# EAST AFRICAN JOURNAL OF EDUCATIONAL RESEARCH AND POLICY (EAJERP)

**ISSN 1997-7255**

***Vol. 17, June, 2022***

**© EAST AFRICAN JOURNAL OF EDUCATIONAL RESEARCH AND POLICY**

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electrical, mechanical, photocopying, recording or otherwise, without the prior permission of the copyright owner.

***Published by:***
**Higher Education Research and Policy Network (HERPNET)**

## About HERPNET

**Higher Education Research and Policy Network** (HERPNET) is an international non-governmental and non-profit association of researchers and policymakers in higher education in Africa. HERPNET, with the headquarters in Nigeria is an initiative of the Association of African Universities (AAU) and was founded in 2000 following a research meeting at Human Science Research Council (HSRC), Pretoria. HERPNET believes in the vision of the Association of African Universities that universities in Africa should generate and disseminate knowledge, foster the values of openness and respect for merit, and enrich the general quality of the social life of their communities through the promotion of research and free enquiry, the open contestation of ideas and through appreciation and tolerance of difference. It further shares the idea that African universities must give priority to effective and positive participation in the global creation, exchange and application of knowledge through a maximum exploitation of the potential of the information and communication revolution.

**HERPNET** is also affiliated with the ***Association for Institutional Research (AIR)*** in America and committed to strengthening higher education in Africa by providing a global forum for institutions, researchers and policymakers to discuss, examine and take action on issues of common interest and specifically by finding scientific solution to various problems facing higher education (private/public, university/non-university) in Africa. Membership of the network cuts across different higher educational institutions and research institutes located in various countries in Africa. HERPNET is specifically dedicated to creation, preservation, propagation, and promotion of scientific knowledge that would help in transforming institutions of higher learning in Africa to internationally recognized ones in a knowledge society. Its major goal is to influence policies on higher education along directions suggested by proven scientific theories and evidences of sound practices, as well as uphold the values of academic freedom and institutional autonomy, while promoting greater accountability, institutional responsibility and effectiveness, and the ideal of knowledge made accessible to all through collaboration, commitment to solidarity and improved access to quality higher education.

## Editorial Policy

The East African Journal of Educational Research and Policy (EAJERP) is one of the journals of Higher Education Research and Policy Network [HERPNET]. It adopts **blind** tripartite review of articles. Since HERPNET aims at encouraging, maintaining and sustaining collaborative policy research with high quality output acceptable within the global community of scholars, only papers with two favourable reports are published in its journals.

## Notes to Contributors

Prospective Contributors should take note of the following details in preparing their papers for publication in EAJERP:

i) The manuscript which must not exceed 20 pages including references and appendices and should contain title page, abstract and keywords.
ii) Manuscripts must be typed on an A-4 size paper double-spaced, while the abstract should not be more than 200 words.
iii) Authors should follow the latest reference and text citation styles as prescribed in the current American Psychological Association (APA) manual, e.g:

For text citation: Bakkabulindi (2000) states … (at beginning of a statement and if the citation is at the end, it should be in parenthesis i.e (Bakkabulindi, 2000).

*The reference list should be written as follows:*
Bakkabulindi, FEB. (2007). Educational research for sustainable Development in Uganda. In **East *African Journal of Educational Research and Policy*** 1(1), 1-3.

The Journal title should be italicized. For further details on style, please see the APA manual. (2010 edition)
Neither the Editors nor the Editorial Board shall be liable for loss of article in transit.

Manuscripts should be submitted to any of the following:

**1.** The Managing Editors
**2.** The Editors

## HERPNET BOARD OF EDITORS

**1. Chairman Editorial Board**

**Adams Onuka**
Institute of Education
University of Ibadan
Ibadan, Nigeria.
ao.onuka@mail.ui.edu.ng & adamonuka@yahoo.com

**2. Editors-in-Chief.**

i. **David Onen** *[East Africa]*
East Africa- Institute of Higher Education
Makerere University, Kampala
Uganda.

ii. **Benedict O. Emunemu** *(West & Central Africa)*
Department of Educational Management
University of Ibadan, Nigeria.
doriben7701@yahoo.com

**3. Managing Editors**

**i.** **Jude Ssempbebwa** *(East and North Africa)*
Kampala International University,
Kampala, Uganda.
jude_ssempbwa@yahoo.co.uk

*ii.* **Segun Adedeji** *(West Africa)*
Department of Educational Management
University of Ibadan, Nigeria

iii. **Ademola I. Atanda** *(Coordinating)*
Department of Educational Management
University of Ibadan, Nigeria

**4. Editors for Africa**

**Fred Bukkabulindi** *(East and North Africa)*
East Africa Institute of Higher Education and Research
Makerere University Kampala, Uganda.

i. **A. O. Ayeni** *[West Africa]*
Department of Educational Management,
University of Ibadan, Ibadan, Nigeria
*biodunmide@yahoo.com*

ii. **Juliet W. Macharia** *[East and Central Africa]*
Department of Communication Studies
Moi University, Eldoret, Kenya.
*juliemach@yahoo.com*

iv. **Anne L. Sikwibele** *[East and South Africa]*
Institute of Distance Education,
Mulungushi University
Great North Road Campus
Kabwe. Zambia.
*annesikwibele@yahoo.com*

*iv.* **J.S.O. Owoeye** *(East and Central Africa)*
Institute of Education
Kigali, Rwanda

v. **J. B. Babalola** *[West Africa]*
Department of Educational Management,
University of Ibadan, Nigeria.
*joelbabalola2000@yahoo.co.uk*

## 5. Editorial Board Members

**i. Adams O.U. Onuka**
*Institute of Education*
*University of Ibadan, Nigeria*

**ii. Fred Bukkabulindi**
*East African Institute of Higher Education & Research*
*Makarere University, Kampala, Uganda*

**iii. Charles Oplotu Okurut**
*Faculty of Education*
*Kampala International University, Uganda.*

**iv. Soji Oni**
*Department of Educational Foundations*
*University of Lagos, Akoka-Yaba, Lagos*
*Nigeria.*
*aoluoni@yahoo.com*

**v. Afolakemi O. Oredein**
*Faculty of Education*
*Lead City University*
*Ibadan, Nigeria*
*opyoredein@yahoo.com*

**V. Henrietta Yarquah**
*International Examinations Department*
*WAEC Headquarters, Accra, Ghana*

## Editorial Comments

In this volume, the first article addresses rural-urban juvenile education gap towards the attainment of sustainable development goals in Nigeria. Other topical issues examined include assessment of quality of graduates in federal universities in Southwestern Nigeria; Parental factors as predictors of quality of education in public secondary schools in Oyo State, Nigeria; Managing academic culture in Nigerian public universities: Save the bridge from collapsing; Effects of interactive-invention and interactive-problem task-experiment instructional strategies on students' achievement in physics in Ibadan Metropolis, Nigeria and; Developing institutional policies for managing teaching and research at the higher level of education for national development: Implication for lecturers and students in public Universities

Furthermore, the following topics are considered; Refocusing digitalization competency among academic staff of higher education in Nigeria on the platform of science and technology in the new normal and; Effects of Covid-19 on interactive engagement and team-based instructional strategies on students' safety and security in higher education in the new normal

All articles presented in this edition were well-researched and peer-reviewed by highly reputed scholars in the field of education. It is hoped that scholars, researchers, policy makers and interested stakeholders would find this edition useful in their research endeavours, policy making, among others.

**Editors**

**Table of Contents**

Addressing Rural-Urban Juvenile Education Gap towards The Attainment of Sustainable Development Goals in Nigeria
**Adeola Iyabosola Ayo-Ayinde & Ajibola Isaac Akintayo ..... 1-16**

Assessment of Quality of Graduates in Federal Universities in Southwestern Nigeria
**F. S. Akinwumi, A. I. Atanda & Oluwafunmilayo Matthew ..... 17-29**

Parental Factors as Predictors of Quality of Education in Public Secondary Schools in Oyo State, Nigeria
**Adedoyin Adeola Bolanle & Abiodun Olumide Ayeni..... 31-63**

Managing Academic Culture in Nigerian Public Universities: Save the Bridge from Collapsing
**Shittu, Taofeek Olawale; Hunpegan, Hendeweh Dorcas & Onasanya, Hafsat Ibironke ..... 65-79**

Effects of Interactive-Invention and Interactive-Problem Task-Experiment Instructional Strategies on Students' Achievement in Physics in Ibadan Metropolis, Nigeria
**Ukoh Edidiong Enyeneokpon & Otaru Jeanne Akiiroso ..... 81-102**

Developing Institutional Policies for Managing Teaching and Research at the Higher Level of Education for National Development: Implication for Lecturers and Students in Public Universities
**Osisami R.Adenike & Alaka A.Abayomi ..... 103-120**

Refocusing Digitalization Competency among
Academic Staff of Higher Education in Nigeria
on the Platform of Science and Technology
in the New Normal
***Temisan Angela Ige & Olubukola Abidemi Oke ..... 121-134***

Effects of Covid-19 on interactive engagement and
team-based instructional strategies on students'
Safety and Security in Higher Education in
the *New Normal*
**Martina Akhibi & Loyce Onyali ..... 135-154**

Relevance of Including Moral Education in Tertiary
Education Curriculum for Innovation in Nigeria
**Mbu Dickson Mbu & William J. Ubulom..... 155-164**

The Challenges of Sustainable Development in
Public Higher Educational Institutions
**Opeyemi Seyi Olasunkanmi &**
**Olukemi Omolola Ogunniran.....165-179**

# ADDRESSING RURAL-URBAN JUVENILE EDUCATION GAP TOWARDS THE ATTAINMENT OF SUSTAINABLE DEVELOPMENT GOALS IN NIGERIA

**Adeola Iyabosola Ayo-Ayinde**
*Federal College of Education, Iwo*
*adeolakommandui@gmail.com*

**Ajibola Isaac Akintayo**
*Federal College of Education, Iwo*
*ajibolaisk@gmail.com*

**Abstract**

*The provision of quality education is a pivot on which the attainment of sustainable development goals (SDGs) revolves because almost all sectors of the economy depend on its output for development. However, attaining the SDGs in Nigeria has been noted to be a mirage due to the poor state of the Nigeria education system. In addition, the provision of education for the juveniles which include the provision of the primary and secondary education system is also noted to be poor due to long term neglect and poor attention hence, it may be impossible for Nigeria to attain SDGs due to the development gap in the education provided between the rural and the urban. This may also affect the attainment of sustainable development goals in Nigeria. Hence, this study addressed the rural-urban juvenile education gap in Nigeria and revealed how this could affect the attainment of sustainable development goals. The study took the form of a systematic review and adopted and harnessed past literature or empirical works to present how the rural-urban juvenile education gap could be cushioned towards the attainment of sustainable development goals in Nigeria. To achieve this, the study would elucidate the poor state of the Nigeria education system, the gap in the provision of education for the juvenile which include the primary and secondary education, and how this could be provided and tailored to meet the attainment of the*

*SDGs in Nigeria so that, Nigeria could become one of the nation that attained SDGs unlike the MDGs.*

**Introduction**

The provision of quality education is a pivot on which the attainment of sustainable development goals (SDGs) revolves because almost all other sectors depend on its output for development, Hence, the World Summit for Social Development (1995); Vladimirova and Le Blanc (2015); UNDP (2016) and Omiunu (2017) noted that there is a link between the education system and the economy of a nation. The education system can stand alone as separate goal in the SDGs, and can also serve as a strategy to achieving other SDGs. “Quality education” ensures inclusive and impartial education that promotes lifelong learning opportunities for all towards enhancing the propensity to achieve the SDGs in Nigeria. In past development goals, there have been records of major setbacks and failures experienced among countries in Africa such as Nigeria in the attainment of major development strategies such as the Millennium Development Goals (MDGs) (Blanchfield and Lawson, 2010; Easterly, 2009; 2010; and the International Bank for Reconstruction and Development, the World Bank, 2010). Juxtaposing the fact that a link exists between the education system and development, it can be affirmed that the elastic setbacks and failures experienced among countries in Africa such as Nigeria in the attainment of the Millennium Development Goals (MDGs) could be traced to the lack of quality education system in Nigeria.

The failure of African countries, Nigeria inclusive in previous development goals and strategies has propelled the global stakeholders to put resources together to reestablish a new development strategy and plan initiated- the Sustainable Development Goals (SDGs) in September 2015 by the General Assembly towards attainment of the 2030 Agenda for Sustainable Development. The SDGs are 17 Sustainable Development Goals (SDGs) and include reducing poverty, reducing hunger, ensuring good health and well-being, quality education, gender equality, providing clean water and sanitation, affordable and clean energy, ensuring a decent work and economic growth, industry,

innovation and infrastructure, reduced inequality, providing sustainable cities and communities, responsible consumption and production, climate action, enhancing life below water, life on land, peace and justice strong institutions, partnerships to achieve the goal. A major drive for these SDGs is that it is built on the principle of "leaving no one behind", hence, the new Agenda emphasizes a holistic approach to achieving sustainable development for all including Africa.

Despite this principle to "leave no one behind", there is still a wide range of disparities in the provision of education in Nigeria hence, one cannot really boast of quality education. According to the United Nations Development Programme (2015), q*uality Education involves ensuring inclusive and equitable quality education and promoting lifelong learning. Hence, a major yardstick to capture quality education system is the provision of inclusive and equal education for all citizens. According to Slade (2017), quality e*ducation is not simply a content delivery system; rather, it is a system designed to help all children (juvenile) reach their full potential and enter society as full and productive citizens.

However, in Nigeria, there are still some elements of neglect and the lack of provision of *inclusive and equitable education for all (*Arong and Ogbadu, 2010; Aid4Africa, 2015; Oraka, 2018*). For example,* Arong and Ogbadu (2010) and Olawale (2017) noted that the education system in the rural Nigeria is very poor and that the governments have neglected the rural education in Nigeria hence, the juvenile (growing children) in these rural suffer loss for education to this end. This has jeopardized the objective 4 of the SDGs- the provision of *inclusive and equitable education and could further affect the attainment of the SDGs in Nigeria. Hence, Nigeria would be revolving round a cycle of underdevelopment from one development plan to another. To this end,* Oraka (2018) affirmed that Nigeria's education system still has a long way to go to achieve SDG4 on quality education. *However, to fully tap into the global SDGs attainment, there is need to focus on the Nigeria education system thereby providing an inclusive and equitable quality education towards the attainment of the SDGs. To this end, this present study seeks to clearly articulate the link between bridging*

*the* rural-urban juvenile education gap and the attainment of sustainable development goals in Nigeria.

**Methodology**

The study took the form of a systematic review and adopted and harnessed past literature or empirical works to present how the rural-urban juvenile education gap could be cushioned towards the attainment of sustainable development goals in Nigeria. Sources of articles used were elastically sort for from the internet using several articles, among others to argue the place of juvenile education and the neglect of juvenile education especially as experienced in the rural areas on the attainment of SDGs in Nigeria.

**The Nigeria Education System**

There have been several structural changes in the Nigerian educational system. Before and after the 1960, the Nigerian educational system mirrored the British system, i.e. 6 years of primary education, 5 years of secondary education and 2 years of higher level/A Levels. In 1973, the educational system was updated to the 6-3-3-4 (6 years for primary education, 3 years for junior secondary education, 3 years for senior secondary education and 4 years for tertiary education) which is similar to the American system. In 1982, the first National Policy on education was developed and used. Since then, the Nigeria educational system has witnessed several internal changes and modifications at various levels with successive governments. The Nigeria educational system consists of the primary, secondary and tertiary education systems.

**State of Juvenile education in rural and urban Nigeria**

The concept of juvenile has been mostly used with delinquency hence, juvenile delinquency. *Juvenile delinquency* refers to as the participation in illegal behavior or activities by young child between the ages of 10 and 17 or under the age of 18 (*Oyafunke-Omoniyi, 2014)*. Hence, juvenile refers to as individuals between the age of 10 and 17 or below the age of 18. Education for the juvenile could include provide quality education for young

individual under 18 years. In Nigeria, an individual is allowed to enter into higher education at age 18 hence, providing quality juvenile education is synonymous to providing a quality primary and secondary education for the people. However, International Monetary Fund (2005) and Odukoya, Bowale and Okunlola (2018) noted that the primary and secondary school education system have suffered from years of neglect, compounded by inadequate attention to policy frameworks within the education, unqualified teaching forces, acute shortages of infrastructure and facilities, among others. Most public schools in Nigeria are bad and need government attention to achieve SDGs in Nigeria. Below are examples of the present state of building structures and the primary and education system in rural areas in Nigeria.
and the primary and education system in rural areas in Nigeria.










**Figure 1: State of Rural Schools in Nigeria**

A keen observation of the images in figure 1 shows a rural-urban juvenile education gap when compared with the image in Figure 2 hence, this could affect the goal of providing quality education towards the attainment of sustainable development goals in Nigeria. Putting into consideration the SDG 4, which is to provide inclusive and equal quality education, it could be stated that juveniles in the rural areas of Nigeria are how receiving this type of education hence, they are excluded from the attainment of SDGs and hence, a skewed development may continue in Nigeria education system between juvenile in the rural and those in the urban. This may further influence development which could include personal, family, society, and national development in Nigeria hence, attaining SDGs would be a mirage in Nigeria.



**Figure 2: Urban Private Schools in Nigeria**

Also, the rural environmental characteristics could have significant effect on child development. According to Haruna and Onyebu (2011) and Haruna and Liman (2015), the nature and characteristics of an environment often make significant impact on children or juvenile educational development. Haruna and Liman (2015) noted that due to the high level of poverty among rural parents which is a major characteristics of rural Nigeria, juvenile in the rural find it difficult to obtain quality education as compared to those in the urban. The implications of this to juvenile's education and the attainment of SDGs is that parents in the rural areas cannot meaningfully support the educational pursuit of their children, this lead to reason why most of these children engaged in petty trading and hawking before going to or instead of going to school. This, in the short run could also affect the child's punctuality and regularity of attendance to school which could possibly result in poor performance of juvenile students or sometimes partial or withdrawal from school.

In addition, the total neglect of the school buildings in the rural which has led to poor physical developmental condition of the rural areas of Nigeria has also called for attention and this if not further developed may lead to unfavorably affect the SDGs in Nigeria due to its elastic effect on juvenile education as well as national development (Haruna and Liman, 2015). In addition, several challenges have been observed to affect the rural education system which in turn posed negative influence on juvenile education. Such challenges are inadequacy or lack of basic social amenities (such as portable drinking water, electricity supply, good road network, health care services and social network); poor attention to rural areas by politicians except during the election period; among others (Haruna and Liman, 2015). Many children in the rural areas in Nigeria do not have the opportunity of being enrolled into schools; and if eventually enrolled, may end up as school drop-outs or receive poor quality education.

These phenomena is linked to the prevalence of extreme poverty, high level of ignorance and illiteracy among the rural populace, poor teaching and learning environment, inadequacy or lack of qualified teachers in the rural schools as well as lack of

regular supervision of such schools, among others. This implies that the primary and secondary school education system of Nigeria are in poor state hence juvenile education is Nigeria could be said to be in poor state. This poor state of the primary and secondary education system calls for attention if the nation must meet up with the attainment of the SDGs hence, the need for this study.

**Sustainable development goals in Nigeria**

Sustainable development goals could be well understood from the breaking the concept into its constituents: development, sustainable development, goals and then sustainable development goals. According to Omotala (2006), development refers to as adequate empowerment of the state and society for proper distillation of their complementary responsibilities within its constituent parts. Also, development could be referred to as a process that involves major changes in various aspects of human and social life which cuts across the: economic, political, institutional, cultural, among others.

Sustainable development can be defined as the development that is stable, endurable, and consistent (Omiunu, 2012). It is also referred to as a development that lasts and does not crumble in the face of formidable problems (Onyeaghalaji and Igberaese, 2010). According to Omotola (2006), sustainable development is a development that does not roll back or recede, even in the face of threatening reversal waves. In addition, it is a kind of development that can guarantee the protection of the people, environment and resources today and tomorrow (Omiunu, 2012). It is also a kind of development that is self-sustaining and meets the needs of present and future generations (Steer & Lutz, 1993; World Bank, 2002) without jeopardizing its future state (Omiunu, 2012). A goal is a target, and could be referred to as plans and strategies put in place as targets which are to be met to ensure sustainable development in nations. It could be local, regional or global.

Articulating these definitions, it could be observed that SDGs are goals targeted towards ensuring the development of the present and future state of nations. With regards to education

system or rather juvenile education, meeting the SDGs could involve the provision of inclusive and equal quality education to present and future juvenile population in Nigeria. Hence, the SDGs was given to be achieved in 2030 which provide a long term target to be met. However, like the previous MDGs, the SDGs are meant to address inequality in the societies and nations, and meeting the SDGs in the long run could be a major target many nations are agitating for to enhance sustainable development such as Nigeria. Hence, unlike the failure obtained in the MDGs by Nigeria and other African countries, there is need to further deploy management and resources effectively and efficiently to achieve them by 2030. Between Now (2019) and 2030, there could still be much to be done to attain these SDGs in Nigeria hence, the need to deploy management and resources to enhance the propensity to achieve SDGs in Nigeria by providing inclusive and equal quality education to the juvenile population of the nation.

**Bridging the Quality gap in juvenile education between rural and urban towards the attainment of sustainable development goals in Nigeria**

This far, the state of rural education for the juvenile population in Nigeria has not been encouraging and this could make SDGs attainment in Nigeria a mirage hence, if Nigeria will be part of the mainstream of global development and the attaining of SDGs, there should be a dire need to address the poor state of juvenile education in the rural Nigeria especially among the public sector. Hence, providing an inclusive and equal quality education to the juvenile population of the nation is mandatory. Following the outcome targets of meeting the SDG 4, and the three (3) means of implementation, as provided by the SDG 4 is further breaking down into strategies to achieve it as follows (Global Campaign for Education, 2018) which nations such as Nigeria could adopt or adapt as blue print or guide towards the attainment of SDGs in Nigeria:

- Universal primary and secondary education: This means the provision of 12 years of free, publicly-funded, inclusive, equitable, un-discriminated quality primary and secondary

education – of which at least nine years are compulsory, leading to relevant learning outcomes.

- Early childhood development and universal pre-primary education: This means the provision of at least one year of free and compulsory quality pre-primary education, delivered by well-trained educators, as well as that of early childhood development and care.
- Equal success to technical/ vocational and higher education: This means to reduce barriers to skills development and technical and vocational education and training (TVET), starting from the secondary level, as well as to tertiary education, including university, and to provide lifelong learning opportunities for youth and adults.
- Relevant skills for decent work: This implies equitable access to : Equitable access to technical and vocational education and training and skills acquisition which goes beyond work-specific skills, emphasis must be placed on developing high-level cognitive and non-cognitive/transferable skills, such as problem solving, critical thinking, creativity, teamwork, communication skills and conflict resolution.
- Gender equality and inclusion: This includes Inclusion and equity and gender equality. With regards to inclusion and equity, all people, irrespective of sex, age, race, colour, ethnicity, language, religion, political or other opinion, national or social origin, property or birth, as well as persons with disabilities, migrants, indigenous peoples, and children and youth (tuveniles), especially those in vulnerable situations or other status, should have access to inclusive, equitable quality education and lifelong learning opportunities. With regards to gender equality, all girls and boys, women and men, should have equal opportunity to enjoy education of high quality, achieve at equal levels and enjoy equal benefits from education.
- Universal Youth Literacy: This could also mean universal juvenile literacy, and implies that all young people and adults across the world should have achieved relevant and recognized proficiency levels in functional literacy and

numeracy skills that are equivalent to levels achieved at successful completion of basic education.
- Education for sustainable development and global citizenship: This implies providing necessary knowledge, skills, values and attitudes required by citizens to lead productive lives, make informed decisions and assume active roles locally and globally in facing and resolving global challenges.

Also, there are three implementation strategies that could be adopted or adapted to provide an inclusive and equal education for the rural juvenile towards achieve the SDG 4 and these include (Global Campaign for Education, 2018):
- Effective learning environments
- Provision of Scholarships
- Increasing the supply of teachers and educators.

Putting into consideration the Nigeria society, the Sustainable Development Goals (SDGs), SDG 4 inclusive provide a 'recipe' for countries to be productive and prosperous, resulting in populations that are well-educated and well-equipped for employment in the 21st century (Montoya, 2019). In Nigeria, the reverse is the case as millions of youth, juvenile and adults are unable to play their full part in the social and economic life of their communities and nations because of the lack of education and development divide between the rural and urban education system. Hence, adopting the seven implementation strategies provided by the Global Campaign for Education (2018) can be a good model and further strategies to providing inclusive and equal quality education to the juvenile population of the nation to bridging the rural-urban juvenile education gap towards the attainment of sustainable development goals in Nigeria.

**Conclusion**

In conclusion, education provided by the governments in Nigeria for the juveniles which include the primary and secondary education systems cannot lead to the attainment of the SDG 4 which is to provide inclusive and equal education for all hence,

the Nigeria education system still operate in a poor state. In addition, the provision of juvenile education is skewed in favour of the urban schools where all resources are directed and vested such as include the public and private primary and secondary education system. This could hinder the attainment of SDG 4 and other SDGs in Nigeria and Nigeria will be unable to participate in future development strategies and plans due to several failures and laggings of previous development goals such as MDGs. Hence, to be able to participate in the future global development plans and also to help attain the present SDGs in Nigeria, there is need to bridge the rural and urban juvenile education gap which are the provision of inclusive and equal primary and secondary education for the population towards attainment of the SDGs.

**References**

Aid4Africa (2015), Negligence of Quality Primary Education in Rural Africa: The Nigerian Case Study (Volume 1), https:// areai4africa.ordpress.com/2015/10/07/negligence-of-quality-primary-education-in-rural-africa-the-nigerian-case-study-volume-1/

Arong F.E. and Ogbadu M.A.,(2010), Major Causes of Declining Quality of Education in Nigeria from Administrative Perspective: A Case Study of Dekina Local Government Area , *Canadian Social Science* 6(3),183-198

Blanchfield L. and Lawson M.L. (2010), The Millennium Development Goals: The September 2010 U.N. High-level Meeting, Congressional Research Service, Prepared for Members and Committees of Congress, retrieved from https://fas.org/sgp/crs/row/R41410.pdf

Easterly W. (2009), How the millennium development goals are unfair to Africa. World Development, 7(1):26–5. doi:10.1016/j.worlddev.2008.02.009.

Easterly W., (2010), Was Africa set up to fail on the Millennium Development Goals? http://www.nyudri.org/aid watcharchive/2010/06/was-africa-set-up-to-fail-on-the-millennium-development-goals

Haruna M. J. and Liman B. M. (2015), Proceeding of the 3rd Global Summit on Education GSE 2015 (e-ISBN 978-967-

0792-01-1), 9-10 March 2015, Kuala Lumpur, MALAYSIA. Organized by WorldConferences.net, https://worldconferences.net/proceedings/gse2015/paper%20gse15/G%20088%20CHALLENGES%20FACING%20EDUCATING%20NIGERIAN%20CHILD%20IN%20RURAL%20AREAS%20IMPLICATIONS%20FOR%20NATIONAL%20DEVELOPMENT%20-%20M.%20J.%20HARUNA.pdf

Haruna, M. J. and Onyebu, G. N. (2011). Challenges of child education in the Nigerian rural areas: implication for national development, Farfaru journal of multi-disciplinary studies, 6,178-183.

International Monetary Fund (IMF) (2005). 'National Economic Empowerment and Development Strategy [NEEDS]'. IMF Country Report No. 05/433 Abuja: Nigerian National Planning Commission.

Montoya S. (2019), Meet the SDG 4 Data: Measuring Youth and Adult Literacy and Numeracy, Global Partnership for Education,UNESCO Institute of Statistics, http://uis.unesco.org/en/blog/meet-sdg-4-data-measuring-youth-and-adult-literacy-and-numeracy

Odukoya J.A., Bowale E. and Okunlola S. (2018), Formulation and implementation of educational policies in Nigeria, African Educational Research Journal Vol. 6(1), pp. 1-4, http://www.netjournals.org/pdf/AERJ/2018/1/17-059.pdf

Olawale, J. (2017), Problems of Education in Nigeria and their solutions, https://www.legit.ng/1104678-problems-education-nigeria-solutions.html

Omiunu, O.G. (2017), Chapter 10: Deploying ICT to Enhance Small Businesses and Achieving Sustainable Development: A Paradigm to Reducing Poverty and Unemployment and Enhancing a Sustainable National Development in Nigeria, in Handbook of Research on Small and Medium Enterprises in Developing Countries, IGI Global, http://www.igi- global.com

Omiunu, O.G. (2012), Deploying Indigenous Knowledge for Sustainable Development, Published in African Journal of Sustainable Development, 2(1), pp.149-170, Centre for

Sustainable development (CESDEV), University of Ibadan.

Omotola, S.J., (2006), No Democracy, No Development rr Vice Versa? In Hassan A. Saliu et al (Eds.). Democracy and Development in Nigeria: Conceptual Issues and Democratic Practice. Lagos, Nigeria: Concept Publications.

Onyeaghalaji M. N. and Igberaese D. E. (2010), Knowledge Management and Capacity Building for Sustainable Development in Africa, Journal of Sustainable Development in Africa, 12(2), Clarion University of Pennsylvania, Clarion, Pennsylvania

Oraka O.P., (2018), Achieving Quality Education For All in Nigeria, CSEA Africa - Centre For The Study Of The Economies Of Africa, http://cseaafrica.org/achieving-quality-education-for-all-in-nigeria/

Oyafunke-Omoniyi C.O., (2014), Juvenile Delinquency and Justice in Lagos State, Nigeria: A Sociological Appraisal, IFE PsychologIA 22 (2), 145-150, https://www.ajol.info/index.php/ifep/article/view/111115

Slade S. (2017), What Do We Mean by a Quality Education? Global Outreach, ASCD, https://www.huffpost. com/entry/what-do-we-mean-by-a-qual_b_9284130

Steer, A. & Lutz, E., (1993), Measurement of Environmental Sustainable Development. Finance and Development, 3 (4), 11-16.

The International Bank for Reconstruction and Development (2010), The MDGs after the Crisis, The World Bank, http://siteresources.worldbank.org/INTGLOMONREP2010/ Resources/6911301- 1271698910928/GMR2010WEB.pdf

The United Nations Development Programme (2015), SDGs , https://www.sdgfund.org/goal-4- quality-education

The World Summit for Social Development (1995), Report of the World Summit Social Development Copenhagen 6-12 March, 1995 (United Nations Publication, Salcs No. E. 96. Iv.8).

The World Bank, (2002), World Development Report: building institutions for markets. Washington, Dc: World Bank.

The Global Campaign for Education (2018), SDG4's 10 targets, https://www.campaignforeducation.org/en/who-we-are/the-international-education-framework-2/the-sustainable-development-goal-4/sdg4s-10-targets/?gclid=CjwKCAjwibzsBRAMEiwA1pHZrgyXbuFehGtnk4DAdDmOGMaVfHZ57ZWt5URrJe532VyYpNA8Kk-wNBoC81sQAvD_BwE

United Nations Development Program (UNDP) (2016). Human Development Report – Human Development for Everyone. NewYork: UNDP.

Vladimirova K. and Le Blanc D. (2015), How well are the links between education and other sustainable development goals covered in UN flagship reports? A contribution to the study of the science-policy interface on education in the UN system, DESA Working Paper No. 146 ST/ESA/2015/DWP/146, Department of Economic & Social Affairs, https://sustainabledevelopment.un.org/content/documents/2111education%20and%20sdgs.pdf

# ASSESSMENT OF QUALITY OF GRADUATES IN FEDERAL UNIVERSITIES IN SOUTHWESTERN NIGERIA

**F. S. Akinwumi; A. I. Atanda & Oluwafunmilayo Matthew**
*Department of Educational Management, University of Ibadan.*
*femaking@yahoo.com, ademolaui@gmail.com,*
*petfunmon@yahoo.com*

**Abstract**
*The study assessed quality of graduates in federal universities in Nigeria. The descriptive survey design of the ex-post facto type was employed for the study. The purposive sampling was used to select the three first generation universities out of six federal universities in southwestern Nigeria. Also, purposive sampling was employed to select four faculties with larger number of students and that are running four years degree programmes namely faculty of Education, faculty of Arts, faculty of Social Sciences and faculty of Science of the selected universities. The proportionate stratified random sampling was used to select 51% of the departments (145 out of 285) from each of the selected faculties. One hundred and twenty (120) captains of industries were randomly selected to rate at least 10 graduate employees that are working in their organisations, who graduated between 2008 and 2018 from the selected universities for the study. The result showed that, the quality of graduates was ($\bar{x}$ = 1.42). It can be concluded that the quality of graduates of the three Federal Universities (UI, UNILAG and OAU) was very low. The finding revealed the mean that the quality of graduates progresses gradually (First degree = 24.4753; Second degree = 24.4820 to Ph.D = 24.5789) based on additional qualification. However, the result revealed that no significant mean difference was found among the graduates based on their education qualification ($F_{(2,1194)}$=0.019, p<0.05). This shows that quality of graduates in the sampled universities do not differ based on education qualification.*

**Keyword**: Assessment, Quality Graduates, Quality of Graduates

The importance of quality of education is widely emphasized in all citadels of learning in Nigeria. The National Policy on Education affirms that no education system can rise above the quality of its teachers (Federal Republic of Nigeria, 2013). In fact, nothing is as important to learning as the quality of the graduates which would eventually translate to the nation's manpower. This implies that the quality of graduates, who are expected to join the economic sector, is very important. The concern for quality has been at the core of the motivating forces for reforms in education. Ajayi and Adegbesan (2007) viewed quality as the total of the features of a process, a product or a service on the performance of education sector; it is the customers' or clients' perception of performance in education sector. It is not just a feature of a finished product or service but it involves a focus on internal processes, outputs and includes the reduction of waste and the improvement of productivity. Taking a cue from the above definition, quality can be characterized by three interrelated and interdependent strands: efficiency in the meeting of its set goals; relevance to human and environmental conditions and needs; and the exploration of new ideas, the pursuit of excellence and encouragement of creativity.

Akinwumi and Olaniyan (2002) revealed that the expansion was not matched with adequate funding to provide necessary facilities. The University education system has over the years developed very rapidly. However during the second republic, the standard started to deteriorate as a result of the proliferation of universities and academic programme by federal and the state governments. Many are the opinion that despite the quantitative growth in the number of universities in Nigeria, the system is being negatively affected with many problems such as inadequate funding, decay of existing infrastructure and facilities and inadequate manpower, to mention, but a few. Consequently, the issue of effectiveness of the university system in Nigeria has been of concern to all Nigerians.

Unemployment amongst Nigerian graduates has reached an alarming rate and thereby become a source of worry to stakeholders in the educational sector. There seems to be fear that if something drastic is not done to arrest this ugly trend; it

might lead to many economic and social vices. The National Bureau of Statistics (2017) reported that the unemployment rate had risen from 14.2% in 2016 to 18.8% in 2017. The reports further stated that the number of people in the labour force who are either unemployed or underemployed also rose from 13.6 million and 17.7 million to 15.9 million and 18 million respectively. The implication of this is that, the chances of Nigerian graduates getting employed are becoming slimmer by the day. To further compound this challenge, Chibuogwu and Anaekwe (2015) revealed that 152 Nigerian universities produce an average of 150,000 to 200,000 graduates yearly and this number is more than the employment slots available in the labour markets. Studies carried out by Akinyemi, Ofem and Ikuenomore (2012) and Pitan (2016) therefore put the unemployment rate amongst Nigerian graduates at 40.3 to 57.5% and this number could have increased over the years owing to the continuous registration and approval of more universities by the National Universities Commission (NUC) in order to address the problem of accessibility of university education by the teeming Nigerian youths.

Many reasons can be adduced for the inability of Nigerian graduates to be gainfully employed and these include the preference of employers for experienced workers over fresh graduates, economic downturn leading to downsizing of workers and the failure of organizations to fill the vacant positions; gender and ethnic disparities, use of quota system and discrimination; and the emphasis on social and network connections. However, employers of labour have consistently affirmed, according to Adedeji and Oyebade (2015), that none of these reasons is more fundamental as the inadequacy of requisite and life skills in many Nigerian graduates. They therefore ascribe this to the apparent decline in Nigerian education quality which is reflecting in poor quality of graduates. From the foregoing, while the quantity of Nigerian graduates is on the high side, the quality is of concern to most stakeholders. They are believed to have possessed the requisite knowledge, competency, skills and abilities to perform maximally at their work place in their fields of specialisation for which they had been trained. Their quality, therefore, is

paramount to the growth and development of the organisations that employed them as they are expected to exhibit a high level of professionalism and competency that would engender the actualisation of organisational goals.

However, in recent times, the quality of graduates has come under the scrutiny of stakeholders and employers of labour against the backdrop of the poor performances of Nigerian graduates. As a result, quality of graduates has become the yardstick of evaluating the teaching and learning processes that go on in the departments and faculties of the universities. This quality has also been used to distinguish one university from the other and, more importantly, to assess the state of education in each university. It can therefore be concluded that Nigerian universities seem to be facing many challenges that are invariably affecting the delivery of their mandate in producing qualitative graduates whose quality are expected to develop the economy.

Researchers like Pitan, Adedeji and Akanmu have observed that Nigerian graduates are practically deficient in technical abilities, communication skills (oral and written), conceptual, critical, analytical and thinking skills; human and social interaction skills; initiative, decision making and problem solving skills; management, leadership and resource control skills; work ethics (integrity, values, good character, dedication and commitment, self-esteem, self-discipline, team work or spirit, and organizing and ability to translate ideas to fruitful actions). Incidentally, it was noted that these skills are not well emphasized in the curricula presently used in higher institutions. By implication, there is a wide gap between the experience acquired by graduates while in school and what is required by employers of labour (Pitan and Adedeji, 2012). In order to bridge this gap, organizations do go extra miles in painstakingly sending their new recruits (for competitive advantage) for further training or make them undergo on-the-job training to improve on their level of competence. (Akanmu, 2011; Anho, 2011 and Asuquo and Agboola 2014).

From the foregoing, public confidence in university education appears to be waning on the premise that quantity is being preferred to quality (Dumbili, 2014); and this has made the

government, stakeholders and the employers of labour come hard on the universities as being responsible for the present level of poor quality of graduates. Uchendu, Samuel and Arinze (2016) averred that the faculties are being questioned that the poor quality of graduates is a reflection of their ineffectiveness and inefficiency in teaching and research works as it is believed that the onus to produce competent graduates rests largely on their shoulders. However, the Academic Staff Union of Universities (ASUU) has vehemently risen in defence of the faculties alluding the serious short falls to factors that have put Nigerian universities in crises over the years; and which invariably impinge on the lecturers from delivery on their mandates.

This underfunding of education has led to poor quality of graduates from Nigerian universities especially the number of graduates vis-à-vis the quality which is assumed to be a contributory factor to the problem of unemployment facing the Nigerian graduate. Many faculties are battling with tremendous and excessive work load due to poor students – lecturer ratio which also emanated from vast enrolment of students without corresponding employment of faculty members. In effect, the lecturer – students' ratio seems to be affecting the good delivery of academic standard resulting in the poor quality of graduate in Nigerian universities. Apart from carrying out academic activities in lecture rooms, the lecturers also carry out researches and at times, attend to administrative matters that fall within their purview.

It seems that no university has been fully autonomous because of their dependence on either the federal or state government for funding. The consequence was the proliferation of the mushroom satellite study centres all over the states of the federation. Residential structures and flats are leased for this programme, hence the candidates in such centres are not exposed to any serious academic environment. All these stretch them beyond limit to work extra hours thereby overburdening them which result to stress that leads to health or life-threatening sicknesses or ailments like constant and regular headaches, severe backache, headache and body pains and sleeplessness just to mention a few. Some, as a result became frustrated

thereby losing interest in their profession. All these often tell on the extent to which faculties perform and discharge their responsibilities. Summarily, these challenges may also affect the poor production of quality graduate from Nigerian Universities (Ukwayi, Uko and Udida, 2013).

**Statement of the Problem**

One of the major challenges in Nigeria currently is that there are many unemployed graduates who are labouring assiduously to have a means of livelihood. Studies have shown that the high rate of unemployment has its root in the poor quality of education that graduates acquire from Nigerian universities, many employers of labour have expressed their displeasure over the incompetent level of Nigerian graduates vis-a-vis their courses of study in the universities asserting that there is a mismatch of skills students are taught in their chosen fields and the needed skills by the employers of labour.

By implication, this challenge of high rate of unemployment due to low quality of graduates will lead to increase in dependency ratio and thereby leads to a high rate of poverty (poor standard of living) which can eventually lead to high mortality rate. High rate of mortality by implication, will lead to low productivity rate which in the long run, will adversely affect the national income.

This study, therefore, assessed quality of graduates (speed of processing information, organisation skills, subject matter mastery, knowledge impartation skills, task execution accuracy, decision-making skills, emotional stability, interpersonal skills, multilingual ability, ICT skills, communication skills, time management skills, technical skills and reflective thinking skills) in selected federal universities in Southwestern Nigeria.

**Purpose of the study**

This study assessed the influence of institutional factors on the quality of graduates of selected federal universities in Nigeria. Specifically, the study:

i. found out the level of quality of graduates in federal universities in Southwestern Nigeria;

ii. investigated the differences in the quality of graduates across level of degrees;

**Research Questions**

The following research questions were used to guide the study:

i. What is the level of the quality of graduates in federal universities in Southwestern Nigeria?
ii. Does the quality of graduates differ across level of degree?

**Methodology**

Multi-stage sampling procedure was adopted to select participants for the study. To begin with, purposive sampling was used to select the three first generation universities out of six federal universities in Southwestern Nigeria. The universities are University of Ibadan, Ibadan; Obafemi Awolowo University, Ile-Ife and University of Lagos, Akoka, Lagos. Also, purposive sampling was used to select four faculties with larger number of students and that are running four years degree programmes namely faculty of Education, faculty of Arts, faculty of Social Sciences and faculty of Science of the selected universities. Then, one hundred and twenty (120) captains of industries were randomly selected to rate at least 10 graduate employees that are working in their organisations, who graduated between 2008 and 2018 from the selected universities for the study. The sample size of this work is one hundred and twenty (120) captains of industries who rated 1,197 graduates of the selected universities working in respective organizations.

**Research Question 1**

What is the level of the quality of graduates in federal universities in southwestern, Nigeria?

**Table 1: Level of Quality of Graduates in the Federal Universities in Southwestern, Nigeria.**

| Item | High | Low | Mean | Std. Dev. |
|---|---|---|---|---|
| 1. Speed of processing information | 154 (12.9%) | 1043 (87.1%) | 1.13 | 0.33 |
| 2. Organisation skills | 754(63.0%) | 443(37.0%) | 1.63 | 0.48 |
| 3. Subject matter mastery | 370(30.9%) | 827(69.1%) | 1.31 | 0.46 |
| 4. Knowledge impartation skills | 261 (21.8%) | 936 (78.2%) | 1.32 | 0.41 |
| 5. Task execution accuracy | 594(49.6%) | 603 (50.4%) | 1.50 | 0.50 |
| 6. Decision making skills | 571 (47.7%) | 626 (53.3%) | 1.48 | 0.50 |
| 7. Emotional stability | 583 (48.7%) | 614 (51.3%) | 1.49 | 0.50 |
| 8. Interpersonal skills | 787 (65.7%) | 410 (34.3%) | 1.66 | 0.47 |
| 9.Multilingual ability | 674 (56.3%) | 523 (43.7%) | 1.56 | 0.50 |
| 10.ICT skills | 423 (35.3%) | 774 (64.7%) | 1.35 | 0.48 |
| 11.Communication skills | 520 (43.4%) | 677 (56.6%) | 1.43 | 0.50 |
| 12.Time management skills | 787 (65.7%) | 410 (34.3%) | 1.66 | 0.47 |
| 13.Technical skills | 492 (41.1%) | 705 (58.9%) | 1.41 | 0.49 |
| 14.Reflective thinking skills | 546 (45.6%) | 651 (54.4%) | 1.46 | 0.50 |
| 15. Team skills | 583 (48.7%) | 614 (51.3%) | 1.49 | 0.50 |
| Weighted Mean Average **1.42** | | | | |

Table 1 presents the result on the quality of graduates' variables. The graduates were rated high on Interpersonal skills (65.7%), Time management skills (65.7%), Organisation skills (63.0%), Multilingual ability (56.3%) and Task execution accuracy (50.00%). However, they were rated low on Emotional stability (48.7%), Team skills (48.7%), Decision making skills (47.7%), Team skills (45.6%), Communication skills (43.4%), Technical skills (41.1%), ICT skills (35.3%), Subject matter mastery (30.9%),

Knowledge impartation skills (21.8%) and Speed of processing information (12.9%).

In summary, the quality of graduate was ($\bar{x}$ = 1.42). It can be concluded that the quality of graduates of the three Federal Universities (UI, UNILAG and OAU) was very low.

**Research Question 2**

Does the quality of graduates differ across level of degree?

**Table 2: Differences in the Quality of Graduates based on Qualification**

| | N | Mean | Std. Deviation |
|---|---|---|---|
| First degree | 667 | 24.4753 | 3.84504 |
| Second degree | 473 | 24.4820 | 3.77607 |
| Ph. D | 57 | 24.5789 | 4.06618 |
| Total | | 24.4829 | 3.82551 |

Table 2 presents the result of the descriptive statistics of the mean difference in quality of graduates based on qualification. The result revealed that mean quality of graduates for first degree is ($\bar{x}$ =24.48, SD=3.85), second degree has the mean quality of ($\bar{x}$ =24.48, SD=3.78) and third degree graduates had the mean quality of ($\bar{x}$ =24.58, SD=4.07). The result shows that mean quality difference across level of education qualification is quite minute. The result of test of significant of mean was presented in Table 2.

Also, it could be observed from the mean that the quality of graduates progresses gradually (First degree 24.4753; Second degree 24.4820 to Ph.D 24.5789) meaning that additional qualification leads to higher quality of graduates.

**Table 3: Test of Mean Difference in Quality of Graduates Based on Education Qualification**

| | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | .565 | 2 | .283 | .019 | .981 |
| Within Groups | 17502.334 | 1194 | 14.659 | | |
| Total | 17502.899 | 1196 | | | |

Table 3 shows the result of One-Way Analysis of Variance for the differences in the quality of graduates based on their education qualification. The result revealed that no significant mean different was found among the graduates based on their education qualification ($F_{(2,1194)}$=0.019, $p<0.05$). This shows that quality of graduates in the sampled universities do not differ based on education qualification.

**Discussion of Findings**

Regarding the employability of the graduates of federal universities in southwestern Nigeria, the result reveals that most employers of labour rated the performance and skills of graduates of working under them to be low. They are low in speed of processing information, subject matter mastery, knowledge impartation skills, decision making skills, emotional stability, ICT skills, communication skills, technical skills, team skills and ability to team-work. It is however observed in the study that, there is still need for improvement in the skills of Nigerian graduates as suggested in previous studies (Pitan, 2010, Akanmu, 2011; Anho, 2011 and Asuquo and Agboola, 2014) which rated the skills and performance of Nigerian graduates to be very low and classified them as being deficient in requisite skills.

With this observation, the result is an indication that skills displayed by the graduates working with the sampled employers of labour are not impressive. This finding could probably be due to the fact that the environment does not support effective display of

learnt skills at the university level or maybe diminishing return has set in as a result of long years of learning or waiting at home before being employed. Moreover, the result might even be as a result of carried over effect or half-baked graduates in most of the universities in Nigeria. The result also corroborated the findings of other studies in the literature such as the one conducted by Adedeji and Oyebade (2015) that there is inadequacy of requisite and life skills in many Nigerian graduates, a situation that may probably be an institutional factor or from the part of government

The findings also revealed that the majority of the graduates are first degree holders, followed by Masters Holders and then Ph.D holders. The result showed that the minimum qualification of the sampled graduates is B. A., B.Sc. or B. Ed as the case may be. It could also be observed that graduates of Ph.D are still actively involved in services. However, the result in Table 3 shows that the quality of the graduates varies with the qualification which implies that their display of professionalism in service improves based on their academic qualification. This means that additional qualification leads to higher quality.

By implication, this goes to show that employers of labour who encourage their employees to add to their qualifications while working in their organisations stand the chance of benefitting from them after the completion of such programmes. Graduates who add to their qualifications do not only add skills to the ones they already have but also grow in confidence and experiences in displaying such skills to the fulfilment of organisational goals. The survey results affirmed that employers of labour often complain that most Nigerian graduates do not exhibit self-confidence and independent thinking when undertaking tasks as they often go to their bosses to ask questions or get further instructions which could have been given earlier. Furthering ones education for more qualifications avails people the opportunity to meet with other gainfully employed people and learn from their experiences; and this instill confidence and self-belief.

However, many employers of labour hardly allow their employees to further their education to acquire additional qualification because of the fear of losing them to other competitors or the inability to increase their wages in line with

their qualification. It is a fact notwithstanding, that when reward most times, is commensurate to qualification and competencies (skills), the tendency of a higher quality services from a worker is high.

**Conclusion**

Based on the results of the findings, it could be concluded that many universities graduates in Nigeria need to acquire more requisite skills that will make them employable and more productive in any chosen field they find themselves. It could further be concluded that variation observed in the quality of graduates in the universities in Nigeria could be better explained when additional educational qualifications are attained

.

**Recommendations**

Considering the results of the findings, the following recommendations were made:

Graduates should aspire to acquire more employability skils in order to make them more employable and productive. In addition, employers of labour should allow and encourage their employees to acquire additional educational qualification in order to improve their quality of service.

**References**

Akanmu, O. 2011. Graduate Employment and Employability Challenges in Nigeria – An Abridged text presentation given at the Association of Commonwealth British Council Regional Policy Dialogue on Graduate Employability in Africa in Accra, Ghana, January 18, 2011.

Akinwumi F.S. and Olaniyan D.A. (2002). Analysis of University Autonomy in Nigeria. African Journal of Educational Management (AJEM). 9(2). 116-126.

Akinyemi, S; Ofem, I. B.and Ikuenomore, S. O. 2012. Graduate turnout and graduate employment in Nigeria . International Journal of Humanities and Social Sciences.2:14

Anho, J.E. 2011.An evaluation of the quality and employability of graduates of Nigerian universities. *African Journal of Social Sciences* 1. 1: 179-185.

Asuquo, A. E. and Agboola, B. M. 2014. Nigerian universities output and their employability in the Labour markets in South-South, Nigeria *.American Journal of Educational Research* 2. 12: 1244-1249.

Chibuogwu, V. N. and Amaekwe, C. 2015. Meeting the challenges of graduate employability in Nigeria: the way forward. Journal of education review. 8:1

Dumbili, E. W. 2014. The Mcdonaldization of Nigerian universities: a sociological analysis and critique of engendering policies. SAGE Open; pp. 1-14.

Federal Republic of Nigeria 2013. National Policy in Education Yaba – Lagos. NERDC Press.

Ogbomida, A. H., Obano, E. J. and Emmanuel O. 2013.Utilization of committee system in the administration of Nigerian universities. *Academic Research International* 4.4: 392-399.

Pitan, O. S. 2016. Towards enhancing university graduate employability in Nigeria. Journal of Sociology Anth. 7:1 ; 1-11

Pitan, O. S. 2010. Assessment of skills mismatch among employed university graduates in Nigerian labour market. Ph.D Thesis Dept. of Educational Management. University of Ibadan, Ibadan.

Pitan, O. S. and Adedeji, S. O. 2012. Skills mismatch among employed university graduates in Nigeria Labour Market. US-China Education Review. 2:1; 90-98

Uchendu, C. C ; Samuel, N. E. and Arinze, N. I. 2016. Physical work environment and academic staff productivity in universities in Enugu State, Nigeria. Journal of Social Sciences and Humanities Research. 1:5

Ukwayi, J. K.; Uko. E. S. and Udida, L. A. 2013. A critical analysis of career stress among academic staff of tertiary institutions in Cross River State. Journal of Educational and Social Research. 3:2

# PARENTAL FACTORS AS PREDICTORS OF QUALITY OF EDUCATION IN PUBLIC SECONDARY SCHOOLS IN OYO STATE, NIGERIA

**Adedoyin Adeola BOLANLE & Abiodun Olumide AYENI**
*Department of Educational Management,*
*University of Ibadan, Nigeria.*
*adedoyinadeola76@gmail.com*
*biodunmide@gmail.com*

**Abstract**

*The decline in quality of education in public secondary schools in Oyo State, Nigeria has been a major source of worry to stakeholders such as educational administrators and policy planners. Secondary education which is the bridge that conveys primary to the future tertiary for the development of human capital in the state has been experiencing a decline in terms of quality as reflected in results of external examinations. Measures such as free education, public-private partnership, budget increase, improved inspection and supervision among others introduced by the government seem not to have brought improvement. This study, therefore, examined parental occupation and parental income as related to quality of education (students' academic performance in English Language and Mathematics) in public secondary schools in Oyo State, Nigeria. Ludwig von Bertalanffy's Systems Theory served as the framework, while correlational design was adopted for the study. 18 Local Government Areas (LGAs) were randomly selected from the existing 33 LGAs. 173 (one hundred and seventy-three) public secondary schools in the selected LGAs were enumerated, while 1877 students were randomly selected. Senior secondary school II students were purposively selected because the arm of school was more stable, qualified and adequate for the study. The instruments used were English Language (0.81), Mathematics (0.75) achievement tests; parental occupation (0.83) and parental income (0.73) scales. Data were analysed using descriptive statistics, Pearson's*

*product moment correlation and Multiple regression at 0.05 level of significance. The quality of education (12.38) was low based on students' average performance in English Language and Mathematics. There was significant positive relationships between parental occupation and students' achievement in both English Language (r=0.610) and Mathematics (r=0.30). The result showed that there was no significant relationship between parental income and students' achievement in English Language (r = 0.412) and Mathematics (r = 0.291). Parental occupation (β = 0.065) had highest contribution to English Language and Mathematics (β = 0.082) and was significant while parental income had the least contribution to quality of education in English Language (β = 0.022) and Mathematics (β=0.041) and was not significant. It was concluded that parental occupation influenced quality of education in public secondary schools in Oyo State, Nigeria. Adequate attention should be paid to this factor to improve quality of education.*

**Keywords:** Quality of education, Parental occupation, Parental income, secondary education.

**Background to the Study**

The task of nation-building starts with provision of qualitative educational programmes that will serve as tools for national growth and development. Quality of education is a global issue that engages the attention of scholars because quality denotes a degree of academic excellence. Attaining quality of education, particularly in public secondary schools, remains a major challenge to policy makers, educational managers, teachers, parents, guardians, students and the entire populace. This is noticeable in reactions to public secondary school students' performance in school- based and external examinations.

The quality of education in Oyo State has often been criticised for its failure to deliver results according to the expectations and aspirations of the society. The persistent failure of students in external examinations has given rise to continuous deliberations among stakeholders such as teachers, parents and educational managers on issues relating to academic excellence.

The criticisms are to prevent further deterioration in the quality of education as it relates to public secondary schools in Oyo State.

Secondary education is the base and bridge on which other levels of education build upon, therefore, it serves as the foundation for human capital development in a nation (Atanda, 2021). Secondary education should hence receive priority attention in order to produce students who can compete effectively in the world. However, it seems that the situation in post- primary schools in Oyo State is different. Pupils who transit to secondary schools seem not to obtain quality education that can prepare them for further education and the world of work. Babalola, Adedeji, Erwat and Ayeni (2007) affirm that poor quality of education is vividly shown through the inability of quite a number of secondary school students to read and write effectively, which is reflected in students' poor performances in external examinations such as Senior School Certificate Examination (SSCE) and West African Senior School Certificate Examination (Ogundele, 2015).The perceived decline in quality of education may be as a result of inadequate input alongside faulty processes in this level of the educational system .

As a result of the noticeable poor performance by public secondary school students in Oyo State, the State government declared a state of emergency in the education sector in November 2011.The situation did not change because both the human and non-human resources in education sector remained stagnant until the government of the day saw the need to recruit 5000 staff to teach some subjects where the laxity was pronounced. However, performance in external examinations from year 2011-2020, calls for more urgent attention in all subjects being offered by the students. The percentage of students who obtained less than 5 credits including English Language and Mathematics ranged between 45.81% and 83.03% of the total 10 years reviewed. Even in 2017 when 54.19% was achieved, Oyo State was still ranked 26$^{th}$. In addition, despite the fact that in 2020, Oyo State had 11$^{th}$ position, it still recorded 57.59% failure. In 2022, Oyo State had 33$^{rd}$ position according to WAEC ranking. This implies abysmal performance of students' in West African Senior Examination School Certificate (WASSCE) in

Oyo State. Generally, it can be said that the state is experiencing a decline in the quality of secondary education.

Ojedokun and Aladejana (2012) evaluated quality of secondary education and affirm that some graduates of public secondary schools cannot conveniently live in the society or proceed to tertiary institutions for further studies in the courses of their choice without their parents' assistance or alteration of their results. This is corroborated by Okeke and Emunemu (2016) who affirm that graduates of public secondary schools do not have the required skills to either fit into the type of jobs that are available or they cannot create jobs to boost the economy of any state in Nigeria. However, education cannot be a tool to achieve the overall development of a country, if the education system at secondary level seems not to be excellently managed in achieving the goals and purposes of National Policy on Education (NPE,2013). The place of quality education cannot be over-emphasised because it provides all students with the capacity they require to become economically productive to develop a sustainable livelihood that enhances individual well-being in the context of education (Mwange, 2015).

Quality of education can be measured in different ways as established in literature through excellence in academic performance, fitness of purpose, efficiency, effectiveness, input level, process level and output level (Modi,2013; Adedeji, 2018). Quality as excellence refers to high scores or marks of students in examinations. Performance is the degree of students' mastery or attainment of outcomes considered to be satisfactory. By implication, academic performance is one of the indices for measuring the quality of education in a school or an educational institution. Therefore, this study intends to measure the quality of education at the output level through students' performance in standardised tests in English Language and Mathematics.

Several factors such as school plant and teacher task performance have been identified and studied by scholars. However, there are other germane factors that are yet to be investigated to enhance quality of education. The other factors are considered key in view of the fact that they can be used to determine the quality of education which learners receive at any

level of the educational system. These are parental factors comprising parental occupation and parental income. The fore-mentioned factors are the parental factors which seem to contribute to poor quality of secondary education in public schools in the Oyo State. Parental occupation is what the family engages in to earn a living. It is regarded as a factor because a student from an uneducated family and low socio-economic status is likely not to perform well academically (Owuor, Simatwa and Ndolo, 2022). Owuor, et al, (2022) explained further that low parental occupational status may have adverse effects on quality of education obtained by the children, due to parents' inability to provide necessary resources for their children's education and also little or no involvement of parents in their children's academic activities. It appears that this is the situation in which majority of students in post- primary schools in the state are found. It has been noticed that quite a number of the learners attend school on empty stomachs, wear torn clothes and have insufficient educational materials. This is because parents' jobs seem to determine the level of their investment in education as well as their purchasing capability. This indeed may affect students' academic performance.

Parental income is another indicator of parental factor. This appears to determine the quality of education at secondary level and it is so crucial that it cannot be overstressed. Parental income is total earning at the family level to meet the expenses at household level. Low income parents are faced with financial and other pressures which can easily have negative consequences on children's cognitive development. This may affect attitude of the students to their academic work and their learning habits. It may in addition have negative impacts on their performances as supported by Marbuah (2016). This implies that poor parental upkeep with serious denial of social and economic needs of a child can result into abysmal academic performance of the child. More so, children that lack basic necessities of life may face challenges in acquiring the capacities which can aid their success, and children whose parents cannot provide for their needs are at a comparative disadvantage.

It has been shown from various studies such as Gilman (2019) and Balachandran, Sohaib Iman and Bemnot (2023) that parental income influences the outcome of children, pupils or wards from low economic status. This is because they are not likely to have funds to obtain required educational materials for quality education. They are therefore not likely to have access to quality education. More so, some students seem to engage in menial vocations in order to support their parents to meet domestic needs thereby leaving little time for their academic work. Parents with low income may also need to work for many hours in order to provide the basic necessities of their children. The inference is that they may not spend quality time with their off springs to monitor their academic pursuit. All these seem to contribute to deterioration in education quality of public secondary schools in Oyo State.

Hence, the foregoing background provides a justification for the current study which looked at the effect of parental factors as predictor of secondary education quality in public secondary schools in Oyo state, Nigeria. This is because the factors can mar or enhance quality of education in the State. This is the gap which other researchers seem not to have filled. This study is imperative because research is scarce in this area.

**Statement of the Problem**

Poor quality of education has remained a major challenge in public secondary schools in Oyo State. This is as a result of the continuous poor performance of students in both internal and external examinations such as Senior Secondary School Certificate Examinations conducted by West African Examination Council (WAEC). The results of the students studied over a decade shows that there has been a decline in secondary education quality in public schools in the State. Also, position of Oyo State among other states in WAEC ranking is worrisome.

The poor level of performance in examinations in WASSCE can lead to unwanted wastages and this can impede students' entry to higher institutions for studies in their preferred courses at the tertiary level. The consequence spills over to the labour market when the students fail to get employment due to

lack of required and requisite skills. The implication is a seeming rise in crime rate like cybercrime, drug abuse, addiction, political thuggery and joblessness among school ages. High rate of failure among secondary school students makes the society vulnerable to insecurity. This has motivated a lot of researchers to investigate issues relating to poor quality of education in Oyo State. After critical analyses of related literature on quality of education, many scholars have concentrated on effects of economic recession, funding, personnel management, politics, while few have based their studies on predictors of quality of education in line with institutional and household factors.

There is a missing gap in the extent to which parental factors can predict secondary education quality. Consequently, this study investigated parental factors as predictor of quality of education in public secondary schools in Oyo State, Nigeria. This is necessary because research is limited in this area. Similarly, this focus is meant to open up interventions that would resuscitate education quality in public secondary schools in Oyo State.

**Purpose of the Study**

The main purpose of this study was to investigate parental factors as related to quality of education in public secondary schools in Oyo State, Nigeria. Specifically, the study:

(i) examined the level of quality of education in public secondary schools in Oyo State.
(ii) investigated the status of household factors (parental occupation and parental income) of students in public secondary schools in Oyo State.
(iii) examined the relationship between parental factors (parental occupation and parental income) and of quality of education in public secondary schools in Oyo State.

**Research Questions**

The following research questions were raised and answered

1a. What is the level of quality of education in public secondary schools in Oyo State in terms of students' achievement in English Language?

1b. What is the level of quality of education in public secondary schools in Oyo State in terms of Mathematics?
2. What is the level of parental factor (income) among public secondary school students in Oyo State?
3. What is the level of parental factor (occupation) among public secondary school students in Oyo State?

**Hypotheses**

The following hypotheses were formulated and tested:

$H_{01a}$ Parental occupation will not significantly have relationship with performance of students in English Language in public secondary schools in Oyo State, Nigeria.

$H_{01b}$: Parental occupation will not significantly have relationship with performance of students in Mathematics in public secondary schools in Oyo State, Nigeria.

$H_{02a}$: Parental income will not significantly have relationship with performance of students in English Language in public secondary schools in Oyo State, Nigeria.

$H_{02b}$: Parental income will not significantly have relationship with performance of students in Mathematics in public secondary schools in Oyo State, Nigeria.

$H_{03a}$ Parental factors (occupation and income of parents) will not significantly have relative contributions to academic achievement in English Language among public secondary school students in Oyo State.

$H_{03b}$ Parental factors (occupation and income of parents) will not significantly have relative contributions to academic achievement in Mathematics among public secondary school students in Oyo State.

**Literature Review**

**Parental factors**

Parental factors entail both the parents and family well-being. It can also be referred to as all those influences which could led to proper growth and development of a child to become useful and independent in the society. Parental factors provide a principal platform on which learning not only begin but is nurtured,

encouraged and established which later transformed to the performance of the students. Parental factors could be measured as stated in the literature through parental education, parental occupation, parental income, household size, parenting teaching style (Oladele, Ogunsola, Kazeem, Osuolale and Akintayo, 2014). The household is based on the demand side, which consists of decisions regarding the cost and benefits of enrolling their children/wards to school, while the supply of education is from the government as the producer of quality education (Osuji, 2015).The government makes provision for quality infrastructure, tuition and fees just to mention a few. The interaction of these supply and demand factors leads to education children received (outcome) in the school (Luke and Banerjee, 2013). Furthermore, Amadi (2020) affirmed that household condition and characteristics play a significant part in determining the outcome of children. Adesehmiwa and Aremu (2010) asserted that good parenting, quality institution with adequate support from the government will enhance quality education at post primary school level.

**Parental Occupation**

Parental occupation is referred to as the main work undertaken by the parents or guardian. Also, it means the activities that parent engaged in to earn their living. Parental occupation is directly proportional to what parents earn, and it determines the level of investment in education, because it will be based on purchasing capacity. Also, it can determine the level of parental participation in the academic activities of their children. Walter (2018) posited that parental level of occupation had positive influenced on students' academic performance which serves as a measure of quality of education in this study. The scholar explained further that good parental occupation had positive effect on the academic achievement.

In the study of Owuor, Simatwa and Ndolo (2022) investigated influence of parental occupation on student academic performance in public secondary schools in Kenya. Research objectives were stated to guide the study. Descriptive survey and correlational research design were employed for the study. The

study adopted multi-stage sampling technique in the selection of the respondents. The findings recorded a statistical result mean rating of 3.55. It was concluded that parental occupation influences students' academic performance.

In the same vein, Onyeneka (2021) carried out a study on relationship between parental socio-economic status and academic performance for senior secondary schools in Port Harcourt. Correlational research design was adopted for the study. The research questions raised were analysed using percentages and frequencies. The result revealed that there was a significant relationship between parental occupation and academic performance of student which implied that parental occupation determine achievement of quality of education.

Also, Darko-Asumadu and Sika-Bright (2021) carried out a study on parental involvement and pupils' academic performance in the Cape Coast Metropolis, Ghana. The study was guided by four objectives and four research questions raised and answered. Descriptive survey was employed for the study. Walberg's theory of educational productivity was used to anchor the study. The result of the findings showed 2.36 as the average mean score. The study concluded that parental occupation has a positive influence on students' academic performance.

Ayanleye (2015) supported that parents of different occupational classes often have different ways of responding to their children's need. It was explained further that the inability of parents with low occupational level to provide adequate learning resources at home for their children resulted to poor performance of the students. While those students from middle parental occupation performed better because their parents optimised their resources in order to achieve quality education. Threlfall, Seay and Kohl (2013) affirmed that household has powerful influence as a primary agent of socialization and this determines the quality of education a child can be exposed to.

Marbuah (2016) explained that parents' priority is providing their children with the basic necessities of life which is food, clothing and shelter. Education becomes secondary where there is a constraint in terms of parent's income, and other limited resources, hence influence parent's decision in investing in the

education of their children. Adeniyi (2015) revealed that parental occupation, educational level of the parents and income are the major determinants of children's academic performances. Egunsola (2014) reported that the guardian or parents are to be responsible for the provision of quality home environment that will facilitate the learning of their wards and children. Parental educational background, occupation, economic status and household size are major factors of household that seem to influence the students' academic performance in terms of output (Marbuah, 2016: Egunsola, 2014). The household environment of a child/ward include all the human and non-human resources present in home which determine the child's education and living.

**Parental Income**

Parental income can be referred to as the proceeds the parents earn from the occupation, they engaged. Also it can be referred to as the wages, salaries, profit and any flow of earnings received (Joseph, 2016). The scholar explained further that income can be viewed in two ways relative and absolute. Absolute income is the relationship that exist when there is increase in income, so also consumption will increase, but not at the same rate. Relative income state that family or individual savings and consumption are based on the family or individual's income in relation to others. The parental income may likely determine the children's academic performance because their disposable income may likely determine the type of school, educational material that will be provided and the kind of knowledge to be imparted on their children.

Parental income seems to determine the quality of education a child receives (Adeniyi, 2015). It has been established by Gilman (2019) that household income can indirectly affect children's learning through purchase of educational inputs for their wards. Also, Ali, Musa and Zakar (2021) affirmed that parental economic status determines the quality of education received by their wards. It has been established that denial of children of social and economic needs coupled with poor parental care yield poor academic performance of the children. In order words higher income family earners will

be able to provide adequate educational resources that can help in facilitating learning in school subjects accurately.

Several literature affirmed that children or pupils from knowledgeable and high socio-economic status are likely to perform better than students from lower or uneducated parents' background (Sohaib, Iman and Bemnot,2023). This is so because students from wealthy family have the opportunity of having all that is required for study at home, while those from low income needs to dedicate more hours to menial jobs and few periods to school work in order to meet their basic needs which later result into poor performance or disengagement from schooling (Atolagbe,Umaru and Oparinde,2019). Moreover, it has been observed that even changes in income have stronger influence with academic performance of children from low economic background compared with high economic background.

## Methodology

### Research Design

The study adopted descriptive survey research design. Survey research enables only a sample population to be studied and after, generalisation could be made. This study is interested in quality of education (dependent variable) using parental factors as the (independent variable).

### Population

The population of the study consisted of sixty-five thousand, three hundred and nineteen (65,319) senior secondary school II students that comprised of six hundred and twenty-five (625) public secondary schools in Oyo State, Nigeria, (Department of Planning, Research and Statistics, Oyo State Ministry of Education Ibadan, 2020).

### Sample and Sampling Technique

Sample used for this study was one thousand, eight hundred and seventy-seven (1877) senior secondary school II students as respondents from one hundred and seventy-three (173) public

secondary schools in Oyo State, Nigeria. The sample of this study was selected using multi-stage sampling procedure.

**Stage 1**: Oyo State has thirty-three Local Government Areas.

**Stage 2:** Eighteen (18) Local Government Areas (LGAs) were randomly selected from the existing thirty-three (33) LGAs.

**Stage 3**. One hundred and seventy-three public secondary schools in the selected LGAs were enumerated.

**Stage 4**. One thousand eight hundred and seventy-seven (1877) students were randomly selected across the 173 schools. The senior secondary school two were purposively sampled for this study, because the arm of the school is being considered to be more stable in school, experienced and adequate for this study. Senior secondary school three being a terminal class were busy with their preparation for the external examinations while senior secondary school one are just at the preliminary stage.

**Research Instruments**

A well-structured self- designed questionnaire titled "students' perception on parental factors as predictors of secondary education quality in public schools in Oyo State scale (SPHQS).was used in collecting data for the study from the students. Also, student achievement test was also prepared for senior secondary school II students. The student's questionnaire was titled "Students Perception on parental factors as predictors of Quality of Education in public secondary schools in Oyo State scale" (TPIQSS). Student's achievement test was also generated from the current curriculum for senior secondary school II to obtain student's performance as measure of quality of education. The tittle of the students' achievement test was Students Achievement Test in English Language and Mathematics for Pubic Secondary School II Students in Oyo State (SATEM).

**Theoretical Framework**

This study is anchored on the system theory. The theory was propounded by the Biophysicis.t called Ludwig Von Bertalanffy in the 1940's. A system is a set of interrelated part that works as a whole to accomplish a corporate goal. The school settings can be referred to as a system as stated by (Adewale, 2014, Babalola, *et al*., 2007). School as a system functions by acquiring inputs from the external environment, transforming them in so.me way a.n.d discharging output back to the environment. Students are admitted into secondary schools from the society and transformed as outputs back to the society. Parental occupation and parental inco.me are the parental factors, which determines the lev.el of inputs provided for the students from ho.me.

**Method of Data Analysis**

Data obtained were analysed using descriptive statistics and inferential statistics respectively. The demographic variables of the respondents were analysed using descriptive statistics of frequency, research questions raised were analysed with the use of frequency count, distribution of mean score, percentages, while hypotheses were analysed with Pearson's product moment correlation and Multiple regression analysis at 0.05 level of significance.

**Results**

**Demographic Information of the Respondents**

**Table 1: Gender Distribution of the Respondents**

| Group | Male | | Female | | Total |
|---|---|---|---|---|---|
| | Freq. | % | Freq. | % | |
| **Students** | 727 | 40.9 | 1050 | 59.1 | **1777** |

The gender of the respondents is presented in Table 1 The table revealed that out of 1777 students sampled for the study, 727 given as 40.9% were male, while 1050 of them, given as 59.1% were female. The implication of this was that there were more female respondents than male from both sides.

**Table 2: Age Distribution of the Students**

| Age (Years) | Frequency | Percentage |
|---|---|---|
| 12 – 13 | 2 | 0.1% |
| 14 – 18 | 1440 | 81.0% |
| 19 and Above | 335 | 18.9% |
| **Total** | **1777** | **100%** |

Age group of the students sampled for the study is presented in Table 2, and it shows that 2 students given as 0.1% indicated that they were between ages 12 and 13; 1440 of the students given as 81.0% indicated they were between 14 and 18 years, while 335 students given as 18.9% indicated they were 19 years above. This implied that the larger percentage of the students respondents were between 14 and 18 years. The students used as respondents are within the age range.

**Answer to Research Questions**

RQ1a: What is the level of quality of education in public secondary schools in Oyo State in terms of students' achievement in English Language?

**Table 3: Level of Quality of Education in Public Secondary Schools in Oyo State in Terms of Students Achievement in English Language**

| Schools | English Lang. Perf. (%) | Schools | English Lang. Perf. (%) | Schools | English Lang. Perf. (%) | Schools | English Lang. Perf. (%) |
|---|---|---|---|---|---|---|---|
| 1 | 18.52 | 45 | 16.33 | 88 | 12.77 | 131 | 14.07 |
| 2 | 12.78 | 46 | 12.25 | 89 | 10.17 | 132 | 14.05 |
| 3 | 13.65 | 47 | 14.35 | 90 | 10.38 | 133 | 13.01 |
| 4 | 14.43 | 48 | 21.84 | 91 | 12.86 | 134 | 12.91 |
| 5 | 12.22 | 49 | 12.77 | 92 | 12.52 | 135 | 10.82 |
| 6 | 13.17 | 50 | 16.88 | 93 | 11.77 | 136 | 10.78 |
| 7 | 17.92 | 51 | 16.22 | 94 | 10.66 | 137 | 13.67 |
| 8 | 18.44 | 52 | 15.43 | 95 | 14.11 | 138 | 14.55 |
| 9 | 14.83 | 53 | 18.74 | 96 | 15.85 | 139 | 14.89 |
| 10 | 17.88 | 54 | 16.11 | 97 | 13.23 | 140 | 14.22 |
| 11 | 21.92 | 55 | 12.13 | 98 | 12.41 | 141 | 13.16 |
| 12 | 15.59 | 56 | 17.15 | 99 | 13.59 | 142 | 11.34 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 13 | 10.19 | 57 | 14.46 | 100 | 11.18 | 143 | 11.34 |
| 14 | 16.53 | 58 | 11.43 | 101 | 11.02 | 144 | 15.18 |
| 15 | 15.17 | 59 | 12.68 | 102 | 12.83 | 145 | 12.00 |
| 16 | 18.25 | 60 | 17.77 | 103 | 10.73 | 146 | 13.33 |
| 17 | 11.42 | 61 | 10.23 | 104 | 11.38 | 147 | 11.84 |
| 18 | 13.63 | 62 | 11.38 | 105 | 10.11 | 148 | 16.22 |
| 19 | 13.14 | 63 | 15.83 | 106 | 11.37 | 149 | 14.36 |
| 20 | 12.22 | 64 | 13.83 | 107 | 12.34 | 150 | 12.15 |
| 21 | 14.87 | 65 | 15.12 | 108 | 14.63 | 151 | 12.16 |
| 22 | 17.28 | 66 | 17.66 | 109 | 12.81 | 152 | 13.14 |
| 23 | 19.34 | 67 | 12.89 | 110 | 11.61 | 153 | 11.19 |
| 24 | 16.33 | 68 | 12.32 | 111 | 12.78 | 154 | 13.31 |
| 25 | 18.37 | 69 | 15.63 | 112 | 10.77 | 155 | 12.34 |
| 26 | 14.18 | 70 | 12.45 | 113 | 10.78 | 156 | 14.12 |
| 27 | 16.35 | 71 | 12.39 | 114 | 11.50 | 157 | 15.14 |
| 28 | 14.88 | 72 | 13.14 | 115 | 12.93 | 158 | 13.89 |
| 29 | 12.10 | 73 | 14.88 | 116 | 14.52 | 159 | 14.15 |
| 30 | 10.28 | 74 | 13.14 | 117 | 11.37 | 160 | 13.22 |
| 31 | 18.88 | 75 | 12.18 | 118 | 11.75 | 161 | 12.85 |
| 32 | 15.43 | 76 | 14.55 | 119 | 11.27 | 162 | 13.32 |
| 33 | 12.97 | 77 | 12.73 | 120 | 13.45 | 163 | 14.14 |
| 34 | 17.65 | 78 | 12.49 | 121 | 12.34 | 164 | 14.37 |
| 35 | 12.13 | 79 | 11.38 | 122 | 12.19 | 165 | 12.82 |
| 36 | 19.37 | 80 | 13.17 | 123 | 11.15 | 166 | 14.89 |
| 37 | 13.14 | 81 | 17.10 | 124 | 13.53 | 167 | 13.44 |
| 38 | 15.15 | 82 | 13.07 | 125 | 11.67 | 168 | 13.32 |
| 39 | 10.93 | 83 | 13.09 | 126 | 14.54 | 169 | 11.98 |
| 40 | 12.48 | 84 | 11.88 | 127 | 11.58 | 170 | 13.77 |
| 41 | 17.63 | 95 | 11.73 | 128 | 11.10 | 171 | 14.57 |
| 42 | 14.18 | 86 | 12.11 | 129 | 10.09 | 172 | 12.38 |
| 43 | 12.11 | 87 | 13.12 | 130 | 14.08 | 173 | 15.24 |
| 44 | 15.44 | **Student Average achievement in English Language = 13.68%** | | | | | |

Answer to research question 1a is presented in Table 3, it revealed the level of quality of education in public secondary schools in Oyo State in terms of students' achievement in English Language in selected. The student average achievement in English language was 13.68%, and it shows that the level of quality of education in public secondary schools in Oyo State in terms of student's achievement in English Language was low.

RQ1b: What is the level of quality of education in public secondary schools in Oyo State in terms of Mathematics?

**Table 4: Level of Quality of Education in Public Secondary Schools in Oyo State in Terms of Mathematics**

| Schools | Mathematics Perf. (%) | Schools | Mathematics Perf. (%) | Schools | Mathematics Perf. (%) | Schools | Mathematics Perf. (%) |
|---|---|---|---|---|---|---|---|
| 1 | 16.31 | 45 | 11.44 | 88 | 11.88 | 131 | 11.13 |
| 2 | 11.83 | 46 | 10.79 | 89 | 9.18 | 132 | 13.78 |
| 3 | 9.12 | 47 | 12.36 | 90 | 10.16 | 133 | 10.36 |
| 4 | 10.34 | 48 | 12.10 | 91 | 11.13 | 134 | 10.33 |
| 5 | 10.11 | 49 | 13.14 | 92 | 10.34 | 135 | 06.47 |
| 6 | 11.86 | 50 | 12.32 | 93 | 11.19 | 136 | 09.47 |
| 7 | 10.17 | 51 | 11.44 | 94 | 9.32 | 137 | 10.59 |
| 8 | 12.78 | 52 | 11.33 | 95 | 11.67 | 138 | 12.58 |
| 9 | 10.77 | 53 | 10.88 | 96 | 12.85 | 139 | 10.78 |
| 10 | 12.44 | 54 | 10.21 | 97 | 13.12 | 140 | 10.44 |
| 11 | 11.78 | 55 | 10.14 | 98 | 11.44 | 141 | 12.38 |
| 12 | 10.88 | 56 | 11.32 | 99 | 13.00 | 142 | 10.58 |
| 13 | 08.20 | 57 | 10.52 | 100 | 10.66 | 143 | 11.09 |
| 14 | 12.22 | 58 | 10.34 | 101 | 07.89 | 144 | 10.15 |
| 15 | 11.34 | 59 | 8.11 | 102 | 10.32 | 145 | 10.37 |
| 16 | 12.34 | 60 | 11.14 | 103 | 10.83 | 146 | 12.79 |
| 17 | 10.19 | 61 | 09.11 | 104 | 10.33 | 147 | 12.34 |
| 18 | 11.12 | 62 | 10.77 | 105 | 10.10 | 148 | 10.19 |
| 19 | 10.13 | 63 | 10.33 | 106 | 11.01 | 149 | 10.19 |
| 20 | 10.19 | 64 | 11.83 | 107 | 10.17 | 150 | 11.24 |
| 21 | 10.19 | 65 | 12.46 | 108 | 10.66 | 151 | 10.29 |
| 22 | 12.19 | 66 | 14.33 | 109 | 10.11 | 152 | 10.44 |
| 23 | 9.51 | 67 | 10.98 | 110 | 11.34 | 153 | 10.39 |
| 24 | 12.14 | 68 | 11.42 | 111 | 10.87 | 154 | 12.99 |
| 25 | 15.48 | 69 | 12.24 | 112 | 9.55 | 155 | 12.15 |
| 26 | 13.14 | 70 | 12.19 | 113 | 8.39 | 156 | 12.52 |
| 27 | 12.22 | 71 | 10.99 | 114 | 11.49 | 157 | 14.31 |
| 28 | 12.67 | 72 | 10.17 | 115 | 10.88 | 158 | 13.10 |
| 29 | 14.33 | 73 | 11.66 | 116 | 13.46 | 159 | 12.00 |
| 30 | 12.10 | 74 | 10.19 | 117 | 10.44 | 160 | 13.01 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 31 | 11.14 | 75 | 10.22 | 118 | 10.56 | 161 | 11.35 |
| 32 | 8.12 | 76 | 11.83 | 119 | 10.66 | 162 | 12.35 |
| 33 | 11.13 | 77 | 10.00 | 120 | 9.33 | 163 | 10.32 |
| 34 | 12.07 | 78 | 11.40 | 121 | 10.02 | 164 | 14.17 |
| 35 | 10.54 | 79 | 10.75 | 122 | 11.16 | 165 | 12.33 |
| 36 | 11.12 | 80 | 11.48 | 123 | 10.83 | 166 | 14.44 |
| 37 | 10.19 | 81 | 13.11 | 124 | 10.24 | 167 | 12.87 |
| 38 | 12.59 | 82 | 11.37 | 125 | 10.11 | 168 | 11.89 |
| 39 | 7.12 | 83 | 11.83 | 126 | 10.16 | 169 | 10.37 |
| 40 | 7.78 | 84 | 10.33 | 127 | 11.26 | 170 | 10.33 |
| 41 | 10.16 | 95 | 11.13 | 128 | 9.28 | 171 | 11.49 |
| 42 | 11.19 | 86 | 10.14 | 129 | 10.08 | 172 | 09.18 |
| 43 | 9.13 | 87 | 11.14 | 130 | 13.34 | 173 | 10.19 |
| 44 | 10.88 | **Student Average performance in Mathematics = 11.07%** | | | | | |

Answer to research question 1b is presented in Table 4, it revealed the level of quality of education in public secondary schools in Oyo State in terms of students' achievement in Mathematics. The student average achievement in Mathematics was 11.07%, this shows that the level of quality of education in public secondary schools in Oyo State in terms of students' achievement in Mathematics was low.

RQ2: Wha.t is the level of parental factor (inco.me) among public secondary school students in Oyo State.

**Table 5: Level of Parental Income of Public Secondary Schools Students in Oyo State**

| Category | Parental Income Level | | | | Total |
|---|---|---|---|---|---|
| | A | B | C | D | |
| Father | 135 (7.6%) | 209 (11.8%) | 991 (55.8%) | 442 (24.9%) | 1777 |
| Mother | 49 (2.8%) | 155 (8.7) | 889 (50.0%) | 684 (38.5%) | 1777 |

***Key**: A = Very High; B = High; C = Low; D = Very Low*

**Table 6: Level of Parental Occupation of Public Secondary Schools Students in Oyo State**

| Category | | | | Total |
|---|---|---|---|---|
| | Government Work | Self Employed | Professional Work | |
| Father | 483 (27.2%) | 874 (49.2%) | 420 (23.6%) | 1777 |
| Mother | 267 (15.0%) | 1005 (56.6%) | 505 (28.4%) | 1777 |

Answer to research question 3 on the status of parental income of public secondary school students in Oyo State is presented in Tables 5 and 6, the tables revealed ,the parental factors level of public secondary school students based on parental income and occupation. Table 5 revealed that 7.6% of the students stated their fathers' income level is very high, 11.8% of the students indicated their fathers' income level is high, 55.8% stated their fathers' income level is low while 24.9% indicated their fathers' income level is very low. Furthermore, the table also revealed the income level of the students' mother, it was revealed that 2.8% of the students stated that the income level of their mother is very high, 8.7% indicated that their mothers' income level was high, 50.0%indicated low as the income level of their mother while 38.5% of the students indicated very low as the income level of their parents.

Table 6 revealed the level of parental occupation of the public secondary school students in Oyo State, it was revealed that 27.2% and 15.0% of the students indicated that their fathers and mothers were government workers respectively, 49.2% and 56.6% of the students stated that their fathers and mothers were self-employed while 23.6% and 28.4% of the students stated that their fathers and mothers are professional workers.

$H_{01a}$ Parental occupation will not significantly have relationship with performance of students in English Language in public secondary schools in Oyo State, Nigeria.

**Table 7: PPMC Showing Relationship between Parental Occupation and Performance of Students in English Language in Public Secondary Schools in Oyo State**

| Variable | N | Mean | Std. Dev. | R | P value | Remarks |
|---|---|---|---|---|---|---|
| Parental Occupation | 1777 | 28.22 | 3.01 | 0.610 | 0.003 | Significant |
| Student Performance in English Language | 1777 | 30.35 | 4.67 | | | |

Table 7 presents result of relationship between parental occupation and students' achievement in English Language among public secondary school students in Oyo State. The result shows a significant relationship between parental occupation and students' achievement in English Language ($r = 0.610$; $P < 0.05$), the hypothesis is therefore rejected at 0.05 level of significance. The implication of this is that parental occupation has significant relationship with students' achievement in English Language. Mean value of parental occupation was 28.22 and mean value of student performance in English Language was 30.35, while the standard deviation values of the two variables are 3.01 and 4.67 respectively.

**$H^{01b}$:** Parental occupation will not significantly have relationship with performance of students in Mathematics in public secondary schools in Oyo State, Nigeria

**Table 8: PPMC Showing Relationship Between Parental Occupation and Performance of Students in Mathematics** in **Public Secondary Schools in Oyo State**

| Variable | N | Mean | Std. Dev. | R | P value | Remarks |
|---|---|---|---|---|---|---|
| Parental Occupation | 1777 | 17.11 | 2.18 | 0.301 | 0.008 | Significant |
| Student Performance in Mathematics | 1777 | 28.43 | 3.93 | | | |

Table 8: presents the result of relationship parental occupation and students' achievement in Mathematics among public secondary school students in Oyo State. The result shows a significant relationship between parental occupation and students' achievement in Mathematics ($r = 0.301$; $P < 0.05$), the hypothesis is therefore rejected at 0.05 level of significance. The implication of this is that parental occupation has significant relationship with students' achievement in Mathematics. Mean value of parental occupation was 17.11 and mean value of student performance in Mathematics was 28.43, while the standard deviation values of the two variables are 2.18 and 3.93 respectively.

$H_{02a}$: Parental income will not significantly have relationship with performance of students in English Language in public secondary schools in Oyo State, Nigeria

**Table 9: PPMC Showing Relationship Between Parental Income and Performance of Students in English Language in Public Secondary Schools in Oyo State**

| Variable | N | Mean | Std. Dev. | r | P value | Remarks |
|---|---|---|---|---|---|---|
| Parental Income | 1777 | 26.61 | 2.99 | 0.412 | 0.632 | Not Significant |
| Student Performance in English Language | 1777 | 30.35 | 4.67 | | | |

Table 9 presents result of relationship of parental income and students' achievement in English Language among public secondary school students in Oyo State. The result showed that there was no significant relationship between parental income and students' achievement in English Language ($r = 0.412$; $P > 0.05$), the hypothesis is therefore accepted at 0.05 level of significance. The implication of this is that parental income has no significant relationship with students' achievement in English Language. Mean value of parental income was 26.61 and mean value of student performance in English Language was 30.35, while the standard deviation values of the two variables are 2.99 and 4.67 respectively.

$H_{02b}$: Parental income will not significantly have relationship with performance of students in Mathematics in public secondary schools in Oyo State, Nigeria

**Table 10: PPMC Showing Relationship of Parental Income with Performance of Students in Mathematics** in **Public Secondary Schools in Oyo State**

| **Variable** | **N** | **Mean** | **Std. Dev.** | **R** | **P value** | **Remarks** |
|---|---|---|---|---|---|---|
| Parental Income | 1777 | 19.85 | 3.11 | 0.291 | 0.712 | Not Significant |
| Student Performance in Mathematics | 1777 | 28.43 | 3.93 | | | |

Table 10 presents the result of relationship of parental income on students' achievement in Mathematics among public secondary school students in Oyo State. The result showed that there was no significant relationship between parental income and students' achievement in Mathematics ($r = 0.291$; $P > 0.05$), the hypothesis was therefore accepted at 0.05 level of significance. The implication of this is that parental income has no significant relationship with students' achievement in Mathematics. Mean

value of parental income was 19.85 and mean value of student performance in Mathematics was 28.43, while the standard deviation values of the two variables were 3.11 and 3.93 respectively.

$H_{03a}$ Parental factors (occupation and income of parents) will not significantly have relative contribution to academic achievement in English Language among public secondary school students in Oyo State

**Table 11: Regression Table Showing Relative Contribution of Parental occupation and Parental Income on Academic Achievement in English Language among Public Secondary School Students in Oyo State**

| Dependent Variable | Independent Variable | Unstandardized Coefficient | | Stand. Coefficient | T | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta Contribution | | |
| Academic Achievement in English Language | (Constant) | 2.377 | 0.132 | | 18.031 | 0.000 |
| | Parental Occupation | 0.127 | 0.049 | 0.065 | 2.573 | 0.010 |
| | Parental Income | 0.024 | 0.027 | 0.022 | 0.871 | 0.384 |

Analysis of hypothesis 3a is presented on Table 11, which revealed the relative contribution of parental factors (parental occupation and parental income) to quality of education in terms of English Language in public secondary schools in Oyo State. The relative contribution of parental occupation and parental income to quality of education in terms of English Language in public secondary schools in Oyo State is expressed as beta weights, viz: occupation of parents ($\beta = 0.065$, $P < 0.05$) and income of parents ($\beta = 0.022$, $P > 0.05$). Results on the table shows that parental occupation has significant contribution to quality of education in terms of English Language in public secondary schools while parental income has no significant

contribution to quality of education in terms of English Language in public secondary schools, Oyo State. It was further revealed that between the indices of parental factors, parental occupation has the higher contribution to quality of education in terms of English Language in public secondary schools (β = 0.065) while parental income has the least contribution to the dependent variable (quality of education in terms of English Language) in public secondary schools, Oyo State.

$H_{03b}$ Parental factors (occupation of parents and income of parents) will not significantly have relative contribution to academic achievement in Mathematics among public secondary school students in Oyo State

**Table 12: Regression Table Showing Relative Contribution of Parental occupation and Parental Income on Academic Achievement in Mathematics among Public Secondary School Students in Oyo State**

| Dependent Variable | Independent Variable | Unstandardized Coefficient | | Stand. Coefficient | T | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta Contribution | | |
| Academic Achievement in Mathematics | (Constant) | 2.209 | 0.214 | | 21.121 | 0.000 |
| | Parental Occupation | 0.219 | 0.069 | 0.082 | 3.185 | 0.004 |
| | Parental Income | 0.039 | 0.082 | 0.041 | 0.642 | 0.412 |

Analysis of hypothesis 3b is presented on Table 12, it revealed the relative contribution of parental factors (parental occupation and income) to quality of education in terms of Mathematics in public secondary schools in Oyo State. The relative contribution of parental occupation and parental income to quality of education in terms of Mathematics in public secondary schools in Oyo State is expressed as beta weights, viz: occupation of parents (β = 0.082, P < 0.05) and income of parents (β = 0.041, P > 0.05). Results on the table shows that parental occupation has

significant contribution to quality of education in terms of Mathematics in public secondary schools, while parental income has no significant contribution to quality of education in terms of Mathematics in public secondary schools, in Oyo State. It was further revealed that between the indices of parental factors, parental occupation has the higher contribution to quality of education in terms of Mathematics in public secondary schools (β = 0.082), while parental income has the least contribution to the dependent variable (quality of education in terms of Mathematics) in public secondary schools in Oyo State.

## Discussion of the findings

### Level of quality of education in public secondary schools in Oyo State

The study investigated the level of quality of education in public secondary schools in Oyo State, Nigeria. The result revealed the performance of public secondary school students in Oyo State, based on the achievement test conducted in English language and Mathematics which are core subjects for assessment at secondary school level. The students average achievement scores in English language was 13.68% and Mathematics 11.07%. The quality of education (12.38) was low based on students' average performance in English language and Mathematics. It indicated that a larger percentage of the sampled students had between 0% and 15%, which signified poor performance of the students. This implied that the quality of education in public secondary schools in Oyo State was very poor.

The result was in line with Ogundele (2015); Mathew (2016) whose study submitted that due to deterioration in the quality of education in secondary schools, students regularly perform below expectations in both internal and external examinations which have become a thorn in the flesh of the populace. This has further extended to the inability of the secondary school graduates in possessing the required skills expected of them (Okeke and Emunemu, 2016). Also, Babalola, Adedeji, Erwat and Ayeni (2007) established that the inability of

secondary school students to read and write indicated a decline in the quality of education.

**Levels of Parental Factors in Public Secondary Schools in Oyo State**

From the statistical report, it has been established that majority of the students in public secondary schools in Oyo State belong to parents who are low income earners. Therefore, the level of parental factors among public secondary school students in Oyo State is low. This could be as a result of poor socio economic condition of the nation, which has put many parents into financial hardship such as poverty, unemployment, and lack of resources to provide adequate educational materials for their children. Hence, achieving quality of education is not an easy task, because it has been affirmed that it is difficult for students from low socio economic background to have access to good quality of education (Onyeneka, 2021; Owuor, Simatwa, and Ndolo 2020; Stanley,Ezenwagu and Benignus, 2020; Ufuoma and Aromiwura 2020; Atolagbe, Oparinde and Umaru, 2019). The fact is that the parents in this category are limited in contributing their quota to the government efforts to achieve quality of education. This is because the income at their disposal might not be sufficient to acquire all educational materials for their children, both at home and in the school, in order to achieve quality of education. Also, a higher percentage of the parents were self-employed, due to the nature of their jobs, most parent tend to spend more hours on their job in order to earn more for a living at the expense of supporting their wards on their academic pursuit. This will hinder the achievement of quality education.

**Relationship of parental occupation and performance of students in English Language in public secondary schools in Oyo State**

The result showed that there is a positive relationship between parental occupation and students achievement in English language. It was also revealed that parental occupation could predicts quality of education. This was because the parental occupation determines the socio economic class of the parents, which is a function of the level of parents' investment in education. Parents who are gainfully employed will be able to provide adequate educational resources for their children or wards, at school and home which will lead to achievement of quality of education. The findings are in line with existing literature, (Amadi, 2020; Ufuoma and Aromiwura and Owu, Simatwa and Ndolo 2022).This was because parental occupation determines the socio economic class of the parents which influences the level of support or investment of the parents in the child's education. Whereas, Ebong (2015) negated this finding based on the study which revealed that parental occupation did not have effect on quality of education.

**Relationship of parental occupation and performance of students in Mathematics in public secondary schools in Oyo State**

The study conducted showed that there is a positive relationship between parental occupation and students achievement in Mathematics, the statistical result was ($r=0.301;p<0.05$) also, the mean value of parental occupation was 17.11 and mean value of the performance of students in Mathematics was 28.43.The standard deviation of the two variables were 2.18 and 3.93 respectively. The implication is that parental occupation has a significant relationship with quality of education in terms of performance of student in Mathematics.

It was also revealed that parental occupation has a significant influence on quality of education than parental income. The findings are in line with existing literature: (Amadi, 2020; Ufouoma and Aromiwura and Owu, Simatwa and Ndolo 2022.

**Relationship between parental income and performance of students in English language and Mathematics in public secondary schools in Oyo State**

Parental income was found not to have contributed to the achievement of quality of education in Oyo State. This could be as a result of free education put in place by the state government, which has made the parents not to perform up to expectation in providing adequate support for quality of education. The result is in alignment with the findings of Ogweno, Katchuri, and Obadara (2014) which established that there is no nexus between family income and quality of education., However, Balachandran, Sohaib, Iman, Bemnet, and Onyeneke (2021); Ali, Musa and Zakar (2021), Pant (2020) and Gilman (2019) asserted that parental income has a significant influence on quality of education.

**Relative Contribution of Parental occupation and Parental Income on Academic Achievement in English Language among Public Secondary School Students in Oyo State**

The result revealed that parental factors contributed to quality of education at public secondary schools in the state. The implication of the result is that there is a significant relative contribution of parental occupation to quality of education, while parental income had no significant contribution to quality of education. The result is in line with previous studies, (Amadi, 2020; Benignus, 2020 and Gilman, 2019; Ezenwagu). Parental factors have powerful influence as a crucial means of

socialisation and this determines the quality of education a child can be exposed to as affirmed in literature.

**Relative Contribution of Parental occupation and Parental Income on Academic Achievement in Mathematics among Public Secondary School Students in Oyo State**

Examining the relative contribution of parental factors which are parental occupation and parental income on academic achievement in Mathematics in government owned secondary school students in Oyo State. The statistical result were parental occupation ($\beta = 0.065$, $P < 0.05$) and parental income ($\beta = 0.022$, $P > 0.05$).The implication of the result is that there is significant relative contribution of parental occupation to quality of education in terms of Mathematics while parental income had no significant contribution to quality of education.

The result is in line with previous studies such as (Amadi, 2020; Ufuoma and Aromiwura, 2020; Benignus, 2020 and Gilman, 2019; Ezenwagu). Parental factors has powerful influence as a crucial means of socialisation and this determines the quality of education a child can be exposed to as affirmed in literature.

Moreover, Onyeneke (2023) emphasised that parental occupation, educational level, and income are the major determinants of their children academic performances. This is so because the occupation of the parent is directly proportional to the income level of the family, therefore, students from affluent families have the opportunity of having all that is required to study at home and in school, while those from low income households need to dedicate more hours to menial jobs in order to meet their needs. To complement these findings, Onyeneka, (2021), Amadi (2020) affirmed that students from influential homes have access to qualitative education and adequate educational materials which assists in the achievement of quality

of education. Therefore, this study aligned with the pool of existing studies that household factors have a significant influence on quality of education, thus, household factors can predict the quality of education at secondary level.

**Conclusion**

Findings from the study established that the quality of education in public secondary schools in Oyo State could be predicted by parental factors. These inadequacies could account for the decline in quality of education being experienced at secondary schools level in Oyo State.

**Recommendations**

i) At household level, parents and guardians should provide environments conducive for their children or wards at home and educational materials for use both at school and home.

ii) Parents or guardians should support and be involved in the academic pursuit of their children so as to serve as encouragement for the children/wards in order to achieve quality education.

**References**

Adeniyi, S. A. 2015. Influence of socio-economic status and school location on secondary school students performance in Accounting in Kwara and Osun States, Nigeria. MEd. Project. Dept. of Vocational and Technical Education. Ahmadu Bello University, Zaria. xv + 113pp.

Adesehinwa, O. A. 2013. Effect of family type monogamy or polygamy on student's academic achievement in Nigeria. *International Journal of Psychology and Counselling* 5.7: 153-156.

Ali, .S.M.; Musa, S. and Zakar, Y. 2021. Parent's socioeconomic status and academic performance of students of Government Day Junior Secondary School Gashaka, Yobe state, Nigeria. *Al-Hikmah Journal of Arts and Social Sciences Education*, 3.2: 16-23.

Alimi, O. S., Ehinola, G. B and Alabi, F. O (2012). School types, facilities and academic performance of students in senior secondary schools in Ondo State,Nigeria. *International Education Studies* 5.3: 44-48.

Amadi, J.C. 2020. Parental factors and students academic performance in senior secondary schools in Rivers State. *International Journal of Innovative Education Research*. 8.2:19-26.

Atanda, A.I.2021.Strenghtening the schooling bridge: Nigerian secondary education for structural reinforcement. Faculty lecture.Ibadan. Ibadan University Press.

Ayanleye, M.O. 2015. Influence of parental profession on students' academic performance in Financial Accounting in federal government colleges, north central geopolitical zone Nigeria. MEd. Project. Dept. of Vocational and Technical Education. Ahmadu Bello University, Zaria.

Ayeni, A.O.2007. Access to University Education in Nigeria: Issues and problems. In J.B. Babalola, G.O. Akpan, A.O. Ayeni,& S.O. Adedeji (Eds.), Access Equity and Quality in Higher Education. Ibadan: NAEAP Publication. Nigeria pp.75-83.

Balachandran, V; Sohaib, A., Iman, N., Bemnet, A. (2023). The impact of low socio-economic background of a child's educational achievements. Retrieved 2, Feb. 2023 from https://doi.org/10.1155/2023/6565088.

Darko-Asumadu, D.A. and Sika-Bright, S. 2021. Parental movement and pupil's academic performance in the Cape Coast Metropolis, Ghana. *Open Education Studies.* 3:96-109.

Egunsola, A. O. E. 2014. Influence of home environment on academic performance of secondary school students in agricultural science in Adamawa State Nigeria. *Journal of Research and Method in Education,* 4.11: 46-53.

Ebong, S.T. 2015.The influence of parental background on students' academic performance in Physics in WASSCE 2000-2005.*European Journal of Science and Mathematics Education* 3.1:33-44.

Gilman, J. N. 2019.Socio-economic status as determinants of students performance in English language in secondary schools in Tanzania. *Educational Journal* 8.3: 110-119.

Joseph, V.I. 2016.Relationship among parent's educational level, income academic adjustment and performance of senior secondary school students in Kaduna metropolis, Nigeria. MEd Project. Dept of Educational and Psychology and Counselling. Ahmadu Bello University, Zaria. x+75.

Luku, N. and Banerjee, R. 2013.Maltreated children social understanding and empathy. A preliminary exploration of foster carer's perspectives. *Journal of Family Studies* 21.2: 237-246.

Marbuah, D.A. 2016. Influence of parental income and educational attainment on children's year of schooling case of Ghana. M.Ed. Project. Dept. of Education. Uppsala University. iv + 78.

Mathew, I. A. 2016. Financial allocation to education: Trends, issues and way forward in Nigeria. *Journal Plus* Education 14.1: 237- 242.

Mwanga, E. 2015. Determinants of quality education provided at secondary school level: The case of Songea municipal council. MEd. Project. Dept. of Accounting and Finance, Mzumbe University.x+173pp.

Ogundele, M.O. 2015. Resource availability and secondary education programme, diversification in Kwara State Nigeria. *Academic Research International* 6.2: 374-381

Ogweno, P. O., Kathuri, N.J. and Obara, J. 2014. Influence of family characteristics on academic performance of students in secondary Agriculture in Rachuonyo north sub county, Kenya. *International Journal of Education and Research,* 2.2:1-12.

Okeke, J.U. and Emunemu, B.O.2016.School size and timetable loads as determinants of teacher job performance in public secondary schools in Lagos State, Nigeria. *African Journal of Educational Management* 17.1:255-265.

Onyeneke, C.S. 2021. Relationship between parents' socio-economic background and academic performance of senior secondary school students in Port Harcourt

Metropolis. *International Journal of Innovative Psychology and Social Development*, 9.4: 77-90.

Owu, C.A. Simatwa, E.M.W and Ndolo, M.A. 2022. Influence of parental occupation on student academic performance in public secondary schools in Kenya: A case study of Homa Bay sub county. *International Journal of Current Research*, 14.2: 20878-20885.

Pant, K.R. 2020. Influences of parental socio-economic status on academic achievement: A case study of rural communities in Kailali, Nepal. Contemporary research: *An Interdisciplinary Academic Journal*, 4.1: 95-109.

Threlfall, J. M., Seay, K. D. and Kohl, P.L. 2013. The parenting role of African-American fathers in the context of urban poverty. *Journal of Children and Poverty,* 19.1: 45-61.

Ufuoma, V.O. and Aromiwura, T. (2020). Influence of parental socio-economic status on students' academic achievement in senior secondary schools in Abuja. *The Educational Psychologist,* 13.1:455-466.

Walter, K. 2018. Influence of parental occupation and parental level of education on students' academic performance in public day school, Keipkellon, Kenya. *International Journal of Research and Innovation in Social Sciences*, 2.7:201-211.

I thankfully acknowledge the grant support by the African Economic Research Consortium (AERC), based in Nairobi, Kenya for the conduct of the field survey for this thesis.

# MANAGING ACADEMIC CULTURE IN NIGERIAN PUBLIC UNIVERSITIES: SAVE THE BRIDGE FROM COLLAPSING

**SHITTU, Taofeek Olawale PhD[1]**
*Department of Educational Management,*
*Lagos State University, Lagos, Nigeria*
*Email: fekkyranky@gmail.com*

**HUNPEGAN, Hendeweh Dorcas[2]**
*Department of Language, Arts and Social Science Education,*
*Lagos State University, Nigeria*
*Email: hendeweh.hunpegan@lasu.edu.ng*

**ONASANYA, Hafsat Ibironke[3]**
*Department of Educational Management,*
*Lagos State University, Lagos, Nigeria*
*Email: hafsat.onasanya@lasu.edu.ng*

**Abstract**
*This paper explored managing academic culture in Nigerian public universities. University is the ivory tower of educational system established with specific norms, custom and tradition for attainment of academic excellence. Culture is a way of life that involve orientation, norms, custom, convention, tradition, language, mode of dressing of people in their environment. Managing university culture is synonymous with planning, organising, controlling, maintaining and monitoring academic custom, values and tradition established by university management toward achieving vision and mission of the organisation. Culture is the bridge that hold university system. Academic culture consists of academic ethics, norms, values and discipline required for attainment of academic excellence in teaching, research and community service. Therefore, he who call for academic excellence, call for academic culture. The academic staff play a pivotal role in achieving the goals of a university. Today, cultural value of public universities in Nigeria is dwindling and seems to have collapsed the bridge system of university due*

*to some moral delinquency like bullying, sexual harassment, examination malpractice, indecent dressing and indiscipline orchestrated by lecturers and students in the university campus. Therefore, the study concluded that management of academic culture helped to sustain the quality of teaching, research and community service in public university. More so, it was recommended amongst others that university management should periodically organise seminars, orientation, conferences and training programmes on academic culture for all lecturers in Nigerian public universities.*

**Keywords:** Academic Culture, Indiscipline, Management and University System

**Introduction**

Historically, it has been observed that most communities are established with specific culture that determined people's way of life. Culture means cultivation of good habit. Culture is a set of beliefs, attitude, orientation, values, ethics, custom, convention, language, art, traditions, moral, mode of dressing and pattern of behaviour that determine the existence of people from one generation to another. The university, being a community of people, also has a pattern of beliefs, tradition, customs, law, values and ethical standard which guide habits of people within and outside the institutions. These values are social, academic, emotional and ethical that points to the academic culture of the university. Culture is a social phenomenon that determined peoples' way of life. Presently, some universities in Nigeria are experiencing some cultural deficiency which pique a serious challenge in academia. According to Mohammed and Shittu, (2020), culture refers to people's way of life through custom and convention, tradition and orientation, feelings and attitude, knowledge and belief in their society. The reality is that academic culture was gradually eroded and posed a serious threat to the institutions. The moral deficiency includes lack of academic mentorship, sexual harassment, indecent dressing, examination malpractice, falsification of academic records, politicisation of

academic staff' promotion, unemployment, student's admission, scholarship, accreditation of courses and misrepresentation as well as other vices orchestrated by some lecturers and students eroded the culture of university. The survival of our university system depends on quality of academic staff that imparting knowledge, instilled disciplined and maintain cultural values on the campus.

Today, university education in Nigeria is bedeviled with some cultural setback. The tripartite mandate of teaching, research and community service of university which are the major core value of academic institutions is culturally eroding because the attitude of some academic staff to work is declining due to inadequate funding of university and poor remuneration package of academic staff by the government. However, the ugly situation lured some lecturers to engaged themselves in indecent character that include: poor attitude to teaching and research work, extortion of money from students, distortion of academic calendar, sexual harassment, indecent dressing, employment scandal, union crisis, poor funding of academic research, politicization of academic staff promotion and accreditation of courses and lack of full autonomy to the universities. The situation hinders academic integrity and freedom of the universities. According to Okojie (2011), who observed that absolute freedom may not be possible, the universities should still be allowed to be run according to universally acceptable norms and principles. In that wise, the various organs and structural designed of the university, such as Governing council, Senate, Faculties and Departments should be allowed to perform their statutory functions. Incidentally, university system in Nigeria has been politicized and the state of academic culture public universities is collapsing due to the attitude, tradition and customs of some stakeholders in the election, selection and promotion of personality that occupied institutional organs. More so, some academic staff and students also engaged in social vices like cult-related activities, sexual harassment, nudity, examination malpractice, admission and certificate racketeering, strike action and embezzlement of fund that affected the university system.

**What is Academic Culture?**

The word academic is derived from the word academia which according to the English dictionary translates to scientific and cultural community engaged in higher education and research. The term academic is an adjective which denotes belonging to an academy or other higher institution of learning; also, a scholarly society or organization. Therefore, academics (plural of academic) refer to the members of an academy, college or university (Aliyu, Safiyan and Husaini, 2017). Academic culture refers to the set of beliefs, traditions, customs, law, ethics and language of academic staff in teaching, research and community services. Shen and Tian (2012) explain the academic culture as follows: Academic culture of universities mainly consists of academic outlooks, academic spirits, academic ethics and academic environments. Campus culture in a university is characterized by individuality, academic feature, opening, leading, variety and creativity. The academic culture enhances the construction of campus culture. The campus culture conditions and restricts the development of academic culture. The construction strategies of academic culture and campus culture are as follows: university should stick to its mission, enhance cultural confidence and cultural consciousness, integrate culture into the process of talent cultivation, promote cultural development and innovation (Shen and Tian cited in Azis and Abduh, 2019).

The university was created with tripartite culture include teaching, research and community service. Firstly, teaching is one of the noblest duties of academic staff in university to advance and disseminate knowledge for both undergraduate and postgraduate students who can attend the lectures as scheduled. Culturally, academic staff must attend classes and teach students, conduct examination and grade of scripts on semester basis for sustaining academic excellence. Secondly, research is fundamental and academic staff are under pressure to publish as regularly as possible, or otherwise, face the consequence of not publishing as required. What this implies is that a lecturer or academic who intends to remain relevant in the system must be

reeling out articles in learned, peer-reviewed journals with high impact factor. Impact factor is the aggregate number of citations of a particular academic publication by other scholars in a given field of study over a defined period. It is often used to rate both a publication like a journal and the published article. Impact factor increases scholars' visibility in the global academic landscape. Also, the lecturer must write books, monographs and contribute chapters to books, among other publications in order to secure promotion (Alemoh, 2018). Thirdly, community services are necessary to determine the contribution of academic staff toward national development.

**Managing University Culture in Nigeria**

Management is the process of getting things done through policy formulation and implementation. Managing university culture seems to be planning, organising, staffing, directing, coordinating and formulation of academic policy, tradition, custom, language, ethics and environments in the university system. The university system has the tripartite mandate of teaching, research and community service. Teaching, research and community service are the major core values of academic system. The universities are culturally structured toward achieving academic excellence. Therefore, instituting a culture of excellence in teaching and research makes the universities more responsive to their mandate. Academic teaching culture include teaching undergraduate and postgraduate courses, marking of scripts and grading of students result. Academic research culture includes the publish or perish syndrome, supervision of students' project, dissertation and thesis, research grants, winning of awards and so on. Attitudinal change to teaching and research among academics in Nigerian public universities pose a serious challenge to vision and mission of university establishment. Therefore, university researchers should begin to collaborate with colleagues within their institutions or with researchers in other Universities within or outside Nigeria in addition to collaboration with industries. Universities should therefore close ranks and collaborate to jointly design and conduct quality problem-solving

research targeted at specific contextual challenges in their immediate communities or the nation at large (Noel, 2020).

However, government may not be able to fund university education effectively and efficiently due to inaccurate statistics to plan the economy and prevalent economic crises. Today, the bridge of university system is collapsing due to cultural deficiency in the areas of staff promotion and quality assurance. Although, Okojie (2011) observed that absolute freedom may not be possible, the universities should still be allowed to be run according to universally acceptable norms and principles. Perhaps, university managers are the relevant stakeholders or bodies involved in the strategic formulation and implementation of the university's broad policy and ensuring proper organization and coordination of human and material resources towards achieving the purpose and objectives for which the institutions were established. Management of university education in Nigeria can be looked at from two dimensions: the external and the internal levels. At the external level, this is the control by the federal government through the National Universities Commission (NUC), a body charged with the coordination of university management in the country. The main objectives of the NUC are to ensure the orderly development of university education in Nigeria, to maintain high standard and to ensure its adequate funding. (Ibukun in Oyebamiji, Opeyemi and Fadipe-Aroki, 2019). According to Okojie (2007) posited that the NUC activities in improving quality of university education in the country include:

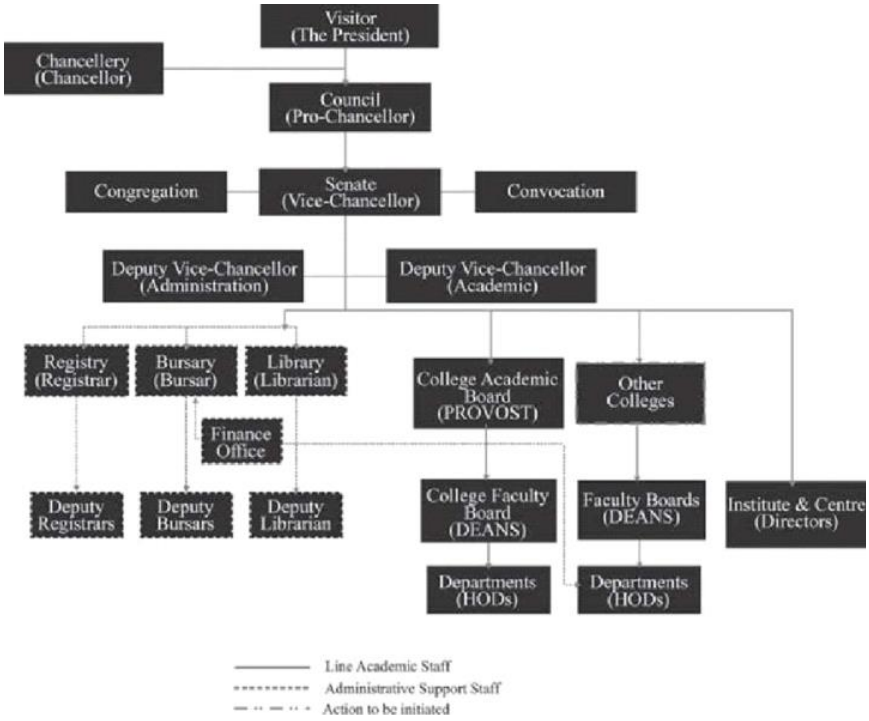
i. Accreditation of courses;
ii. Approval of courses and programmes;
iii. Maintenance of minimum academic standards;
iv. Approval for the establishment of private universities;
v. Monitoring of universities;
vi. Giving guidelines for setting up of universities;
vii. Monitoring of private universities;
viii. Prevention of the establishment of illegal campuses;
ix. Implementing appropriate sanctions and;
x. Coordinating and monitoring funds from external funding agencies.

The culture of university system started with the introduction of the National Universities Commission (NUC). The senate which consists of the Registrars, all Professors, all Deans and Provosts, all Directors of Centres, all heads of departments and faculty representatives deal with all academic decisions and their execution (Jaiyeoba, 2006). However, with the establishment of NUC in 1962 and its reconstitution in 1974 through Decree No. 1 of 1974, the role of NUC shifted from mere ensuring orderly development of university education, maintaining standards and ensuring adequate funding to an agency with the power to dictate what to teach and the number of students to be admitted into the universities. On curriculum issues, Nigerian universities are still experiencing some challenges. This is because curriculum and content of courses are relatively subjected to the approval of the National Universities Commission (NUC). As a matter of fact, a university cannot run a course except the course has been approved or accredited by the National Universities Commission. Thus, all academic programmes of a university must be approved and accredited by the NUC before they are commenced. In the view of Okorosaye-Orubite, Paulley and Abraham (2012), the university is a community of scholars, which believes in the superiority of the mind over matter and insists that everything should be subordinated to the intellect. The university is therefore a place where concepts hallowed by age and tradition are subjected to severe scrutiny and knowledge grows through dissent, and not through compromise. The university education in Nigeria can be categorized as federal or state universities and as first, second, or third-generation universities (Hartnett cited Famade, 2015).

**Save the Bridge of University from Collapsing in Nigeria**

Historically, the structure of Nigerian universities could be traced back to 1959 Ashby Commission which was established to ascertain Nigeria's post-independence educational needs. Its findings regarding balance in the structure and geographical distribution of university education led to the establishment of autochthonous University in 1962, the University of Lagos, the same year that the University of Ibadan attained autonomous

status as a degree awarding institution. In 1975, the Federal Government decided to take over the regional Universities at Zaria, Ile-Ife and Nsukka as well as established new ones – the University of Benin in 1970, while the University Colleges at Calabar, Jos, Maiduguri, Ilorin, Port Harcourt and Kano, were established in 1975 and became full-fledged Universities in 1977. The university is structurally and culturally established for attainment of academic excellence. But incidentally, some academic staff engaged themselves in lofty character such as sexual harassment, misappropriation of public fund, falsification of academic record, bullying and intimidation from senior academic to junior colleague. All these characters are against the structure of university system which require urgent attention in saving the structure of university from collapsed. According to Oyebade (2016), the organogram of the university system is:




Oyebade (2016) provides the organogram of the university. See as shown in Figure 1.

1. **Visitor/Proprietor:** The Visitor/Proprietor of any Federal University is the President of the nation, while that of a State University is the Executive Governor of the State. He/she shall be represented at all events of the University, including convocation ceremonies. He/she shall initiate and organize the conduct of visitation to the University at least once in every five (5) years, the results of which would inform university reforms and reviews. He will appoint the pioneer Principal officers of the University. He shall appoint a Governing Council to oversee the affairs of the Proposed University. Subsequently, appointment of principal officers will be by the Governing Council of the University. He shall also appoint the Chancellor to serve for non-renewable terms of five (5) years.

2. **Chancellor**: The Chancellor shall be appointed by the Visitor to serve for a non-renewable term of five (5) years. The Chancellor shall be the highest principal officer of the proposed University. He should be a highly respected traditional ruler or a captain of industry or any distinguished retired member of the society that has high interest in the academia. He shall preside at convocation ceremonies and other assemblies of the University for the Conferment of degrees, diplomas, certificates and other awards of the University (Oyebade, 2016).

3. **The Pro-Chancellor:** The Pro-Chancellor shall be appointed by the Visitor of the University. The Pro-Chancellor holds office for a period of four (4) years and may be renewed for a final term of four (4) years. The Pro-Chancellor shall be the chairman of the Governing council which has overall responsibility for the policies and operations of the University and for certain particular subjects, including matters of finance, staff conditions of service and discipline, the use and maintenance of the property of the University, establishment of Academic programmes, engagement of staff and provisions of

material for utilization in the process of functions of the staff of the University.

4. **University Governing Council:** The visitor shall appoint a Governing Council to oversee the affairs of the University. The Governing Council will consist of the: Pro-Chancellor as the Chairman, The Vice-Chancellor, The Deputy Vice Chancellor Four (4) members appointed from public representing various interests. Four (4) persons appointed by the senate, two (2) persons appointed by the congregation and one person to represent the National Universities Commission. Members would be selected from amongst industrious and hardworking persons that have excelled in their fields of endeavour. The members of the Council should be drawn from varied sections of the society and should be experienced persons of undoubted integrity, courage and the stature who would inspire confidence and bring to the proposed University array of experiences in the management of the University. The Governing Council shall be responsible to the visitor.

5. **The Vice-Chancellor:** The Vice-Chancellor has the general functions in addition to other functions conferred on him by the University law, otherwise of directing the activities of the University in general. He is the Chief Executive and also the Academic Officer of the University and Chairman of the Senate. The Vice-Chancellor is specifically charged with the smooth running of the university and exercises such functions as may be conferred on, or imposed upon him by the University Law, Statutes and Regulations and subject to the provision of the University Law, exercises general supervision over disciplines in the University and monitoring the efficiency and good order of the University.

6. **Senate:** The Senate is the highest decision-making body on academic matters relating to the University. The

Senate with the approval of Council and the National Universities Commission can establish new campus, faculty, department, school, Institute or other teaching and research units. The Vice-Chancellor is the Chairman of Senate.

7. **Deputy Vice-Chancellor:** The Deputy Vice-Chancellor shall assist the Vice-Chancellor in the performance of his functions and shall perform such other functions as the Vice chancellor or the University Council may, from time to time assign to him. These are DVC (Academic), DVC (Administration) and DVC (Research Innovation and Strategic Partnership).

8. **Registrar:** The Registrar is the Chief administrative officer of the University and also is responsible to the Vice-Chancellor for the day-to-day administrative activities of the University. The Registrar is the Scribe to the Governing Council, Senate, Congregation and Convocation and the keeper of the seal and other legal documents of the University.

9. **Bursar:** The Bursar is the Chief Finance Officer of the University and is responsible to the Vice-Chancellor for the administration and control of the financial affairs of the University.

10. **University Librarian:** The University Librarian shall be the academic and administrative head of the University Library. He shall be accountable to the Vice-Chancellor for the management of the library services in the University and for any other matters relating to the library.

11. **Deans of Faculties and Heads of Departments:** The faculties in the University are supervised by Deans. The Dean of a faculty is a professor, elected by the Faculty Board, while each academic department of the University has a Head of Department who is responsible to the Vice-

Chancellor, through the Dean of the faculty for coordinating, guiding and supervising, teaching, examinations, research and other activities.

12. **Congregation:** The Congregation here provides an opportunity for members to meet and articulate their views on all matters touching the interest and welfare of the University and its members. The Vice-Chancellor is the Chairman at all meetings of university congregation.

13. **Convocation:** Convocation is one of the statutory organs of the University. The Chancellor is Chairman at all meetings of Convocation (Nwokocha, Kennedy-Nkwocha and Onyekwere, 2020).

Therefore, it is obvious that university system is well structured in hierarchical and culturally designed for attainment of academic excellence. The structure of university is the bridge that need to be preserved by the academic culture for sustainable institutional development. In the Nigerian university system, the academic holding an administrative position is required to carry out his administrative responsibilities along with his normal academic duties of teaching, research and community service (Alemoh, 2018). Nowadays, some academic staff in public universities ignored lecture time, delay students result and jettisoned their research work that negate the culture of the institution.

**Implication**

The university system was culturally designed and focus on teaching, research and community service. University is a system that structurally designed with specific rules, regulations and of authority for the attainment of academic excellence. Incidentally, the bridge of Nigerian university system is logically collapsing due to unethical conduct orchestrated by some stakeholders and policy maker in system. In the policy organs of the university like the Council, Senate, Congregation and Convocation rekindle their effort toward achieving academic excellence. However, some

academic staff of public universities engaged in moral decadence such as: sexual harassment, misappropriation of public fund, falsification of academic record, bullying, indiscipline, extortion, admission racketeer and staff intimidation by senior academic to junior colleague. More so, lecturers ignored lectures time, delayed students result and project, abandoned their research work, avoid attendance of local and international conferences, seminar, and training which also collapse the culture of the university. All these characters collapse the cultural standard of the university system which is in dire need by university management to preserve the structure of Nigerian university for sustainable growth and development. This position supported Alemoh (2018) that most of the academics holding administrative positions also function in several other capacities which make them not to have time for serious research.

**Conclusion**

Culture is a sum of ideas, beliefs, art, knowledge, values, customs, traditions, attitude, language, orientation, codes, institutions that distinguishes one group of people from another. Academic culture of universities mainly consists of academic custom, tradition, ceremonies, laws and ethics of academic institutions towards attainment of academic excellence. University is the apex of tertiary institutions where teaching, research and community service take place for sustainable development of a nation. The university system is hierarchically structurally and designed with valuable culture which determine the sustainability and credibility of the system. In conclusion, management of academic culture helps to sustain the quality of teaching, research and community service in public university. The bridge of university System is the structure that needs to be preserved through academic culture.

**Recommendations**

Therefore, the following recommendations are hereby made:

1. University management should periodically organise seminars, orientation, conferences and training

programmes for academic staff on culture of the institutions.

2. The management of public universities should reinforce the quality assurance section in the institution to monitor quality teaching delivery and academic research.
3. University management should establish mentorship programmes for the junior academic to grow so as to ensure sustainable institutional development.
4. The Academic Staff Union of Universities should organise seminar, training and conference for academic staff of university on the theme of mentorship and academic culture.
5. Government should provide adequate fund to support public universities to grow and compete with global academic standard.

**References**

Alemoh, T. A. (2018). The challenges of publish-or-perish pressure on academics in administrative positions. *The Nigerian Journal of Communication.15*(1), 91-113.

Aliyu, I. H., Safiyan, H., & Husaini, L. (2017). The role of academics in the attainment of national integration in Nigeria: Issues, challenges and the way forward. *International Journal of Engineering and Information Systems, 1*(7), 168-174.

Azis, A. & Abduh, A. (2019). Qualitative meta-analysis of academic culture in higher education. *Advances in Social Science, Education and Humanities Research, 335,* 322-326.

Mohammed, M.O.B. & Shittu, T. O. (2020). Politics of Education in Nigeria. Ibadan: His Lineage Publishing House. P. 28

Noel, B. S. (2020). Instituting the culture of excellence in teaching and research in the Nigerian university system. Matriculation Lecture Delivered at the 2nd Matriculation of Trinity University, Lagos on 4 July.

Nwokocha, J., Kennedy- Nkwocha, V. C. & Onyekwere, L. A. (2020). Management of university systems in Nigeria in the 21st century. *International Journal of Institutional Leadership, Policy and Management, 2*(3), 596-610.

Okojie, J. A. (2007). Higher education in Nigeria. Being a paper presented at Education in Africa Day, held at house of commons palace of Westminster, London. Retrieved from http://ww.nucnigeriainfo/es% 20houseof commons.

Okojie, J. A. (2011). University autonomy: Repositioning the Nigerian education system in the 21st century, retrieved on November 18, 2012 from www.nuc.edu.ng.

Okorosaye-Orubite, A. K., Pauley, G. F., & Abraham, N. M. (2012). University autonomy, academic freedom and academic staff union of universities (ASUU) struggles in Nigeria: A historical perspective. *Asian Social Science, 8*(12), 265-275.

Oyebade, F. (2016). *Working organogram and procedures in the university system*. Paper presented at the orientation workshop for the teaching and non-teaching staff at the university of medical sciences, Ondo city, Ondo State on Monday, 1st February, 2016.

Oyebamiji, Y. T., Opeyemi, O. & Fadipe-Aroki, F. O. (2019). Academic freedom and institutional autonomy in the management of Nigerian university education: Issues and challenges. *African Journal of Educational Research and Development, 12*(2), 93-106.

Shen, X., & Tian, X. (2012). Academic culture and campus culture of universities. *Higher Education Studies, 2*(2), 61–65. https://doi.org/10.5539/hes.v2n2p61.

# EFFECTS OF INTERACTIVE-INVENTION AND INTERACTIVE-PROBLEM TASK-EXPERIMENT INSTRUCTIONAL STRATEGIES ON STUDENTS' ACHIEVEMENT IN PHYSICS IN IBADAN METROPOLIS, NIGERIA

**Ukoh Edidiong Enyeneokpon**
nsiadiaha@yahoo.com/ee.ukoh@ui.edu.ng
&
**Otaru Jeanne Akiiroso**

*Department of Science and Technology Education*
*University of Ibadan, Ibadan*

**Abstract**

*This study investigated the effects of Interactive-Invention and Interactive-Problem Task-Experiment instructional strategies on students' achievement in Physics. The study adopted a pretest posttest control group quasi-experimental research design. It also investigated the moderating effects of gender on students' achievement in Physics. The participants consisted of 234 SS II Physics students (111 females and 123 males) in Ibadan-North and Akinyele Local Government areas in Oyo State, Nigeria. Three instruments were used for the study: Physics Achievement Test (r=0.76), Teachers' Instructional Guides and Evaluating Sheet for Assessing Instructors' Performance. Hypotheses were tested at 0.05 significance level. Data collected were analysed using Analysis of Covariance, Estimated Marginal Means and Scheffe Post-hoc Analysis. The result revealed that Interactive-Invention and Interactive-Problem Task-Experiment instructional strategies significantly improved students' achievement in Physics ($F_{(2,219)}$ = 6.000, p<0.05; partial $\eta^2$=0.052) irrespective of gender and they are therefore recommended for use by Physics teachers in secondary schools. Also, Interactive-Problem Task-Experiment Instructional Strategy was found to be most effective in improving students' achievement in Physics.*

***Keywords:*** *Interactive-Invention, Interactive-Problem Task-Experiment and Achievement in Physics.*

**Introduction**

Science as a body of knowledge is a fundamental part of human existence and development. This is because science has enabled mankind to advance in areas of knowledge, nation building capital development and, among others. The knowledge and products of science have consistently placed developed nations above developing and underdeveloped nations in terms of technological advancement and resource output (Okeke et al 2022). As a result, any country wishing to be at the good side of development and advancement in knowledge must prioritize educating the citizens in the area of sciences. Perhaps, one of the major factors used in placing a country as developed, or developing nation is her expertise and the extent of utilization of the knowledge acquired through science. Nigeria as a developing country is not left out of this quest for the knowledge of science as the country desires to rise to the level of other developed nations. This knowledge of science according to Wood (2020) is what one learns from the procedures and processes of science which involves experimentation and collection of data.

Physics is an essential aspect of science and technology. Its understanding facilitates advancement in the world of science and technology which translates to national and human capital development. Physics is concerned with the structure of matter and the interactions between the fundamental constituents of the universe that are observable (Brown and Weidner, 2022). Having this at the back of her mind, the Nigerian Education Research and Development Council (2008) in Nigeria reflected this in the objectives of the Physics curriculum. However, the fact remains that no matter how good an educational system could be, for the aims of that educational system to be achieved, the implementation stage is very important. Looking at the present status of the educational system in Nigeria, particularly the students' fluctuating performances in Physics in external examinations, it is evident that the objectives of the Physics curriculum are yet to be achieved.

Despite, all the advantages of Physics, the subject is still faced with some problems. The achievement in the subject is not up to the expectation of the government, concerned educators,

parents, students and researchers. The performance of students in West African Examination Council in Physics from year 2017 to 2020 has not been stable. More so, some candidates used forged data while some plotted graphs without table of values. Those that do so correctly, that is, those that have correct data and plotted the graphs correctly, did not follow simple instructions like; writing the title of the graph, indicating the parameters for the x and y axes, using rulers and pencils to draw straight lines, writing the units for the parameters, to mention but a few. For the calculation and the use of formulas to solve specific problems aspect of Physics, it was observed that many students find it very difficult to apply the correct formula where necessary and most importantly, to derive the formula to use if need be.

This indicated that Physics teaching is poor and perhaps this may be connected to the use of instructional strategies which have not totally incorporate learners' to construct their own knowledge and their ideas in learning (Okoronka, 2004). Also, it may be as a result of the use of strategies that are not experiment-oriented or laboratory based, since Physics is a practical subject. According to Anaekwe (1997), achievement is something which has been accomplished successfully, especially by means of exertion, skill, practice or perseverance. Anaekwe viewed achievement as a test for and comparison of skills in various fields of academic studies. It involves the determination of the degree of attainment on individual tasks, courses or programs to which the individuals were sufficiently exposed.

The poor performance of students in Physics has engaged the attention of many scholars over the years (Agube et al 2021, Ocheni, 2021, Mekonen, 2014, Boakeye et al 2016 and Ukoh, 2012). Many factors were identified as the cause of this low performance but the most striking one contributing to this problem is the instructional strategies used for teaching and learning Physics. The typical pedagogical pattern, which reflects an authoritarian didactic approach to classroom management, does not prepare students for the information age globalization. Lessons are schematic, with no innovative scenarios; in other words, the old patterns of teaching science do not equip "students

to live effectively in our modern time" (Sadowska and Kaminska, 2008).

Students who are taught using traditional methods do not show conceptual understanding of the subject which should have resulted from a sufficient number of solved problem tasks and from logically clear lessons (Redish, 2003, Hanc and Degro, 2007). The accumulation of these misconceptions causes the students to learn the subject by heart which consequently leads to frustration (Martins-Blas and Seidel, 2010). According to NTI (2008), the old approach to teaching in Nigeria is teacher-centred which implies that the teacher does all the talking, and the learners do all the listening.

Furthermore, Iroegbu (1998) identified monologue-oriented interaction pattern in Nigerian Physics classes and noted that this is inappropriate and ineffective for achieving the high level of objectives of the new Physics curriculum. Also, the poorly equipped laboratories, usually possessing old experiments with no explanations or teaching scenarios portrays physics to be a difficult subject that cannot be simplified forgetting that some Physics topics cannot be effectively taught without experiments (Salameh El-Rabadi, 2013; Sadowska and Kaminska, 2008).

To curb this problem of poor performance, researches have been carried out on several instructional strategies and how they can contribute in the steady achievement of students in physics. From their findings, it was collectively recommended that instructional strategies that engage the learner in the learning process or makes the learner an active participator in the process of knowledge creation, be used in teaching. Among the new approaches and new methods being investigated to be effective in improving students' achievements in Physics, two of them were used for this study. These two strategies were the interactive-invention and interactive-problem task-experiment instructional strategies.

The Interactive-Invention instructional strategy is a strategy that was developed and used by Ukoh in 2012 to teach pre-service teachers some topics under Electromagnetism. It was designed to promote conceptual understanding through minds-on and hands-on activities which yielded immediate feedback

through interaction with peers, instructors and materials. Studies carried out on the use of Interactive-Invention strategy on students' performance in various subjects by Ukoh (2012); (2013); (2014); (2015) and Ogunbowale, (2014) have shown that the strategy promotes individual participation in the active development of knowledge through concrete exploration, experimentation, interactions, discussions and collaborative learning. This greatly improved the students' learning outcomes in the various subjects being investigated. Lessons are changed into discussions which made the students an active participator in the process of knowledge creation (Eggen and Kanchak, 2006). It also used explanation and modelling combined with students' practice, invention and feedback to teach concepts (Ukoh, 2012). In an interactive-invention instruction lesson, students are active in responding to teachers' questions, analyzing examples and practicing skills. Students exhibit higher level of cognitive outputs since they are given the opportunity to interact with materials, ask questions, discuss answers, teach peers and criticize submissions. They are also able to put their learning to use which further led to improvement in their achievement.

The Interactive-Problem Task-Experiment instructional strategy is another strategy that increases students' acquisition of critical knowledge, problem solving proficiency and team participation skill (Kristak et al, 2014). Its main idea is the interacting working with students with the help of problem task analyses and experiments and to change the position of the student from a passive one to an active one. It makes the theory of physics interconnected with everyday life through increasing the focus of teaching physics concepts on experimentation and solving of problem tasks. This in turn encourages students to solve problems and look for new procedures in discovering information (Holbrook, 2009). It also emphasizes the use of problem tasks and experiments in learning. The use of experiments reduces the abstractness of physics concepts and its integration into lessons increases the demonstration of physical phenomenon being dealt with in the lesson. It also increases the level of understanding and attention of the students thereby improving the performance of the students (Velmovska, 2001).

This is due to the fact that the strategy gives opportunity for in-class activities, peer-learning and immediate feedback to clear misconceptions. It also aids further understanding of the subject matter. Various methods are embedded in the interactive-problem task-experiment strategy. They include cooperative learning, collaborative learning, problem-solving, experimentation or demonstrations, discussion, and participation.

Thus, the Interactive-Invention and Interactive-Problem task-Experiment helped in facilitating cognitive development (Yilmaz and Miller, 2004) and they were described as helpful instructional strategies which assured that the individual learner engages in regular practices. They give students the opportunity to become partners in the journey of knowledge acquisition as they are both built on the principle that "learning by doing is more effective than learning by being told". Both also made provision for hands-on activities and experiments where students build and create their own knowledge.

Added to be an indicator of achievement in Physics is gender. Influence of gender on students' learning outcomes in science-related subjects is still a major issue of controversy among educators; some research studies have shown that gender has a great influence on students' achievement in Physics. This may be as a result obtained from the various gender-related studies. Raimi and Adeboye (2003), in one of their studies, reported that boys perform better than girls in science subject, and the factors causing this evolve from different human experience that could be biological, environmental, interpersonal relationship, psychological function, role conflict and personal values (Ogunbowale, 2014).

This research therefore revealed the effect of employing hands-on and minds-on instructional strategies such as Interactive-Invention and Interactive Problem task-Experiment Instructional strategies on students' achievement in Physics and how it may improve the learners' (whether male or female) level of achievement in Physics.

**Statement of the Problem**

The fluctuation in the percentage pass at credit level of students in Physics as shown in the West African Examination Council results poses a major concern to Physics educators and other stakeholders. This unsteady level of performance has been attributed to various factors mainly: the use of instructional strategies that are characterized by monologue-oriented interaction, learners' passiveness in creating knowledge, and memorization of Physics concepts which make the subject unappealing. Other factors deduced to be responsible for this unsteady performance include: learners' variables such as gender stereotype in Physics, low self-efficacy in students' approach in tackling Physics problems and the rapid decline of students' interest to actively participate willingly or become involved in the teaching and learning process.

A number of studies have been carried out on various instructional strategies to address this issue but it is unfortunate that the traditional patterns of science teaching have remained largely unchanged. Lessons are schematic, with no innovative scenarios. As a result of this, students do not show conceptual understanding of the subject which usually lead to their having many misconceptions about physics concepts. This may be what led to their fluctuating performance and their unsteady improvement in the subject. If this is not checked, then the much needed and vouched technological breakthrough may not be achieved, thus the need to investigate other instructional strategies. This study therefore examined the effects of Interactive-Invention and Interactive-Problem Task-Experiment Instructional strategies on secondary school students' achievement in Physics.

**Null Hypotheses**

This study tested the following null hypotheses at $p<0.05$ level of significance:

**$H_0$1:** There is no significant main effect of treatment on students' achievement in Physics concepts

**$H_0$2:** There is no significant main effect of gender on students' achievement in Physics concepts

**$H_0$3:** There is no significant interaction effect of treatment and gender on students' achievement in Physics concepts

**Methodology**

The Pretest-Posttest control group quasi-experimental research design was adopted for the study. The experimental groups were exposed to Interactive-Invention Instructional Strategy (IIIS) and Interactive-Problem Task-Experiment Instructional Strategy (IPTEIS), while the control group was exposed to Conventional Instructional Strategy (CIS). The target population comprised of all SSII Physics students from six secondary schools from two Local Government Areas of Oyo State, Nigeria. The six secondary schools were purposively selected based on the availability of well-equipped and functional Physics laboratory, the presence of qualified Physics teacher and the readiness of the Physics teacher and students to participate in the study. Six intact classes were used and the total number of participants used for the study was 234 SS II physics students (123 males and 111 females). The following Instruments were used for this study and they include:

1. **Physics Achievement Test (PAT)**: This was developed to measure the students' performance in some specific Physics concepts. It had two (2) sections (A and B). Section A contained the demographic variables (personal data of the respondents) while section B contained the test items. . The reliability coefficient of 0.76 was obtained using the Kuder-Richardson (KR-20) to establish the internal consistency of the test items.

2. **Teachers' Instructional Guides (TIG)** for the three instructional strategies are:
    a) Teachers' Instructional Guide on Interactive-Invention Instructional Strategy (TIGIIIS)
    b) Teachers' Instructional Guide on Interactive-Problem Task-Experiment Instructional Strategy (TIGIPTEIS)
    c) Teachers' Instructional Guide on Conventional Instructional Strategy (TIGCIS)

3. **Evaluating Sheet for Assessing Instructors' Performance (ESAIP):** This instrument was designed to be used in evaluating the teachers on the effective use of the instructional guides during the teaching process. It showed their presentation of concepts, mastery of the topics, use of materials and activities directed, and how effective their presentation were for the mastery of concepts by the students. ESAIP was developed for the three instructional strategies. Section A consisted of the personal data of the trained teacher containing name, school, period, class taught, date and the summary of the concept discussed in the class. Section B consisted of items to be evaluated. The items were placed on a 5-likert type rating scale ranging from Very Good (VG), Good (G), Average (AV), Poor (P) and Very Poor (VP)

The six schools were grouped into experimental and control groups. The teachers for experimental groups I and II were trained for two weeks by using the Teachers Instructional Guides for Interactive-Invention and Interactive-Problem Task-Experiment instructional strategies and Evaluating Sheet for Assessing Instructors' Performance (ESAIP) to measure the effectiveness of the instructional guides during the teaching process. All participants were given a pretest on Physics Achievement Test (PAT) on the third week before they were taught for six weeks using respective instructional guides. On the tenth week, posttest was administered immediately. The study lasted for ten weeks.

**Experimental group I: Interactive-Invention Instructional Strategy**

**Phase I: Presentation**

**Activity 1**: **Review of previous work:** Students were asked questions based on the previous lesson or their life experiences (prior knowledge) that relates to the new lesson about to be taught.

**Activity 2**: **Overview of new lesson**

a) What? (Introducing the specific concept(s) and skill(s) to be learnt).
b) Why? (Stating the reasons or purposes for learning the concept(s) or skill(s))
c) Explanation (Develops or explains the concepts and skills to be learnt and linking them to real life experiences)
d) Using an experiment for illustration (where necessary)
e) Probes and Response (Testing the understanding of the students concerning the concepts and the skills taught by asking questions and listening to their responses).

**Phase II: Practice**

**Activity 1: Guided practice:** Students interaction with materials, themselves and with teacher to create knowledge.

**Activity 2: Independent practice:** Allows the students to work independently with little or no teacher's interaction to reinforce individual proficiency with concepts and skills. The students' reports were submitted to the teacher for verification.

**Phase III: Monitoring and Assessment:**

**Activity 1: Formative** (daily success at the end of each activity). Teacher checks the students' works and offers corrections and instructions as necessary.

**Activity 2: Summative** (mastery). The teacher checks students' worksheets at the end of each unit of instruction. Feedbacks were given throughout the lesson as needed. Corrective feedback was also employed as students' responses are checked whether they are correct or not. The correct answers were made known and the reasons why those answers were correct.

**Experimental group II: Interactive Problem Task-Experiment Instructional Strategy**

**Phase I: Preparatory Phase**- Review and Introduction-preparation and explanation of concepts

**Phase II: Dealing with the concept**- teacher deals with one concept at a time.

**Phase III: Assignment of a Problem task**- presentation of few physical problems (problem tasks) connected to the dealt concept

**Phase IV: Problem Solving**
Activity 1: Organizational Activities to solve Problem task
Activity 2: Discussion of findings of Problem task
Activity 3: Verification of findings by the teacher

**Phase V: Questions and Feedback**: Teacher provides evaluation to what extent the students were involved in solving individual tasks. Students also express their opinions after each lesson, on what they liked or did not like and what could be improved.

**Control Group: Conventional Instructional Strategy**
**Step I**- Introduction of lesson by the teacher
**Step II**- Explanation of theoretical basis for the topic
**Step III**- Solving problems with examples and application
**Step IV**- Soliciting questions from the class and giving class work
**Step V**- Marking of students' work.

**Method of Data Analysis**
The data obtained from the pretest and posttest was analysed using inferential statistics of Analysis of Covariance (ANCOVA) to find out the differences in their mean score across the treatment. The results were used to test the hypotheses. The Estimated Marginal Means (EMM) was used to show the magnitude of the post-achievement mean score. Scheffe Post-hoc analysis was

used to detect which of the groups caused the main effects. All hypotheses were tested at p<0.05 significance level.

**Results and Discussion**

The result of this study is presented in this section.

**$H_0$1:** There is no significant main effect of treatments on students' achievement in Physics.

**Table 1: Analysis of Covariance (ANCOVA) of Post-Achievement scores by Treatment and Gender**

| Source of variation | Sum of Squares | Df | Mean Square | F | Sig. | Partial Eta Squared |
|---|---|---|---|---|---|---|
| **Covariates** Pre-Achievement | .160 | 1 | .160 | .021 | .885 | .000 |
| **Main effects (combined)** | 91.082 | 2 | 45.541 | 6.000 | .003* | .052 |
| Treatment groups | .868 | 1 | .868 | .114 | .736 | .001 |
| Gender | | | | | | |
| **2 Way interaction** Treatment x Gender | 8.707 | 2 | 4.354 | .574 | .564 | .005 |
| Error | 1662.176 | 219 | 7.590 | | | |
| Total | 40344.000 | 234 | | | | |
| **Corrected Total** | 1984.957 | 233 | | | | |

R Squared = .163 (Adjusted R Squared = .109) * Significant at P< 0.05

The table 1 showed that there was significant main effect of treatment on students' achievement scores in physics concepts (F (2,219) = 6.000, P<0.05, partial η2 = 0.052). The effect size is 5.2%. This implied that there was a significant difference in the students' achievement scores of students in Physics. Thus, null hypothesis 1 is rejected. In order to determine the magnitude of the significant main effect across treatment groups, the estimated marginal means of the treatment groups was carried out and the result is presented in table 2.

**Table 2: Estimated Marginal Means for Post-Achievement by Treatment and Control Group**

| Treatment | Mean | Std. Error | 95% Confidence Interval | |
|---|---|---|---|---|
| | | | Lower Bound | Upper Bound |
| Interactive-Invention Instructional Strategy (IIIS) | 12.99[a] | .391 | 12.222 | 13.765 |
| Interactive-Problem Task-Experiment Instructional Strategy (IPTEIS) | 14.03[a] | .428 | 13.190 | 14.876 |
| Conventional Lecture Method (CLM) | 11.29[a] | .690 | 9.928 | 12.649 |

Table 2 revealed that the students in Interactive-Problem Task-Experiment Instructional Strategy (IPTEIS) had the highest adjusted post-achievement mean score (14.03), followed by Interactive-Invention Instructional Strategy (IIIS) of 12.99, while the Conventional Lecture Method group had the least adjusted post-achievement mean scores (CIS) of 11.29. This order can be represented as IPTEIS>IIIS>CIS.

**Table 3: Scheffe Post-hoc Analysis of Post-Achievement by Treatment and Control Group**

| (I) Treatment | (J) Treatment | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound |
| Interactive Invention Instructional Strategy | Interactive-Problem Task-Experiment Instructional Strategy | -.5293 | .42604 | .463 | -1.5793 | .5206 |
| | Conventional Instructional Strategy | 1.6282* | .44569 | .002 | .5298 | 2.7266 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Interactive-Problem Task-Experiment Instructional Strategy | Interactive Invention Instructional Strategy | .5293 | .42604 | .463 | -.5206 | 1.5793 |
| | Conventional Instructional Strategy | 2.1576* | .45653 | .000 | 1.0324 | 3.2827 |
| Conventional Instructional Strategy | Interactive Invention Instructional Strategy | -1.6282* | .44569 | .002 | -2.7266 | -.5298 |
| | Interactive-Problem Task-Experiment Instructional Strategy | -2.1576* | .45653 | .000 | -3.2827 | -1.0324 |

Where * Pairs of significantly different at P<.05

The table 3 above showed that the sources of significant difference among the group mean scores.

The table reveals that students exposed to Interactive-Problem Task-Experiment Instructional Strategy (IPTEIS) were not significantly different from their counterparts taught using Interactive-Invention Instructional Strategy (IIIS), but significantly different from Conventional Instructional Strategy (CIS) in their post-achievement scores. This implies that both Interactive-Problem Task-Experiment and Interactive-Invention instructional Strategies were the main sources of significant differences in treatment.

**$H_0$2:** There is no significant main effect of gender on students' achievement in Physics.

Table 1 showed that there was no significant main effect of gender on students' achievement in Physics (F (1,219) = .114, P>.05, partial η2 = .001). The effect size is 1%. This implies that there was no significant main effect of gender on students' achievement in Physics. Therefore, null hypothesis 2 was not rejected.

**$H_0$3:** There is no significant interaction effect of treatment and gender on students' achievement in Physics.

Table 1 showed that there was no significant two-way interaction effects of treatment and gender on students' achievement in Physics ($F_{(2,219)}$ = .574, P>.05, partial $\eta^2$ = .005). The effect size is 5%. This implies that there was no significant interaction effect of treatment and gender on students' achievement in Physics. Therefore, null hypothesis 3 was not rejected.

**Discussion and Results**

The results of this study showed that there is a significant main effect of treatment on students' achievement in Physics. The findings showed that both Interactive-Invention and Interactive-Problem Task-Experiment instructional strategies significantly improved students' achievement in Physics over and above Conventional instruction. This finding is in line agreement with the findings of Ukoh (2012), Gbolagade (2009) and Ogunbowale (2014).

The Interactive-problem task-experiment strategy had the highest achievement mean scores because students were taught the ability not just to gain knowledge but also to apply the knowledge to real life situations. The strategy greatly increased students' acquisition of subject knowledge, problem solving proficiency and team participation skills. The strategy also changed the position of the students from a passive one to an active one. In this strategy, there was a great improvement in recalling, retention of taught Physics concepts. Students were taught the ability to, not just gain knowledge but also to apply this knowledge to every life situations. The result of the study is in supports of the findings of Kristak et al (2014), that Interactive-Problem Task-Experiment strategy influence students very positively; the problem tasks teach them that a scientific problem can be assigned in different ways and it can also be solved in different ways. At the same time students learn that the procedure leading to solving the problem does not need to be effective in another case. With the use of Interactive-Problem Task-Experiment strategy, it is possible to achieve significantly better results considering students' knowledge. Their use increases

demonstration of the curriculum, increases students' attentions, it forces them to work and think independently and it helps to reduce misconceptions gained during previous study. The result is also in supports of the findings of Hockicko (2011) that a great advantage of Interactive-Problem Task-Experiment strategy is the practical application of theoretical knowledge. While solving problem tasks, students learn to analyze the phenomena, develop logical thinking, sense and creativity.

The Interactive-Invention instructional strategy experimental group which ranked second in improving student's achievement in Physics had advantage over Conventional Instructional Strategy, this is because students were allowed to invent their learning because it was observed that students learn and retain knowledge better when they actively participate during lessons rather than learning passively. Therefore, the strategy enhanced the level of participation and investigative skills of students thus improving their cognitive development. The result of the study is in supports of the findings of Ukoh (2012); (2013); (2014); (2015) and Ogunbowale, (2014) that the Interactive-Invention instructional strategy promotes individual participation in the active development of knowledge through concrete exploration, experimentation, interactions, discussions and collaborative learning. This greatly improved the students' learning outcomes in the various subjects being investigated.

The Conventional Instructional Strategy control group had the least achievement in Physics concepts; this may be due to the fact that, students were not taught the ability to gain knowledge and also to apply this knowledge to every life situations. The teachers carried out their normal teaching style or methodology. No treatment was introduced with the view of improving their achievement and retention of knowledge. This could be attributed to the cause of the poor achievement of this group compared with the two experimental groups. This supports the assertion of Eya and Igbokwe (2000) of the need for teachers to move from routine styles of teaching to improved styles. More so, the low retention of knowledge of CIS control group repeats itself in this study as it was the findings of Awotua-Efebo (2001).

Likewise, the study showed that gender had no significant main effect on students' achievement in Physics concepts. The non-significant main effect of gender on students' achievement in this study conforms to the findings of Afuwapa and Oludipe (2008) who reported that gender is not significant on the students' achievement and retention of knowledge in Basic science. This finding is also in mutual agreement with the findings of Abiam and Odok (2006) and Adegoke and Ibode (2011) who in their respective studies reported that gender had no influence on students' achievement in Science education and Mathematics respectively. These findings is also in mutual agreement with the findings of Ogundare and Olagunju (2008), who found that gender had no significant effect on students' retention of knowledge in Integrated science. The finding of this work is in disagreement with the research findings of Njoku (2002) who found significant difference of gender on students' learning outcomes in Chemistry. Also, the result is against the report of Olagunju and Chukwuka (2008) who reported that gender had effect on students' learning outcomes in Biology.

The study also showed that there was no significant two-way interaction effect of treatment and gender on students' achievements in Physics. This depicted that gender (male and female) and treatment had no effect on students' achievement in Physics. This finding tends to agree with those of (Ukoh, 2013; Raimi and Adeboye, 2003; Ireogbu, 1998 and Ogunbowale, 2014) who have observed that although boys tend to have a slight advantage over girls in Physics achievement, such differences have not been significant. It should be noted that the non-significance observed in gender differences in achievement might have been caused by the prevailing experimental conditions the students were exposed to. This showed that both males and females could do well in the course if they were exposed to appropriate learning situations. This contradicts the findings of the following researchers: (Casey et al., 2001) who reported that gender influence academic performance of students. It is worthy to note here that from the findings of this study, girls' enrolment in Physics had improved in the secondary schools under study

contrary to the common notion that girls were underrepresented in Physics

**Conclusion**

Based on the findings of this study, it was concluded that both Interactive-Invention and Interactive-Problem Task-Experiment Instructional Strategies significantly improved students' achievements in Physics. The Interactive-Problem Task-Experiment Instructional Strategy was found to be most effective in improving students' achievement in Physics followed by Interactive-Invention Instructional Strategy and lastly Conventional Instructional Strategy. It was also observed that gender had no effect on students' achievement in Physics. This study is part of the contribution of this researcher to the efforts made by several other educators and researchers to shift our Physics classroom practices from conventional (teacher-centred and passive students) to innovative constructivist-based, interest-sustaining and result-oriented strategies.

**Recommendations**

1. Educators should be discouraged from using teacher-centred instructional strategies in teaching Physics but rather, learner-centred instructional strategies such as interactive-invention and interactive-problem task-experiment instructional strategies should be used. The periodic use of such and other innovative-interactive strategies will promote high level learning achievement in students.
2. Girls should be encouraged to take up the study of Physics as there is nothing masculine about the subject as already observed from the data analysed in the study.
3. The Ministry of Education should put in place Physics workshops and seminars for secondary school Physics teachers as yearly training programmes to introduce and demonstrate innovative teaching strategies. When the teachers are taught using these innovative strategies, it becomes easy for them to transfer knowledge using these strategies in Physics classes.

4. Since Physics is a practical subject, there is need to integrate into the Physics curriculum various students' activities and materials involved in Interactive-Invention and Interactive-Problem Task-Experiment strategies for Physics concepts since both strategies encourages the use of problem tasks and experiments to teach Physics.

## References

Abiam, P.O. & Odok, J.K. (2006). Factors in students' achievement in different branches of secondary school Mathematics. *Journal of Education and Technology*, 1.1: 161-168

Adegoke, B.A. & Ibode, F.O. (2011). Knowledge of English Language as a predictor of students' cognitive achievement in senior secondary school Mathematics. *European Journal of Educational Studies,* 3.2: 167-169

Afuwapa, M. O. & Oludipe, D. I. (2008). Gender difference in integrated science achievement among pre-service teachers in Nigeria. *Educational Research and Review, 3*.7: 242 – 245

Agube, C. C., Ntibi, J. E. E., & Neji, H. A. (2021). Towards enhancing Physics students` academic achievement through concept mapping instructional strategy. European Journal of Social Sciences, 61.4: 250-259

Anaekwe, M.C. (1997). *Effects of students interaction patterns on students' cognitive achievement, Retention and Interest in Chemistry.* Unpublished Ph.D. Thesis, Nsukka: University of Nigeria.

Awotua-Efebo, E. B. (2001). *Effective Teaching:* Principles and practice. Paragraphics, Port-Harcourt, Nigeria.

Boakeye, E., Ashai, A. E., Addo,L., Boateng, F., & Konadu, S. (2016). Investigating factors influencing poor performance of senior high school students in Physics. A case study in (Komenda, Edina & Eguafo-Abrem) KEEA district, central region Ghana. Retrieved from ttps://www.academia.edu/47901074/factors _influencing_ poor_performance_of_senior_high_school_ students_in_ physics_a_case _study_in_komenda_edina_ and_eguafo_ abrem_keea_district_ central_region_ghana

Brown, L. M. & Weidner, R. T (2022). Physics. Encyclopedia Britannica. https://www.britannica.com/science/physics-science

Casey, B., Nuttall, R. & Pezaris, E. (2001). Mediators of gender differences in mathematics college entrance test scores: a comparison of spatial skills with internalized belief and anxieties. *Developmental Psychology,* 33.4: 669-680

Eggen, P. D. & Kanchak, P. P. (2006). Strategies and models for teaching content and theory skills: 5th Edition. U.S.A: Person Education Inc.

Eya, P. E. & Igbokwe, F. (2000). *Aspects of teaching and learning.* Enugu, Cheston Publishers.

Gbolagade, R.O. (2009).The impact of constructivist-model based training programs on pre-service teacher's knowledge and attitude; classroom practice and students teaching outcome in junior secondary school mathematics: An Unpublished Ph. D thesis, University of Ibadan.

Hanc, J. & Degro, J. (2007). Standardized conceptual and attitudinal tests in physical education.

Hockicko, P. (2011). Forming of physical knowledge in engineering education with the aim to make physics more attractive. In: Proceedings SEFI – PTEE 2011 (Physics Teaching in Engineering Education), Mannheim Germany.

Holbrook, J. (2009). Meeting challenges to sustainable development through science and technology education. *Science Education International,* 20: 44-59

Iroegbu, T.O. (1998). Effects of Problem based learning, numerical ability and gender on achievement and line graphic skills at senior secondary Physics in Ibadan. An unpublished Ph.D. Thesis of University of Ibadan.

Kristak, L., Nemec, M., & Danihelova, Z (2014). Interactive problem tasks and experiment method in teaching physics in secondary schools. *Journal of Technology and Information Education,* 13.1: 51–71

Martins-Blas, T. & Seidel, L., (2010). Enhancing force concept inventory diagnostics to identify dominant misconceptions in first-year engineering physics. *European Journal of Engineering Education,* 35.6:597-606.

Mekonen, S. (2014). Problems challenging the academic performance of Physics students in higher governmental institutions in the case of Arbaminch, Wolayita Sodo, Hawassa and Dilla Universities. Natural Science, 6(5), 362-375.

Nigerian Education Research and Development Council. (2008). Senior secondary school curriculum in Physics. Abuja. Federal Ministry of Education.

Ocheni, C. A. (2021). Test anxiety and academic stress and predictors of secondary school students` academic achievement in waves and projectile motions in Physics. (Maters` thesis), University of Nigeria, Nsukka.

Ogunbowale, N. B. (2014). Effects of Interactive-Intervention and Problem-Based instructional strategies on students' attitudes to Biology. *Journal of Education and Leadership Development,* 6.2.

Ogundare, S.A. & Olagunju, A.M. (2008). Cooperative learning strategies, gender and junior secondary school students and achievements in selected concepts in Integrated science.

Okeke, A. O., Ocheni, C. A., Oguguo, B. C. E. & Asongo, S. T. (2022). Test Anxiety and Academic Stress as Predictors of Secondary School Students` Academic Achievement in Physics. *International Journal of Social Sciences & Educational Studies* 9: 4.

Okoronka, A.U. (2004). Model based instructional strategies as determinants of students' learning outcomes in secondary physics in Lagos state. A Ph. D thesis, University of Ibadan, Nigeria.

Olagunju, A.M. & Chukwuka, E.U. (2008). The effect of gender and two curriculum packages in environmental education in Biology on Students' problem-solving and cognitive achievement. *Journal of Research Education*. 2.2: 154-156.

Raimi S.M. & Adeoye F.A., (2003). Gender differences among college students as determinants of performance in integrated science. *African Journal of Educational Research*. 8.1-2.

Redish, E.F. (2003). Teaching Physics. John Wiley and Sons, New York.

Sadowska, M. & Kaminska, A. (2008). Problems in teaching physics in primary and secondary schools, as seen by young polish she-teachers.

Salameh El-Rabadi, E.G. (2013). The effect of laboratory experiments on the upper basic stage students' achievement in physics: *Journal of Education and Practice;* 4.8.

Ukoh, E.E. (2012). Effects of problem-based learning and interactive-invention instructional strategies on NCE pre-service teachers' achievement in physics; *A Journal in Research in Curriculum Studies,* 9.1*.*

Ukoh, E.E. (2013). Determining the effects of interactive-invention instructional strategy and gender on NCE pre-service teachers' acquisition of science process skills.*An International Multidisciplinary Journal,* Ethiopia, 37.3:143-155

Ukoh, E.E. (2014). Effects of problem-based learning and interactive-invention instructional strategies on NCE pre-service teachers' acquisition of science process skills in physics: *A Journal of Sociology and Education in Africa,* 12.3.

Ukoh, E.E. (2015). A three-way interaction effects of problem-based learning and interactive-invention instructional strategies, gender and self-efficacy on NCE pre-service teachers achievement in physics: *An International Journal of Educational Foundations and Management;* 9.2.

Velmovska, K. (2001). Rozvijanietvorivostiziakov gymnasia pomocouuloh, zbornikzoseminara, Bratislava: 75-78.

West African Examination Council (WAEC). Chief Examiner's Report (2017).

West African Examination Council (WAEC). Chief Examiner's Report, (2018).

West African Examination Council (WAEC). Chief Examiner's Report, (2019).

West African Examination Council (WAEC). Chief Examiner's Report (2020).

Wood, D. (2020). Three branches of natural science: Physical, earth & life. https://study.com/academy/lesson/three-branches-of-natural-science-physical-earthlife.html

Yilmaz & Miller, (2004). Use of interactive learning strategies in facilitating cognitive development.

# DEVELOPING INSTITUTIONAL POLICIES FOR MANAGING TEACHING AND RESEARCH AT THE HIGHER LEVEL OF EDUCATION FOR NATIONAL DEVELOPMENT: IMPLICATION FOR LECTURERS AND STUDENTS IN PUBLIC UNIVERSITIES

**Dr. Osisami R. Adenike**
*Lagos State University of Education,*
*Oto/Ijanikin with a campus in Epe.*
*08109030367*
*adenikeosisami@yahoo.com*

**Dr. Alaka A. Abayomi**
*Lagos State University of Education,*
*Oto/Ijanikin with a campus in Epe.*
*08184873511*
*yomibunmi1972@gmail.com*

**Abstract**

*Higher institutions contribute immensely to national development through high-level manpower training attained through teaching and research which are critical core areas that must be guided by developing a policy framework that would ensure acceptable practices in public institutions. Many institutions are deeply rooted in teaching and learning and find it challenging to develop institutional policy that would produce research outputs which would ensure global recognition and achievements. This paper examined the need for developing institutional policy for managing teaching and research in higher institutions in Nigeria. The study identified inadequate funding, misappropriation and diversion of available resources, fraud, and poor and weak regulatory agencies as the major impediments to the institutional policy framework for managing teaching and research in public higher institutions in Nigeria. The study concluded that the availability of institutional policy framework for teaching and research in higher institutions would improve both the local and world rankings of lecturers and institutions, commercialise research outputs, increase in internally generated revenue of*

*institutions, increase students' enrolment in institutions, and expansion of the knowledge base of the lecturers which would have a positive impact on the students. It is recommended among others that adequate funding, provision of adequate infrastructure, reduction and eradication of corruption, as well as well-established institutionalized policy for teaching and research should be put in place.*

**Keywords:** Higher education, Higher Institution, Institutional policy, Management, National Development, Teaching and research.

**Introduction**

Education serves as the pivot of development in any country as such every phase of it must be developed and be given deserved attention, especially higher education. Higher education is the level where human capital is developed to its full potential and is usually recognized all over the world as the cynosure of excellence where knowledge is not only dispensed but also disseminated to people that want it. An individual's inherent qualities and skills are developed and brought to bear at this level of education (Alaka & Amushie, 2022). Accordingly, Ogunode, Ajape and Jegede (2020) saw higher education as an organised educational system that deals with the production of manpower and acts as a catalyst for socioeconomic, political, cultural and industrial development. Hence, it is highly considered an instrument for advancing national development in any country.

Higher education in Nigeria, according to the National Policy on Education (Federal Republic of Nigeria (FRN 2014), is the education given after the post-basic education level such as universities and other inter-university centres such as the Nigerian French Language Village, National Institute of Nigerian Languages, institutions like Innovation Enterprise Institutions(IEIs)and Colleges of Education, Monothecnics, Polytechnics and other specialized institutions such as schools of Agriculture, School of Health Technology and National Teacher Institute. The policy document outlines the following as the goals of higher education: contribution to national development through

high-level manpower training; provision of accessible and affordable quality learning opportunities in formal and informal education in response to the need and interests of all Nigerians; promoting and encouraging scholarship, entrepreneurship and community service; and reduce skills shortages through the production of skilled manpower relevant to the needs of the labour market. However, the document emphasised that the above goals shall be pursued through the quality of students' intake, quality teaching and learning, research and development and high standards in the quality of facilities, services and resources.

The development of any nation can only be championed through education and according to Abubakar (2013), development is often considered to assume significant influence. While, Umoh (2005) observed that development is associated with a positive change in the condition of the individual, communities even a country as a whole.

This level of education is expected to perform three fundamental roles of teaching, research and community development. It is viewed as a unique institution which is differentiated from others in terms of research (Bernett, 1997). The conduct of research is so fundamental requirement of higher institutions. The instructional staff of higher institutions are required to conduct research in their areas of discipline as their promotion to various cadres depends on their research outputs. Besides, research activities also enhance the status, credibility, and recognition and serve as value addition to the researchers and the institutions they belong. Paul (2015) affirmed that the research activities of academic staff add value to both their immediate community and the large global community. Research activities in higher institutions in Nigeria have been adjudged to be very low. Emunemu (2009) found that the quality of research being carried out by Nigerian academics has been adjudged to be of low standard when compared to their counterparts in other parts of the world. This may likely be a result of none availability of institutional policy guiding research in higher institutions in Nigeria. It is on the strength of the above that this study is instituted to develop an institutional policy for managing teaching

and research in higher educational institutions in Nigeria for national development.

**The Evolution of Higher Education in Nigeria**

The development of higher education in Nigeria can be traced to the 19th century with the establishment of Yaba Higher College (YHC) in 1932 in the form of a technical college. The college was established to produce educated assistants in teacher training, medicine, engineering and other vocations to fill the noticeable gap in the colonial administration. Given the mandate given to Yaba Higher College to train people in specific fields, the institution could not cope with training people to fill the available gaps in this period. Consequently, the colonial government needed to widen access to higher education, and this led to the establishment of the Elliot Commission in 1945. This commission was saddled with the responsibility of looking into the organization of and the facilities available for higher education in British West African countries. The commission submitted both the majority and minority reports. The majority report recommended the establishment and upgrading of higher education in West African Countries, while the minority report recommended the establishment and upgrading of one institution. The Parliament in its wisdom at its sitting accepted the majority report, and this led to the establishment of the University College, Ibadan in 1948 as an affiliated college of the University of London. The university started with the Faculties of Arts and Sciences, while the College of Medicine began in 1962.

The demand for higher education in Nigeria has led to an unprecedented expansion and tremendous growth in the number of higher educational institutions (HEIs), and the student population has increased in the last decade. According to Oshokoya (1989), out of the Nigerian population of 170 million, 65% are youths requiring education. The revolutionary transformation of higher education expanded the frontiers of knowledge in Nigeria. Higher institutions grew from one university in 1948 to five in 1962 and expanded to 203 federal higher institutions, 217 state higher institutions, and 339 private higher institutions in 2022. This means that, currently, there are 749

higher institutions in Nigeria. The above breakdown can be classified into universities, polytechnics, colleges of education, colleges of Agriculture and colleges of health technology.

**Table 1: Composition of Higher Institutions in Nigeria as of November 2022**

| TYPES OF INSTITUTIONS | FEDERAL | STATE | PRIVATE | TOTAL |
|---|---|---|---|---|
| Universities | 50 | 59 | 111 | **210** |
| Polytechnics | 40 | 49 | 76 | **165** |
| Specialised Institutions | 28 | 11 | 14 | **53** |
| Colleges of Health Technology | 36 | 34 | 17 | **87** |
| Colleges of Agriculture | 22 | 12 | 0 | **34** |
| Colleges of Education | 27 | 52 | 121 | **200** |
| **Total** | **203** | **217** | **339** | **749** |

**Sources: NUC, NBTE and NCCE websites, November 2022**

The management of higher institutions in Nigeria revolves around the Vice-chancellor in the universities, the Provost in the colleges of education and the Rector for the polytechnics and other institutions who are both the academic and administrative heads of these institutions. These are usually assisted and supported by deputies and several Provosts, Deans and Heads of various departments and for ease of administration, the Registrar, Bursar and Librarian as well as an array of administrative staff assist in managing these institutions. To ensure quality education through these institutions, the Federal government of Nigeria established some commissions and agencies to supervise, inspect and monitor their operations under the ministry of education. The National University commission is charged with the responsibilities of all universities, National Board for Technical Education is saddled with the responsibilities of Polytechnic education and the National Commission for Colleges of Education

is expected to oversee all the colleges of education in Nigeria. Ogunode, Dilmurod and Abubakar (2021) stated in their paper that these agencies and the commissions are responsible for policy decisions affecting institutions under their supervision, control, maintenance of standards through a system of periodic accreditation of courses, monitoring of government funding and day to day running of the institution.

**Higher Educational Institutions and National Development**

Development has a multiplicity of meanings. Olulode (2012) explained development as not only relevant to the field of psychology but also education, economics, sociology and healthcare as individual development involves the cognitive and the social as well as the biological and physical. Development is the process through which an acceptable standard of living is attained by the people so that basic amenities are at their disposal. While Olulode, Dudafa, Uriah & Agbor (2013) viewed development as the growth of humans throughout their lifespan, from conception to death. The concept of national development is associated with modernization, material advancement, industrialization, science and technology progress, the emergence of nuclear energy, electronic and biological revolution, and new knowledge about man and the universe. It means urbanization, sociocultural transformation, mass literacy, vertical and horizontal mobility, employment opportunities and the emergence of specialized, independent occupational roles (Umuru, 2002). A nation is a large community of people sharing a common language, culture, and history and having a common constitution and government. Nigeria is a nation and the nation shares common characteristics such as binding principles and policies. The ultimate aim of national development is to bring about sustainable improvement in the well-being of individuals and bestow benefits to all for self-reliance and mobilization of domestic resources, the transformation of the structure of rural production, the development of small-scale industry and the acquisition of technological and scientific skills. This means that development is about self-reliance in every aspect of national life. As soon as individuals are equipped and self-reliant, they in turn

develop society. This accounts for the categorization of nations into underdeveloped, developing and developed nations. According to Owan (2005), national development, therefore, is a state in which people in a country through learning, are stimulated to achieve satisfaction by applying themselves to overcome problems of living. Higher education is an investment in human capital. It can not be completely divorced from national development as higher institutions play a crucial role in the supply of high-level manpower for all sectors of the economy that propels the needed socio-political and economic development of the nation. Castells (1994) stated the contributions of higher education to the development of any nation can be varied: it helps in the rapid industrialisation of the economy, by providing manpower with professionals, technical and managerial skills; in the transformation of the society; higher education provides not just educated workers but knowledgeable workers to the growth of the nation; it creates attitudes and makes possible attitudinal changes necessary for the socialization of the individual and the modernization and transformation of the society. Moreso, through teaching and research, higher education helps in the creation, absorption and dissemination of knowledge. This level of education contributes significantly to the development and growth of any nation.

**Managing Teaching and Research at Higher Education in Nigeria.**

Teaching is one of the cardinal programs of higher institutions the world over as no educational programmes can take place without effective teaching and learning. Teaching, therefore, acts as a process of imparting knowledge and is usually aimed at developing the student's intellectual ability. It is one of the indicators of determining the quality of education (Ehichoya and Ogunode, 2020). Research is the bedrock of any institution and functions as the prime source of knowledge ( Kearney, 2008). According to Mafenya (2014), research in the higher institution is essential for many reasons such as enhancing the institution's image and reputation and continuing the knowledge base. Sophia (2009) affirmed that research interest, experiences and

knowledge largely informed the content and styles of teaching. Teaching and research generated controversies with many researchers preferring one to the other and others seeing these are mutually related. Rowland (1996) investigated the perceptions of faculty members about the relationship between teaching and research. He found that teaching and research should co-exist in a synergetic balance within any department. One obvious linkage between teaching and research is that of stimulation and support. The above facts are signals of the nexus that exist between teaching and research. It is felt that lecturers in institutions should participate in both research and teaching as an essential part of their work because active involvement in the research process directly improves the quality of teaching.

**Higher education research Institutional Policy**

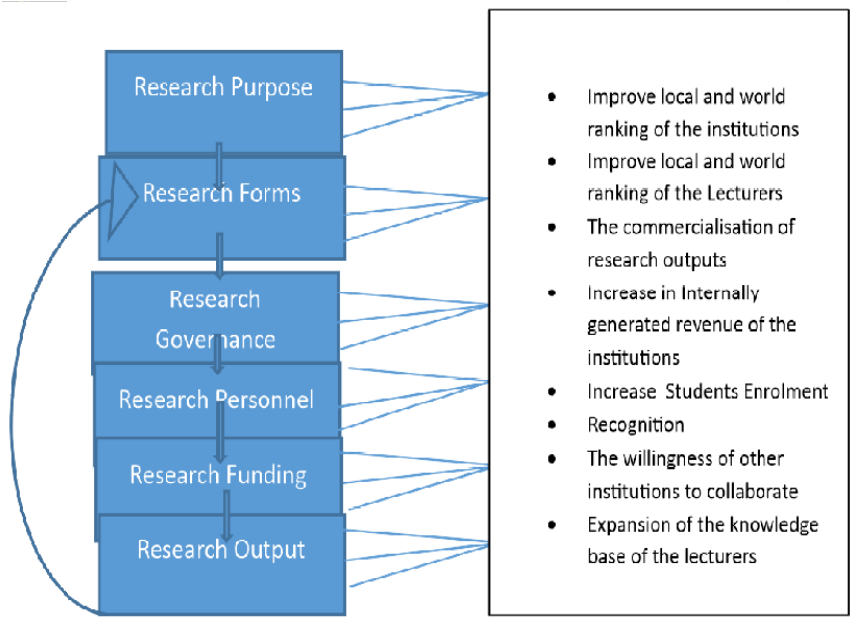
Policies are very essential for the smooth running of institutions. Policies are not only essential for effective institutional management but also for ensuring the sustainability of all the systems and institutional transformation. Educational policies are instruments for the development of education and these policies are embedded in the National Policy on Education. these policies have been formulas geared towards ensuring that the goals of educational institutions are achieved. Many have been formulated for the development of higher education in Nigeria. These policies are formulated by the supervising ministries and diffused to higher institutions for implementation. Such policies according to Ogunode et al (2020) are:

- Recruitment policies- entry qualifications, professionalism and welfare
- Infrastructural facilities Policies
- Staff development Policies
- Lecturers-Students Ratio Policies
- Students Admission Policies
- Basic minimum Academic Standard Policy (BMAS)

There has not been any institutional policy on research activities formulated for higher institutions in Nigeria by any of the

supervising ministries. However, some higher institutions have developed research guidelines for their internal use. This is why our research outputs in higher institutions are not commercialized and they end up on institutions and departmental shelves.

Figure 1: Developing Institutional Policies for Managing Teaching and Research at the Higher Level of Education for National Development




Adopted from Roger, F (2009) and Modified by Osisami, R.A. and Alaka, A.A.(2022)

**Research Purpose**

The research purpose is characterized by a key component for building a working structure for research in higher institutions. The essence of conducting research is to generate and disseminate knowledge. However, for the higher institutions to be relevant, the research activities should be added more focused towards the preparation of the next generation of knowledge users and highly qualified personnel. Neave (2006) posited in his study that any strategy which seeks to enhance a nation's research capacity

must turn its attention to the research system that would convert graduates into capable and qualified researchers. Additionally, attention should also be directed at incorporating discussions related to knowledge production and dissemination; training of highly qualified personnel and the institutions' mandate of teaching and research must be sustained. Slaughter & Leslie (1997) affirmed that attention should be directed to academic capitalism which the researchers defined as institutional and professional market or market-like efforts to secure external money.

**Research form**

The form of research that should be conducted in higher institutions should according to William (2003) in his various studies explained that research should be curiosity-driven which should reflect knowledge production in the context of academic interests and should commonly organised around fixed, hierarchical structure based on subject discipline and subject specialist. The fundamental role of discipline in research for national development cannot be overemphasised. Neave(2002) noted metaphorically that 'disciplines are the mint where the prime currency of academia and its public creditworthiness are smelted and struck'. The traditional form of research activities for teaching is no longer adequate in this contemporary higher institution. Consequently, Boyer (1990) formulated a four-fold model of research in which all research activities are: discovery, teaching, application and integration. All research activities in higher institutions should be directed not only to knowledge acquisition and dissemination but towards discovery, teaching, and integration and should also be useful for other institutions for national development. This idea was modified into a three-fold model of the trans-disciplinary, transient and social form of research (Gibbons, 2003).

**Research Governance**

Higher institutions are expected to prime themselves in conducting excellent research that would make a difference to the professionals, academia, industries and business. This can only

be achieved with the availability of research governance. Governance is the process through which state and non-state actors interact to design and implement policies, rules and regulations (Barbier and Burgess, 2021 in Babalola 2022). Research governance relates to the manner research is structured, how it is organised and by whom the research is organised, the role and make up of advisory boards and agencies as well as the establishment of institutional policies and procedures relating to academic freedom, ethics, research integrity, conflict of interest and intellectual property right (Laidler, 2002 and Rhodes, 2002). Research governance-related issues reflect concerns about the increasing pervasiveness of corporate values, the participatory role of faculty, and reconsiderations of intellectual property rights to the output of faculty Researchers(Roger, 2009). There is a need for all the monitoring commissions and agencies of higher institutions in Nigeria to develop research governance that would be diffused to higher institutions in Nigeria on how to conduct research in institutions for commercialization purposes and national development. It is as a result of the non-availability of research governance that researches conducted by higher institutions ended up on the university libraries or departmental bookshelves and the recommendations are never utilized for national development.

**Research Personnel**

Research personnel focuses precisely on the human resources needed for the conduct of research. Bok (2006) and Gibsons (2003)) noted that research personnel primarily focuses on employment opportunities, recruitment practices, terms of employment and promotion. According to UNESCO(2006), research personnel are human resources for research, initiation of new researchers into the world of research and the terms of employment of those working on the research system. In Nigeria, research personnel is scarcely engaged either on a part-time or full-time basis by commissions, agencies and higher institutions.

**Research Funding**

Research funding relates to sources of funding research. According to Bonewit & Solely (2004); Davenport (2004) & Neave (2002), research funding predominately revolves around processes and procedures related to resource allocation, infrastructure, costs and financial management related to research. Neave (2002), presented a tripartite model that characterized the dimension of research funding into an institution, government and market sources in terms of coordination, orientation and direction of research activities and output. Neave emphatically pointed out that research should be well funded directly by institutions, government and educational agencies and parastatals. Funding of research in Nigeria is in a deplorable state as the magnitude of the funds is from the federal government without little or nothing from the industries. Saint et al (2003) pointed out that Nigeria's low research output is probably a reflection of the low priority accorded to research and development by the government, decision-makers and higher institutions. According to Zeleny (1997), funds for research all over the world primarily come from government and business organizations. This was corroborated by Bako(2005) & Akpachafo (2009) affirmed that the bulk of higher education research has been self-funded and over 80% has been from salaries, parents and guardians. The budgetary allocation to research has been insignificant. The average annual allocation to federal universities for recurrent expenditure was 0.4% and 5% of this was expected to be used for research. The researcher further expatiated that research funding by the government has been less than 1% of GDP and this is grossly inadequate for the conduct of meaningful research (Donwa, 2006). Moreso, Tertiary Education Trust Fund was expected to fund federal and state government-owned institutions for training, conferences, research and related staff development in Nigeria. However, the agency has been performing below expectations as Okojie(2009)reported that N20M each was provided for federal universities in Nigeria and this can in no way be enough to conduct meaningful research that will aid national development.

**Research Output**

Research output is the outcome of the research conducted and this can take many forms such as books, chapters in a book, conference papers, journal articles etc. It reflects primarily measures such as the number and quality of higher institution publications and earnings accrued to the researchers as a result of the dissemination of research findings to industries and organisations. Publications have been seen as the only currency and indicators that can be weighted and evaluated across institutions and national boundaries. However, these indicators of research output are increasingly being augmented with non-traditional measures of research output related to technology transfer, students' performance and participation in cross-disciplinary and cross-institutional research networks (Gibbons, 2002; Neave, 2002; Finnie & Usher, 2005). In higher institutions in Nigeria, much of the research work ends up on the departmental bookshelves and university libraries without dissemination of the findings for usage in organisations.

**The implication of institutional policies on teaching and research activities on lecturers and students.**

- Expansion of the knowledge base of lecturers and students
- Commercialization of research outputs
- Increase in Internally Generated Revenues of Institutions
- Increasing students' enrolment in Institution
- Improves students' academic performance
- It increases the visibility of the higher institutions to the entire world.
- Improvement in Local and World ranking of lecturers and Institutions

**Conclusion**

The writers conclude that the availability of institutional policy framework for teaching and research in higher institutions would improve both local and world ranking of the lecturers and institutions, commercialise research outputs, increase the

internally generated revenue of institutions, increase students' enrolment in institutions and expansion of the knowledge base of the lecturers. All of which would have a positive impact on the students academic performance.

**Recommendations**

Institutional policies should be reviewed periodically to be in line with the National University's Commission mandate for national development and educational institutions in particular. There should be proper monitoring of the funds provided by government through the commissions and agencies. All higher institutions in the country should also be directed to adhere strictly to research policy guidelines instituted by the monitoring institutions. The monitoring institutions should also design well proven system(s) to curb unethical and sharp practices relating to research activities and embezzlement of allocated funds. Necessary infrastructure should be provided to ease the conduct research by higher institutions. The government should put mechanisms in place to ease the accessibility of the research fund. The government should strenghten the symbiotic relationship between industries and higher institution on the usage of the research output. Above all, research governance policy that would guide the conduct of research in higher institution in Nigeria should be well articulated by all the educational agencies.

References

Abubakar, A. B. (2013). Education and sustainable national development in Nigeria: Challenges and Way Forward. Mediterranean Journal of Social Sciences. 4(8), 147-152.

Akpochafo, W. P. (2009). Revitalizing Research in Nigerian Universities for National Development. Educational Research and Review, 4(5), 247-251.

Alaka, A. A. & Amushe, J.U. (2022). Impact of COVID-19 on the management of higher education in Nigeria. Kabale University Multidisciplinary Journal. Vol. 1 (4).

Bako, S. (2005). "Universities, research and development in Nigeria: time for paradigmatic shift", paper prepared for the 11th General Assembly of CODESRIA on Rethinking

African Development Beyond Impasse: Towards Alternatives, Maputo.

Barbier, E. B. & Burgess, J. C. (2021). Institutional Quality, Governance and Progress towards the SDGs. *Sustainability*, 13(21), 11798. Available at: https://doi.org/10.3390/su132111798

Barbier, E. B. and Burgess, J. C. (2021). Institutional Quality, Governance and Progress towards the SDGs. *Sustainability*, 13(21), 11798.

Babalola, J.B. (2022). Institutional governance and sustainable development. A paper delivered at the 15th Regionally Conference organised Higher Education Research Network(HERPNET) in Collaboration with Olabisi Onabanjo University, Ago Iwoye,

Bok, D. (2006). Our underachieving colleges. Princeton, NJ: Princeton university Press.

Bonewits, S., & Soley, L. (2004). Research and the bottom line in today's university. American Academic, 1(1), 81-92.

Boyer, E. (1990). Scholarship reconsidered: Priorities of the professoriate. Princeton, NJ: Princeton University Press/Carnegie Foundation for the Advancement of Teaching.

Castells, M. (1994). The university system: engine of development. In salim, J and Verspoor, A.M., (Eds), Revitalizing higher education pp. 14-40. Oxford, Pergamon

Davenport, P. (2002). Universities and the knowledge economy. In D. Laidler (Ed.), Renovating the ivory tower: Canadian universities and the knowledge economy (pp. 39-59). Toronto: C.D. Howe Institute

Donwa, P. A. (2006). Funding of Academic Research in Nigerian Universities. A paper presented at the UNESCO forum on Higher Education Research and Knowledge Jurnal Sinestesia ISSN 2721-9283 (Online)

Ehichoya, E. & Ogunode, N.J.(2020). Teaching programme in Nigerian higher institutions: challenges of implementation and way forward. Middle European Scientific Bulletin. Vol. 6(2). PP. 86-95.

Enunemu, B. O. (2009). The Challenges of conducting educational research in Colleges of Education. In A. O. Ajayi (Ed). Institutionalization of research and development, Ibadan: Outprints,

Federal Ministry of Education (2014). National Policy on Education. Lagos: Education Research and Development Council

Finnie, R., & Usher, A. (2005). Measuring the quality of postsecondary education: Concepts, current practices and a strategic plan. Ottawa: Canadian Policy Research Networks

Gibbons, M. (2003). Globalization and the future of higher education. In G. Breton & M. Lambert (Eds.), Universities and globalization: Private linkages, public trust (pp. 107-116). Laval, Canada:

Kearney, M. (2008). *The role of post-graduate education in research systems.* Paper presented at the In P. Harvey (Ed), Proceeding of Trends and Issues in Postgraduate Education: Challenges for Research International Experts' Workshop (pp 1-15), Dublin, Ireland: UNESCO Nigeria: Spring Field Publishers

Mafenya, P.N, (2014). Challenges faced by higher educational institutions in research skills development. A South African open and distance learning ease study. Mediterirean Journal of Social Studies 9(4). 239-442.

Neave, G. (2002). *Research and research-training systems: Toward a typology.* Forum Occasional Paper Series #1. Paris: UNESCO.

Neave, G. (2006). Times, measures and the man: The future of British higher education treated historically and comparatively. *Higher Education Quarterly, 60(2),* 115-129.

Noun (2011). Issues and Problems in Higher Education in Nigeria. Lagos. Nigeria

Ogbogu, C.A.(2013). Policy issues in the administration of higher education in Nigeria. World Journal of education. 3(1). Pp.32-38.

Ogunode, N.J., Ajape, T.S. & Jegede, D.(2020). University education policies in Nigeria: challenges and preventing the implementation and the way forward. Jurnal Senestesia. 10(2). 66-85.

Ogunode. N, J, Dilmurod. A, & Abubakar, M. (2021). Supervision of Higher Institutions in Nigeria: Unpublished Paper. Pg 6

Okojie, J. A. (2009). Higher education in Nigeria. Being a paper presented at Revitalization of African Higher Education 235 Education in Africa Day, held at House of commons Palance of West Minister, London.

Ololube, N. P. (2012). Sociology of education and society: an interactive approach. Owerri,

Ololube, N.P., Dudafa, U.J., Uriah, O.A. & Agor, C.N.(2013). Education for development : Impediments to globalization of higher education in Nigeria. International journal of educational foundation & management. 2(1).109-130.

Oshokoya, I. O. (1989). History and policy of education in world perspective. Ibadan: AMD Publisher.

Owan, E. A. (2005). Professional ethics and National Development. National Association for Science, Humanities and Education Journal 3(1).

Paul, N. (2015). Research in tertiary institutions in Nigeria: issues, challenges and prospects: implication for educational managers. Journal of humanities and social science. 20(6). 45-49.

Roger, F. (2009). Conceptual framework for research at Canadian college. Unpublished Ph.D thesis. School of graduate and postdoctoral studies. The university of Western Antorio.

Rowland, S. (1996). Relationship between teaching and research in higher education, 1(1). 7-20.

Rowland, S. (1996). Relationships between teaching and research. *Teaching in Higher* Education*, 1*(1), pp. 7-20.

Saint, W., Harnett, T. A., & Strassner, E. (2003). Higher education in Nigeria: A status report. Higher Education Policy*, 16*, 259-281.

Slaughter, S., & Leslie, L. (1997). Academic capitalism: Politics, policies, and the entrepreneurial university. Baltimore, MD: Johns Hopkins University Press.

Sophia, N. K. (2009). The conflicts between science research and teaching in higher education.: An academic perspective' International Journal of teaching and learning in higher education, 21(1). 75-83.

Sophia, N.K.(2009). The conflicts between research and teaching in higher education perspective. International Journal of teaching and learning in higher education. 2(1). Pp.75-83.

UNESCO. (2006). Comparative analysis of national research systems: Final report. Paris: UNESCO Forum on Higher Education, Research and Knowledge.

Williams, G. (Ed.) (2003). The enterprising university: Reform, excellence and equity.

Zeleny, R.O. (1992). The World Book Encyclopedia, World Book, London, Vol. 16. 233-234.

# REFOCUSING DIGITALIZATION COMPETENCY AMONG ACADEMIC STAFF OF HIGHER EDUCATION IN NIGERIA ON THE PLATFORM OF SCIENCE AND TECHNOLOGY IN THE NEW NORMAL

***Prof. Temisan Angela Ige***
*Department of Science and Technology Education, Faculty of Education, University of Ibadan, Ibadan, Oyo State, Nigeria*
*Email:temige@yahoo.com*

***Olubukola Abidemi Oke PhD***
*Department of Integrated Science, School of Science, Federal College of Education, Abeokuta, Ogun State, Nigeria*

***Abstract***
*This paper investigated focusing on digitization competency among academic staff of higher education in Nigeria on the platform of Science and Technology in the new normal. Five research questions were raised and answered in this study. Covid-19 was initially a child's play for Nigerians and many nations, until the unforetold reality of the menace dawned on citizens and it suggested new normal. During this period, activities in the education sector were brought to a standstill. The National Universities Commission (NUC) and National Commission for Colleges of Education (NCCE) then encouraged schools to engage in digital education. This called for introduction of online teaching and learning, but not welcomed by majorities of the universities and colleges of education, especially the government owned institutions. The paper adopts a qualitative descriptive design. Six public and private universities and colleges of education in Nigeria were purposively selected. Research instruments were lecturers and students questionnaire structured by the researchers and interviews with the staff and students of the selected institutions to elicit information about online teaching-learning process at the period of lockdown. Participants comprised 140 lecturers and 60 students, being a total of 200*

*respondents. Data collected were subjected to qualitative analysis. Findings revealed that there is need for lecturers in universities and colleges of education in Nigeria to be scientifically and technologically literate. Recommendations among others include lecturers in government higher institutions should develop their knowledge and skills in the use of digital devices in the teaching of science and technology for better output.*

**Keyword:** Refocusing, Digitization competence, Academic Staff, Covid-19, New-normal, Higher Education, Science and Technology

**Introduction**

Prior to the onset of COVID-19, higher education was already facing serious structural problems. These include inadequate human resources, infrastructures and finance. Almost all staff Associations such as Academic Staff Union (ASSU), and Non-Academic Staff Union (NASU) among others in the University system and Colleges of Education Academic Staff Union (COEASU) in the Nigerian colleges of education, were involved in one form of industrial action against their employers, Federal or State government, all in the quest for improvement in terms of operation and facilities. To some, the environment in which the universities and colleges of education operate is questionable. These problems among others have raised concerns for stakeholders on the survival of education in the country. Suddenly the country was hit with a pandemic in the face amidst of the existing educational challenges. The rapid spread of the coronavirus (COVID-19), which was first detected in the Chinese city of Wuhan in December, 2019, necessitated countries around the world to impose full or partial lockdown of schools, social and religious gatherings, airports and international and local borders among others sectors and imposing tight restrictions on the movement of citizens (Adetunji and Oyekan, 2020).

The above measure becomes necessary to maintain a safe distance and it is recommended globally to reduce transmission of the virus. To further reduce the risk of the spread of COVID-19 the WHO recommends a physical distancing more

than one metre (three feet) away from the nearest person, while some health experts have suggested maintaining a distance of at least two metres from others. The WHO epidemiologist, Marin Vazque on March 20, 2020 said, *"We're changing to physical distance and that's on purpose because we want people to still remain connected." In the midst of restrictions on movements and keeping social distance to curb the spread of the disease, technology would be very useful in higher education sector. Marin Vazque (2020) noted, "Technology has advanced right now so greatly that we can keep connected in many ways without actually physically being in the same room or physically being in the same space with people,"* Higher Education sector among others is one that has several functions and multifaceted layers of responsibilities and authority. Among these layers is the role of educator. The position of educator is sub-divided into academic and non-academic staff. The educators play a vital role in exposing students to right type of knowledge. In the process, educators experience different types of challenges which proprietors or management of institutions should also take as their responsibility. It is expected that all employees of any higher institution will be ICT literate and compliant in other to expose students to various digital application instructions.

The introduction of online distance learning (ODL) is an embracing approach to the development of ICT literacy education for the academic staff and students in the university system, but not all universities offer ODL programs. The shock of the coronavirus pandemic and the control measures put in place to curb further spread, and the subsequent call for quarantine led to a huge demand for alternative means of delivering lectures to regular students who have no access to physical classroom contact with their lecturers. However, in a research carried out by Johnson, Adams, Cummins, Estrada, Freeman and Hall (2016), the scholars found that although teachers use digital technologies in their personal lives, somehow when applied in classrooms, they encounter serious technical, logistical, and pedagogical problems. Furthermore, Selwyn (2007) revealed in his study that it is common for teachers to establish their own practices individually, meaning that the consistency of technology and frequency of

usage depends solely on individual teacher‘s interest, which leads to inconsistent and sporadic integration. This study aligned with this gap in knowledge as identified in the study of Vázquez (2015) and set out to investigate why the use of technology remains challenging in the higher education sector. The lack of a common approach on the part of the educational centre negatively impacts innovative teachers because they do not feel supported by their institutions (Gumbau et al., 2016). Gomez (2017) detects a progressive decrease over recent years, of institutions‘ commitment to training their teachers in digital technologies. The data indicates that only 20% of teaching and research staff have received training in digital technologies in the last year. Similarly, 72% of the institutions that participated in the study do not have a plan for allocating and distributing human resources linked to ICT. On the other hand, there is a recognized deficit in digital literacy and competence that would help make digital technology integration neither random nor underutilized, but instead planned and suitable for meeting real educational needs (Chukwunonso and Oguike, 2013; Marín, Vázquez, Llorente, and Cabero, 2012; Salcines, González and Briones,2017; Zempoalteca et al.,2017).

Sevillano (2015) opines that the problems stem from their mechanical and educationally pointless use to the integration of digital technologies at the personal level with their under-utilization. Consequently, Cuhadar (2018) gathers that the technological competency level of teachers at any level of education is intermediate. Efforts were made by the government, and in like manner, different education agencies have introduced online registration, online examinations especially at the elementary stage but multiple-choice questions were the standard. The Joint Admission Matriculation Board (JAMB) in particular, has introduced electronics examination in the quest to minimize or completely eradicate examination malpractice that had become the order of the day at the entry point into universities and colleges of education. All these are centred on how to improve students, yet this approach was not embraced by most higher education institutions formally, until the hit of COVID-19 when the need formally arose to implement the online digital instructions away from school campuses and lecturers had no

choice than to adopt the online teaching for their students from their various homes. Findings from previous studies on the use of digital devices in teaching reveal that the ICT literacy level of most academic staff of higher ranks with more teaching experiences in universities and colleges of education is relatively low and needs to be upgraded, especially in the government-owned higher institutions. It shows that the level of literacy of some academic staff in the private institutions is higher than their colleagues in the public or government-owned higher institutions (Cuhadar, 2018; Adetunji, Ogunleye and Adeleru, 2015). This paper therefore sought to explore the digitalization competency of higher education academic staff in the post-COVID era in the place of science and technology.

**Statement of the problem**

Higher Education sector among others is one that has several functions and multifaceted layers of responsibilities and authority. Among these layers is the role of educator. The educators play a vital role in exposing students to right type of knowledge. In the process, educators experience different types of challenges which proprietors or management of institutions should also take as their responsibility. It is expected that all employees of any higher institution will be ICT literate and compliant in other to expose students to various digital application instructions. The shock of the coronavirus pandemic and the control measures put in place to curb further spread, and the subsequent demand for alternative means of delivering lectures to regular students who have no access to physical classroom contact with their lecturers. Unfortunately, most lecturers in higher institutions have low level of ICT compliance and digitalization competency which the new normal calls for. Findings from previous studies on the use of digital devices in teaching reveal that the ICT literacy level of most academic staff of higher ranks with more teaching experiences in universities and colleges of education is relatively low and needs to be upgraded, especially in the government-owned higher institutions. It is on this premise that this paper investigated the digitalization competency of higher education academic staff in teaching science and technology in the new normal.

**Objectives**

The paper aimed at investigating the digitalization competency of academic staff of universities and colleges of education in Nigeria through the use of ICT devices in teaching and learning of Science and Technology in the new normal.

**Research Questions**

The following research questions were raised and answered:

RQ1: To what extent has the lockdown of schools during COVID-19 pandemic affected the higher education system of Nigeria?

RQ2: In what way has ICT through science and technology contributed to bridging the academic gap created by the pandemic and total lockdown in reaching out to learners online?

RQ3: What are the levels of digital compliance and competence of academic staff of universities and colleges of education in the use of ICT facilities and devices for online teaching in the new normal?

RQ4: Is there a difference in the level of digital compliance and competence of lecturers and students in private and public universities and colleges of education in Nigeria?

RQ5: What are the inherent factors militating against a sustainable digitalized online education in Nigeria and possible panacea to curb these problems in this new normal era?

**Methodology**

The paper adopted a qualitative and descriptive design to the discovery of ICT literacy level of universities and colleges of education lecturers as exposed by Covid-19. Six government-owned and private universities in Nigeria were purposively selected. They are: National Open University of Nigeria (NOUN) in Abeokuta, University of Ibadan (UI.)Ibadan, Ladoke Akintola University of Technology (LAUTECH), Ogbomosho, Bowen University (BUI) Iwo, Admiralty University of Nigeria (ADUN), Ibusa and Ajayi Crowther University (ACU), Oyo, representing the federal, state and private universities respectively. In the same

vein, six colleges of education out of the 152 available in Nigeria were purposively selected for data collection. They are FCE, Abeokuta, FCE (Special). Oyo, FCE (Technical), Akoka, Adeyemi COE, Ondo, Kwara State COE, Ilorin and St. Augustine COE, Ibadan. Population comprised all the lecturers and students in all the selected universities and COEs in Nigeria. The instrument for data collection were lecturers questionnaire on digitalization literacy and competency level (LQDLCL), students questionnaire on readiness and participation in digitalized instructions (SQRPDI) in the new normal and interviews conducted on lecturers' digitalization competency with the staff and students of the selected institutions to elicit information about the online teaching-learning process during the period of lockdown. Participants comprised 140 lecturers (70 from universities and COEs) and 60 students (30 from universities and COEs) respectively, being a total of 200 respondents.

**Data Analysis**

Data collected were subjected to qualitative analysis in tables.

**Results**

**Table 1: Table showing Universities Academic Staff with ranks engagement in Online Instructions in the New Normal using Digital Devices**

| TYPE OF SCHOOL | NAME OF SCHOOL | PARTICIPANTS IN RANK | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Private | BOWEN | GRD ASST | LII | LI | S.L | READER | PROF | TOTAL |
| | ADUN | 6 | _ | 2 | 1 | 1 | 2 | **12** |
| | ACU | 2 | 4 | 4 | 3 | 2 | - | **15** |
| Public | UI | 1 | _ | _ | 1 | 5 | 2 | **09** |
| | LAUTECH | _ | 8 | _ | 3 | 3 | 1 | **15** |
| | NOUN | 2 | 1 | 2 | 1 | _ | - | **06** |
| TOTAL | | **13** | **15** | **10** | **12** | **13** | **07** | **70** |

Authors' computation (2020)

**Table 2: Table showing Colleges of Education Academic Staff with ranks engagement in Online Instructions in the New Normal using Digital Devices**

| TYPE OF SCHOOL | NAME OF SCHOOL | AL | LIII | LII | LI | SL | PL | CL | TOTAL |
|---|---|---|---|---|---|---|---|---|---|
| Federal | FCE/ABK | - | 1 | 2 | 1 | - | - | 3 | 07 |
| | FCE/OYO (Special) | 2 | _ | 2 | 1 | 1 | 2 | 1 | 09 |
| | FCE/AKOKA (Technical) | 2 | 5 | 2 | 3 | 1 | - | - | 13 |
| State | TASCE/IJ.ODE | - | 1 | 4 | 1 | 4 | - | - | 10 |
| | ACOED/ONDO | 2 | 1 | 4 | - | - | 1 | | 08 |
| Private | ST. AUG. COE IBADAN | 6 | 8 | 6 | 1 | - | 2 | | 23 |
| **TOTAL** | | **12** | **16** | **20** | **07** | **06** | **05** | **04** | **70** |

Authors' computation (2020)

**Discussion of Findings**

Tables 1 shows a low participation of lecturers at the higher cadre from senior lecturers to professors (R=7; P=3; 14.3%), while graduate assistants to senior lecturers in universities and also a corresponding low participation of lecturer 1 staff to CL in COEs as shown in table 2 (L1=7; SL=6; PL=5; PL=4; 31.4%) in online instructions using digital devices. Furthermore, findings from the statistical analysis in tables I and 2 show that lectures in private universities and COEs participated better and were more involved in the digital instructions in the new normal than their colleagues in public higher institutions. This is in line with the submissions of Cuhadar (2018) and Adetunji and Oyekan (2020) in their studies on the use of digital devices in teaching that the ICT literacy level of most academic staff of higher ranks with more teaching experiences in universities and colleges of education is relatively low and needs to be upgraded, especially in the government-owned higher institutions. It shows that the level of literacy and digitalization competency of some academic staff in the private institutions are higher than their colleagues in the public or government-owned higher institutions.

**Responses from the interactive session with lecturers and students of selected higher institutions**

From the opinions of the lecturers and students of the universities and colleges of education sampled from the interview conducted, they claimed that students are less willing to learn, many did not participate in the online instructions during lockdown; making it difficult to rate the online teaching perfectly. More often than none, majority of lecturers who had never used the IT literacy to deliver lectures were scared of the challenges. Rather than developing themselves towards this approach, they tend to criticise the online teaching methods. It was observed that while majority of the lecturers and staff of the universities do own laptops and other electronic devices that can be used to aid delivery or teaching in the university, many of them do not know how to operate or use them effectively. They were used to the habit of using the younger lecturers or their office or departmental secretaries to do the tasks on their behalf. In other words, they never prepared for a time of pandemic when they would be asked to stay at home and be teaching from home. The findings suggested that there is need for university system to develop with the technology and not being far behind in the new normal. Findings reveal that there are serious impediments to active and successful implementation of the online learning during the Covid-19 lockdown on the part of both lecturers and students. These include the following:

1. Erratic Power Supply: 68% of the respondents complained of erratic power supply. They all claimed that erratic power supply is not a new thing in the Nigerian society. 19% of the lecturers from private universities points that students and the lecturers were complaining of power shortage.

2. Lack and instability of Internet Network: There was the lack of internet network in some places. This depends largely on the service providers. The simple solution that both the lecturers and students adopted was the buying of new SIM cards that would make it possible to use the available network facilities within vicinity. 39% of the lecturers would be online expecting that the

students would also come on board. At the end of the day, the teacher would wait for so many minutes, even hours without being able to teach the students.

Unfortunately, the students must be in another class later. 20% of the students said that some of their lecturers were so magnanimous to the extent that they personally teach the students who miss classes due to poor internet network individually. 3% students were living in a remote area (village) and needed to travel to other towns in order to receive online lecture. This imposes extra expenses on the parents, and risk of life on the part of the students.

3. Lack of ICT Facilities: It is disheartening to note that 40% of the students do not have access to laptops and even good phones. The lecturers were left with no options than to be sending lecture notes and assignments to students' email boxes with the hope that they would be able to open it anytime, read the notes and do the assignment. Can this be called teaching? To a great extent No!. This is because there was no active class discussion between the learners and the lecturer. Besides, some students would not be online because of lack of money to buy data.

4. Inadequate ICT Unit: Until the period of the lockdown, many universities and colleges of education have ICT units, but only a few have individual Smart hubs for students where each student can interact with the ICT, the Registry, the Head of Department, the Level Advisers, the Course Lecturers, etc. The virtual teaching requires serious and diligent sourcing of information concerning students and staff members. This information was available in offices but access to them was denied greatly because there was total lockdown.

5. Lack of Training: unavailability of active, functional and up to date ICT units also led to lack of training. Some private universities started their training during the period of the lockdown. The public universities did not attempt any training at this time. For online examinations, intensive trainings online supervision needed be carried out. Where there is insufficient

funds, the training may not be thorough. Hence, there could be wish washy online examination activities.

6. Lack of Incentives: 100% of the respondents noted that it seemed that the cost of data became so high during the lockdown to the extent that both lecturers and students were spending more on data than usual. While some lecturers were happy teaching and guiding the students, they were unsure of whether they would be reimbursed for extra cost of data apart from the academic allowances they were being given. Some Lecturers said they spent about sixty thousand naira for the period of the three months of their lecture.

**Conclusion**

The challenge brought by COVID-19 has also helped in updating some academic staff that hardly interact with electronics devices such as computer, ipad, phones etc. to become friendlier and ICT compliant in the new normal. This paper showed that the universality of education system has now gone beyond traditional teaching in the classroom and it focused on the need for academic staff in higher institution to be digital literate and compliant, especially in the hew normal.

Though, there were many underlining challenges militating against the effective use of ICT and digital devices in most of the Nigerian institutions as afore-highlighted. In conclusion, the need for NUC and NCCE to re-educate all universities and colleges of education presenting themselves for accreditation or re-accreditation, to show evidence of ICT training obtained by staff is very germane in fostering the digital competency of lectures in Nigerian higher institutions of learning.

1. **Recommendations**

   1. There should be adequate preparation of staff and students to improve their literacy level in ICT. This will help to create willingness to embrace the challenges of integrating ICT into teaching and learning processes.
2. Mandatory computer programme should be organised for students and lecturers in the universities and colleges of

education to reappraise them and make ICT skill acquisition more practical. Specifically, lecturers who are 50 years with more teaching experience and above should be given intensive and thorough training in the use of ICT tools for online teaching.

3. Government should prioritize the funding of the education sector in the nation, most especially in the area of Science and Technology and supply adequate digital devices and internet facilities required for ICT projects for lecturers and students in the universities and colleges of education.
4. There should be funds made available to university and college of education managements across the nation to finance the training and development and retaining of ICT experts in higher institutions.
5. Deliberate and sustained approaches should be taken to address ICT staffing. This includes strategies for retention of ICT staff. Such strategies may include offering ICT training opportunities with pay package.

**References**

Adetunji, A. T. and Oyekan, F. E. (2020). Organization behaviour: The attitude of religious leaders in the phase of pandemic. *International Journal of Psychosocial Rehabilitation,* 24(10), 2993-3003.doi:10.37200/IJPR/V24I10/PR300314. 24(10), ISSN:1475-7192.

Al-Senaidi, S., Lin, L., and Poirot, J. (2009). Barriers to adopting technology for teaching and Learning in Oman Computers and Education,53,579-590.https://doi.org/10.1016/j.compedu.2009.03.015.

Buchanan, T., Sainter, P., and Saunders, G. (2013). Factors affecting faculty use of learning technologies: Implications for models of technology adoption. *Journal Computer Higher Education,*25,1-11.https://doi.org/10.1007/s12528-013-9066-6.

Chukwunonso, F., and Oguike, M. C. (2013). An evaluation framework for new ICTs adoption in architectural education*. International Journal of Informatics and*

*Communication Technology* (IJ-ICT), 2(3), 183-189.https://doi.org/10.11591/ij-ict.v2i3.5285.

Cuhadar, C. (2018). Investigation of pre-service teachers‘ levels of readiness to technology. integration in education. *Contemporary Educational Technology*, 9 (1), 61–75.11.

Gómez, J. (Ed.) (2017). UNIVERSITIC 2017. Análisis de las TIC enlas Universidades Españolas Madrid: CRUE Universidades Españolas ISBN:978-84-697-9759-4.15. Gumbau, J. P.

Gumbau, J. P., Llorens, F., Molina, R., Canay, J. R., Fernández, S., Rodeiro, D.and Zapata TIC Ros, M.(2016).Másallá de los datos. In J. Gómez (Ed.), UNIVERSITIC 2016. Análisis de lasenlasUniversidadesEspañolas,106–143. Madrid: Crue Universidades Españolas ISBN: 978-84-617-5525-7

Johnson, L., Adams Becker, S., Cummins, M., Estrada, V., Freeman, A., & Hall, C. (2016).
NMC horizon report: 2016 higher education edition. Resource document. Austin: The New Media Consortium https://www.sconul.ac.uk/sites/default/files/documents/2016-nmc-horizon-report-he-EN-1.pdf.Accessed 10 Oct 2019.

Marín, V., Vázquez, A. I., Llorente, M. C., and Cabero, J. (2012). LaAlfabetización Digital del docente universitario en el Espacio Europeo de Educación Superior. EDUTEC. *Revista Electrónica de Tecnología ducativa,*39,1–10.https://doi.org/10.21556/edutec.2012.39.

Salcines, I., González, N., & Briones, E. (2017). Perfiles docents universitarios: Conocimiento yusoprofesional del smartphone. Bordón, 69(2), 91–114. https://doi.org/10.13042/Bordon.2017.51445 ISSN: 0210-5934

Selwyn, N. (2007). The use of computer technology in university teaching and learning: To critical perspective. *Journal of Computer Assisted Learning*, 23, 83–94

Sevillano, M. L. (2015). El contextosocioeducativo de la ubicuidad y la movilidad. In E. Vázquez, and M. Sevillano (Eds.),Dispositivos digitales móvilesen educación. El aprendizajeubicuo,17–38.Madrid: Narcea Ediciones ISBN: 978-84-277-2100-5.

Vázquez, E. (2015). Aprendizajeubicuo y móvilmediante ―apps‖. In E. Vázquez, and M. L. Sevillano (Eds.), Dispositivos digitales móvilesen educación. El aprendiz ajeubicuo, 135–154.Madrid: Narcea Ediciones ISBN:978-84-277-2100-5.

Zempoalteca, B., Barragán, J. F., González, J., and Guzmán, T. (2017). Formaciónen TIC competencia digitalenla docenciaen institucion espúblicas de educación superior. Apertura, 9 (1), 80–96.https://doi.org/10.32870/Ap.v9n1.922

# EFFECTS OF COVID-19 ON INTERACTIVE ENGAGEMENT AND TEAM-BASED INSTRUCTIONAL STRATEGIES ON STUDENTS' SAFETY AND SECURITY IN HIGHER EDUCATION IN THE *NEW NORMAL*

**Martina Akhibi[1] & Loyce Onyali.[2]**
*egbea2@yahoo.com[1], lc.onyali@unizik.edu.ng[2]*
*Dept of Educational management and Policy Nnamdi Azikiwe University, Awka, Anambra State, Nigeria.*

**Abstract**

*The impact of COVID-19 has modified the methods through which institutions of higher learning in Nigeria protect themselves and develop new strategies for safety and security. Nothing has ever destabilized institutions of higher learning as COVID-19 that forced all institutions of higher learning to reduce physical contacts to the barest minimum required for effective functioning in a bid to provide security and safety for their staff and visitors. However, many institutions have not been able to articulate how to respond effectively to the aftermath of COVID-19 that has raised issues of safety and security requiring new strategies, collaborations and integration. This paper explored the need to create frictionless/ touchless systems and devices for alerting processes integrated with intelligent management system for effective learning and teaching. Furthermore, the paper investigated the need to provide both physical safety and psychological sense of security with new strategic planning for space in institutions of higher learning which would be evident in the management of the classrooms, hostels, offices and recreational facilities. Additionally, it proposed the kind of partnerships, training and educational management system for synchronous and asynchronous learning geared towards safety and security of every individual in the 'new normal'. Finally, the paper envisaged that its findings will offer insights into the kind of protection that assure staff, students and visitors of maximum security-and-safety in the event of news of any outbreak of disease similar to COVID-19 in the future.*

**Keywords:** Safety, Security, Higher Education and New Normal.

**Introduction**

The news of the outbreak of corona virus, later named COVID-19 pandemic in Nigeria and globally in the early periods of the year 2020 created a new world system that imposed itself and set new mechanisms on the entire globe. The sudden and tumultuous onset of the Covid-19 virus, the unpreparedness of nations and its seeming defiance to immediate measures created fear and uncertainty in the minds of many regarding the future. Nearly all workplaces particularly higher education began new norms in the form of social distancing which dictated the sitting arrangements, number of persons in workplaces/school premises, the use of face shield, masks and general caution in social associations. The social distancing as a measure to mitigate exposure to the virus and to support learning in the new reality notwithstanding, Covid-19 still claimed numerous lives. According to World Health Organization (2020), the number of death due COVID 19 pandemic in 2020 is about three million (3 million). It is envisaged that more death will be recorded hence the need for more innovative response to the challenges of Covid-19 (Nguyen, Anderson, and Banerjee, 2020). To curtail the virus, higher institutions are increasingly turning to more advanced technology to run the programmes which were formally analogue and physical. (Plante 2020; Nguyen et al, 2020). As such, touchless Technologies have become the '*new normal'* with organizations adopting new concepts using artificial intelligence (AI) and other automation technologies to promote safety-and-security (Ancheta & Ancheta 2020).

Imperatively included in this work is the definition of key terms such as the use of safety and security in the context of higher education as well as what was meant by the '*new normal'*. Then the paper looked at frictionless/touchless systems for security in institutions of higher learning. Thereafter, the paper proceeded to explore effective alerting processes in institutions of higher learning for enhancing safety and security. This research further investigated intelligent management system that boosts a sense of safety and security for effective learning and teaching.

Finally, this work also examined strategic planning for space management in higher places of learning, partnerships, training and use of educational management system. In conclusion, the work considered the experience of trauma, psychological pressure and anxiety.

**Conceptual Description of Terms:**

**Safety and Security**

Safety, in the context of this paper, refers to that psychological state of wellbeing necessary for focus on academic pursuit (Pimentel-Tibon, 2020). For instance, before the advent of the pandemic, people could cluster in small classrooms and did not need to worry about their health safety; quite unlike today, even in large halls, both staff and students cannot concentrate on learning because of concern for safety and security. So, safety and security could be described in terms of social and psychological state of mind that is free from fear of contacting infection, so as to focus on learning.

**Higher Education Institutions in Nigeria**

The focus of this study centers on Higher Education with a core objective of dealing with security and safety of adults threatened by the emergence of a ravaging global pandemic leading to seen and unseen fears of the future to adopt rational defense mechanisms in health care. For instance, before the pandemic, the types of precautionary hygiene advocated in higher education today were not there but in nursery schools. In today's higher education institutions, we are learning afresh how to observe hygienic regulation in order to promote health safety and security.

**The '*New Normal*'**

Before the pandemic, anyone wearing face mask would be looked upon as odd in society. Shaking of hands was a conventionally accepted symbol of respect and courtesy. But now, physical distancing from each other, washing of hands, non-shaking of hands, wearing of nose mask, mouth mask and prohibiting of public gathering have become the convention. In this light the

'*new normal'* has been described in terms of new conventions that create opportunity for growth (Smolka & Heugens, 2020). Thus, the new normal in higher education should provide the needed social and psychological feeling of safety and security that promote assurance of freedom from fear of contacting infection, so as to focus on learning (Pimentel-Tibon, 2020). This is what the new normal is all about in higher education.

**Advocating Frictionless/Touchless Systems for Security in Higher Education Institutions**

Frictionless/Touchless, in the context of this research describe a situation of fast, seamless and digitally powered accessibility to services which otherwise would have been frustrated by the inherent delays of analogue operations.

Obviously, some massive digital transformation has occurred over the past year due to COVID-19, forcing institutions of higher learning to adapt to the new circumstances. It has been noted that about 68% institutions have turned to digital technologies to retain effective operation, with minimum impact on their output (Manimuthu, Dharshini, Zografopoulos, Priyan, &Konstantinou, 2021).

Institutions of higher learning should invest in touchless access controls such as face recognition, hand wave gesture, or mobile app access like goggle map, e-library etc, in order to offer contactless ways for staff and students to operate with a sense of safety and security. The kind of touchless access control systems being proposed for appropriate response to threats of safety and security in higher education should be those that eliminate physical contact, and make use of advanced technology in order to prevent face to-face contact of infection and focus on learning. The control systems such as mobile apps being proposed allow access to up to date educational materials to continue learning independently via internet connection (Acer, 2017). These will enable students, staff and visitors to stay healthy, safe and secured. These systems can also be paired up with staff and student ID data to reinforce internal security systems (Umbrella Technologies, 2021). For instance any student or staff who crosses the touchless checkpoints can be identified with the aid of

thermal health checking equipment mounted at entrances in case the person has high temperature or is not with the proper protective kit such as face mask.

Regarding the touchless access control being proposed, this study has discovered that it is imperative for institutions of higher learning to stop using old access systems with key card swipe functionality where employees have to physically swipe cards, and pull doors in order to ensure safety and security. This is the most unsafe strategy because it has been recognized that these old key card systems and door controllers are among the fastest means of spreading infection because they are the most commonly touched surfaces in any institution (Plante). Few institutions of higher learning are implementing touchless access control to eliminate common touch points to reduce the risks of spread of infection to ensure safety and security of all in school; however, many other institutions are still using the old systems.

Many security system designs in institutions of higher learning should be reevaluated to allow for touchless, or frictionless, access control (Plante). This will reduce the social and psychological inhibition arising from fear of infection through physical touch of surfaces when using access control systems. In addition, classroom redesigns should be conceptualized, in order to move from large crowds in halls to few students in open spaces that are organized for physical distancing from each other. Online management systems are ideal for facilitating this level of safety and security. Shared office spaces are also being reorganized to ensure the same kind of safety and security with physical distancing from each staff and clients.

In order to ensure safety and security during social events, institutions of higher learning should strive hard to provide facilities that enhance social and psychological sense of safety by facilitating physical distancing and touchless access control systems. Thus, every institution of higher learning should investigate the kinds of modifications to be made to reduce fear of infection by developing the culture of touchless access control systems (Plante 2020). The practice of social distancing after the COVID-19 pandemic will remain for the foreseeable future. This indicates that physical distancing has become a *new normal*.

Covid-19 has changed how people perceive safety and security to the extent of establishing a new normal. People no longer want to touch public door handles, push buttons on elevators or swipe a proximity card reader for an access control system. Every aspect of our lives is rapidly evolving, and the future demands touchless access control systems for a safer way to access homes and buildings. It therefore makes sense to invest in futuristic touchless technologies and understand the core benefits of employing such access systems for ensuring safety and security in institutions of higher learning.

A recent survey reports showed that due to the COVID-19 pandemic about 95% of the people prefer touchless services like touch-free alcohol or soap dispensers, touch-free faucets (regulator for controlling the flow of liquid e.g. a tap), etc. Contactless or touch-free technologies can be leveraged for ensuring safety and security in order to facilitate effective learning in institutions of higher learning (Manimuthu et al, 2021). Because of the pandemic, effective facilitation of learning requires minimal contact with surfaces to reduce focus on fear of spread and virus transmission (Umbrella technologies, 2021).

A lot has been done in form of routine and design to limit diseases transmission through surfaces, however, new technologies are creating new possibilities for improvement and institutions of higher learning should take good advantage of them. Innovatively replacing some of the key touch points in institutions that staff and students interact with would decrease the fear of cross contamination and create assurance of safety and security. Researchers indicates that hand sanitation is the most effective way to reduce the spread of pathogens, but even trained professionals forgo personal hygiene, forgetting to wash their hands appropriately (Brage Hansen, 2016). This shows that despite the fact that much has been done to improve sanitation and prevent spread via surface contacts, there is still much to desire from the design of things people interact with on daily basis. It can thus be concluded that the fewer items students, staff and their visitors touch when performing their everyday job, the less the fear of indirect spread of viruses such as the covid-19 via surface area.

**Effective Alerting Processes in Institutions of Higher Learning**

In educational settings, effective communication is crucial to keeping everyone informed especially in the *new normal*. Without effective communication, fear and insecurity will dominate the atmosphere. Effective communication is necessary for all learning institutions to function well particularly in this era when there is excessive fear of new brands of infection. The spread of virus as well as the statistics and fatality are usually publicized through mass media and social networks. Likely, the quantity and quality of communications from a leader would make a difference in keeping both staff and student informed about the level of safety and security preparedness of the institution. Kaul, Shahand and El-Serag (2020) state that uncertainty produces anxiety throughout the workforce and the leader's silence will be interpreted as bad news.

The ability of educational administrators to communicate effectively would help to clear unnecessary fear from both staff and students and guide them to give their focus to learning activities. The atmosphere in higher education is one guided and enhanced by effective communication. As opposed to other organizations, it is often necessary to send alerts not only to staff, but students and parents as well. Think about urgent messages that are linked to safety. A technology like DeskAlerts combines desktop notifications with email, text message, Internet and other capabilities (Vdovin, 2021). With DeskAlerts, an instant text message for students and parents, in the event of urgent news or an emergency can reach the appropriate parties instantly and efficiently.

Let us consider a dangerous situation, where there is rumour about an outbreak of a certain brand of an infection that may lead to a school lockdown. If the school must respond effectively to such as situation, then the obvious need to inform staff, students and parents of the security measures taken is crucial for sustaining a healthy learning environment. In such scenario, DeskAlerts could easily notify all stakeholders by email and SMS simultaneously to ensure that they receive the message. The possibilities are endless. Teachers can directly

remind and assure students of safety and security measures that each person needs to put in place to maintain a healthy learning environment. The ability for DeskAlerts to increase a school's communication is certainly relevant to maintaining safety and security in institutions of higher learning (Vdovin, 2021).

**Intelligent Management System for Effective Learning and Teaching**

As the pandemic has created a situation where the world today is facing the largest public health risk globally, educational institutions need to shift to blended learning, which is eventually going to be the new way of learning, despite that most of the current curriculum are not designed and approved for blended learning. Learning institutions must find new ways to deliver the best content by using learning management systems. This implies that all academic programs need to be redesigned for online delivery or at best for blended learning. At the initial stage of institutional response to the pandemic, it was extremely difficult to facilitate teaching and learning through blended and online delivery but today it is very easy to share and learn by using the Internet (Anjali, Harshita, Akash, Vinith& Reddy, 2021).

The Internet has helped the education system by introducing several Learning Management System (LMS). It is therefore mandatory that institutions of higher learning should make effective use of these systems. Generally, a learning management system contains different components or modules. A course management module provides facilities for adding new courses, managing, or updating existing courses, assigning teachers to courses, and other course-related details. In the online assessment module, the student can upload the assignment electronically so there is no need for submitting it by using paper. Therefore, apart from safety and security benefits, it saves papers as well.

Providing leaning management systems also assures safety and security, as students are able to get instant results of their formative and summative assessments. In some institutions of higher learning, some student would spend more than one year before they could access the results of their assessment. This

scenario would create anxiety and disrupt focus on learning activities. However, with the new learning management systems, students can access instantly their results and benefit effectively from the purpose of formative assessments.

Furthermore, learning management systems equip teachers with capability to upload tutorials, videos, and other useful materials that can help students to learn asynchronously. With the help of using Module, the student can view and download files for asynchronously study. In the feedback management module, students can give feedback for each subject, and teachers and only authorized persons can view the feedback. Such learning management systems offer frictionless/touchless delivery system for both staff and students in a manner that secures safety and security, thereby dispelling any irrational fear of contacting a virus.

Learning management systems provide prompt and efficient output as compared to a manual feedback system. As e-learning is rapidly evolving, institutions of higher learning should take positive advantage of such learning systems for more practical approach towards education as it is becoming part of the new learning platform. It will continue to be an extremely useful teaching tool as well as a self-study platform for learners. E-learning approaches offer a more engaging atmosphere as well as the possibility for a fully personalized and self-paced online mode of study. This paper therefore proposes Moodle, Google Meet, Zoom, Big-Blue-Button as the Learning Management systems for improving learning experiences, especially in this *new normal* era and during outbreak of similar viruses (Anjali,et al).

The integration of technology into educational setting has become crucially important. Digital technology is now widely used in the teaching field precisely in the higher institutions. Adobe Connect is another powerful platform that instructors are using to support learning because as a digital technology tool, it has proved to be helpful in conducting courses with the remote learners. This tool should be used across devices, including mobile devices for sharing files, whiteboards, and host resources as well as offer interesting content delivery.

The use of learning management systems offer virtual classroom settings that permit any file extensions, enables users to download files uploaded by the host or other users, making it possible to zoom during screen sharing and to control the users' desktop through share desktop. The use of learning management systems make it possible for a host and other authorized users to start whiteboard meeting functions such as creating and editing texts, line, square, circles and other drawings simultaneously during and after the meeting by saving the meetings. Saving option is important since users have the chance to see the courses they missed at multiple times. Adobe Connect enables its users to save the meeting for offline watching and to link the programs archive (Çirakli & Özbay 2020). Virtual classroom settings have turned into an experiential space for effective learning that at the same time ensure safety and security.

The use of learning management systems offers opportunity for a combination of synchronous and asynchronous teaching and learning modality which is most convenient for providing safety and security in institutions of higher learning (Ancheta & Ancheta 2020). These are learning modalities that combines online learning where there is an interaction between teachers and students using specific platform and offline learning wherein students are given time to work on various performance tasks at their own pace. The most important adjustment, for those who teach in classrooms in real time according to Daniel (2020), is to take advantage of "asynchronous learning."

Asynchronous learning is the learning, which occurs at different times in any order without waiting for each other. For most aspects of learning and teaching, the participants do not have to communicate at the same time. This type of learning applies an independent approach where students learn at their own pace. Its premise is learning in different times and spaces (Ancheta & Ancheta 2020). Students in this learning modality have one common communication channel either email, learning management system (LMS), WhatsApp clips or any other social media platforms that give students access to the learning materials.

This modality is based on constructivism theory where students are actively constructing their own knowledge through their own experiences (Ancheta & Ancheta 2020).This mode is specifically helpful for students with difficulty attending specific time schedules. It also allows peer collaboration through group assignments where students can work and review tasks together. This mode of learning aids those who have no full access to the internet. For academic institutions with their own LMS, management of the learning materials is easy for both the teachers and the students. All quizzes, class works and other performance tasks including quarterly assessments can be made readily available.

The user administrators can also create email accounts for students using Microsoft Office 365 for easy communication. However, schools with insufficient funds and resources make full use of the modular approach. If no available platform for the upload of the learning materials, parents can claim materials from the school observing proper protocols. In reality, this allows teachers to work at home while students learn at home at their own pace. However, a serious issue is on the online assessments. Online examinations through a 'trial and error' approach lead to uncertainty. Interruptions and internet glitches affect students' performance that might lead to increased failures. Results might not be favorable for both the teachers and the students. Gardiner in the work of Ancheta & Ancheta recommends practices for asynchronous learning. One powerful way is through a record of any components of the syllabus. It is mandatory also to communicate with the students and provide specific instructions either through email or a discussion thread in a portal.

Furthermore, Synchronous learning is purely online learning with live interaction between teacher and students using specific online platforms. The learners and teachers are in the same place online at the same time for learning to take place (Ancheta & Ancheta). Learning in this manna includes video conferencing, live streaming lectures and chatting using Google classroom, Google meet, Zoom, MS Teams, and other platforms. Video conferencing is a synchronous model for interactive voice,

video and data transfer between two or more groups/people (Jena, 2020).

It allows similar face to face classes through a virtual room. It is one of the technologies that can be used in online learning because it is cost effective and can produce significant result which enhances performance. Studies have shown that there is no significant difference between the online and in-class learning as it offers learners opportunity for online interactions, allows immediate question and answer session and offers personalized learning opportunities

Jena, (2020) attests further that, in the past, students of rural areas were missing many of the opportunities that their urban and suburban peers had taken for granted. Video conferencing has allowed these rural students for online learning and has dramatically improved the quality of their learning experience. This has enabled the rural/disadvantaged learners to both attend school/college from home and gives them access to the experts.

The common challenges like network problem, lack of sufficient data, distraction due to surrounding etc. can be taken care off. There is a need of ICT training to teachers as well as students for better and proper implementation of online learning and they should be well equipped with amenities. There is need to follow many precautionary measures for premises (Bhati, Vatta, &Tiwari, 2020).

**Strategic Planning for Space in Higher Places of Learning**

Those entrusted with educational planning are concerned about the potential COVID 19 spread among staff and students, thus the need for rethinking and remodeling space allocation to implement the recommended physical distancing practice. Consequently, it is advised to spread out desks and chairs to at least a couple of meters such as 0.9-1.5 m (Adwibowo, 2020). Another issue is to maintain the heating, ventilation, and air condition system and make sure any filtration system to work properly combines with regular cleaning and maintenance. The distance effects on public spaces in classroom play fundamental roles in droplet dispersions.

One of the public spaces that is vulnerable is the educational institution, ranging from kindergarten, elementary school, high school to campus. This situation related to the number of occupancy rates per hour. A classroom can be occupied with 100 students and they are sitting very close to each other and experiencing overcrowding as well. To anticipate this, seating arrangement should provide a space to ensure from 0.9 to 1.5 m distance from other students as required by COVID 19 protocol (Adwibowo 2020). In a classroom setting, maintaining seating configuration by reducing seating capacity and even adding protective structure can be an effective measure to reduce and avoid droplet dispersions and even increase air quality. Adwibowo. Proper arrangement of furniture to maintain physical distancing in classrooms is of great importance.

To ensure COVID-19 threat-free classrooms in schools, a policy that will ensure new seating arrangement in line with the COVID-19 social distancing policy must be promulgated. The students and teachers that form social learning environment must respect those policies. Seating arrangement in social distanced classrooms has gaps or distances at least one meter (6feet) between and within two (2) adjacent desks (Gana & Ibrahim 2020). In that regard, since proper seating arrangement is central part of classroom management. Small classes that will guarantee social distancing among students and teachers' must be restored for effective teaching and improved performance. In addition, since, no vaccine or specific drug had been discovered for COVID-19 treatment, social distancing is the most reliable approved preventive and control measure for now (Gana & Ibrahim, 2020).

In accordance with maintaining physical distancing in classrooms, mandatorily wearing of masks, provision for touchless sanitizers and thermal health checking should be put in strategic places. School administration should also avoid organizing all kinds of events in university that can compromise safety and security, including all kind of cultural events. Bhati et al. (2020) propose the strategy of running in batches to avoid gathering. Proper hygiene and precautions to maintain social distancing must be adhere to.

**Partnerships, Training and Educational Management System**

A key observation from the COVID-19 crisis is how underprepared everyone was to deal with such a crisis. Building strong relationships with key stakeholders, having a clear understanding of each leader's role, and developing effective supply chains are important strategies for partnership and training in the use of educational management systems. The exercise has to be undertaken proactively and the basic principles will be focused on enhancing safety and security (Kaul, Shah, & El-Serag 2020). UNESCO is supporting countries in their efforts to slower the immediate impact of school closures particularly for more vulnerable and disadvantaged communities and trying to facilitate the continuity of education for all through remote learning. Educational administrators should make good use of such opportunities.

The World Bank is also actively working with ministries of education in several countries in support of their efforts to utilize educational technologies to provide remote learning opportunities to students while the educational institutions are closed due to Covid-19 pandemic (Jena, 2020). Online Learning is the most common method of distance learning today. During the lockdown period for Covid-19, online learning is the best platform to keep learners/educators engaged and safe by maintaining social distancing. There are different online learning platforms that have been designed to continue educational activities during lockdown period, which are also recognized by UNESCO and World Bank.

Using various technologies available for online learning, educators can provide a more interactive distance learning experience by delivering real-time, synchronous video conferencing. Online learning is considered as future learning process and this platform has a potential of overall change in pedagogy of teaching learning in the modern world. However, necessary steps must be taken to train all stakeholders of education on online learning platform. Government/educational institutions should adopt the policy to provide free internet and free digital gadgets to all learners in order to encourage online learning for the promotion of safety and security (Jena, 2020).

Teaching, albeit done via video and audio conferencing have a significant impact on students' learning, identity and self-efficacy as revealed by result of end-of-semester anonymous online course evaluation surveys (Donitsa-Schmidt, & Ramot, 2020). The teachers found themselves doing something they had rarely done before, simply because the online leaning made it accessible and effortless: visit colleagues' lessons and share information and resources with peers. Paradoxically, a period of social distancing and self-quarantine led to increased peer collaboration, shared learning and mutual aid. These strong ties are the backbone of healthy organization and institutions. Whether this becomes a norm in a corona virus free future remains to be seen (Donitsa-Schmidt, & Ramot).

**Support Communities and Assistance from Professionals**

With current life problems and pressures caused by the COVID-19 pandemic, the expectations and orientations towards the future are highly disturbing. Uncontrolled future concern increases anxiety and the fear of the unknown. Dealing with the current COVID-19 pandemic has heightened uncertainty over what would happen to our current and future life and livelihood. The sustained feeling of uncertainty can leave us stressed, and powerless, which lead to emotional drain and trap us in "what-ifs" (Buheji, Ahmed & Jahrami, 2020).

From an educational perspective, support communities are vital because many people are psychologically overwhelmed, and in need of assistance from those who are better able to cope with the pandemic and its implications in education. There were many efforts to support individuals and institutions varying from sharing tips, advice, and resources to providing strategies and guidelines (Bozkurt, Jung, Xiao, Vladimirschi, Schuwer, Egorov, & Paskevicius, 2020). For instance, The World Bank (2020) curated a useful list that both educators and institutions can benefit from during the emergency remote education. As noted by Williamson, Eynon and Potter according Bozkurt, et. Al. (2020), many for-profit educational companies temporarily made their services available for free (e.g., Pearson) and, similarly, technology

companies (e.g., Google) made their services free to support remote education practices.

In addition to the profound and global impact of the pandemic on our social, economic, and political lives, Covid-19 has also affected individuals both emotionally and psychologically. As Jansen highlighted, “Our biggest mistake would be to treat students as cognitive machines that can simply be switched on again after the trauma of Covid-19” (Bozkurt, et. al,). Due to the pandemic, learners, teachers and parents are going through a great deal of anxiety. In their everyday lives, they may be finding self-isolation and lockdown days difficult or may be concerned about the inability to self-isolate. They are likely to be distressed about the health and safety of their loved ones and themselves (Bozkurt, et. al,).

Some students had to vacate their accommodation on short notice and did not have another place to go to (Bozkurt, et.al.). This has put psychological pressure on all parties, as the shift to the online medium requires a specific set of technical and pedagogical knowledge and skills. The steep learning curve and an overload of information, especially for those who are not familiar or experienced in online learning and teaching, could have negative impacts on learners as they may feel demotivated and discouraged. These indicate the importance of Support Communities and Assistance from Professionals in order to ensure safety and security.

**Conclusion**

To ensure safety and security in institution of higher learning, University authorities should be pro-active. Preventive measures such as sitting arrangements in classrooms and halls for lectures and hostel accommodations should be done in compliance with safety rules. Installation of touchless testing facilities, isolation and treatment centers should be readily available on campus. Observance of protocols like wearing of face mask, regular washing of hands, sneezing into elbow and education on symptoms of the virus should be emphasized. These measures would go a long way to ensure safety and security in institutions of higher learning.

To forestall attacks, our higher education needs to be secured by deployment of military personnel to repel miscreants, bandits and kidnappers. Alternatively boarding hostel accommodation on campus be temporarily put on hold until such a time security could be guaranteed. Having analyzed safety and security issues contending against Higher Education and preferred solution above, no doubt, Higher Education will survive in the *new normal* it finds itself.

**Recommendations**

Institutions of higher learning should rethink, to apply inventive and effective remedies to protect and enhance safety-and-security in every aspect of daily life. Institutions of higher learning should invest in touchless access controls in order to offer contactless ways for staff and students to operate with a sense of safety and security. In order to ensure safety and security during social events, institutions of higher learning should strive hard to provide facilities that enhance social and psychological sense of safety by facilitating physical distancing and touchless access control systems.

It can thus be concluded that the fewer items students, staff and their visitors touch when performing their everyday job, the less the fear of indirect spread of viruses such as the covid-19 via surface area. The ability of educational administrators to communicate effectively would help to clear unnecessary fear from both staff and students and guide them and assure them of safety so as to give their focus to learning activities.

All academic programs need to be redesigned for online delivery or at best for blended learning so as to ensure health safety and security. Providing leaning management systems also assures safety and security, as students are able to get instant results of their formative and summative assessments in their respective homes without assembling in classroom where they can contact viruses. It is an enormous work to ensure safety and security in institutions of learning therefore it is imperative for institutions of learning to build strong relationships with key stakeholders to assist with provision of resources. Also, having a clear understanding of each leader’s role, and developing

effective supply chains are important strategies for partnership and training in the use of educational management systems for safety and security. Support communities are vital because many people are psychologically overwhelmed, and in need of assistance from those who are better able to cope with the pandemic and its implications in education.

**References**

Acer, (2017). 5 Main Benefits of Digital Libraries at School. Retrieved from acerforeducation.acer.com

Adwibowo, A. (2020). Computational fluid dynamic (CFD), air flow-droplet dispersion, and indoor CO2 analysis for healthy public space configuration to comply with COVID 19 protocol. *medRxiv*.

Ancheta, H. B., & Ancheta, H. (2020). The New Normal In Education: A Challenge To The Private Basic Education Institutions in the Philippines?. *Development*, *1*(1).

Anjali, P., Harshita, N., Akash, M. D. N., Vinith, P., & Reddy, G. P. (2021). VMATE–Intelligent E-Learning Management System for Educational Institutions. In *IOP Conference Series: Materials Science and Engineering* (Vol. 1042, No. 1, p. 012011). IOP Publishing.

Buheji, M., Ahmed, D., & Jahrami, H. (2020). Living uncertainty in the new normal. *International Journal of Applied Psychology*, *10*(2), 21-31. Google scholar. Retrieved 7th July, 2021.

Brage Hansen, S. (2016). *Exploring Practical Implementation of Touchless Access Control Using iBeacons in Norwegian Hospitals* (Master's thesis).

Bhati, S., Vatta, L., & Tiwari, S. (2020). Covid 19-response from education system. *Indian Journal of Extension Education*, *56*(2), 10-15.

Bozkurt, A., Jung, I., Xiao, J., Vladimirschi, V., Schuwer, R., Egorov, G., ...&Paskevicius, M. (2020). A global outlook to the interruption of education due to COVID-19 pandemic: Navigating in a time of uncertainty and crisis. *Asian Journal of Distance Education*, *15*(1), 1-126.

Çirakli, M. Z., &Özbay, A. S. (2020). A Narrative Inquiry into Spatial Experience: Learners Recollections from pre-COVID-19 Classroom Setting. *Journal of Pedagogical Research*, *4*(4), 508-531.

Daniel, J. (2020). Education and the COVID-19 pandemic. *Prospects*, *49*(1), 91-96.

Donitsa-Schmidt, S., &Ramot, R. (2020). Opportunities and challenges: teacher education in Israel in the Covid-19 pandemic. *Journal of Education for Teaching*, *46*(4), 586-595.

Gana, B. K., & Ibrahim, R. U. (2020). Science Teaching: Issues of Classroom Management in Nigerian Secondary Schools and Lessons from Novel COVID-19 Pandemic. *IJER-International Journal of Educational Research*, *3*(11), 21-28.

Jena, P. K. (2020). Online learning during lockdown period for covid-19 in India. *International Journal of Multidisciplinary Educational Research (IJMER)*, *9*.

Kaul, V., Shah, V. H., & El-Serag, H. (2020). Leadership during crisis: lessons and applications from the COVID-19 pandemic. *Gastroenterology*, *159*(3), 809.

Manimuthu, A., Dharshini, V., Zografopoulos, I., Priyan, M. K., &Konstantinou, C. (2021). Contactless Technologies for Smart Cities: Big Data, IoT, and Cloud Infrastructures. *SN Computer Science*, *2*(4), 1-24.

Nguyen, C., Anderson, J., & Banerjee, S. (2020). Rethink and Retool: Marketing Mix Strategies in Response to Covid-19. In *Business Forum* (Vol. 28, No. 2, p. 30). Google scholar. Retrieved 2nd July, 2021

Pimentel-Tibon J. A. A., (2020) The New Normal in basic education. Retrieved from https://www.bworldonline.com/editors-picks/2020/10/20/323847/the-new-normal-in-basic-education/.

Plante, W. (2020) The New Normal in Campus Security after the Pandemic. Retrieved from https://www.securityinfowatch.com/education/article/21147348/the-new-normal-in-campus-security-after-the-pandemic.

Smolka, K. M., & Heugens, P. P. (2020). The Emergence of Proto-Institutions in the New Normal Business Landscape: Dialectic Institutional Work and the Dutch Drone Industry. *Journal of Management Studies*, *57*(3), 626-663.

Umbrella Technologies (2021).Touchless Access Control Systems: A Complete Guide on Touchless Access Control Systems. Retrieved from https://umbrellatech.co/ touchless-access-control-systems.

Vdovin A., (2021) DeskAlerts: Desktop Notifications for Schools Retrieved from https://www.alert-software.com/blog/ deskalerts- desktop-notifications-for-schools.

World Health Organization (2020). The True Death Toll of COVID-19: Estimating Global Excess Mortality Retrieved from

https://www.who.int/data/stories/the-true-death-toll-of-covid-19-estimating-global-excess gghholl of COVID-19 Estimating global excess mortality

# RELEVANCE OF INCLUDING MORAL EDUCATION IN TERTIARY EDUCATION CURRICULUM FOR INNOVATION IN NIGERIA

**Dr. Mbu Dickson Mbu**
*School of Foundation Studies*
*Rivers State College of Health Science and Management Technology, Port Harcourt, Nigeria*
*+2348055625732, +2348062571569*
*mbu2md@yahoo.com, mbu2md@gmail.com*

**Professor William J. Ubulom,**
*Faculty of Education,*
*Rivers State University of Technology*
*+2348033389754*
*will.ubulom@yahoo.com*

**Abstract**
*One of the challenges of tertiary education in Nigeria and other parts of the world is the decay in moral education on tertiary education campuses. Moral education is the assistance to young people to acquire a set beliefs and values regarding right and wrong. Majority of people are dissatisfied at the negative attitude of students in their respective institutions of learning. The rottenness has resulted into some tertiary institution students becoming armed robbers, kidnappers, cultists, rappers etc. This study probes into the moral education in higher education curriculum and how it affects the students and the society. Despite the huge sum of money and efforts put in place to ensure good curriculum outcome, the moral decay in the society is still on the high side. The recommendation is that, the tertiary institution curriculum should include high moral education in the various levels of study.*

**Key Words:** Moral, Moral education, Tertiary education.

Moral education is one of the fundamental aspects of human life and society. It is the act to follow good and right principles of life. It consists of some basic principles like honesty, truthfulness, kindness, sympathy, empathy etc. It is the teaching of learners to acquire those virtue and moral values which will help them individually to live a good life and be productive members of their respective society (Asim, 2018). Character education which is also moral education that is also the teaching of learners in a manner that will help them develop expressly as moral, civic, good, mannered, behaved, non-bullying, healthy, critical, successful, traditional, complaint or socially acceptable being. Teaching morals is a common responsibility; schools play the most important role. How patriotism is engrained in moral education decides the countries speed and breadth of growth. (Kumar 2018) The relevance of moral education makes it necessary for education at all levels to be involved in it. The tertiary education is the level where learners come out to be active and all inclusive in the labour market and thus direct the pace of the society. This implies that moral education should be given emphasis in the tertiary education curriculum.

**Moral Education**

According to Mohanty (2019), moral education is the proper behavior, dealing, attitude, responsibilities, duties, sincerities, obligations, simplicity with devotion to mankind in his/her society. Moral education is the lesson that shown us how to live our lives in the right way and be productive in our individual communities like be generosity, accommodating, show love and care, be honest, legitimate, respect for others. Moral education is also called character education. Althof (2006) noted that any democratic society must concern itself with the socialization of its citizens. Through explorations of the field of moral education, it was concluded that the role of schools in fostering the development of moral education in democratic societies necessitates focus on moral development, broader moral and related character development, teaching of civic and development of citizenship skills and dispositions.

Moral education is the attempt to promote the development of children's and adolescents moral cognitive structures (moral reasoning stages) in school settings (Althof, 2006). Roosevelt (2011) noted that moral education should include the mental and moral development of an individual.

**Pillars of moral education**

Khaleej (2017) noted that the pillars of moral education are character, morality, individual and community. Character and morality = builds the foundation of ethics and responsibility and encourages students to strengthen their sense of morality. The individual and the community = outlines the role of the individual to think for the common good. It familiarizes the students with the structure and function of the government and their rights as citizens. It introduces the students to the broader ideas of cultures; the importance of preserving history and the value of appreciating the universal cultural legacy.

**Moral education in schools**

Valloor (2017) postulated that in keeping with the vision of the rules and schools have been directed to offer moral education as mandatory part of the curriculum. Moral growth is essential as physical and intellectual growth and is nurtured through the path of inner development from the smallest gesture to the grandest idea elegantly stated. School is of great importance when it comes to moral development. Parents and other authorities should play a part in this process. However, it is in school that young people find themselves confronted for the first time with the fact that they are members of both a larger society and also mankind. School has an obligation to foster the students to become persons who act in a morally correct way. Norms can easily be taught in schools but to obey the rules is difficult unless ethics are taught.

Young people presently get exposed to thousands of negative influences, and social problems through media and the real world, add to this is the fault that parents are spending less time with their children. The declined of the family unit and

collapse of society create the need for morals to be taught in schools.

At many times in the recent time in Nigeria, we hear about school shootings, bullying, rapping, sells of illicit drugs and examination malpractice. There is also the degrading of women, advocacy of violence, condoning of dishonesty, mishandling of public funds and projects by highly trained engineers, politicians, academic personnel and other public and private officers; even patients are misguided by well-educated medical staff and so on. All these professionals are products of the tertiary education. This informs that moral education is not properly implemented in school.

In his conclusion, Roosevelt (2011) said that a man who has never gone to school may steal from a freight car; but if he has a university education, he may steal the whole railroad. In this regard, moral values should be taught in school so as to experience fewer problems. The efforts of education must not be to generate educated monsters to become skilled psychopaths. Reading, writing and mathematics are only important when they help the learners to become moral humans. It is important to teach the learner to consider issues and behavior by a moral yardstick rather than more usual measures of success. If the students should grow with moral respect, then the teaching of making moral choices and having values system as a basis for decision making should be a key. The real challenge for schools should be how to make the moral principles realistic and be implemented on the general basis of academic achievement. The society of Nigeria as a nation is in danger because there is no proper ethical/moral education consideration in the tertiary education curriculum.

**Characteristics of moral education**

Ngammuk (2011), in a study at Bangkok University International College discovered that there are eight characteristics of moral education; they include the following:

1. Diligences: A diligent person is the one who is determined to engage in positive and proper endeavors. He is

hardworking, perseverant, willing to take obstacles and appreciative of the work he does.

2. Frugality: A frugal person is one who leads a simple life and in awareness of one's status – he thinks before spending and knows how to save.
3. Honesty: An honest person is the one who remains true to his duties and profession. He is punctual and carries out his duties to the fullest.
4. Discipline: A disciplined person is the one who acts within the boundary of regulations imposed by education institution, other agencies and the nation.
5. Politeness: A polite person is the one who acts humbly in accordance with the circumstances. He is the one who is not aggressive.
6. Unity: A clean person is the one who has his mind open to the opinions of others. He is aware of his role as a good listener and followers.
7. Cleanliness: A clean person is the one who keeps his body and mind clean.
8. Generosity: A generous person is the one who does not concern himself with only himself and his business. He considerate to others.

**Importance of moral education**

According to Roosevelt (2011), the importance of moral education are:

1. It builds good characters like discipline, perseverance, critical thinking etc.
2. It prepares students with skill they need for adult life like awareness of addiction, financial literacy, digital literacy and physical well- being.
3. It teaches students practical and ethical values like humanity tolerance, honesty, respect.
4. It encourages students to become an active member of the community.
5. It teaches students to love their culture and to enable them to value the wealth of cultural available in the world.
6. It helps to distinguish right and wrong.

7. It gets reflected in one's personality.
8. It helps in building a good person and professional life.
9. It helps to eliminate problems like violence, dishonesty, jealousy etc, from one's life.
10. It wipes out bad influences like violence, crimes, agitations, child abuse, disregarding women etc.
11. It also helps in building a positive approach to things, self-confidence and motivation
12. It helps in finding out the true purpose of life.
13. It helps in building good leadership qualities and administrative process

These values help one to be dedicated, unselfish, loving and caring for others. Moral education if effectively implemented will help learners with tools of judgment making and leading them to make effective decision and choices. Moral education helps to improve moral values which in turn bring happiness, immense satisfaction and confidence to give life as it is. These values help to mold gentle humans who are beautiful in value and nature.

**Tertiary education**

Tertiary education is also called higher education. According to Mbu (2018), higher education is post-secondary education or third level education. It is an optional final stage of formal learning that takes place when the secondary level is over. Higher education learning often happens at the university, polytechnics, colleges, conservatories, seminaries and technology institutes. It also includes vocational schools and institutes of continuing education. Pramila (2018) noted that higher education is that type of education that makes a person self-dependent. Tertiary type of education is any level of education pursued beyond high school, including undergraduate and graduate credentials. It refers to specialized education in a specific field, taken on after finishing high school. It is a non-compulsory and provided in a specialist institution, usually a college, polytechnic or university. This form of education may be delivered virtually or at a distance.

In Nigeria, the department of higher education was created in November 2000 from an existing department of formal

education and its initial mandate was to take charge of university education. In March 2003, all aspects of higher education were moved into the new department. The name was changed to "Tertiary Education" in December, 2006 as a result of the initiatives of the reform.

Tertiary institutions play a vital role not only shaping the future by educating the professionals of tomorrow, but also creating a research based sustainability efforts and providing outreach and service to communities and nations. Higher education institution shave been the centres for innovation and creator of new knowledge in the various fields of study.

**Tertiary education curriculum in Nigeria**

Curriculum is basically the totality of students' experiences that occur in the educational process. It is a planned sequence of instruction. According to Eric et al (2016), curriculum is basically the process of selection, organizing, executing and evaluating learning experience on the basis of the learners and the nature of the society. Since curriculum is one of the fundamental instruments for an effective schooling: teaching and learning, it is therefore a basic object of reform.

Esu et al (2009) noted that curriculum is considered in four parts:

- Curriculum as the content and knowledge in school
- Curriculum as a discipline or subject
- Curriculum experience and culture.

Kennedy (2007) posited that developing the total person, using the University curriculum requires the introduction and sustenance of counseling services, as well as an academic support programme in the chosen discipline.

The Nigerian tertiary education curriculum does not include moral education as one of the core content. This argument is supported in the provision of the National Policy on Education of the Federal Republic of Nigeria (2013). In section 5, sub section 86, c and d, it provides that University Education shall make optimum contribution to national development by making all tertiary education students part of a general programme of all round improvement in University education to offer general study

courses, such as history of ideas, philosophy of knowledge, Nationalism and Information Technology (IT) and making entrepreneurial skills acquisition a requirement for all Nigerian Universities. There is no emphasis on moral education. The entire idea in the policy is geared towards graduating the student as a total person, if this is true, moral education must be part of the core content. The provisions in the curriculum exclude the moral education. How does the university graduate a student both in character and learning without truly inculcating morals in the students. The tertiary education curriculum should be all inclusive to emphasize on moral education as a core item in the curriculum. It is suggested that the ill treatment of moral education in the curriculum that have resulted to graduates who came out with even first class having very low standard of morality. It is noted that academic performance without moral standard is a pointer to national failure. This is the case in Nigeria where corruption, insanity, disobedience, misconduct, stealing and so on characterize the entire nation. Tertiary education curriculum is incomplete or half – baked without complete inclusion of moral education in it.

**Conclusion**

There is decay in moral education in the various tertiary schools. The outcome is that there are numerous evils on campuses: gun shots, stealing, examination malpractice, rape, cultism, sale of drugs and so on. It is believed that the absence of moral education in the curriculum of tertiary education leads to the fallen rate of morality among students. There are several advantages of the moral education if there is a thorough reformation of the tertiary education curriculum to embrace moral education. Moral education among others can lead to the following; generosity, gratitude, honesty, integrity, perseverance, respect, responsibility, tolerance, trustworthiness, cooperation, equality, fairness, acceptance and so on. If all the above named moral values are inculcated into the students, it is believed that the society will be a better one. For a better person, better society and better nation to the achieved, moral education should be inclusive as an integral part of tertiary education curriculum.

**Recommendations**

In order to readdress the tertiary education curriculum, the following recommendations are made based on the challenges:

1. Curriculum planners should be encouraged by all stake holders to effect a reformation of the tertiary education curriculum to include moral education
2. Moral education should be integrated into the curriculum as a compulsory course of study at all levels: from level one to the final level.
3. There should be periodic seminars in the tertiary schools on the relevance of moral education.

**References**

Althof, N. (2006) Moral education and character education: their relationship and roles in citizenship. *Journal of Moral Education*. Vol. 35 No 4.

Asim, S (2018) *Importance of Moral Education:* Sources Essay Writing Service. From someeassay.com on 7th/8/2021.

Eric, C. A & Mbu, M.D (2016) Curriculum Reforms for Security Management and National Development. *African Journal of Pedagogy* Vol. 9 (50 – 57.

Esu, A.E.O., UMoh, S.J and Obi, F. (2009) *Pedagogy of Environmental Educational.* Lagos: Macmillan, Nigeria Conversation Foundation (NCE) Module 6.

Federal Ministry of Education. *Nigeria Digest of Education* Statistics. 2014 – 2016.

Federal Republic of Nigeria (2013) *National Policy on Education*, NERDC Press, Lagos.

Kennedy, R.D (2007) A Historical Study of the Development of the Total Person Programme: The Evolution of Academic Support Services for Students Athletes at the University of Missouri. Unpublished PhD Thesis, Graduate School, University of Missouri – Colombia. USA.

Kumar, D. (2018) *Why Moral Education Matters A lot*. Retrieved from http://www.researchgate.net 3424

Mbu. M.D (2018) Innovative funding of higher education for sustainable development. *East African Journal of*

*Educational Research and Policy* (EAJERP) Vol. 13. No. 1 (151 – 158)

Mohanty, S. (2019) The Place for Moral Education.

Ngammuk, P (2011) A study of eight fundamental morals characteristics among undergraduate students. Bangkok University International College Bangkok Thailand.

Pramila, S. (2018) The need for higher education, *New Delhi Times*. January 1, 2018

Roosevelt (2011) *Moral Education and its Benefits*: Four Pillars of Moral Education.

Vallor, R.J (2017) *Moral Education in Schools*: Teaching ethics in school is important.

# THE CHALLENGES OF SUSTAINABLE DEVELOPMENT IN PUBLIC HIGHER EDUCATIONAL INSTITUTIONS

**Dr. Opeyemi Seyi OLASUNKANMI**
*Department of Educational Management,*
*University of Ibadan, Ibadan, Nigeria.*
*Email: oskomus@gmail.com*
*Tel: +2347037710690*

**Dr. Olukemi Omolola OGUNNIRAN**
*Directorate of General Education Studies,*
*Adeleke University, Ede, Osun State.*
*Email: fitela907@gmail.com*
*Tel: +23408107708315*

**Abstract**
*Sustainable development was adopted by all members of United Nations in 2015 with its agenda to provide a shared blueprint for peace and prosperity for people and the planet at present and in future by 2030. The Sustainable Development Goal is an essential goal that is needed to be achieved for improved quality of life and the developmental advancement of any nation. Nigeria also key into the trend of sustaining the global economy with promoting peace and prosperity of her citizenry. It is a known fact that education plays a vital role in achieving the goals and targets of the desired development. With this, to achieve the desired development and as well to sustain it, there is need to embrace quality education. This implies that a serious priority must be given to quality education as no nation can rise beyond the level of education given to her citizens. There are many barriers hindering the achievement of sustainable development goals for quality education in public higher educational institutions in Nigeria, the paper identified but not limited to the following challenges: poor funding of education, high rate of out-of-school-children, unconducive learning environments, poor state of educational facilities, high level of insecurity, inadequacy of skilled teaching staff, low level of commitment among members of staff*

*and poor remuneration among others. If these problems are promptly addressed, the prospect of sustainable development in public higher educational institutions are numerous and include global unity, quality education, attraction of foreign researchers and lot more.*

**Keywords**: Global Unity, Poor Funding, Public Higher Educational Institutions, Quality Education, Sustainable Development

**Introduction**

Sustainable development is an approach to the economic development of a country without compromising with the quality of future generations. The ability of a nation to develop and experience growth economically and that can as well be sustained for a period of time is refers to as sustainable development. For any nation to achieve economic development, the United Nations came up with 17 goals which are refers to as the Sustainable Development Goals (SDGs). The Sustainable Development Goals (SDGs) are essential goals that are needed to be achieved for improved quality of life and the developmental advancement of any nation.

United Nations (2015) specified SDGs with the aims of improving health and education, reducing inequality and spurring economic growth in developed and developing countries has 17 goals. These are:

1. End poverty in all its forms everywhere;
2. End hunger, achieve food security, improved nutrition and promote sustainable agriculture;
3. Ensure healthy lives and promote well-being for all at all ages;
4. Ensure inclusive and equitable quality education and promote lifelong learning opportunity for all;
5. Achieve gender equality and empower all women and girls;
6. Ensure availability and sustainable management of water and sanitation for all;

7. Ensure access to avoidable, reliable, sustainable and modern energy for all;
8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all;
9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation;
10. Reduce inequality within and among countries;
11. Make cities and human settles inclusive, safe, resilient and sustainable;
12. Ensure sustainable consumption and production pattern;
13. Take urgent action to combat climate change and its impacts;
14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development;
15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reserve land degradation and halt biodiversity loss;
16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels;
17. Strengthen the means of implementation and revitalize the global partnership for sustainable development

The role of education in achieving the stated goals of sustainable development in any nation cannot be underrated. This is because education liberates the intellect, unlocks the imagination and is fundamental for self-respect. It is the key to prosperity and opens a world of opportunities, making it possible to contribute to a progressive and healthy society. The Federal Government of Nigeria (2004) declared in its National policy on Education that education is an instrument “par excellence” for achieving National development. In other words, any meaningful growth and development of Nigeria must be preceded by a sound educational planning. This shows that proper planning of education can be used for effecting both national and economic development. Since

education is seen as an instrument that can bring about the desired development of any nation, then, such education must be highly prioritized.

Goal 4 of the Sustainable Development Goals which is stated to ensure inclusive and equitable quality education and promote lifelong learning opportunity for all, has 10 targets. The targets are the actions that can be taken to ensure quality education, these targets are:

a. **Free Primary and Secondary Education**: By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes.
b. **Equal Access to Quality Pre-Primary Education**: By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education.
c. **Equal Access to Affordable Technical, Vocational and Higher Education:** By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university.
d. **Increase the Number of People with Relevant Skills for Financial Success:** By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.
e. **Eliminate all Discrimination in Education**: By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations.
f. **Universal Literacy and Numeracy**: By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy.
g. **Education for Sustainable Development and Global Citizenship**: By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles,

human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.

h. **Build and Upgrade Inclusive and Safe Schools**: Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all.
i. **Expand Higher Education Scholarships for Developing Countries**: By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries.
j. **Increase the Supply of Qualified Teachers in Developing Countries**: By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States.

Nigeria who also key into the trend of sustaining the global economy with promoting peace and prosperity of her citizenry need to put up actions to ensure quality education through working towards implementing the 10 targets. This can be done by placing education its rightful position, through allocating good percentage of the annual budget to education. But the situation is in reverse order, considering the government allocation towards education in Nigeria, one can say achieving quality education will be so difficult. The Federal Government of Nigeria allocation to education in the last few years shows the government is not yet ready for quality education that can sustain the desired development, this is part of the agitations of Academic Staff Union of Universities (ASUU) that led to eight months strike. Despite all

the efforts of ASUU to make the Federal Government of Nigeria to do the needful towards improving the quality of education, what the academic union get back is salary stoppage which will lead to destroying the quality of education the more.

Any serious government that desire development economically should give attention to the education of her nation which can be reflected in its annual budget to education. Looking at Nigeria case, in the last 11 years, the annual allocation to education sector did not show that Nigerian government is ready for development that can be sustained. Government allocation to education has not reached 10% of the annual budget which is against the United Nations Educational, Scientific and Cultural Organisation (UNESCO) recommendations of 20% to 26% of the annual budget. The below table presents government allocation to education and annual change in Nigeria from 2012 to 2022 (World Bank, 2022)

**Table 1: Nigeria Percentage of Annual Budget to Education**

| Year | Percentage Share to Education (%) | Annual Change (%) |
|---|---|---|
| 2012 | 8.55 | 0.13 |
| 2013 | 8.68 | 0.13 |
| 2014 | 9.04 | 0.36 |
| 2015 | 9.26 | 0.22 |
| 2016 | 6.65 | -2.6 |
| 2017 | 6.12 | -0.53 |
| 2018 | 5.94 | -0.18 |
| 2019 | 5.86 | -0.09 |
| 2020 | 5.13 | -0.72 |
| 2021 | 5.14 | 0.01 |
| 2022 | 5.40 | 0.26 |

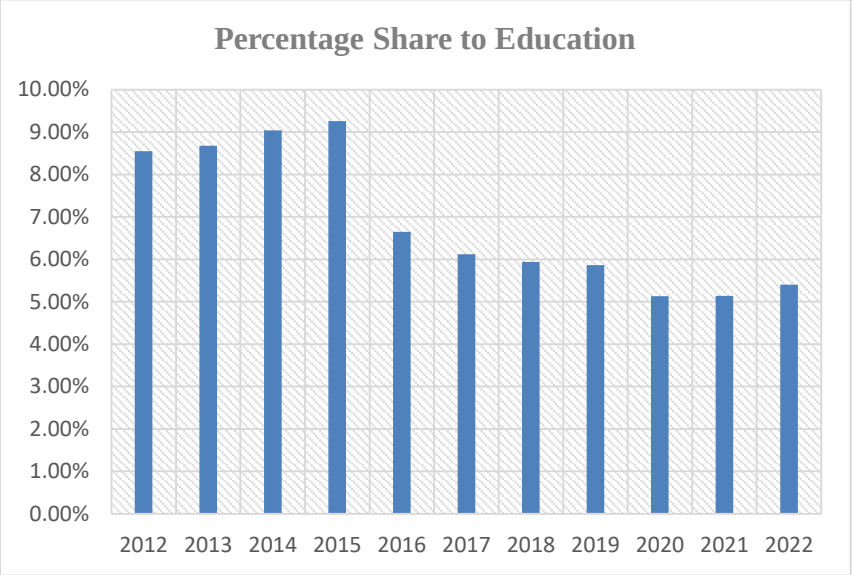
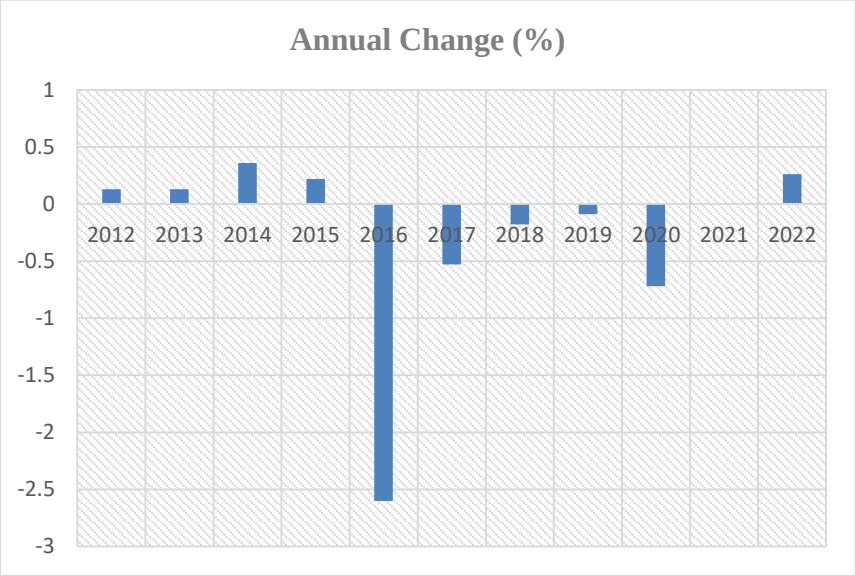



**Figure 1: Chart Showing Percentage of Annual Budget to Education in Nigeria**

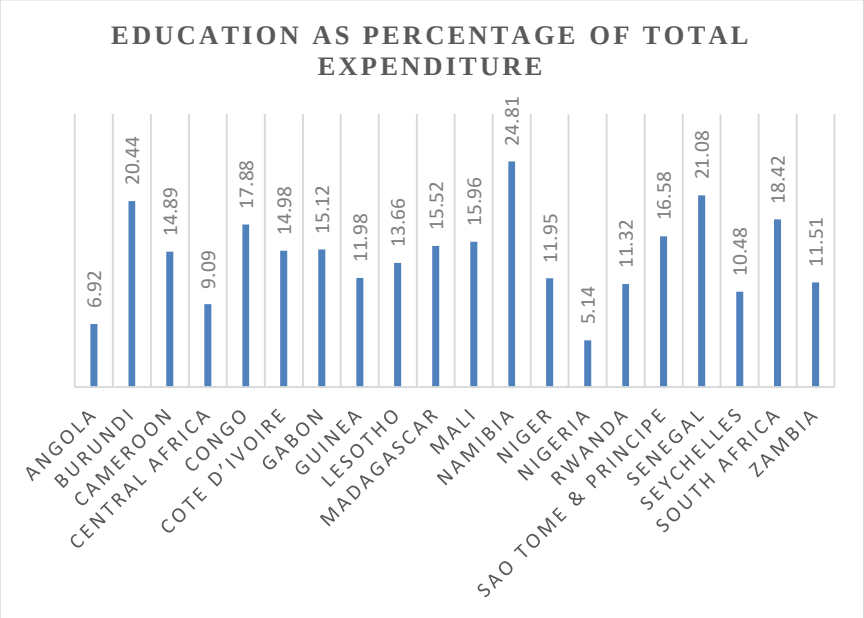
Considering the figure, it is discovered that the percentage share to education in 2012 was increased with 0.13% in 2013, and as well increased with 0.36% in 2014 and 0.22% in 2015. In 2016, the annual budget allocation to education was reduced by 2.6% as against what was allocated to education in 2015, and it kept reducing till year 2020. The information shows the value attached to education in Nigeria and the commitment level of the government to educational system. As the cost of living in the economy is getting higher every year, the allocation of government expenditure to education is getting lower.

**Figure 2: presents the chart of annual change in government allocation to education within the period of 11 years.**




Though, in year 2021, the government allocation to education was increased by 0.01% and also increased by 0.26% in 2022, yet, with the increment, the allocation is not up to 10% of the annual budget and is very far from the UNESCO recommendations.

Nigeria has not place much value on education, and for such a nation, experiencing sustainable development will be a mirage. Babalola (2022) compared the budgetary allocation to education of 20 Sub-Saharan African in 2021, and it was discovered that Nigeria has the lowest allocation to education in that year.




In situation like, where education is not seen as investment that worth spending on, it might be difficult to achieve the sustainable development in public higher educational institutions in Nigeria.

**Challenges of Achieving Sustainable Development Goals in Public Higher Educational Institution in Nigeria**

The challenges are not limited to the following

1. **Poor Funding of Education**: Fund to educational system is expected to be given special attention to if there would be a notable development. Education is seen as cornerstone of any country, then special attention must be given to education in respect of funding. But in Nigeria, education has been poorly funded. Adesina (2022) stated that in 2022 budget, the Federal Government, allocated the sum of N355.47 billion to the 44 federal universities from the total budget of N875.93 billion. Adesina (2022) stated further that, out of the N355.47 billion allocated to the federal universities, N326.9 billion would go for recurrent expenditure comprising N320.7 billion for

personnel cost and N6.1 billion for overhead cost. Only N25.5 billion is slated for capital projects in the universities. This shows that education is not properly funded in Nigeria and achieving the development that can be sustained would be very difficult. The issue of poor funding of education is part of the agitations of staff unions in universities that led to 8 months strike which was suspended in October.

2. **High Rate of Out-of-School-Children:** The rate of out-of-school children is on the increase daily. The situation is more worrisome as the world is emphasizing the sustainability of the gains of SDGs. Invariably it is impossible to sustain the already height attained if many children are out of school today. Rather than herding towards the school gate for learning, many children are seen during school hours either with their bowls for begging, hoes for farm or even aimlessly loitering around. Okoh, Emenike, Doma, and Akinsola (2020) stated that children being out of school have implications on development of any nation, and such implications are: manpower will be lacking in some areas in the future, menial jobs with low or small income to cater for the family, increase in crime and violence, breaking of laws and orders, out-of-school children constitute hazard in the society.

3. **Unconducive Learning Environments**: The state of learning environment in most of Nigeria public universities in not encouraging. Environmental influence is a strong determinant of achieving development economically within any educational institutions. Teaching and learning should take place in an environment where everything needed for its effectiveness is adequately provided for. In Nigeria, environment has been a major problem to the achievement of the goals and objectives of education. The environment needs to be relevant, and conducive for teaching and learning. For education to be functional, the

environment should encourage the learners and teachers towards self-realization, better human relationship, national efficiency, national unity as well as towards social, cultural, economic, political, scientific and technological progress. There should be creation of conducive environment for teaching and learning by providing the right quantity and quality of teachers and equipment which will bring about quality skilled graduates that can help develop the nation. According to Ebeigbe, Nwenearizi and Onogiemensike (2018) the school environment includes school building, class size, school locations, classroom and sitting arrangement. Everything within the school environment has influence on teaching and learning process.

4. **Poor State of Educational Facilities**: Educational facilities are facilities that supposed to aid teaching and make leaning more interested and convenient, but it is a pity today that educational facilities in most of Nigeria public universities are in deplorable conditions. Educational facilities are basic education infrastructure which is an important factor in determining the development of any nation and the quality of learning and graduates being churned out. However, Ebeigbe, Nwenearizi and Onogiemensike (2018) pointed out that most public universities lack basic infrastructure, such as laboratory, library, electricity, current textbooks, furniture, toilet facilities, health care facilities, recreational/play-ground and functional ICT facilities. In educational institutions where these educational facilities are not available or not functioning properly, achieving sustainable development in such a nation will be difficult.

5. **High Level of Insecurity**: Insecurity is the state of being subject to danger or injury, anxiety, fear, worry, uncertainty, unsureness. Best (2006) sees insecurity as a degenerated stage of conflict, threats to human life, intense violence characterized by fighting, death, injury,

kidnapping etc. Insecurity is a major challenge facing everyone in Nigeria of today, nowhere is safe, there are cases of many instances where school students were kidnapped, the members of staff and students are no longer safe, no one can work with confidence in different places of work, worshipers in their different places of worship are worshiping with fear of being killed or kidnapped, in such an environment, no specific development can take place. The point is that insecurity is a threat to sustainable development at any level.

6. **Inadequacy of Skilled Teaching Staff**: Inadequacy of teaching staff in public universities is a major constraint facing the university education in Nigeria. This is a problem that has been existing in time immemorial, and instead of solving the problem, government adds more to the problems by putting embargo on employment and by withdrawing university autonomy to hire staff in the university. Recently, the National Universities Commission (NUC) (2022) submitted that 100,000 academic staff members were attending to 2.1 million students in Nigerian universities. The NUC disclosed that the commission is supervising over 200 universities consisting of 49 belonging to the Federal Government; 58 states and 99 private institutions. He said, “The entire system has about 2.1 million students and staff strength of about 170,000 non-teaching and 100,000 academic staff. There are many factors responsible for shortage of academic staff in Nigerian public universities. Some of the factors according to Ogunode and Okwelogu (2022) are underfunding of the universities, corruptions, brain-drain, poor motivation, unconducive working environment and lack of manpower planning. With the deplorable condition of skilled teaching staff in universities, achieving sustainable development in higher institutions of learning in Nigeria is goal that may not be achievable.

7. **Poor Remunerations**: Remuneration is a major determinant to maintain and sustain academic staff in Nigeria universities. Academic staff are seen as major drivers involved in taking the university system to higher level and through them, sustainable development can be achieved. In Nigeria, university lecturers are poorly remunerated, this is a great challenge to achieving sustainable development. ASUU President, Prof Emmanuel Osodeke, told *Sunday PUNCH of 20 March 2022* that while countries like Ghana, the United Kingdom and United States of America were paying their varsity lecturers attractive and competitive salaries, the case remained different in Nigeria. He explained that a professor in a Nigerian university earned less than $700 per month, his counterpart in Ghana was paid $3,000, in the United Kingdom, a professor is receiving between £8,000 and £10,000 per month. This alone is enough to affect the commitment of lecturers to work and also to lose many of them to the advanced countries where they are more valued and appreciated. Poor remuneration of university workers has great implications on university education in Nigeria, it causes low level of commitment among workers, brain drain, corruption and lot more

**Conclusion**

Placing good priority on education by Nigerian government is a pointer to achieving a sustainable development. The paper revealed that Nigeria government has not placed good importance to education of her citizens, this was shown in the budgetary allocation to education from 2012 to 2022. Also, the paper considered different problems that can hinder sustainable development in higher institutions of learning Nigeria. If Nigeria must experience a notable and desired development that will be sustained, serious attention must be given to university education and different challenges identified in this paper must be promptly addressed.

**Recommendations**

Having noted the challenges of sustainable development in public higher educational institutions of Nigeria, the following recommendations are made:

1. Nigerian government should be more committed to financing higher education and improve the annual government allocation to education to at least 20% of her annual budget.
2. Government should invest more on higher education.
3. Efforts should be made to keep the best brain we are losing everyday to the advance countries, this will enhance the desired development and growth in Nigeria economy.
4. There should be provision for conducive learning environment in Nigerian public universities for quality instructional delivery and learning. Also, educational facilities that can enhance teaching-leaning process should be provided.
5. Efforts should be made to reduce out-of-school children, this will reduce crime and violence in the society.

**References**

Adesina W. (2022). Nigerian universities suffer from poor funding. Retrieved from Nigerian universities suffer from poor funding (vanguardngr.com)

Ebeigbe V, Nwenearizi O. F. and Onogiemensike P. E. (2018). Unconducive higher education environment in Nigeria for enhanced academic achievement. *Multidisciplinary Journal of Academic Excellence, Vol 18 No 1,* Page 1 – 9

FRN (2004) National Policy on Education, Lagos: NERDC Press

NUC (2022) Retrieved from NUC website from. https://punchng.com/nigeria-has-only-100000-lecturers-for-2-1-million-varsity-students-nuc

Ogunode N. J. and Okwelogu I. S. (2022). Investigation into Causes of Inadequate Academic Staff in Public Universities in North-Central Nigeria. *Miasto Przyszłości journal* Vol. 25 Pages 308 - 313

Okoh C. N., EmenikeJ. A., Doma A. and Akinsola M. O. (2020). Out of School Children: Enhancing Factors and Consequences for Sustainable Development in North Central Geo-Political Zone, Nigeria. *American Journal of Educational Research*. Vol 8 o 10, Pages 804-811.

United Nation (2015). United Nations Sustainable Development Summit 2015. Retrieved from https://unitednations sustainabledevelopmentsummit2015.:.sustainabledevelopm entknowledgeplatform

World Bank (2022). 2022 World bank Annual report. Retrieved from AnnualReport2022 (worldbank.org)