (OC16 and OC43). The number of identified coronaviruses has continued to increase significantly to include viruses of several additional animal species such as calves, dogs, cats, bats, sparrows, rabbits, and turkeys (Tyrrell. J, 2009).

In 2002–2003, SARS-CoV caused a disease outbreak with deaths in 29 countries, most cases being in China and Hong Kong. The total number of reported cases was 8096,

of which 774 died, corresponding to a 9.6% fatality rate, before the disease died out in part due to strict quarantine protocols. Based on the genome sequence, SARS-CoV appeared to be very closely related to another virus from Himalayan palm civets, from which it may have emerged. Later, civets were considered an intermediate host for SARS-CoV, with bats as the natural host. (Hu et al. 2011) conducted a five-year surveillance study of SARS-related coronaviruses isolated from horseshoe bats in Yunnan province, China, where 11 SARS-like CoVs were identified. Genome comparisons revealed high genetic diversity among these viruses in several genes, including S, ORF3, and ORF8. Despite the dierences in S protein sequences, all 11 SARS-like CoVs are still able to use the same human angiotensin-converting enzyme-2 (hACE2) receptor, demonstrating a close relationship with SARS-CoV. Therefore, SARS-CoV likely emerged through recombination of bat SARS-like CoVs before infecting civets, from which the recombinant virus spread to humans, causing the SARS epidemic.

Ten years later, MERS-CoV emerged in Middle Eastern countries where the virus was transmitted to humans from dromedary camels. As of January 2020, MERS-CoV has resulted in 2519 laboratory-confirmed cases and 866 deaths (34.3% fatality rate), with more than 80% of the cases reported from Saudi Arabia. The human and camel MERS-CoV strains share more than 99% identity with variations (substitutions) located in the S, ORF3, and ORF4b genes. Phylogenetically, MERS-CoV is very close to bat

coronaviruses HKU4 and HKU5. A comprehensive analysis of the evolutionary relationships indicated that MERS-CoV may have originated from bats as a result of recombination events within ORF1ab and S genes. To gain access into the cell, MERS-CoV uses the human dipeptidyl peptidase 4 (DPP4) receptor. This is also the case for MERS-related CoVs isolated from bats in China, whose spike proteins are able to bind to the same receptor as MERS-CoV, confirming the possibility of a bat origin for MERS-CoV Luo, Wang, Yang, (2018).

In December 2019, SARS-CoV-2 emerged in Wuhan City, China, causing severe respiratory illness and mortality. Early studies reported that it may have evolved from bats, as revealed by phylogenetic analysis and its high identity (96.3%) with the bat coronavirus RaTG13. According to the Nigerian Centre for Disease Control (NCDC), the training of the rapid response teams across the 36 states in Nigeria was concluded in December 2019. On January 28, the NCDC further revealed that a Coronavirus Group had been set up to activate its incident system to respond to any emergency. Additionally, the NCDC worked with 22 states in Nigeria to activate their emergency operations centers to manage and link up with the national incidence coordination centers (Ihekweazu, 2020). Although the government had strengthened the surveillance at the airport since January 2020, Nigeria recorded its COVID- 19 index case that was imported from Italy, on February 27. This raised concerns about the effectiveness of airport surveillance and, by extension, the country's general preparedness. The index case (an

Italian) had visited some other states of the federation before testing positive for COVID-19. The pre-COVID-19 preparedness was grossly inadequate. Nevertheless, the onset of COVID-19 sent waves of panic across Nigeria, like in every other country. Due to globalization, the health risk of communicable diseases could be pandemic (Martin, 2005). Trade and travels facilitate the flow of people, who incidentally could move, carrying a health risk (in this case: the coronavirus). From one imported index case, many countries (including Nigeria) face tremendous health challenges with multiple cases and deaths. Since the first index case in Nigeria, the number of cases has been increasing, although at a snail pace due to public health interventions. Upon the detection of the index case, the NCDC activated a multi-sectorial National Emergency Operations Centre (EOC) to oversee the national response to COVID-19. Subsequently, the Presidential Task Force (PTF) for coronavirus control was inaugurated on March 9, 2020. The PTF announced that travelers from 13 COVID-19 high-risk countries had been restricted from entering the country. The Port Health Services and NCDC monitor the self-isolation of returnees from the affected countries from then onward. The concern from several quarters was that the ban on high-risk countries would have taken immediate effect. By the time the ban took effect, the nation had recorded more imported cases. Unfortunately, most of those who arrived in the country did not comply with the 14 days self-isolation recommended by the NCDC. The NCDC disclosed that all confirmed cases of COVID-19 in the country between February 27 and March 17 (the first 30 days) were imported by

returning travelers. As of March 27, one month after the first case, ten states in Nigeria had 81 clinically confirmed cases. Three patients had fully recovered, and one death was reported. At this time, Lagos State had the highest number of cases (52; 64.2%). By September, 10, the number of positive cases had increased exponentially to 55,632. The death toll had risen to 1,070, and 43,610 persons had recovered while states with positive cases in Nigeria totaled 37.

2.1.2 Characteristics of Covid 19

COVID-19 is mainly characterized by high fever, cough, sore throat, shortness of breath, fatigue, rhinor-rhea and dyspnea. Compared with general pneumonia, these symptoms are not specific. All COVID-19 patients exhibited symptoms of cough, and most had a moderate degree of fever (38.0–39.0 °C); however, two did not exhibit fever. Most of those infected with COVID-19 and exhibited fever varying from 1 to 9 days (mean 3.09 ± 3.21 days), and persisting 4 to 11 days (mean 7.55 ± 3.08 days). Fever was not the only screening criterion for COVID-19 infection. Almost one-half of COVID-19 patients exhibited expectoration, fatigue, and gastrointestinal symptoms such as anorexia, nausea, vomiting, and diarrhea. One of the COVID-19 patients experienced dyspnea and pharyngalgia. Most patients' oxyhemoglobin saturation (90–98% [mean $95.77 \pm 2.74\%$) and oxygenation index (203–462 mmHg [mean 324.11 ± 96.20 mmHg]) were decreased in the early period of 2019-nCoV infection.

More than one-half of patients infected by COVID-19 had one to three concomitant diseases, such as hypertension, diabetes, and/or cerebral infarction. One patient exhibited acute mental disorder; as such, devoting attention both physiological and mental disorders in COVID-19 patients is important.

2.1.3 Function / types Covid 19 Vaccines

The COVID-19 pandemic is overwhelming the functioning and outcomes of education systems—some of which were already stressed in many respects. This is true across the world and affects all children, though to differing degrees depending on multiple factors—including the country/region where they live, as well as their ages, family backgrounds, and degree of access to some "substitute" educational opportunities during the pandemic. In early spring as the pandemic was hitting its first peak, the virus consigned nearly all of over 55 million U.S. school children under the age of 18 to staying in their homes, with 1.4 billion out of school or child care across the globe (NCES 2019a; U.S. Census Bureau 2019; Cluver et al. 2020). Not only did these children lack daily access to school and the basic supports schools provide for many students, but they also lost out on group activities, team sports, and recreational options such as pools and playgrounds.

The shutdown of schools, compounded by the associated public health and economic crises, poses major challenges to our students and their teachers. Our public

education system was not built, nor prepared, to cope with a situation like this—we lack the structures to sustain effective teaching and learning during the shutdown and to provide the safety net supports that many children receive in school. While we do not know the exact impacts, we do know that children's academic performance is deteriorating during the pandemic, along with their progress on other developmental skills. We also know that, given the various ways in which the crisis has widened existing socioeconomic disparities and how these disparities affect learning and educational outcomes, educational inequities are growing (Rothstein 2004; Putnam 2015; Reardon 2011; García and Weiss 2017). As a consequence, many of the children who struggle the hardest to learn effectively and thrive in school under normal circumstances are now finding it difficult, even impossible in some cases, to receive effective instruction, and they are experiencing interruptions in their learning that will need to be made up for.

The 2020–2021 school year is now underway, and with many schools remaining physically closed as the 2020–2021 year begins, there is more we need to understand and think through if we are to meet the crisis head-on. If students are to not see their temporary interruptions become sustained and are to regain lost ground, if teachers are to do their jobs effectively during and after the pandemic, and if our education system is to deliver on its excellence and equity goals during the next phases of this pandemic, it will be critical to identify which students are struggling most and how much learning and development they have lost out on, which factors are impeding their learning, what

problems are preventing teachers from teaching these children, and, very critically, which investments must be made to address these challenges. For each child, this diagnostic assessment will deliver a unique answer, and the system will have to meet the child where he or she is. A strengthened system based on meeting children where they are and providing them with what they need will be key to lifting up children.

Types of Covid 19 vaccines

There are more vaccine candidates simultaneously in the pipeline for COVID-19 than ever before for an infectious disease. All of them are trying to achieve the same thing – immunity to the virus, and some might also be able to stop transmission. They do so by stimulating an immune response to an antigen, a molecule found on the virus. In the case of COVID-19, the antigen is typically the characteristic spike protein found on the surface of the virus, which it normally uses to help it invade human cells.

The Four Main Types of Covid-19 Vaccine

There are four categories of vaccines in clinical trials: WHOLE VIRUS, PROTEIN SUBUNIT, VIRAL VECTOR and NUCLEIC ACID (RNA AND DNA). Some of them try to smuggle the antigen into the body, others use the body's own cells to make the viral antigen.

1. **WHOLE VIRUS**

Many conventional vaccines use whole viruses to trigger an immune response. There are two main approaches. Live attenuated vaccines use a weakened form of the

virus that can still replicate without causing illness. Inactivated vaccines use viruses whose genetic material has been destroyed so they cannot replicate, but can still trigger an immune response. Both types use well-established technology and pathways for regulatory approval, but live attenuated ones may risk causing disease in people with weak immune systems and often require careful cold storage, making their use more challenging in low-resource countries. Inactivated virus vaccines can be given to people with compromised immune systems but might also need cold storage.

2. PROTEIN SUBUNIT

Subunit vaccines use pieces of the pathogen - often fragments of protein - to trigger an immune response. Doing so minimises the risk of side effects, but it also means the immune response may be weaker. This is why they often require adjuvants, to help boost the immune response. An example of an existing subunit vaccine is the hepatitis B vaccine.

3. NUCLEIC ACID

Nucleic acid vaccines use genetic material – either RNA or DNA – to provide cells with the instructions to make the antigen. In the case of COVID-19, this is usually the viral spike protein. Once this genetic material gets into human cells, it uses our cells' protein factories to make the antigen that will trigger an immune response. The advantages of such vaccines are that they are easy to make, and cheap. Since the antigen is produced inside our own cells and in large quantities, the immune reaction

should be strong. A downside, however, is that so far, no DNA or RNA vaccines have been licensed for human use, which may cause more hurdles with regulatory approval. In addition, RNA vaccines need to be kept at ultra-cold temperatures, -70C or lower, which could prove challenging for countries that don't have specialised cold storage equipment, particularly low- and middle-income countries.

4. VIRAL VECTOR

Viral vector vaccines also work by giving cells genetic instructions to produce antigens. But they differ from nucleic acid vaccines in that they use a harmless virus, different from the one the vaccine is targeting, to deliver these instructions into the cell. One type of virus that has often been used as a vector is adenovirus, which causes the common cold. As with nucleic acid vaccines, our own cellular machinery is hijacked to produce the antigen from those instructions, in order to trigger an immune response. Viral vector vaccines can mimic natural viral infection and should therefore trigger a strong immune response. However, since there is a chance that many people may have already been exposed to the viruses being used as vectors, some may be immune to it, making the vaccine less effective.

2.1.4 Causes Of Covid 19 On Education System

COVID-19 is caused by infection with the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) virus strain. The new COVID-19 is caused by the virus SARS-CoV-2. The most likely ecological reservoirs for SARS-CoV-2 are bats, but it is

believed that the virus jumped the species barrier to humans from another intermediate animal host. This intermediate animal host could be a domestic food animal, a wild animal, or a domesticated wild animal which has not yet been identified.

WHO continues to collaborate with experts, Member States and other partners to identify gaps and research priorities for the control of COVID-19, and provide advice to countries and individuals on prevention measures. National food safety authorities have been following this event with the International Food Safety Authorities Network (INFOSAN) Secretariat to seek more information on the potential for persistence of the virus on foods traded internationally and the potential role of food in the transmission of the virus. Experiences from previous outbreaks of related coronaviruses, such as the Severe Acute Respiratory Syndrome coronavirus (SARS-CoV) and Middle East respiratory syndrome coronavirus (MERS-CoV) show that transmission through food consumption did not occur. To date, there have not been any reports of transmission of SARS-CoV-2 virus through food. However, concerns were expressed about the potential for these viruses to persist on raw foods of animal origin.

Currently, there are investigations conducted to evaluate the viability and survival time of SARS-CoV-2. In general, coronaviruses are very stable in a frozen state according to studies of other coronaviruses, which have shown survival for up to two years at -20°C. Studies conducted on SARS-CoV ad MERS-CoV indicate that these viruses can persist on different surfaces for up to a few days depending on a combination

of parameters such as temperature, humidity and light. For example, at refrigeration temperature (4°C), MERS-CoV can remain viable for up to 72 hours. Current evidence on other coronavirus strains shows that while coronaviruses appear to be stable at low and freezing temperatures for a certain period, food hygiene and good food safety practices can prevent their transmission through food. Specifically, coronaviruses are thermolabile, which means that they are susceptible to normal cooking temperatures (70°C). Therefore, as a general rule, the consumption of raw or undercooked animal products should be avoided. Raw meat, raw milk or raw animal organs should be handled with care to avoid cross-contamination with uncooked foods.

2.1.5 Advantage and Disadvantages Of Covid 19

One of the most oft-used terms after the pandemic is the term “new normal.” The new normal in education is the increased use of online learning tools. The COVID-19 pandemic has triggered new ways of learning. All around the world, educational institutions are looking toward online learning platforms to continue with the process of educating students. The new normal now is a transformed concept of education with online learning at the core of this transformation. Today, digital learning has emerged as a necessary resource for students and schools all over the world. For many educational institutes, this is an entirely new way of education that they have had to adopt. Online learning is now applicable not just to learn academics but it also extends to learning

extracurricular activities for students as well. In recent months, the demand for online learning has risen significantly, and it will continue doing so in the future.

As with most teaching methods, online learning also has its own set of positives and negatives. Decoding and understanding these positives and negatives will help institutes in creating strategies for more efficiently delivering the lessons, ensuring an uninterrupted learning journey for students.

The Advantages Of Online Learning?

1. ***Efficiency***:- Online learning offers teachers an efficient way to deliver lessons to students. Online learning has a number of tools such as videos, PDFs, podcasts, and teachers can use all these tools as part of their lesson plans. By extending the lesson plan beyond traditional textbooks to include online resources, teachers are able to become more efficient educators.
2. ***Accessibility Of Time And Place***:- Another advantage of online education is that it allows students to attend classes from any location of their choice. It also allows schools to reach out to a more extensive network of students, instead of being restricted by geographical boundaries. Additionally, online lectures can be recorded, archived, and shared for future reference. This allows students to access

the learning material at a time of their comfort. Thus, online learning offers students the accessibility of time and place in education.

3. ***Affordability***:- Another advantage of online learning is reduced financial costs. Online education is far more affordable as compared to physical learning. This is because online learning eliminates the cost points of student transportation, student meals, and most importantly, real estate. Additionally, all the course or study materials are available online, thus creating a paperless learning environment which is more affordable, while also being beneficial to the environment.
4. ***Improved Student Attendance:-*** Since online classes can be taken from home or location of choice, there are fewer chances of students missing out on lessons.

Suits a Variety of Learning Styles:- Every student has a different learning journey and a different learning style. Some students are visual learners, while some students prefer to learn through audio. Similarly, some students thrive in the classroom, and other students are solo learners who get distracted by large groups. The online learning system, with its range of options and resources, can be personalized in many ways. It is the best way to create a perfect learning environment suited to the needs of each student.

The Disadvantages of Online Learning?

1. Inability To Focus On Screens*:-* For many students, one of the biggest challenges of online learning is the struggle with focusing on the screen for long periods of time. With

online learning, there is also a greater chance for students to be easily distracted by social media or other sites. Therefore, it is imperative for the teachers to keep their online classes crisp, engaging, and interactive to help students stay focused on the lesson.

2. Technology Issues:- Another key challenge of online classes is internet connectivity. While internet penetration has grown in leaps and bounds over the past few years, in smaller cities and towns, a consistent connection with decent speed is a problem. Without a consistent internet connection for students or teachers, there can be a lack of continuity in learning for the child. This is detrimental to the education process.

3. ***Sense of Isolation:-*** Students can learn a lot from being in the company of their peers. However, in an online class, there are minimal physical interactions between students and teachers. This often results in a sense of isolation for the students. In this situation, it is imperative that the school allow for other forms of communication between the students, peers, and teachers. This can include online messages, emails and video conferencing that will allow for face-to-face interaction and reduce the sense of isolation.

4. ***Teacher Training:-*** Online learning requires teachers to have a basic understanding of using digital forms of learning. However, this is not the case always. Very often, teachers have a very basic understanding of technology. Sometimes, they don't even have the necessary resources and tools to conducts online classes.

To combat this, it is important for schools to invest in training teachers with the latest technology updates so that they can conduct their online classes seamlessly.

***5. Manage Screen Time*:-** Many parents are concerned about the health hazards of having their children spend so many hours staring at a screen. This increase in screen time is one of the biggest concerns and disadvantages of online learning. Sometimes students also develop bad posture and other physical problems due to staying hunched in front of a screen. A good solution to this would be to give the students plenty of breaks from the screen to refresh their mind and their body.

2.3 ACADEMIC PERFORMANCE AND THE COVID-19 PANDEMIC

Researchers have found that academic performance, demonstrated through standardized test scores, has decreased among some students since the emergence of the COVID-19 pandemic (Engzell, P. et.al. 2020). In a sample of 15% of all schools in the Nigeria, researchers examined differences in scores on reading comprehension, math and spelling among students aged 7–11 years from 2017 to 2020. From 2017 to 2019, the scores on the twice-yearly tests showed no significant difference; however, in 2020, upon the beginning of the COVID-19 pandemic, students' overall scores dropped by three percentile points in math, spelling and reading. Most of the literature on academic performance during COVID-19 has examined postsecondary students, with little else known on the effect of COVID-19 on the academic performance of middle schoolers specifically.

2.4 EVALUATE THE AWARENESS OF COVID 19 VIRUS AMONG STUDENT IN IJEBU-ODE LOCAL GOVERNMENT

Data showed that participants used several electronic devices to study online. The most used device was the smartphone (51.0%) followed by laptop (32.8%) and tablet (9.6%), while the least used device was the personal computer (6.6%) (Figure 1A). The studying hours spent for online learning ranged from <1 h/day to 14 h/day with an average of 3.1 ± 1.9 h/day. Regarding the frequency of online studying hours, about 44.7% (n = 622) of participants spent up to 2 h/day in online learning, while 48.8% (n = 679) of participants spent 3–6 h/day, and 6.5% (n = 91) of participants spent 7–14 h/day.

The mean evaluation score for the online education in general was 5.1 ± 2.4 while that for the practical parts was 3.6 ± 2.6. About 56.9% (n = 792) of participants evaluated the online learning in general with 1–5 of 10 points, while 78.4% (n = 1,091) of participants evaluated the online learning in practical lessons with 1–5 of 10 points (Figure 1B).

Participants showed that the online study materials were available mostly through online classes and pdf lectures followed by e-books, YouTube videos, university platforms, educational websites, and educational applications (Figure 2A). Different online tools had been used to access the online classes. The distribution of these online tools was as follow; Zoom had the highest preference followed by WhatsApp, Google classroom, and social networks. Microsoft Teams, Edmodo, Skype, and Google Meet

were moderately used. While Canvas, Edpuzzle, Adobe connect, and Edverum were not popular tools.

The E-Learning Intervention

The e-learning is classified as computer-based and internet based (Arkorful & A*-aidoo, 2014). The type depends on the user mode. The computer-based involves the use of ICT, while the internet-based is purely online. The computer-based includes the use of computer software and hardware (Algahtani, 2011); the internet-based comprises e-mail, blog, and other references (Almosa in Arkorful & Abaidoo, 2014).

Upon this, the e-learning could be classified by this thesis to blended and online learning. The definition of blended learning varies according to the individual perspective (Bryan & Volchenkova, 2016). The blended learning is rotation, self blended, and enriched virtual (Bryan & Volchenkova, 2016). Cleveland-Innes and Wilton (2018) categorized blended learning to three, which are blended presentation and interaction, blended block, and fully online. Some tools are peculiar to e-learning for effectiveness depending on the types. The e-learning required the utilization of some tools for instructions in higher education for its effectiveness.

According to Pande, Wadhai, and Thakare (2016), Weblog, Social bookmarking, Wiki, RSS, Podcasting, Instant messaging, Text chat, and internet forums are essential tools for any e-learning. The benefits or advantages of e-learning are enormous. Some of the advantages according to Pande, Wadhai, and Thakare (2016), includes flexibility,

efficiency in knowledge and qualification enhancement, motivation of students' interaction, cost-effective, and others. Despite the vital roles e-learning plays in tertiary education in many countries of the world: most developing nations including Nigeria are yet to unlock the full potentials of it (Kyari, Adiuku-Brown, Abechi, Pyochi & Adelakun, 2018).

E-learning attempts to shift the focus of the educational environment away from the physical teacher-student context while disseminating information (Franklin & Nahari, 2018). The e-learning in some parts of the globe is not a new phenomenon in promoting education; Nigeria schools are using it to promote distance education and lifelong learning (Ajadi, Salawu & Adeoye, 2008).

Several studies had been documented on e-learning how students receive instructions from teachers and learn adequately at all times including the vacation period (Zare, Sarikhani, Salari & Mansouri, 2016; Franklin & Nahari, 2018; Aina & Olanipekun, 2018). Different types of e-learning could be explored as practiced in most developed nations. The typical e-learning in most Nigerian universities is the distance learning programme. There are concerns about how the distance learning programme could effectively teach online students by exploiting ICT technologies and collaboration to enhance in-depth interactive engagement (Magen-Nagar & Shonfeld, 2017). Some devices used for this distance learning programme are TV, CD-ROM, and Radio (Kyari, Adiuku-Brown, Abechi & Adelakun, 2018) and recently the mobile phones (Aina &

Olanipekun, 2018). E-learning is critical to higher education as it is the use of information and communication technologies in various processes of education to support and enhance learning (Pande, Wadhai & Thakare, 2016).Therefore, to mitigate the impact of COVID-19 on the learning of science education in higher education required the adoption of e-learning during the period of lockdown.

However, due to the rule of social distancing, any e-learning that requires physical contact during teaching and learning may not be effective. Given this, any of the blended learning may not be the best for science education at this period except for the full online mode. Therefore, making an extensive literature search shows that the best e-learning suitable for teaching and learning at this period could be the Google Classroom.

2.5. THEORETICAL FRAMEWORK

The unprecedented COVID-19 pandemic has greatly influenced life for many people. In Nigeria, where the school year typically runs from March to February, the emergence of the COVID-19 pandemic caused the school year to be delayed by five weeks, before beginning in April 2020 in a virtual format (Byun, S & Slavin, R.E, 2020). Students did not begin to return to school in person until June 2020 and, until then, families faced challenges such as relatively few parents (60%) being able to work from home even some of the time. For middle school students in Nigeria, one of the main achievements in life is academic performance, and the negative effects of the coronavirus may also affect middle school students' grades.

The Ecological Systems Theory explains human behavior by considering the influence of multiple levels such as individual, social–environmental and cultural aspects (Morris, P.A, 1998). This theory exphasizes the dynamic mutual interactions between individuals and the environment based on open systems (Rothery, M, 2001). That is, environmental changes caused by COVID-19 may negatively influence individuals' academic performance. In particular, students in Nigeria already encounter many stresses concerning high academic expectations, such as through parents or "tiger moms" who put an immense amount of pressure on children for high educational attainment and performance (Shin, M. & Wong, Y.J, 2013). Given that fierce academic competition has existed in South Korea for a long time (Park, H.; 2011), the environmental changes due to COVID-19, such as online lectures instead of face-to-face class, may increase students' stresses regarding their academic performance. Thus, this study focuses on how middle school students adjust to their new learning environment and how they have been influenced by COVID-19, based on the Ecological Systems Theory.

Precaution and Preventive Measure of Corona Virus

People should stay aware of the latest information on the COVID-19 outbreak provided by WHO and Follow the directions of your local health authority and prevent secondary infections, interrupt human-to-human transmission to your close contacts, health care workers and prevent further international spread. most of the people who infected, experience mild illness and recover it, but its infection can be more severe

for other individuals. To take care of your health and protect others take the subsequent steps (WHO, 2019):

Take steps to protect yourself

- Wash your hands regularly and thoroughly with soap and water for at least 20 seconds or with an alcohol- based hand rub (hand sanitizer that contains at least 60% alcohol) completely cover your hands and rub them together until they do not dry especially after you have been visited a public place, or after blowing your nose, sneezing or coughing.
- Hands touch many surfaces and pick up viruses and these contaminated hands, can transfer the virus to your nose, eyes or mouth So, avoid touching these organs with unwashed hands. Because from there, the virus can enter the body and may cause persons to sick.
- Maintain social distancing (maintain at least 1 metre or 3 feet distance between yourself and anyone) and avoid close contact with people who are sick (who is coughing or sneezing). When infected individuals cough or sneezes, they spray small droplets from their nose or mouth which may contain COVID-19 virus. The person can breathe in these droplets (WHO, 2019).
- Avoid large events and mass gatherings

Take steps to protect others

- Stay home if you are feeling unwell, unless you're going to get medical care. If you have a cough, fever and difficulty breathing, seek medical attention consult online to your doctor.
- If you're sick avoid taking public transportation.
- Whenever you cough or sneeze cover your mouth and nose with a tissue paper.
- Throw used tissues in the trash and wash your hands immediately with antiseptic soap and water.
- If possible, stay isolated in a separate room from family and pets and wear a facemask when you are around other people (e.g., sharing a room or vehicle). If you are unable to wear a facemask (due to its causes trouble breathing or other reason) then you should cover your coughs and sneezes, and but when the people who are caring for you enter your room they should wear a facemask (Facemasks may be in short supply and they should be saved for caregivers).
- Stay home for a duration of time and follow your doctor's instructions.
- If you're sick, avoid sharing bedding, dishes, glasses and other household items
- If possible, use a separate bathroom and toilets from the family.
- If surfaces are dirty, clean them, and use detergent or antiseptic soap & water before disinfection apply,

- Apply disinfectant daily on frequently touched surfaces. This includes desks, phones, keyboards, toilets, faucets, tables, doorknobs, light switches, countertops, handles, and sinks (WHO, 2020).
- Identify and Isolate Suspected Cases
- Before clinical care is started, Identify the potential cases as soon as possible and isolate the suspected people separately from those who confirmed cases of the virus COVID-19, to Prevent the potential transmission of infection to other patients and health care staff.
- Avoid direct physical contact (including physical examination and exposure) to respiratory and other body secretions. For instance, move potentially infectious people to isolation rooms and close the doors. In a working place, make the distance in workers, customers, and other visitors, especially from potentially infectious individuals' location
- In case of need to isolate a patient or patient group, pharmacies should designate and prepare a suitable space
- Most patients presenting in community pharmacies are unlikely to have COVID-19. If they have coughs, colds or flu-like symptoms but not relevant to COVID-19, travel or contact history, pharmacies should proceed in line with their best practice and routine management of the cross-infection risks to staff and other patients.

- Restrict the number of individuals entering isolation areas, including the room of a patient with suspected and confirmed COVID-19.
- For safe work practice, protect workers to close contact with the infected person by using additional engineering and administrative control (Singhal, 2020).

2.6 ATTITUDES OF LEARNING DURING COVID-19

Positive attitudes toward learning during COVID-19 have been found to be associated with higher academic performance. Positive attitudes toward learning during COVID-19 may include self-motivated learning as well as positive attitudes toward, or a preference toward, online learning versus an in-person format. In one study, parents of students in grades one through nine in Italy and Portugal reported on their children's academic motivation, and latent score change models showed that students' motivation decreased in both countries since the COVID-19 pandemic emerged (Zaccoletti, S.; et al. 2020). Additionally, among postsecondary students in Malaysia, motivation to learn dropped significantly during a period when the government restricted travel and other non-essential activities to reduce the spread of the virus (Tan, C. 2020). Moreover, it was found that among these students, motivation to learn was strongly, positively associated with academic performance (Tan, C. 2020). While no study was found that directly examined the relationship between positive attitudes toward online learning and academic performance among adolescents during COVID-19, one study did reveal that if college

students strongly preferred face-to-face learning, they were more likely to struggle to adapt to online learning (Aguilera-Hermida, A.P, 2020). These students that preferred face-to-face learning also reported lower cognitive engagement in online learning. Both of these factors-a preference toward face-to-face learning during a period of mandatory online learning and lower cognitive engagement in their online courses-may influence their academic performance.

2.5.4 COVID-19 Risk Perceptions and Academic Performance

Researchers in Canada and Italy examined adolescents' and young adults' perceived risk of COVID-19 infection and found that, overall, young people did not consider themselves to be at high risk for infection, although young people in Canada did consider their family and friends to be at a higher risk than themselves (Commodari, E.; et al, 2020). Additionally, higher risk perception of COVID-19 infection was associated with increased odds of participating in protective measures against COVID-19, such as washing one's hands and social distancing (Yang, X.Y.et al, 2020). However, despite fewer young people seemingly concerned about their own risk of COVID-19 infection, in a sample of Turkish college students, nearly 70% reported feeling anxious about the spread of COVID-19, which was associated with a decreased motivation to study, which may in turn lead to decreased academic performance (Elhadary, T, 2020).

2.7 EFFECT OF COVID 19 ON EDUCATION

The emergence of Corona virus known as the COVID-19 pandemic devastated

all sectors of the global economy. The educational system of the world was halted because of social distancing and the lockdown. The conventional paradigm of teaching fails and teaching/learning suffers a severe setback all over the world including Nigeria. Teaching and learning in science education is evolving. Many decades ago in Nigeria, the conventional methods of teaching holds sway in the educational sector (Aina & Langenhoven, 2015). In recent times, teaching and learning had developed into an electronic paradigm (e-learning) that pervaded the entire schools of the world. However, in Nigeria's higher education context the issue of e-learning is not common (Ajadi, et al, 2018).

The world is not static but dynamic and technology is changing human endeavor rapidly. Along with the changes are various challenges the human race is facing which makes our education fragile and weak such as the current problem of COVID-19 pandemic. The pandemic has exposed the weakness in teaching and learning in Nigerian schools because the typical teaching paradigm fails.

In Nigeria, the current lockdown in the country occasioned by the COVID-19 pandemic is severely impacting science education. The advent of Coronavirus (COVID-19) in Nigeria has dealt a severe blow to the education of the nation in 2020. The effect of the pandemic is alarming in the educational system of the nation (Sahu, 2020). Within short months the virus entered the country it spread widely to nearly all the states. The government short downs all schools in the nation and clamoring for social distancing to

curtail the spread of the virus.

Social distancing is one of the community mitigation measures that are recommended during influenza pandemics (Ahmed, Zviedrite & Uzicanin, 2018). Social distancing has been considered effective to curb the spread of COVID-19 (Blocken, Malizia, van Druenen & Marchal, 2020). Social distancing is a step taken to reduce physical contact with other individuals (European Centre for Disease Prevention and Control, 2020). It is a measure taken during a pandemic to restrict when and where people can gather to stop the spread of an infectious disease.

The period of COVID-19 pandemic is a typical example of times when conventional teaching paradigm could not work in schools. During this period, as a measure of social distancing, students and teachers are not allowed to interact physically. Schools are closed down for many weeks thus teaching and learning are disrupted (UNESCO, 2020). Teaching and learning in science required interactions between students and the teachers which may not only be physical (Akhtar, Hussain, Afzal) & Gilani, 2019).

Therefore, students staying away from schools for a long period may adversely impact their academic performance. It is, therefore, essential the Nigerian government is more committed to e-learning in our tertiary institutions. Although, e-learning is not new in the Nigerian educational system, but the quality and effectiveness are critical. One of the learning framework that enable students to connect with the teacher to learn

outside the school context is Google classroom.

Impact of School Closure on Children

School attendance is one of the best public tools available to raise a child's skills, awareness and development. The disadvantages of school closure are enormous for under-privileged students who tend to have fewer or no educational opportunity outside school. The closure of schools, colleges and universities does not only interrupt the teaching of students around the world, it also coincides with a key assessment period and many examinations have been postponed or cancelled as a result of COVID-19. For instance, Cambridge International Examinations that include Cambridge IGCSE, Cambridge, O Level, Cambridge International AS and A Levels, Cambridge AICE Diploma and Cambridge Pre-U examinations for May/June 2020 diet were canceled worldwide. Though candidates could be awarded grades based on the forecast grades sent by their teachers, but, to some extent, this would not represent the true performance of the candidates as some teachers may be biased and either over-grade or under-grade their students while predicting scores for them. Other International examinations that were canceled due to COVID-19 include International Baccalaureate, Scholastic Aptitude Test (SAT) and American College Test (ACT). Apart from these, students who sat for Senior Secondary Certificate in Examination (WAEC) in the West African countries had their examinations postponed.

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter presents the research method under the following sub-headings; research design, population for the study, sample and sampling technique, instrument for data collection, validation of the instrument, reliability of the instrument, method of data collection and method of data analysis.

3.1 Research Design

The design of the study is a descriptive survey research. Descriptive survey design, according to Ali (2006), is a study in which a group of people or items are studied by collecting and analysing data from few people or items considered to be a representative of the entire group. Similarly, Nworgu (2006) defined descriptive survey design as a type of study which aims at collecting data on, and describing in a systematic manner, the characteristics, feature or facts about a given population. Hence, the researcher sees it necessary to use this design because it uses a representative sample of the entire population.

3.2 Population for the Study

The population for this study will comprise all Secondary Schools students in Ijebu Ode Local Government Area, Ogun State.

3.3 Sample and Sampling Technique

The sample procedure adopted is simple random sampling techniques. 50 students was selected from 5 schools, Ten students from each school.

3.4 Instrument for Data Collection

The instrument for data collection is a structured questionnaire. The instrument was developed by the researcher and has two sections, A and B. section A deals with the bio-data of the respondents while section B deals with the effects of Covid 19 on the academic performance of secondary school students, a case study of selected secondary school in Ijebu-Ode Local Government Area.

3.5 Validation of the Instrument

In order to ascertain and ensure the face validity as well as the content validity of the researchers self designed questionnaire, it would be thoroughly examined by the supervisor of this research work for correction and input.

3.6 Reliability of the Instrument

The use of simple percentage method will be used for this study in which the questionnaire would be administered before determining if the data collected were liable.

3.7 Method of Data Collection

The copies of the questionnaire will be administered by the respondents the help of research assistants. These research assistants will be trained on the method of administering and retrieving of the instruments. Direct delivery and retrieval system will be use. It will help the researcher to recover the entire instrument from the respondents.

3.8 Method of Data Analysis

The data collected for this study will be prescriptively analysed and presented in simple percentage statistically.

CHAPTER FOUR

CHAPTER FOUR: DATA ANALYSIS

The results of the data analysis were present in this chapter with the research questionnaire which was interpreted with the already gathered information.

The data collected was analysed using simple percentage method. With the simple percentage method, the result from the data collected from questionnaire will be analysed and calculated in a simple manner for anybody that wants to make reference will easily understand.

This research result representation comprises of two: section A and B in which section A contain the presentation of demographic data of the respondents and section B contain the presentation of the research question result.

4.1 Presentation of Personal Data

Table 1: Gender of the Respondents

Options	**No of Respondents**	**Percentage %**
Male	15	30%
Female	35	70%
Total	50	100%

From the table above, it shows that 15 representing 30% of the respondents were male while 35 representing 70% of respondents were female. This shows that majority of the respondents were female.

Table 2: Age Distribution of the respondents

Options	No of Respondents	Percentage %
11-14 years	20	40%
14-17 years	16	32%
17years &above	14	28%
Total	50	100%

Results from the table above revealed that 20 (40%) of the respondents were from age range of 11-14years, 16 (32%) of the respondents were from 14-17years while 14(28%) of the respondents were from 17years and above.

4.2 Data Analysis

Table 4.3.1: Do students have adequate knowledge of causes and prevention of covid 19

Options	No of Respondents	Percentage %
SA	13	26%
A	17	34%
SD	12	24%
D	8	16%
Total	50	100%

From the table above, it shows that 13(26%) of the respondents said they have adequate knowledge of covid-19, 17(34%) of the respondents agreed while 12(24%) of the respondents strongly disagreed and 8(16%) of the respondents disagreed with the issue.

QUESTIONS 1

S/N	QUESTION	SA		A		D		SD		TOTAL
		F	%	F	%	F	%	F	%	
1	Does Covid 19 really have negative effect on student academic performance?	30	60%	15	30%	5	10%	0	0%	100
2	Do Covid 19 brought a new topic in our school educational system	43	86%	7	14%	0	0%	0	0%	100
3	Does period of COVID-19 pandemic is a typical example of times when conventional teaching paradigm could not work in schools.	36	72%	9	18%	4	8%	2	4%	100
4	Positive attitudes toward learning during COVID-19 have been found to be associated with higher	4	8%	2	4%	28	56%	16	32%	100

	academic performance.									
5	Is student really enjoying the total lockdown during Covid 19 pandemic?	10	20%	8	16%	15	30%	17	34%	100

From the table above, it shows that out of 100 respondents 30 (60%) of the respondents strongly agreed does Covid 19 really have negative effect on student academic performance, while 15 (30%) agree, 5 (10%) disagree and 0% strongly disagree. Out of 100 respondents 43 (86%) strongly agreed that Covid 19 brought a new topic in our school educational system, while 7 (14%) respondents agree, 0% respondents disagree and 0% respondent strongly disagree. Out of 100 respondents 36 (72%) strongly agree that the period of COVID-19 pandemic is a typical example of times when conventional teaching paradigm could not work in schools?, while 9 (18%) respondents agree, 4 (8%) respondents disagree and 2 (4%) respondents strongly disagree. Out of 100 respondents 4 (8%) strongly agree that positive attitudes toward learning during COVID-19 have been found to be associated with higher academic performance, while 2 (4%) respondents agree, 28 (56%) respondent disagree and 16 (32%) strongly disagree. Out of 100 respondents 10 (20%) strongly agree, 8 (16%) agree, 15 (30%) disagree while 17 (34%) strongly disagree that Is student really enjoying the total lockdown during Covid 19 pandemic. Therefore, students have adequate knowledge of causes and prevention of covid 19.

QUESTION 2

S/N	QUESTION	SA	A	D	SD	TOTAL

		F	%	F	%	F	%	F	%	
6	Does the Covid 19 actually spread from one person to another.	26	52%	18	36%	4	8%	2	4%	100
7	Did Covid 19 actually started from China.	30	60%	10	20%	7	14%	3	6%	100
8	Teachers and parents might be important to reduce middle school students' anxiety or stress related to the risk of COVID-19.	25	50%	21	42%	4	8%	0	0%	100
9	To reduce the negative impact of high risk perception among middle school students, mental health services should be provided to them about COVID-19.	29	58%	15	30%	4	8%	2	4%	100
10	The closures of entire businesses and travel restrictions caused serious damage to the global academic slowness performance.	20	40%	18	36%	7	14%	5	10%	100

From the table above, it shows that out of 100 respondents 26 (52%) of the respondents agreed that does the Covid 19 actually spread from one person to another?, While 18 (36%) strongly agree, 4 (8%) disagree and 2 (4%) strongly disagree. Out of 100 respondents 30 (60%) strongly agreed that Covid 19 actually started from China, while 10 (20%) respondents agree, 7 (14%) respondents disagree and 3 (6%) respondent strongly disagree. Out of 100 respondents 25 (50%) strongly agree that teachers and parents might be important to reduce middle school students' anxiety or stress related to the risk of COVID-19?, while 21 (42%) respondents agree, 4 (8%) respondents disagree and 0% respondents strongly disagree. Out of 100 respondents 29 (58%) strongly agree that to reduce the negative impact of high risk perception among middle school students, mental health services should be provided to them about COVID-19, while 15 (30%) respondents agree, 4 (8%) respondent disagree and 2 (4%) strongly disagree. Out of 100 respondents 20 (40%) strongly agree, 18 (36%) agree, 7 (14%) disagree while 5 (10%) strongly disagree that the closures of entire businesses and travel restrictions caused serious damage to the global academic slowness performance.

QUESTION 3:

S/N	QUESTION	SA		A		D		SD		TOTAL
		F	%	F	%	F	%	F	%	
11	The Shutdown of schools by the relevant authority poses major challenges to our students and their teachers.	30	60%	10	20%	5	10%	5	5%	100

12	The biggest challenges of online learning are the struggle with focusing on the screen for long periods of time during Covid 19 Pandemic.	33	66%	17	34%	0	0%	0	0%	100
13	The lack of knowledge about the COVID-19 disease would be a mediating element in the increase of cases infected by the virus.	37	74%	9	18%	2	4%	2	4%	100
14	Do the lockdown really prevent the spread of Covid 19?	20	40%	11	22%	10	20%	9	18%	100
15	Does Covid-19 is caused by infection with the severe acute respiratory syndrome.	15	30%	30	60%	5	10%	0	0%	100

From the table above, it shows that out of 100 respondents 30 (60%) of the respondents strongly agreed that the shutdown of schools by the relevant authority poses major challenges to our students and their teachers. While 10 (20%) agree, 5 (10%) disagree and 5 (10%) strongly disagree. Out of 100 respondents 33 (66%) strongly agreed that the biggest challenges of online learning are the struggle with focusing on the screen for long periods of time during Covid 19 Pandemic, while 17 (34%) respondents agree, 0%

respondents disagree and 0% respondent strongly disagree. Out of 100 respondents 37 (74%) strongly agree that the lack of knowledge about the COVID-19 disease would be a mediating element in the increase of cases infected by the virus?, while 9 (18%) respondents agree, 2 (4%) respondents disagree and 2 (4%) respondents strongly disagree. Out of 100 respondents 20 (40%) strongly disagree that Do the lockdown really prevent the spread of Covid 19?, while 11 (22%) respondents agree, 10 (20%) respondent disagree and 19 (18%) strongly disagree. Out of 100 respondents 15 (30%) agreed, 30 (60%) strongly agree, 5 (10%) disagree while 0% strongly disagree that Does Covid-19 is caused by infection with the severe acute respiratory syndrome.

QUESTION 4:

S/N	QUESTION	SA		A		D		SD		TOTAL
		F	%	F	%	F	%	F	%	
16	Does covid 19 has relationship with 4G network	11	22%	10	20%	17	34%	12	24%	100
17	Is there any relationship between covid 19 and online learning?	35	70%	15	30%	0	0%	0	0%	100
18	Does covid 19 tension reduced among secondary school students	15	30%	21	42%	5	10%	2	4%	100
19	Does Students learn via radio and television	25	50%	12	24%	7	14%	6	12%	100

	programmes during covid 19 pandemic.									
20	Does Students learn via social media platforms?	15	30%	30	60%	5	10%	0	0%	100

From the table above, it shows that out of 100 respondents 11 (22%) of the respondents strongly agreed that does covid 19 has relationship with 4G network, while 10 (20%) agree, 17 (34%) disagree and 12 (24%) strongly disagree. Out of 100 respondents 35 (70%) strongly agreed that Is there any relationship between covid 19 and online learning, while 15 (30%) respondents agree, 0% respondents disagree and 0% respondent strongly disagree. Out of 100 respondents 15 (30%) strongly agree that does covid 19 tension reduced among secondary school students?, while 21 (42%) respondents agree, 5 (10%) respondents disagree and 2 (4%) respondents strongly disagree. Out of 100 respondents 25 (50%) strongly disagree that does Students learn via radio and television programmes during covid 19 pandemic?, while 12 (24%) respondents agree, 7 (14%) respondent disagree and 6 (12%) strongly disagree. Out of 100 respondents 15 (30%) agreed, 30 (60%) strongly agree, 5 (10%) disagree while 0% strongly disagree that does students learn via social media platforms?

QUESTION 5:

S/N	**QUESTION**	**SA**		**A**		**D**		**SD**		**TOTAL**
		F	**%**	**F**	**%**	**F**	**%**	**F**	**%**	
21	Is parent encouraging their children to read books and	13	26%	7	14%	20	40%	10	20%	100

	participate in online lesson during covid 19 pandemic?									
22	Is there any encourage for them to listen to educational programmes on radio?	16	32%	14	28%	11	22%	9	18%	100
23	Some children are not fond of WhatsApp for learning; hence it discourages them from using it.	25	50%	21	42%	4	8%	0	0%	100
24	It can be difficult to get individualized answers to questions as everyone is asking different questions at the same time during covid-19	27	54%	19	38%	3	6%	1	2%	100
25	It helps improve digital skills by helping children learn how to use the internet during covid-19 pandemic.	20	40%	18	36%	7	14%	5	10%	100

From the table above, it shows that out of 100 respondents 13 (26%) of the respondents strongly agreed that is parent encouraging their children to read books and participate in online lesson during covid 19 pandemic? while 7 (14%) agree, 20 (40%) disagree and 10 (20%) strongly disagree. Out of 100 respondents 16 (32%) strongly agreed that Is there

any encourage for them to listen to educational programmes on radio, while 14 (28%) respondents agree, 11 (22%) respondents disagree and 9 (18%) respondent strongly disagree. Out of 100 respondents 25 (50%) strongly agree that some children are not fond of WhatsApp for learning; hence it discourages them from using it?, while 21 (42%) respondents agree, 4 (8%) respondents disagree and 0% respondents strongly disagree. Out of 100 respondents 27 (54%) strongly agree that it can be difficult to get individualized answers to questions as everyone is asking different questions at the same time during covid-19, while 19 (38%) respondents agree, 3 (6%) respondent disagree and 1 (2%) strongly disagree. Out of 100 respondents 20 (40%) strongly agree, 18 (36%) agree, 7 (14%) disagree while 5 (10%) strongly disagree that the tt helps improve digital skills by helping children learn how to use the internet during covid-19 pandemic.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 SUMMARY

This research investigate on effect of covid 19 on the academic performance of secondary school students in Ijebu-Ode, Local Government Area, Ogun State. Research questions relating to the study were formulated and the questionnaire leading to data collection was administered.

Also, previous literature on related concepts were reviewed the third chapter of the study dealt with the research design and methodology used for the collection of data and opinion from respondents and the system of analyzing the data for the research work. The fourth chapter consists of the presentation of the data collected, the analysis of data, the data was also interpreted in this same chapter.

5.2 CONCLUSION

The current study showed that COVID-19 pandemic lockdown affected the academic performance of most participants with varying degrees. Online education helps to keep the students up and running with an opportunity for self-study. However, the main challenge online education faces in veterinary medical science is how to give practical lessons. Since most of the subjects are practical; therefore, it is not easy to learn it online. Students think that it is difficult to fulfill the veterinary competencies only with

online education system. Online education can be improved by making it more interactive, showing medical procedures in real situations, giving concise information, and providing 3D virtual tools to mimic the real situation. As the coronavirus pandemic has rapidly expanded and public schools have used online learning to avoid unnecessary contact in person, students' learning attitudes may change and therefore their attitudes are considerably important to academic performance. This study indicated that attitudes toward online learning, preferences about classroom format and self-motivated studying time influenced middle school students' poor academic performance. In particular, the learning attitudes considered in this study should be given more attention because such attitudes negatively affected the grades of middle school students who received A or B grades before COVID-19. There is a large body of research identifying how attitudes toward learning influences academic performance. However, little is known about how learning attitudes lead to poor academic performance over the coronavirus pandemic, particularly among middle school students. Middle school students in this study were regarded as high-achieving students receiving A or B grades before COVID-19; however, for some, their performance worsened since the COVID-19 pandemic began, receiving lower than a B. This study confirmed that self-motivated studying is important to maintain good grades based on self-directed learning without support or monitoring from parents and this is also significant during the COVID-19 pandemic. As self-motivated studying results in more active participation in learning and confidence in what was

learned, it is imperative to provide educational programs which help middle school students develop self-motivated studying habits to maintain their academic performance during the COVID-19 pandemic. Further, as we continue to experience the unprecedented coronavirus pandemic, it is necessary to take into account students' negative attitudes about online learning and preference regarding classroom format. During the COVID-19 pandemic, middle school students who were more likely to accept the online educational system were able to keep their good grades from before COVID-19 by receiving an A or B. In other words, it is important for middle school students to adjust to the new educational environment and to mutually communicate with teachers and friends through the online learning system. This might be influenced by a teacher's ability to encourage students to actively participate in class.

Thus, training or educational modules for teachers on online teaching should be prepared and provided to teachers in public schools. On the other hand, middle school students who are reluctant to participate in online learning and who prefer to take their classes in person are more likely to receive low grades during the COVID-19 pandemic, even when they received good grades before COVID-19. Therefore, middle schools might consider providing in-person options for such students who are more academically successful in such an environment.

Moreover, this study revealed that students who had greater risk perception concerning COVID-19 were more likely to show poor academic performance since the

COVID-19 pandemic began, even though they received A or B grades before COVID-19. The risk perception may bring about more anxiety, stress and a sense of discomfort, which may be an obstacle to learning. That is, middle school students who are more worried about coronavirus infection might have or develop mental health symptoms, and these symptoms may lead to poorer academic performance. There are other factors that may result in poor academic achievement, such as peer relationships, teachers' instructional style and socioeconomic status. However, during the COVID-19 pandemic, it is important to understand the influence of coronavirus as a factor to identify how middle school students' grades negatively changed. This aligns with an argument of the Ecological Systems Theory, indicating that social environmental factors mutually interact with individuals' lives. In other words, this theory implies that we need to pay more attention to the impact of multiple levels of the enviroment; therefore, this study takes into account the effects of COVID-19 to understand changes of academic performance since the COVID-19 pandemic began. The unexpected emergence of COVID-19 as a new environmental factor influences middle school students' academic performance as they are forced to change their learning and studying environments from face-to-face to online. Further, limited daily life activities, such as decreased communication with peers, can also affect their academic performance. To reduce the negative impact of high risk perception among middle school students, mental health services should be provided to them to relieve their anxiety about COVID-19, helping them to focus on their learning.

Further, middle school students are not fully mature and have a decreased ability to manage their stress or anxiety associated with coronavirus. Therefore, support from teachers and parents might be important to reduce middle school students' anxiety or stress related to the risk of COVID-19, helping them to maintain good grades.

Additionally, the current study reported that middle school students who had greater resilience and peer relationships were less likely to experience poor academic performance since the COVID-19 pandemic began. Individuals who have greater resilience are likely to overcome an adversity or threats and adjust themselves to the new environment. As COVID-19 can be regarded as a major adversity for humankind, middle school students with greater resilience can more easily adapt their daily lives, including their learning. In addition, middle school students who have built good relationships with their peers tend to have greater academic achievement. Those who have peers with positive attitudes toward learning may be more likely to develop more positive learning attitudes themselves, and this plays a role as a buffer against poor academic performance since the COVID-19 pandemic began. However, students with peers who have negative attitudes toward education are likely to be affected by their peers' attitudes as well. Therefore, increasing resilience and developing positive peer relationships among middle school students is important to maintain good academic performance during the coronavirus pandemic.

5.3 RECOMMENDATIONS

This study contributes to understanding changes in academic performance before and after COVID-19. However, readers should recognize limitations of this study. First, as participants in this study are limited to middle school students in Nigeria, cultural differences or differences in educational systems should be considered to understand academic performance in other cultures. Second, there are a variety of factors which may influence academic achievement; however, this study did not include all possible covariates.

Third, middle school students from low-income households are not specifically considered in this study, and they may show different characteristics and different results in academic performance. Thus, we recommend that future studies should target low-income middle school students. Fourth, as preference about class format includes one item, we could not report the validity or reliability of this scale. Thus, we suggest that a standardized measurement should be used in future studies. Fifth, those who were classified into the poor academic performance group consisted of 11.6% of the total population. The number of the students in the group is small, so we recommend that future studies increase the total sample size and have an increased number of students who reported a decrease in academic performance. Sixth, a self-reported item on academic performance was used.

Thus, social desirability bias might have influenced students' responses. Last, the

Ecological Systems Theory is useful to understand this study, but it partially explains the logic of this study. Thus, an advanced theoretical framework or mixed combination of multiple theories is needed to profoundly illuminate poor academic performance among middle school students since the COVID-19 pandemic began.

The students' recommendations regarding improvement of the online learning were summarized as follows:

- The universities should provide platforms for online learning with easy access to the study materials.
- Provide students with electronic devices, such as computers, and tablets to access the internet.
- Improvement of internet speed and providing cheaper or even free internet packages during the pandemic.
- Provide training for lecturers on e-learning tools and computer skills.
- Improve the way of teaching to encourage students to learn and attract them to study online.
- Provide virtual resources to mimic the laboratory work or live streaming directly from the laboratory.

- Enhance the interaction between students and teachers (for example with Mentimeter application).
- Practical learning throughout interactive tools, such as videos and 3D animation is significantly more effective than text materials such as power point and pdf, voice recordings should be provided with the lecture's text.
- Provide accessible online resources such as e-books and instructional videos for practical lessons.
- Decrease the amount of classwork could help reducing students' stress.
- Provide online quizzes and assignments after every lesson to measure the degree of students' understanding.
- Increase the available time to solve the online tests.

REFERENCES

Adodol, S.O.; Gbore, L.O. (2012), Prediction of Attitudes and Interest of Science Students of Different Ability on Their Academic Performance in Basic Science. Int. J. Psychol. Couns., 4, 68–72.

Aguilera-Hermida, A.P. (2020), College Students' Use and Acceptance of Emergency Online Learning Due to COVID-19. Int. J. Educ. Res., 1.

Ajadi, T. O., Salawu, I. O., & Adeoye F. A. (2008). E-learning and distance education in Nigeria. The Turkish Online Journal of Educational Technology, 7(4), 1-10

Akhtar, S., Hussain, M., Afzal, M., & Gilani, S. A. (2019). The impact of teacher-student interaction on student motivation and achievement. *European Academic Research, 7*(2), 1201-1222

Bakar, K.A.; Tarmizi, R.A.; Mahyuddin, R.; Elias, H.; Luan, W.S.; Ayub, A.F.M. (2010) Relationships Between University Students' Achievement Motivation, Attitude and Academic Performance in Malaysia. Procedia Soc. Behav. Sci. 2, 4906–4910.

Bates, L.C.; Zieff, G.; Stanford, K.; Moore, J.B.; Kerr, Z.Y.; Hanson, E.D.; Gibbs, B.B.; Kline, C.E.; Stoner, L. (2020), COVID-19 Impact on Behaviors Across the 24-h Day in Children and Adolescents: Physical Activity, Sedentary Behavior, and Sleep. Children, 7, 138.

Benner, A.D.; Mistry, R.S. (2000), Child Development During the COVID-19 Pandemic Through a Life-Course Theory Lens. Child Dev. Perspect. 14, 236–243.

Bhagvathula AS, Aldhaleei WA, Rahmani J, Mahabadi MA, Bandari DK (2020) Knowledge and Perceptions of COVID-19 Among Health care workers: A cross-sectional study. JMIR Public Health and Surveillance 6: e19160.

Bronfenbrenner, U.; Morris, P.A. (1998), The Ecology of Developmental Processes. In Handbook of Child Psychology: Vol. 1: Theoretical Models of Human Development; Damon,W., Lerner, R.M., Eds.; John Wiley and Sons: Hoboken, NJ, USA,; pp. 993–1028.

Byun, S.; Slavin, R.E. (2020) Educational Responses to the COVID-19 Outbreak in South Korea. Best Evid. Chin. Edu., 5, 665–680

Chakraborty, I.; Maity, P. (2020) COVID-19 Outbreak: Migration, Effects on Society, Global Environment and Prevention. Sci. Total. Environ, 728.

Commodari, E.; La Rosa, V.L. (2020), Adolescents in Quarantine During COVID-19 Pandemic in Italy: Perceived Health Risk, Beliefs, Psychological Experiences and Expectations for the Future. Front. Psychol.

Cutuli, J.J.; Desjardins, C.D.; Herbers, J.E.; Long, J.D.; Heistad, D.; Chan, C.-K.; Hinz, E. (2013), Academic Achievement Trajectories of Homeless and Highly Mobile Students: Resilience in the Context of Chronic and Acute Risk. Child Dev. 84, 841–857.

Dvorsky, M.R.; Breaux, R.; Becker, S.P. (2020), Finding Ordinary Magic in Extraordinary Times: Child and Adolescent Resilience During the COVID-19 Pandemic. Eur. Child Adolesc. Psychiatry.

Elhadary, T.; Elhaty, I.A.; Mohamed, A.A.; Alawna, M. (2020) Evaluation of Academic Performance of Science and Social Science Students in Turkish Universities During COVID-19 Crisis. J. Crit. Rev. 7, 1740–1751.

Ellis, W.E.; Dumas, T.M.; Forbes, L.M. (2020) Physically Isolated but Socially Connected: Psychological Adjustment and Stress Among Adolescents During the Initial COVID-19 Crisis. Can. J. Behav. Sci., 52, 177–187.

Engzell, P.; Frey, A.; Verhagen, M. (2020), Learning Inequality During the COVID-19 Pandemic. SocArXiv.

Eurosurveillance Editorial Team (2020) Note from the editors: World Health Organization declares novel coronavirus (2019-nCoV) sixth public health emergency of international concern. Euro Surveill 25: 200131e.

Fang, X. (2020), The Impact of Online Teaching on the English Learning Motivation of Chinese Students During COVID-19. In Proceedings of the International Symposium on Education, Culture and Social Sciences, Xi'an, China, 15–16 August.

Farooq, M.S.; Chaudhry, A.H.; Shafiq, M.; Berhanu, G. (2011), Factors Affecting Students' Quality of Academic Performance: A Case of Secondary School Level. J. Qual. Technol. Manag. 7, 1–14.

Gallardo, L.O.; Barrasa, A.; Guevara-Viejo, F. (2016), Positive Peer Relationships and Academic Achievement Across Early and Midadolescence. Soc. Behav. Pers. 44, 1637–1648.

Guan WJ, Ni ZY, Hu Y, Liang WH, Ou CQ, et al. (2020) Clinical Characteristics of Coronavirus Disease 2019 in China. N Engl J Med 382: 1708-1720.

Guay, F.; Ratelle, C.F.; Roy, A.; Litalien, D. (2010), Academic Self-Concept, Autonomous Academic Motivation, and Academic Achievement: Mediating and Additive Effects. Learn. Individ. Differ. 20, 644–653.

Guessoum, S.B.; Lachal, J.; Radjack, R.; Carretier, E.; Minassian, S.; Benoit, L.; Moro, M. (2020), Adolescent Psychiatric Disorders During the COVID-19 Pandemic and Lockdown. Psychiatry Res., 291.

Hartnett, M. (2012), Relationships Between Online Motivation, Participation and Achievement: More Complex Than You Might Think. J. Open Flex. Distance Learn., 16, 28–41.

Hebebci, M.T.; Bertiz, Y.; Alan, S. (2020), Investigation of Views of Students and Teachers on Distance Education Practices During the Coronavirus (COVID-19) Pandemic. Int. J. Technol. Educ. Sci. 4, 267–282.

Hemingway Measure of Adolescent Connectedness. Available online: http://adolescentconnectedness.com/survey.php (accessed on 12 May 2021).

Huang C, Wang Y, Li X, Ren L, Zhao J, et al. (2020) Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. Lancet 395: 497-506.

Ilesanmi O, Alele FO (2016) Knowledge, Attitude and Perception of Ebola Virus Disease among Secondary School Students in Ondo State, Nigeria, October, 2014. PLoS Curr.

Janjua NZ, Razaq M, Chandir S, Rozi S, Mahmood B (2007) Poor knowledge - Predictor of nonadherence to universal precautions for blood borne pathogens at first level care facilities in Pakistan. BMC Infectious Diseases 7: 1-11.

Kapteyn, A.; Kooreman, P.; Willemse, R. (1988), Some Methodological Issues in the Implementation of Subjective Poverty Definitions. J. Hum. Res. 222–242.

Khesht-Masjedi, M.F.; Shokrgozar, S.; Abdollahi, E.; Habibi, B.; Asghari, T.; Ofoghi, R.S.; Pazhooman, S. (2019), The Relationship Between Gender, Age, Anxiety, Depression, and Academic Achievement Among Teenagers. J. Fam. Med. Prim. Care, 8, 799–804.

Masten, A.; Best, K.; Garmezy, N. (1990), Resilience and Development: Contributions from the Study of Children Who Overcome Adversity. Dev. Psychopathol., 2, 425–444.

Masten, A.; Motti-Stefanidi, F. (2020), Multisystem Resilience for Children and Youth in Disaster: Reflections in the Context of COVID-19. Advers. Resil. Sci. 1, 95–106.

McGrail, D.J.; Dai, J.; McAndrews, K.M.; Kalluri, R. (2020) Enacting National Social Distancing Policies Corresponds with Dramatic Reduction in COVID19 Infection Rates. PLoS ONE, 15.

Nigeria Center Disease Control (2020) Implementation Guidelines for Containment of Covid-19.

Novotny, J.S.; Kremenkova, L. (2016), The Relationship Between Resilience and Academic Performance at Youth Placed at Risk. Cesk. Psychol. 60, 553–565.

Olowookere SA, Abioye-Kuteyi EA, Adepoju OK, Esan OT, Adeolu TM, et al. (2015) Knowledge, Attitude and Practice of Health workers in a Tertiary Hospital in Ile-Ife Nigeria, towards Ebola Viral Disease. Journal of Tropical Medicine 2015: 6.

Park, H.; Byun, S.Y.; Kim, K.K. (2011), Parental Involvement and Students' Cognitive Outcomes in Korea: Focusing on Private Tutoring. Sociol. Educ., 84, 3–22.

Rothery, M. (2001), Critical Ecological Systems Theory. In Theoretical Perspectives for Direct Social Work Practice: A Generalist-Eclectic Approach; Coady, N., Lehmann, P., Eds.; Springer Publishing Company: New York, NY, USA; pp. 89–118.

Sarwar, M.; Bashir, M.; Alam, M. (2010), Study Attitude and Academic Achievement at Secondary Level in Pakistan. J. Coll. Teach. Learn. 7.

Shankar, N.L.; Park, C.L. (2016), Effects of Stress on Students' Physical and Mental Health and Academic Success. Int. J. Educ. Psychol. 4, 5–9.

Shin, M.; Wong, Y.J. (2013), Beyond the Tiger Mom: Asian American Parenting and Parent-Child Relationships. In Parenting: Challenges, Practices and Cultural Influences; Barberis, P., Petrakis, S., Eds.; Nova Science Publishers Inc.: Hauppauge, NY, USA; pp. 103–122.

Smith RD (2006) Responding to global infectious disease outbreaks: Lessons from SARS on the role of risk perception, communication and management. Social Science and Medicine 63: 3113-3123.

Smith, B.W.; Dalen, J.; Wiggins, K.; Tooley, E.; Christopher, P.; Bernard, J. (2008) The Brief Resilience Scale: Assessing the Ability to Bounce Back. Int. J. Behav. Med, 15, 194–200.

Tan, C. (2020), The Impact of COVID-19 on Student Motivation, Community of Inquiry and Learning Performance. Asian Educ. Dev. Stud.

Turner RC, Carlson L (2003) Indexes of item-objective congruence for multidimensional items. Int J Test 3: 163-171.

Viner, R.M.; Ross, D.; Hardy, R.; Kuh, D.; Power, C.; Johnson, A.; Wellings, K.; McCambridge, J.; Cole, T.J.; Kelly, Y.; et al. (2015), Life Course Epidemiology: Recognising the Importance of Adolescence. J. Epidemiol. Community Health, 69, 719–720.

Wentzel, K.R.; Wigfield, A. (1998), Academic and Social Motivational Influences on Students' Academic Performance. Educ. Psychol. Rev. 10, 155–175.

World Health Organization (2020) WHO Director-General's remarks at the media briefing on 2019-nCoV on 11 February 2020.

Xiang, M.; Zhang, Z.; Kuwahara, K. (2020), Impact of COVID-19 Pandemic on Children and Adolescents' Lifestyle Behavior Larger Than Expected. Prog. Cardiovasc. Dis., 63, 531–532.

Yang, X.Y.; Gong, R.N.; Sassine, S.; Morsa, M.; Tchogna, A.S.; Drouin, O.; Chadi, N.; Jantchou, P. (2020), Risk Perception of COVID-19 Infection and Adherence to Preventive Measures Among Adolescents and Young Adults.

Zaccoletti, S.; Camacho, A.; Correia, N.; Aguilar, C.; Mason, L.; Alves, R.A.; Daniel, J.R. (2020), Parents' Perceptions of Student Academic Motivation During the COVID-19 Lockdown: A Cross-Country Comparison. Front. Psychol., 11.

Zhang, C.; Ye, M.; Fu, Y.; Yang, M.; Luo, F.; Yuan, J.; Tao, Q. (2020), The Psychological Impact of COVID-19 Pandemic on Teenagers in China. J. Adolesc. Health, 67, 747–755.

Zimmerman, B.J.; Bandura, A.; Martinez-Pons, M. (1992), Self-Motivation for Academic Attainment: The Role of Self-Efficacy Beliefs and Personal Goal Setting. Am. Educ. Res. J. 29, 663–676.

TAI SOLARIN COLLEGE OF EDUCATION, OMU IJEBU OGUN STATE

QUESTIONNAIRE ON:

EFFECTS OF COVID 19 ON THE ACADEMIC PERFORMANCE OF SECONDARY SCHOOL STUDENTS, A CASE STUDY OF SELECTED SECONDARY SCHOOL IN IJEBU-ODE LOCAL GOVERNMENT AREA.

Dear Respondents,

The purpose of this questionnaire is to find out effects of Covid 19 on the academic performance of secondary school students, a case study of selected secondary school in Ijebu-Ode Local Government Area.

I therefore, solicit for your honest response. I promise that your responses will be treated with utmost confidentiality.

Thank you.

Instruction: Please kindly respond by sincerely ticking (✓) in the alternative response, which best suit your opinion.

Demographic Data of Respondents

SECTION A

INSTRUCTION: Please tick (√) the appropriate box as it applies to you.

Sex:- Male ☐ Female ☐

Age:- 12-15 ☐ 12-17 ☐ 17 and above ☐

Religion:- Christianity ☐ Muslim ☐ Others ☐

Class:- SS1 ☐ SS2 ☐ SS3 ☐

SECTION B

SA - STRONGLY AGREE

A - AGREE

SD - STRONGLY DISAGREE

D - DISAGREE

S/N	STATEMENT	SA	A	SD	D
1	Does Covid 19 really have negative effect on student academic performance?				
2	Do Covid 19 brought a new subject in our school educational system				
3	Do the period of COVID-19 pandemic is a typical example of times when conventional teaching paradigm could not work in schools.				
4	Positive attitudes toward learning during COVID-19 have been found to be associated with higher academic performance.				
5	Is student really enjoying the total lockdown during Covid 19 pandemic?				
6	Do the Covid 19 actually spread from one person to another.				

7	Did Covid 19 actually started from China.				
8	Teachers and parents might be important to reduce middle school students' anxiety or stress related to the risk of COVID-19.				
9	To reduce the negative impact of high risk perception among middle school students, mental health services should be provided to them about COVID-19.				
10	The closures of entire businesses and travel restrictions caused serious damage to the global academic slowness performance.				
11	The Shutdown of schools by the relevant authority poses major challenges to our students and their teachers.				
12	The biggest challenges of online learning are the struggle with focusing on the screen for long periods of time during Covid 19 Pandemic.				
13	The lack of knowledge about the COVID-19 disease would be a mediating element in the increase of cases infected by the virus.				
14	Do the lockdown really prevent the spread of Covid 19?				
15	Does Covid-19 is caused by infection with the severe acute respiratory syndrome.				
16	Does covid 19 has relationship with 4G network				
17	Is there any relationship between covid 19 and online learning?				
18	Does covid 19 tension reduced among secondary school students				

19	Does Students learn via radio and television programmes during covid 19 pandemic.				
20	Does Students learn via social media platforms?				
21	Is parent encouraging their children to read books and participate in online lesson during covid 19 pandemic?				
22	Is there any Encourage for them to listen to educational programmes on radio?				
23	Some children are not fond of WhatsApp for learning; hence it discourages them from using it.				
24	It can be difficult to get individualized answers to questions as everyone is asking different questions at the same time during covid-19				
25	It helps improve digital skills by helping children learn how to use the internet during covid-19 pandemic.				