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**Adult Education and Humanitarian Development in the Midst of National Challenges**

By

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**ABSTRACT**

This paper surveyed Adult education and humanitarian development in the midst of national challenges. It began by writing what UNESCO, 2001 said about the concept education which it identified as a very powerful instrument for reducing inequality as well as an important avenue for improving health and the general well-being of the individual and so on. It went further to explain extensively the concept adult education from the Nigeria's National Policy of Education, (2004) and review some literature definition of the concept from some authors. The concept of humanitarian development was discussed in brief which includes that it occurs when armed conflicts break out or national disaster happens. The whole communities are affected, disrupting their day-to-day lives and long term development prospect and so on. National challenges were also discussed which starts from confusion and conflicts which emanated from such issues of resources control, tribalism, youth restiveness, land disputes and so on. Religions conflict were also inferred. Challenges facing adult education in humanitarian development was discussed. Conclusion was also inferred which included that adult education gives the adults and the youths more knowledge and wisdom which will make them to have more skill to better themselves and their community instead of engaging in warfare. This would bring a lot of development in a society and the country. Some recommendations were also made which included; that adult education programmes should be incorporated in all developmental initiatives and social programmes as an important contribution to sustainable development, economic prosperity, peaceful resolution of conflict, social cohesion and political stability. That we should recognize and accept adult education strategies as problem solving tools in the sense that without education we cannot bring about positive change.

**Keywords:** *Adult Education, Humanitarian Development, National Challenges*

**Introduction**

In the changing world of today, education has been defined by many scholars, organisations and research institutions from different perspectives. For example, UNESCO (2001) rightly said education has been identified as a very powerful instrument for reducing inequality as well as

an important avenue for improving health and the general well-being of the individual. As can be seen in a modern society education including adult education has become an important tool for the achievement of rapid and sustainable growth and development. The education of adult has

been acknowledged for it makes quick impact on the development of a nation unlike the education provided for children and youths that would be investment for the future because adults are at the work field now.

From literatures for example, Liveright and Haygood (1968), Delker (1974), Omolewa (1981), Aderinoye (1997), UNESCO (2001) to mention this few, we could infer that there is correlation between level of literary and level of development. The higher the level of education, the higher the level of development and vice-versa. The stage of development is determined principally by the adult populace, both male and female. Thus, adult education is a must agent of development which African governments must give a special place in their development planning. For instance, some years ago, one of the UNESCO Director General fully supports this view when he said by quoting Nyerere (1978) "It is not the children of today who hold the present destiny of Africa in their hands, it is the adults. So, it is only by establishing effective communication with the adult population by helping them to adjust to a rapid changing world that an immediate impact can be made on the urgent problems of society and essential progress be brought about". Hence,

adult education can be seen here as a process by which effective communication is established with the literacy level of the citizens.

Prior to the discussion on this paper, it is imperative to give conceptual clarification of adult education and humanitarian development.

### **Adult Education**

Nigeria's National Policy of Education (2004) recognizes adult education as covering functioning literacy and continuing education for adults and youths, functional and remedial education for young people and out of school children who did not complete secondary school and need to improve their basic knowledge and skills, in-service-on-the-job, vocational and also professional training for different categories of workers and professionals for constant updating and improvement of their knowledge and skills, aesthetic, cultural and civic education for public enlightenment.

Adult education is defined differently by different people in different cultures and communities. It has no definite acceptable definition. Hence, it embraces so many activities and addresses many problems which may be individual, societal and national. Thus, Obidiegwu (2011) stated that

the choice of programmes of adult education for each individual, society and/or culture is derived from particular needs of such individuals, society or culture at a particular period of time.

Peterson (2017) defined adult education as a practice in which adults engage in systematic and sustained self-educating activities in order to gain new forms of knowledge, skills, attitudes or values. It can mean any form of learning, adults engage in beyond traditional schooling, encompassing basic literacy to personal fulfillment as a lifelong learner.

Hassan and Oyebamiji (2012) stated that adult education stems directly from the people and it has its major forms in the local community, with its primary goal being strengthening and improving the process of group problem-solving. Adebowale (2008) described the concept adult education as a process by which persons who have terminated their initial circle of continuous education may undertake sequential and organized activities with the conscious intention of bringing about changes in themselves with regard to information, knowledge, understanding and skill appreciation and attitude. Aderinoye (2004) sees adult education as all and any deliberate

and systematically planned educational activities that have the adult as its target, that is designed around the interest and self-expressed concern of adult, the intention of which is to solve immediate problems and it is an activity that is part-time.

Odewusi (2012) said that adult education may be defined as the education provided for men and women who for one reason or the other dropped out of the formal school system, or those who for purposes of work or other engagements are unable to register for full time courses, abandoning in the process, their work and family. Okenwa-Ojo (2020) stated that adult education could be defined as a set of remedial education or continuing education that is out to help the youths and the adults to fill the vacuum they have encountered in education due to one reason or the other.

Looking at the above, we could conclude that adult education takes the form of evening classes which looks like formal programmes graduated over primary, secondary and post primary phases. Others are the extra-mural programme of the University of Ibadan and Ife and the Evening School Programmes established in the Law and Business Administration at the University of Lagos.

### **Humanitarian Development**

This occurs when armed conflict breaks out and the whole communities are affected, disrupting their day-to-day lives and long term development prospect. Here, humanitarian aid is designed to save lives and properties and to alleviate suffering during and in the immediate aftermath of emergencies. Whereas development aid responds to ongoing structural issues, particularly systematic poverty that may hinder economic, institutional and social development in any given society and assists in building capacity to ensure resilient communities and sustainable development and different forms of aid often have both humanitarian and development components.

It is worthy to note that development aid can exist without humanitarian aid in developing countries that do not have humanitarian crisis. Although it also often exists in addition to humanitarian aid during and after crises. For instance, if an earthquake strikes in a country, short-term humanitarian aid is needed. This includes the delivery of food and water, provision of temporary shelter as well as health services.

As can be seen in Nigeria, development infers meeting basic needs, reducing poverty, reducing unemployment and

inequality, improving access to education, raising life expectation, raising living standards, expanding economic and social needs through acceptable economic growth. Hence, development entails an end and must affect the majority of the people in a community, society and country not just a few. To, Akinpelu (2002) people are the subject as well as the object of development. In other words, people bring about development and development reflects on people. Man is the director of development; he is the engineer as well as the beneficiary of all developments. Development is highly attached with enriching human resources and potentials rather than ordinary structures, for example, elegant buildings, highways, shop malls and so on. Real development is economic, political, social and moral.

Hall (2003) stated that development is being greatly determined by science, technology and economy with their attendant effects on a number of social, political, economic, cultural and ecological variables affecting human quality of life and environmental equilibrium in different manners. These changes equally shows in the changing form of work, employment, ecological crisis and tension between social groups based on culture, ethnicity, gender roles, income and

religion. It means growing up, becoming larger or more complete. It involves changing from a lower level to a higher level which is always better than before. If a country is able to make innovations she was unable to do before, that country is said to be developing. Again, if a baby was able to increase in size, crawl, answer questions reasonably etc. it is a sign that the baby is developing as well. When most of the things required to improve learning are provided such as the use of power point in teaching, provision of computers, a conducive learning classroom, etc. there is bound for development to take place. The student will do well in their academic undertaking, the technological skill will be improved, life will be easy and enjoyable for all, and so on.

### **National Challenges**

Education is most valuable things that are peculiar to nations, people and times. Njoku (2015) believes that value system promotes national image, respect for human life and corporate values. Without this, growth and development of the society is retarded in many aspects through the breakup of material tendencies of the people. For instance, the various challenges which Nigeria is going through since 1914 have led to a state of confusion in all spheres (Ajiboye, 2010). Religious upheavals and

ethnic bias continues to rear its head in different aspects of the country which is given room to instability and disunity.

The root of such confusions and conflicts has been seen around the issues of resources control, tribalism, youth restiveness, land disputes and so on. The phenomenon of religious conflicts has given rise to various ethno-religious groups such as the Bakassi Boys, the Odua People's Congress (OPC), Arewa People's Congress (APC), the Boko-Haram Insurgent, the organization of AMOTEKUN and the Movement for the Actualization of the Sovereign State of Biafra (MASSOB). All these set up groups emanated because of the various conflicts rearing heads in the country e.g. kidnapping, raping, murder, armed robberies and so on all over the nation. All these have gone a long way in hindering national development and hence, challenges the socio-economic and political progress of the nation.

### **Adult Education and Humanitarian Development in the Midst of National Challenges**

Ogundare (2020) stated that education and indeed a functional one is the greatest instrument any country can engage in. It is through education that the necessary skills are acquired. Basic education scheme is

clearly one of the tools for promoting national development and integration. He further stated that the formation of ideas and strategies in bringing about national development and integration is entirely in educational process. Self-reliance, better relationship, effective citizenship, national consciousness and national unity are fostered through education.

From the above insertions of Ogundare (2020) one would agree with him totally because adult education is a functional education which is a correct tool to enhance humanitarian development in the midst of national challenges. Aside from the economic benefits, acquisition of knowledge through adult education activities will definitely help illiterate Nigerians to perform better roles as citizens, as self-fulfilling persons and as family.

Adult education has a prominent role to play in achieving national development, it is a tool that can be utilized in eradicating ignorance which would be seen as hindrance in way of progress of a nation's development. Hence, development could be hindered if the citizens for whom development is meant are not literate.

Various adults' illiterates are engaged in one form of economic activity or the other while

others who are semi-skilled traders like shoe makers, carpenters and plumbers have negative intelligence and ability to perform very well in their jobs. This is because they lack the tool of gaining easy access to information which will make them effective because of their illiteracy rate.

So, at this point adult education should be made available to such people to be literate and well informed. Hence, adult education and development go hand in hand. This is because the only tool for human liberation is education. Since education would make people to know what they desire, how to acquire it and put it into a proper use to achieve their self-identity, self-confidence, ability and creativity to face the world of work with purpose and pride.

Our democracy in this country today would have been more matured than what it is now if the majority of our adults are educated. The long term stay in office of our past military rulers is attributed to the lack of knowledge on the part of the adults who comprised the majority of the voters. For instance, majority of our great nationalists like late ObafemiAwolowo, got his law degree by correspondence method as an adult. AlvanIkoku, Samuel Ayodele Banjo, Arthur Hercules Joseph of Ghana, Josiah

SoyemiOgunlesi of Nigeria, Chief Simeon Adebo and Emmanuel OdukoyaAjayiand a host of others studied on a part-time basis having continued on their full-time employment. Each of them spent an average of five years to obtain his degree. (Okenwa, 1992). The knowledge some of this people acquired opened their eyes to the evil of colonialism which geared them up to challenge the colonial masters, the struggle they started eventually brought about our independence in 1960.

Adult education can enhance the adoption and development of new technologies if the mastery of a number of skills by illiterate or semi-literate is undertaken by Nigerians. The adult education programme can afford a large number of predominantly Nigerian farmers, entrepreneurs and other useful skills and knowledge which they can apply to their own and their nation's development. Also, the acquisition of adult education can help stack illiterates in Nigeria to obtain the scientific approach and thereby become more efficient at work by fostering cultural awakening, reduce all forms of prejudice and enhance civic responsibility. All these would eventually enhance good relationship, good harmony and unity in the midst of national challenges. The nation cannot be strong when the vast majority of her citizen

lives in ignorance, especially when knowledge confers strength. It is a fact that no nation can be self-reliant until all her citizens are functionally literate and thereby realize and utilize her potentials.

### **Challenges Facing Adult Education in Humanitarian Development**

In spite of the achievement of adult education in uplifting the educational standard, and the level of awareness of Nigerian citizens, it is enveloped with many challenges. Some of these are;

- Lack of strong, specific and efficient laid out policy and methodology for effective supervision of adult education centres in Nigeria. For instance, the Ministries of Education, saddled with the responsibility of monitoring and evaluating the activities of the centres are not up and doing.
- Lack of funding: despite the fact that the national policy statement recommended that government should examine the possibility of subsidising approved evening classes as to make them tuition free, this is yet to be implemented.
- Most of the private adult education centres in the country, apart from those established by government institutions

are not properly organized and administered. The quality of staff and work done is mostly unsatisfactory.

- There are no set standards for evaluation for progress and achievement. This has negative impact on improvement both on the learners and the educators.
- There are no specific adult education centres established by government to provide functional literacy education for adults who have never had the advantage of any formal education.
- The motive of some owners of adult education centres is to make quick money, hence, their exploitative behavior makes it difficult for learners and the society to realise the goals of adult education

### **Conclusion**

One can conclude that adult education being a functional educational programmesetup can assist in a great way in the midst of national challenges by helping the adults and youths to discover how to live a fruitful and satisfying life. Their acquired knowledge and skill would give them the impetus to learn how to think positively, it brings them out from the state of inferiority complex to realize their full potentials and to improve

their wellbeing, their families, the society and the country as a whole. It helps the poor to improve their chances of changing their personal situation from being ignorant, poor and aggressive. It gives the adults and youths more knowledge and wisdom which will make them to have more skill to better themselves and their community instead of engaging in warfare. This would bring a lot of development in a society and the country.

### **Recommendations**

Some recommendations of adult education in humanitarian development should include;

- That adult education programmes should be incorporated in all developmental initiatives and social programmes as an important contribution to sustainable development, economic prosperity and peaceful resolution of conflict, social cohesion and political stability.
- That we should recognize and accept adult education strategies as problem solving tools in the sense that without education we cannot bring about positive change.
- That all donors including bilateral and international development partners should show good commitments and



support and fund adult education programmes without bias.

- That the organized private sector should be more supporting on the job training of not only their staff but also contribute to the curriculum process of adult education so that products of these centres would fit into their programme of activities.

- That Nigerians should try to encourage and help others to know better than they found them, i.e. as an educated person, try to make one person educated, starting from our immediate environment.
- That all structures should be strengthened by the local, state and federal governments to accommodate adult education practices, be it in theory or in practice.

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**Perceived Causes of the Incessant Air Pollution in Halls of Residence among the Students Residents in University of Benin, Nigeria.**

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**ABSTRACT**

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The study was conducted to find out the perceived causes of air pollution in halls of residence among the students residents in University Of Benin. The study adopted the descriptive research design. Five research questions were raised and analyzed for the purpose of the study. Two hundred respondents made up the sample which was randomly selected from 5 faculties through simple random and purposive techniques from the fourteen (14) Faculties in the University of Benin. The data were collected with questionnaire and analyzed. The result revealed that: Indiscriminate urination is a reason adduced for air pollution by students in halls of residence because of the poor state of hostel facilities in the University of Benin, Indiscriminate dumping of food waste, human waste and other perishables are reasons adduced for air pollution by students in halls of residences. It was also observed that the poor drainage system in the halls of residence is a major cause of air pollution, as most of the drainages are unsafe to use, Irregular supply of water to halls of residence for cleanup and other activities, contributes to air pollution, Overpopulation in the halls of residence, contributes to air population. Based on the results, it was concluded that indiscriminate urination, poor drainage system and indiscriminate disposal of waste are causes of the incessant air pollution in and around the hall of residence. The study therefore recommended that: The University management should provide adequate facilities and equipment for the disposal of wastes and Information on how to use toilet equipment and other facilities should be included in the students' handbook so as to educate them on the proper usage, Regular water supply should be provided through the use of the water supply systems such as a borehole, deep well and so on, adequate and qualified personnel should be recruited to carry out the thorough cleaning of the drainages in the hostels, Accommodation in the halls of residence should be only for those that the bed spaces can accommodate, this would help to reduce overpopulation.

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**Keywords:** Reasons, air pollution, halls of residence, environmental health, University of Benin

**Introduction**

University is a place of learning, with high population of majorly adolescences with different family background and behaviours.

The hall of residence accommodate a large number of students, this environment, most time are affected by human activities such as indiscriminate waste disposal, indiscriminate

urination and other unsafe environmental behaviours resulting to air pollution. Air pollution is the presence in the atmosphere of chemicals, particulate matter or biological materials in such quantity and for such duration that can cause harm and discomfort to humans and other living organisms (Njoku, 2016; Obanya, 2018). Common air pollutants in the environment include: sulphur dioxide (SO<sub>2</sub>); oxides of nitrogen (NO<sub>x</sub>), carbon monoxide (CO); volatile organic compounds (VOCs); suspended particulate matter (SPM) also called particulates; and lead (Pb). Air pollutant can be in the form of solid particles, liquid droplets, or gases. In addition, they may be natural or man-made. In recent times, indoor air quality has caught the attention of scientists and the general public because indoor levels of many pollutants are often higher than those typically encountered outside (Jurado, 2014). Indoor air pollution (IAP) would cause significant harmful health effects due to a long time period that people stay indoors (Klinmalee, 2008). Indoor air pollution concentrations depend on a large number of factors such as indoor sources and the emission rates, air exchange rate, the penetration of outdoor pollutants into the indoor environment, and the pollutant sink or removal rate on indoor

surfaces (Klinmalee, 2008). University of Benin halls of residence is not left out due to the high population rate in the hostels. The suspected causes of air pollution in halls of residence are inadequate water supply, inappropriate use of the drainage system, indiscriminate waste disposal, urination, over population. Inadequate water supply: there is insufficient water supply to the toilets in the halls of residence. Students use these restrooms without water to clean it up after use, which results in the release of foul smell.

Poor drainage system: due to the dumping of waste into the drainage it results in blockage of the drainage system in the halls of residence which results in the release of foul smell. This also leads to the breeding of mosquito. Urination; this occurs when students go about releasing their liquid waste in inappropriate places like on the walk way, the bathing area, and close to the rooms where the students live. All these activities lead to the release of foul smell which makes the environment uncomfortable for the students to live in.

Indiscriminate solid waste dumping: this is one of the causes of air pollution in the halls of residence. This is when wastes are not properly disposed; they are littered all over

the place which causes the release of foul smell.

Over population: this is one of the main causes of air pollution in the halls of residence. Due to the high ratio of students to the facilities available in the hostels over use is inevitable. Most of the cooking activities are done in the hostel rooms which results in the release of Co<sub>2</sub> which is not good for the consumption of the students. These cooking practices are inefficient, and use fuels and technologies that produce high levels of household air pollution with a range of health-damaging pollutants, including small soot particles that penetrate deep into the lungs. Indoor smoke can be 100 times higher than acceptable levels for fine particles.

In view of Vivienne (2014), environmental sanitation is the practice of collection, reuse and disposal of human excreta and domestic wastes with the overall objective to protect the school health. In an attempt to keep the environment clean, it is the human lives that are paramount. The concept of environmental sanitation entails the control of water supplies, excreta disposal, waste water disposal, refuse disposal, vectors of diseases, housing conditions, food supplies and the safety of the working environment (Tecer (2007; Acheampong, 2010). Mmom

and Mmom (2011) opined that effective environmental sanitation in cities is a function of positive environmental behavior and availability of facilities and services. Thus, Daramola (2015), Olowoporoku (2014) and Afon and Faniran (2013) complimented that availability of adequate environmental sanitation facilities and enabling environmental sanitation policies positively influence the achievement of a healthy living environment.

Mmon and Mmon (2011) commented on environmental sanitation and public health challenges in a rapidly growing city of the third world: the case of domestic waste and diarrhea incidence in Port Harcourt Metropolis, Nigeria, that poor environmental sanitation practices exhibited in the disposal of solid wastes, wastewater and excreta, cleaning of drainage including personal, household and community hygiene significantly contribute to infant and child mortality and in order to achieve proper environmental sanitation practices, good sanitation behavior and availability of facilities and services must work in unison. They also stressed that numerous studies have shown that the incidence of many diseases is reduced when people have access to and make regular use of adequate sanitary installations.

According to Olowoporoku (2017) Bello (2007) Uzum and Saglam (2006) studied high school students' environmental attitude: scale development and validation and opined that individuals, who have negative attitude towards the environment an piollution, will be insensitive to environmental problems and may adopt behaviors that damage the environment. So the enhancement of the environmental knowledge of students leads to the development of positive attitudes towards the environment.

The human health effects due to air pollutants include carcinogenicity, pulmonary tuberculosis, cerebrospinal meningitis, pneumonia, whooping cough and measles (Nwachukwu and Ugwuanyi, 2010; Ugwuanyi and Obi, 2002); while the environmental effect is global warming (Bolion, 1991). The health effects which are due to air pollution are called epidemiological diseases. These diseases are well-defined by Nwachukwu and Ugwuanyi (2010), and Ugwuanyi and Obi (2002). It is against this background, the researchers want to investigate the perceived causes of the incessant air pollution in halls of residence, University of Benin.

### **Statement of the Problem**

The state of university of Benin halls of residence has really deteriorated due to the different activities of the students while the students are the ones still being affected. Unfortunately if this problem is not looked into it would lead to an unsafe environment for the students to live in. The University hostels have poor toileting facilities, poor drainages, irregular water supply and are grossly overpopulated. All of the afore mentioned defects are issues that the school hostel faces on a regular basis which results to foul smell of the environment and bad air quality. Indiscriminate disposal of waste is a problem recognized by all nations at the 1992 conference on environment and development and regarded as a major barrier in the path towards sustainability. Students output of daily waste depends on their dietary habits, lifestyle and living standard, students often seem to indiscriminately liter their environment, defecate arbitrarily in unauthorized places e.g. behind rooms, walks ways, hence making the environment unsafe, hazardous due to air pollution. To this effect, this study attempts to empirically analyze reasons adduced for the incessant air pollution in halls of residence in University of Benin.

### **Research Questions**

The following research questions were raised to guide this study:

1. Is indiscriminate urination a reason adduced for incessant air pollution by students in halls of residence, university of Benin?
2. Is indiscriminate disposal of waste a reason adduced for incessant air pollution by students in halls of residence, university of Benin?
3. Is poor drainage system a reason adduced for incessant air pollution by students in halls of residence, university of Benin?
4. Is water supply a reason adduced for incessant air pollution by students in halls of residence, university of Benin?
5. Is over population a reason adduced for incessant air pollution by students in halls of residence, university of Benin?

**The research objectives** is to investigate the perceived causes of air pollution in hall of residence of the University of Benin; if indiscriminate urination, indiscriminate disposal of waste, poor drainage, water supply and over population are reasons adduced for incessant air pollution by students in halls of residence, university of Benin

### **Method and Materials**

This study is designed to find out the reason adduced for incessant for air pollution in halls of residence among the recipients in university of Benin. A descriptive Survey research method was adopted to enable the researcher carry out systematic investigation and obtain information across population of the study. It is considered the most appropriate in enabling a researcher to study a population by collecting information from the respondents who are a representative sample of the entire group as they exist in their various communities. The population of the study comprised fourteen (14) Faculties with the population of Thirty Six Thousand Nine Hundred and Seventy Five (36,975) undergraduate students of the University of Benin (Academic planning, University of Benin, 2022). The sample consists of two hundred respondents which would be randomly selected from 5 selected faculties through simple random technique from the fourteen (14) Faculties in the University of Benin. The research instrument is a questionnaire designed by the researcher entitled "the reasons adduced for incessant air pollution in halls of residence among the recipients in university of Benin Questionnaire". It is divided into two sections: Section A and B. Section A

contains particulars of the respondents (demographic data) such as name of Faculty, level, age, gender, while Section B contains twenty items. The questions contained in the questionnaire revolve round the research questions raised in the study and the response obtained from the respondent will help to validate the research questions. The questionnaire is a modified Likert-type scale with four options of strongly agree, agree, strongly disagree and disagree. In order to ascertain the content validity of the instrument, the questionnaire designed by the researchers was given to three experts in the field of environmental education, health education and measurement and evaluation

from the University of Benin. The reliability of the instrument is established using split-half technique. The data would be correlated using Spearman Brown's Correction Formulae. The reliability coefficient obtained was 0.79. This indicates that the instrument would be adequate for the study. The questionnaires were administered by the researchers. Data collected were sorted, coded and analysed using simple percentages.

**Results**

**Research Question 1:** Is indiscriminate urination a reason adduced for incessant for air pollution by students in halls of residence?

**Table 1:** indiscriminate urination a reason adduced for incessant for air pollution by students in halls of residence

S/N	ITEMS	SA	A	SD	D	Total
1.	There are no good toilet facilities in the school hostel for me to urinate	156 (78%)	10 (5%)	34 (17%)	0 (0%)	2 0
2.	Open defecation and urination is a major contribution to air pollution	125 (62.5%)	15 (7.5%)	50 (25%)	10 (5%)	2 0
3.	The smell from urine is dangerous to human health	163 (81.5%)	22 (11%)	11 (5.5%)	4 (2%)	2 0
4.	If there were clean toileting facilities in the hostel, the air pollution would be reduced.	105 (52.5%)	62 (31%)	23 (11.5%)	10 (5%)	2 0

*Researcher Fieldwork 2023*



Table 1 above shows responses for indiscriminate urination a reason adduced for incessant for air pollution by students in halls of residence. 156(78%) and 10(5%) of the respondents strongly agreed and agreed respectively that There are no good toilet facilities in the school hostel for them to urinate, 34(17%) and 0(0%) strongly disagree and disagree respectively. Also 125(62.5%) and 15(7.5%) strongly agreed and agreed with the statement that Open defecation and urination is a major contribution to air pollution, but 50 respondents representing (25%) and 10(5%) strongly disagreed and disagreed respectively. Seeking opinion of the respondents on the smell from urine is dangerous to human health, 163 of the

respondents representing 81.5% strongly agreed, 22 respondents representing 11% agreed, 11(5.5%) and 4(2%) strongly disagreed and disagreed respectively.

Lastly, 105 respondents representing 52.5% and 62(31%) believe that if there were clean toileting facilities in the hostel, the air pollution would be reduced, 23(11.5%) strongly disagree, while 10(5%) disagreed.

The study therefore conclude that indiscriminate urination a reason adduced for incessant for air pollution by students in halls of residence because of the poor state of hostel facilities in the university of Benin.

**Research Question 2:** Is indiscriminate disposal of waste a reason adduced for incessant for air pollution by students in halls of residence?

**Table 2:** Indiscriminate disposal of waste a reason adduced for incessant for air pollution by students in halls of residence

S/N	ITEMS	SA	A	SD	D	Total
1.	Indiscriminate disposal of waste causes air pollution	159 (79.5%)	26 (13%)	7 (3.5%)	8 (4%)	200
2.	Food waste are not properly disposed in my hostel	100 (50%)	44 (22%)	20 (10%)	36 (18%)	200
3.	Waste collectors are not regular in the school hostel	113 (56.5%)	16 (8%)	41 (20.5%)	30 (15%)	200
4.	There are no proper means of waste disposal in the halls of residence	103 (51.5%)	9 (3.5%)	59 (29.5%)	29 (14.5%)	200

**Researcher Fieldwork 2023**

The above table 2 shows indiscriminate disposal of waste a reason adduced for

incessant air pollution by students in halls of residence. This view was reflected in the

responses of 159(79.5%) and 26(13%) strongly agreed and agreed respectively that Indiscriminate disposal of waste causes air pollution, 7 of the respondents representing 3.5% and 8(4%) strongly disagree and disagree respectively. Similarly, 100 respondents representing 50% and 44(22%) agreed that food waste are not properly disposed in my hostel, while 20(10%) strongly disagree, while 36(18%) disagreed. The respondents agreed with the statement that waste collectors are not regular in the school hostels. This was evidenced by the respondents opinion which showed that 113(56.5%) strongly agreed and 16(8%) agreed respectively while only 41 of the respondent representing (20.5%) and 30

representing (15%) strongly disagree and disagree respectively.

Finally, the respondents agreed that There are no proper means of waste disposal in the halls of residence, with 103 of the respondents representing (51.5%) strongly agreed, 9(4.5%) agreed, while 59 of the respondents representing (29.5%) strongly disagreed and 29(14.5%) disagreed.

In the second objective, Based on the result in table 6, the study therefore conclude that indiscriminate dumping of food waste, human waste and other perishables are reasons adduced for incessant air pollution by students in halls of residences.

**Research Question 3:** Is poor drainage system a reason adduced for incessant for air pollution?

**Table 3:** Poor drainage system as a reason adduced for incessant air pollution.

S/N	ITEMS	SA	A	SD	D	Total
1.	The drainage system in the hostel is poor and unsafe to use	114 (57%)	25 (12.5%)	30 (15%)	31 (15.5%)	200
2.	The drainage system in the hostel is good and safe to use	70 (35%)	12 (6%)	100 (50%)	18 (9%)	200
3.	The smell for the hostel drainage system is the cause of air pollution in the hostel	143 (71.5%)	31 (15.5%)	19 (9.5%)	7 (3.5%)	200
4.	The drainage system is not properly maintained, hence the smell that causes the air pollution	155 (77.5%)	32 (16%)	10 (5%)	3 (1.5%)	200

**Researcher Fieldwork 2023**

The above Table 3 shows responses for poor drainage system a reason adduced for air pollution. This view was reflected in the

responses of 114(57%) and 25(12.5%) strongly agree and agree respectively to the statement, that the drainage system in the

hostels are poor and unsafe to use. 30 of the respondents representing 15% and 31(15.5%) strongly disagreed and disagreed respectively. On the other hand, 100 respondents representing 50% and 18(9%) revealed that the drainage system in the hostel is good and safe to use, while 70(45%) strongly agree, while 12(6%) agree. The respondents agreed with the statement that the smell for the hostel drainage system is the cause of air pollution in the hostel. This was evidenced by the respondents opinion which showed that 143 of the respondent representing (71.5%) and 31 representing (15.5%) strongly agree and agree respectively, while 19(9.5%) strongly disagreed and 7(3.5%) disagreed respectively.

Finally, the respondents agreed that the drainage system is not properly maintained, hence the smell that causes the air pollution, with 155 of the respondents representing (77.5%) strongly agreed, 32(16%) agreed, while 10 of the respondents representing (5%) strongly disagreed and 3(1.5%) disagreed.

In the third objective, the study seeks to find if poor drainage system a factor responsible for air pollution. Based on the result in table 7, the study therefore concludes that the poor drainage system in the halls of residence is a major cause of air pollution, as most of the drainages are unsafe to use.

**Research Question 4:** Is water supply a reason adduced for incessant for air pollution by students in halls of residence?

**Table 4:** Water supply a factor responsible for air pollution by students in halls of residence

S/N	ITEMS	SA	A	SD	D	Total
1.	The water supply in the halls of residence is irregular	101 (50.5%)	11 (5.5%)	62 (31%)	26 (13%)	200
2.	The hostel is always polluted at night because students do not have access to water to use.	133 (66.5%)	10 (5%)	18 (9%)	39 (19.5%)	200
3.	The school water supply does not encourage an environment free of air pollution.	90 (45%)	31 (15.5%)	46 (23%)	33 (16.5%)	200
4.	Water supply does not contribute to air pollution in the halls of residence	29 (14.5%)	24 (12%)	118 (59%)	29 (14.5%)	200

*Researcher Fieldwork 2023*

Table 4 shows response for water supply a reason adduced for air pollution by students in halls of residence. It reveals that 101(50.5%) and 11(5.5%) strongly agreed and agreed respectively to the statement that, the water supply in the halls of residence is irregular. 62 of the respondents representing 31% and 26(13%) strongly disagreed and disagreed respectively. In the same vein, 133 respondents representing 66.5% and 10(5%) revealed that the hostel is always polluted at night because students do not have access to water to use. 18(9%) strongly disagree, while 39(19.5%) disagreed. The respondents agreed with the statement that the school water supply does not encourage an environment free of air

pollution. This was evidenced by the respondents opinion which showed that 90 of the respondent representing (45%) and 31 representing (15.5%) strongly agreed and agreed respectively, while 46(23%) strongly disagreed and 33(16.5%) disagreed respectively.

Finally, the respondents disagreed that water supply does not contribute to air pollution in the halls of residence, with 118 of the respondents representing (59%) strongly disagreed, 29(14.5%) disagreed, while 29 of the respondents representing (14.5%) strongly agreed and 24(12%) agreed.

**Research Question 5:** Is over population a reason adduced for incessant for air pollution by students in halls of residence?

**Table 5:** Overpopulation as a reason adduced for incessant for air pollution by students in halls of residence

S/N	ITEMS	SA	A	SD	D	Total
1	The halls of residence is generally overpopulated	127 (63.5%)	45 (22.5%)	15 (7.5%)	3 (1.5%)	200
2	Air pollution is bound to occur when an environment is densely overpopulated	122 (61%)	44 (22%)	20 (10%)	14 (7%)	200
3	The air quality in the halls of residence is poor because they are overpopulated	154 (77%)	20 (10%)	16 (8%)	10 (5%)	200
4	Overpopulation does not contribute to air population in the halls of residence.	33 (16.5%)	11 (5.5%)	131 (60.5%)	25 (12.5%)	200

**Researcher Fieldwork 2023**

The above Table 5 shows overpopulation as a reason adduced for air pollution by students in halls of residence. This view was reflected in the responses of 127(63.5%) and

45(22.5%) strongly agreed and agreed respectively that the halls of residence is generally overpopulated, 15 of the respondents representing 7.5% and 3(1.5%)

strongly disagree and disagree respectively. Similarly, 122 respondents representing 61% and 44(22%) agreed that air pollution is bound to occur when an environment is densely overpopulated, while 20(10%) strongly disagree, while 14(7%) disagreed. The respondents agreed with the statement that the air quality in the halls of residence is poor because they are overpopulated. This was evidenced by the respondents opinion which showed that 154(77%) strongly agreed and 20(10%) agreed respectively while 16 of the respondent representing (8%) and 10 representing (5%) strongly disagree and disagree respectively.

Finally, the respondents disagreed that overpopulation does not contribute to air population in the halls of residence, with 131 of the respondents representing (60.5%) strongly agreed, 25(12.5%) agreed, while 33 of the respondents representing (16.5%) strongly disagreed and 11(5.5%) disagreed.

### **Discussions of Findings**

The result of this study has been quite, informative and revealing. Based on the analysis of data or information collected from the opinion of the respondents on: The perceived causes of Air Pollution In halls Of Residence among in University Of Benin.

The analysis of research question one reveals that indiscriminate urination a factor

responsible for air pollution by students in halls of residence because of the poor state of hostel facilities in the University of Benin. The study also revealed that the major causes of poor sanitation practices among students are poor toilet and bathroom facilities, insufficient toilet and waste disposal facilities, shortage of water supply and lastly, poor drainage system. Irregular water supply, and lack of waste disposal facilities.

The results of research question two shows that indiscriminate dumping of food waste, human waste and other perishables are factors responsible for air pollution by students in halls of residences. Poor environmental sanitation practices exhibited by students in the disposal of solid wastes, wastewater and excreta, cleaning of drainage including personal, household and community hygiene significantly contribute to sickness and air pollution and in order to achieve proper environmental sanitation practices, good sanitation behavior and availability of facilities and services must work in unison. They also stressed that numerous studies have shown that the incidence of many diseases is reduced when people have access to and make regular use of adequate sanitary installations.

The results of research question three shows that the poor drainage system in the halls of residence is a major cause of air pollution, as most of the drainages are unsafe to use. Air pollution is not limited to the water pollution and improper disposal of wastes. When students dispose of chemical and physical wastes in ways that directly affect the air supply, it is often results to air pollution.

The finding from Research question four shows that irregular supply of water to halls of residence for cleanup and other activities, contributes to air pollution. Finally research question five revealed that the overpopulation in the halls of residence, contributes to air population.

### **Conclusion**

Based on the result of the study, it can be concluded among others that the reasons adduced for incessant air pollution in halls of residence is as a result of poor sanitation practices among undergraduate students of University of Benin in their halls of residents and that inadequate water supply,

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poor toilet facilities, insufficient toilet, bathroom and waste disposal facilities and poor drainage system are the major causes of air pollution in the hostels environment.

### **Recommendations**

In view of the above, the following recommendations are therefore put forward:

1. The University management should provide adequate facilities and equipment for the disposal of wastes and Information on how to use toilet equipment and other facilities should be included in the students' handbook so as to educate them on the proper usage
2. Regular water supply should be provided through the use of the water supply systems such as a borehole, deep well and so on.
3. Adequate and qualified personnel should be recruited to carry out the thorough cleaning of the drainages in the hostels.
4. Accommodation in the halls of residence should be only for those that the bed spaces can accommodate; this would help to reduce overpopulation

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FINAL DRAFT BJE

**Quality of Work-Life and Career Development among Non-Teaching Staff at the University of Lagos, Akoka in Post-Covid Era.**

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**ABSTRACT**

Quality of work-life and career development of staff seem to be the most critical and controversial issues in the contemporary work environment. The consensus about the quality of work-life is that it assists in the recruitment and retention of good employees and enhances organizational performance. This study examines the relationship between the quality of work-life and career development. Three hypotheses guided the study. This study adopted a descriptive survey research design. Out of the total population of 2341 non-teaching staff, 435 were drawn from 3 Faculties and the Senate Building at the University of Lagos. The sample size consisted of 237 junior staff and 198 senior staff using an accidental random sampling technique. Quality of work-life and career development questionnaire (OWLCDQ) was developed by the researchers to elicit information from the respondents. Two experts in Measurement and Evaluation in the Faculty of Education, University of Lagos validated the instrument. The Cronbach Alpha reliability testing was used to determine the reliability index of 0.72. The study's findings revealed a positive relationship between the quality of work-life and career development among the non-teaching staff of the University of Lagos. The study therefore recommended that there should be an equitable reward system to encourage staff towards career development, a friendly and conducive work environment should also be encouraged and maintained to achieve job satisfaction among staff.

**Keywords:** *quality of work-life, career development, reward system, organizational climate, job satisfaction.*

**Introduction**

COVID-19 is a virus that has created tension and devastation around the globe. The World Health Organization (WHO) in December 2019 received a report on clusters of pneumonia cases in Wuhan City, Hubei Province of China. The Chinese authorities subsequently identified a novel strain of Coronavirus (SARS-COV2) as the causative agent (WHO, 2019). The Coronavirus disease outbreak has affected almost all the

countries, including Nigeria, the most populous black nation in the world, and with a population of over 200 million people. The Coronavirus entered Nigeria through an infected Italian citizen who came in contact with a Nigerian citizen who was subsequently infected with the Coronavirus and was confirmed in Lagos State on 27 February 2020. The Nigerian government in response to the COVID-19 outbreak put a

lot of interventions in place to curb the spread of the virus, this includes; international and domestic air travel bans, closure of schools, universities, and religious places, ban on social gathering and general restrictions of movements. This culminated in a lockdown order imposed by the Federal Government on States with very high infection rates. As a step to further effect social distancing and check the spread of Coronavirus, the Federal Government directed all public servants from levels 1 through 12 to work from home effective Tuesday, March 24, 2020. The post-COVID-19 lockdown had a negative ripple effect across all sectors and mostly had negative effects on Nigeria. The macro effects on the economy have been documented ranging from a fall in both aggregate supply and demand, an increase in the prices of goods and services, insecurity, and a rise in overall government spending, but much less has been said about the post-COVID 19 impact on quality of work-life and career development of non-teaching employee in Nigeria Universities.

In this challenging and post-COVID-19 pandemic situation, the impact of the COVID-19 pandemic has taken a significant toll on employees' work-life and their career development. COVID-19 abruptly affected

work routines as most employees were working from home, and some lost their jobs. It also caused an acceleration of trends of work to online or virtual environments. There are overwhelming fears around health, safety, and job uncertainty which are continuously affecting the quality of work-life of university employees. Quality of work-life is now an important issue in the management of human resources in an organization. Hence, the university management should have an understanding of the biggest challenges of the negative impact of COVID-19 on its employees. The impact is overwhelming because they spent a disproportionate amount of time handling students' files and office work. An individual university employee lives a successful and satisfied life when there is a correlation between their quality of work-life and career development. The basic idea of the quality of work-life involves employees' learning capabilities and the organizational environment without which jobs become threatened; insecurity, and increased levels of employee dissatisfaction. The university's priorities center around the enhancement of its employee given their importance to the university.

Quality of work-life (QWL) is a dynamic multidimensional construct that includes

concepts such as job security, reward system, training and career advancement opportunities, and participation in decision-making (Fapohunda, 2013). Fapohunda (2013) explained further that QWL encompasses working conditions, working time, mode of wage payment, and health hazard issues. It includes financial and non-financial benefits and management behavior towards workers. The factors affecting the quality of work-life have substantial roles to play in satisfying the needs of the employee. To buttress his point Fapohunda (2013) identified drivers of QWL to include employee motivation, emotional supervisory support, communication, compensation and reward, career development and growth, job satisfaction, organizational commitment, flexible work arrangement, occupational stress, organization culture, organizational support, job security, and psychological attachment. In a nutshell, quality of work-life (QWL) does not only deal with how people can work, or contribute to their organization but also have to do with how people can do their work better and also how the work can motivate them to be competent and better employees. It equally has to do with how the university work environment can motivate individuals to perform and work better in an institution. How then can university non-teaching staff prepare to

adapt to a post-COVID-19 world of work and remain competent and perform better in their work? The answer is on training and career development of the employees.

The non-teaching staff is one of the most important components of the university system, they contribute to the development and attitudes of the society. The quality of any education system depends on the way its employees are developed. The quality of work-life of university staff can only be noticed when they are involved in development programming. This is so because staff development focuses on professional growth, bringing about change in individuals' knowledge, understanding, behavior attitudes, skills, values, and beliefs (Okebiorun, 2014, Ozurumba & Amasuomo 2015).

Career development seems to be the most crucial and controversial issue in the contemporary work environment. Employee career development at work is often considered in isolation wherein it is assessed on the basis that the employee had acquired a certificate before joining an organization, hence, little or no attention is paid to their continuing learning and development. Employers tend to withdraw from the career development process. They consider it an unworthy investment because they believe

employees can decide a time to leave the organization. Despite these challenges, Lasio, Sipos, and Slavic (2018) explained that it is more beneficial for organizations to deal with career planning and management. Numerous benefits can be identified for the universities and also for the non-teaching staff. Lasio, Sipos, and Slavic (2018) buttress that career development is useful for the institution because it can increase employee motivation, performance, and thus the efficiency of the organization. Once an institution has a fair idea about employee's strengths and weaknesses, attitudes and behavior, values and future aspirations, and skills competencies, they can make better use of employee skills and put them in the right place. Similarly, the employees on their part will get helpful assistance and guidance with their career decisions and get feedback on their performance. This helps improve their working style and improve employee's quality of work-life.

### **Statement of the problem**

The career trail of an individual is seen as a hierarchical and task-oriented movement within an organization or in an establishment. The career development of an employee is related to factors affecting workers' health, habits, and environment. A well-trained employee can contribute

effectively to the growth and development of an organization which might lead to high turnover, low morale, and increased absenteeism. The new wave of threats to the environmental, social, and global economy as a result of the Corona pandemic has affected the world and Nigeria. It has taken a great dimension in affecting people's lives and work. This study therefore investigated the relationship between the quality of work-life and career development among non-teaching staff at the University of Lagos, Akoka, in post – the COVID era.

### **Purpose of the Study**

The overall purpose of the study was to investigate the relationship between quality of work-life and career development among non-teaching staff at the University of Lagos, Akoka, in post – COVID era and specifically;

1. To examine the relationship that exists between the reward system and career development among non-teaching staff at the University of Lagos.
2. To find out the relationship between organizational climate and career development among non-teaching staff at the University of Lagos.
3. To determine the relationship that exists between job satisfaction and career

development among non-teaching staff at the University of Lagos.

### **Research Hypotheses**

The following null hypotheses were postulated and tested in the study.

1. There is no significant relationship between the reward system and career development among non-teaching staff at the University of Lagos in the post-COVID era.
2. There is no significant relationship between organizational climate and career development among non-teaching staff at the University of Lagos in the post-COVID era.
3. There is no significant relationship between job satisfaction and career development among non-teaching staff at the University of Lagos in the post-COVID era.

### **Literature Review**

Quality of Work-life is a combination of three words namely quality, work, and life which are interrelated with each other. Quality may be defined as continuous improvement regarding workers, organizations, and society. Work is an important means of livelihood because it provides enjoyment and satisfaction in life, the present state of existence, and employment. Quality of work-life is the

quality of life that an employee experiences at his workplace. The concept of quality of work-life has been perceived in several ways by many scholars. Maccoby (2001) defined quality of Work-life as a commitment of management and unions to support localized activities and experiments to increase employee participation to determine how to improve work. Rethinam and Ismail (2008) defined Quality of Work-life as the effectiveness of the work environment that transmits to the meaningful organization and personal needs in shaping the values of employees that support and promote better health and well-being, job security, job satisfaction, competency development and balance between work and non-work-life.

Reward systems play a key role as they determine the employer-employee relationship. The reward system defines what the employer is willing to give which has a direct impact on what the employees are willing to contribute in exchange. Saari and Judge (2004) point out that rewards are vital for staff acquisition and retention. Promotion is necessary for job satisfaction and it stands for increased incentives in recognition of the employee's performance and contribution. One major workplace source of motivation includes encouraging career development and training with its

attendant benefits and rewards system. Armstrong (2009) agrees and points out that today's dynamic environment requires continuous professional and managerial development. Boxall and Purcell (2008) concur that the training and development of employees should be seen as an investment, not a cost; and that bad performance, ignorance, and low commitment to duty are very costly barriers in business. It is pointed out that the key to high levels of performance lies in having employees who are willing to work, are well-managed, well-led, well-motivated, and are always re-skilling (Prince, 2009).

Organizational climate can be described as feeling in the air and the atmosphere that employees perceive is created in their organization due to practices, procedures, and rewards (Brooks 2002). Organizations that can create environments that employees see as benign and in which they can accomplish their maximum capacity are viewed as a key source of competitive advantage. Jianwei (2010) agreed that the organizational climate in the career development of employees is important for the employee to perform better in work as providing necessary and related training is required. Amin Bahrami et al (2015) emphasize the relationship between the

employee and the organization such as employee wellness, priority for minority people, etc. have directly affected the perception of employees as well as their performance. A work environment that can fulfill employees' needs is considered to provide a positive interaction effect which will lead to an excellent quality of work-life.

Job satisfaction is the fulfillment enjoyed by employees about their present career. A satisfied employee is always happy with the job and sees the job as the best career path (Stoner, Freeman, and Gilbert, 2013). Various research studies conducted on job satisfaction have revealed that employees who are more satisfied with their jobs are more loyal and committed to the organization. On the other hand, individuals who are not satisfied with their jobs are more likely to abandon their organization either temporarily by absenteeism or permanently by turnover. According to Lee (2000), organizations that empower the management of careers are more likely to enlarge employee's satisfaction with jobs.

### **Theoretical framework**

#### **Need satisfaction and spillover Theory**

The need satisfaction approach to quality of work-life is based on need satisfaction models developed by Maslow (1954), McClelland (1961), Herzberg (1966), and

Alderfer (1972). The basis of this approach to quality of work-life is that individuals have fundamental needs they seek to fulfill through work. The level of satisfaction employees derive from their job is the level of satisfaction the job can meet. The spillover approach to quality of work-life according to Sirgy et al. (2001) posits that satisfaction in one area of life may influence satisfaction in others. For example, satisfaction with one's job may influence other life domains such as family, leisure, social, health, financial, etc. There is horizontal and vertical spillover. Horizontal spillover is the influence of one life domain on a neighboring domain, for example, job satisfaction may influence feelings of satisfaction in the family life domain and vice versa). In vertical spillover, the hierarchy domain is important. At the top of the hierarchy domain is the most superordinate domain. Feelings in this superordinate domain reflect what quality of life researchers call life satisfaction, personal happiness, or subjective well-being. Subordinate to the most superordinate life domains are major life domains such as family, job, leisure, and community (Sirgy et al., 2001). Satisfaction/dissatisfaction with each of these major life domains "spillover" to the most superordinate domain, thereby affecting life satisfaction.

Therefore, the aim of quality of work-life exceeds job satisfaction, it also involves the effect of the workplace on satisfaction in non-work-life domains, satisfaction with overall life, personal happiness, subjective well-being, and how it encourages staff to develop career-wise.

### **Methodology**

The design adopted for the study was a descriptive survey research design. This design was considered appropriate because it dealt with the collection of data to describe and interpret existing conditions from a new sample representative of the population. The target population is all the non-teaching staff in the University of Lagos, Akoka, Lagos which is 2341 as at the time of the study. The sample of this study is comprised of 435 non-teaching staff, 3 faculties, and the senate building at the University of Lagos. The sample consisted of 237 junior staff and 198 senior staff. For this study, the researchers employed a non-probability sampling technique. This technique is adequate due to the partial lockdown of the Nigerian economy as a result of the COVID-19 Pandemic. More so, there was skeletal and partial work ongoing in the University as a result of the Pandemic. The respondents were chosen using an accidental random sampling technique. The



accidental random sampling technique is the method where the researchers administer questionnaires to respondents when they meet them. It involves the researcher standing close to areas where respondents are mostly found and in the case of this study, the 3 faculties and senate building of the University of Lagos were the location for administering questionnaires to solicit responses from respondents. The instrument used for data collection was a set of researchers' designed questionnaire titled "Quality of Work-life and Career Development Questionnaire (QWLCD)". The instrument contained twenty (20) items that measure the quality of work-life and career development. The items of the questionnaire were scored on a 4-point modified Likert scale of Strongly Agree – 4 (SA), Agree – 3 (A), Disagree – 2 (D), and Strongly Disagree – 1(SD). To ensure the face and content validity of the instrument, draft copies of the instrument were given to two experts in the Measurement and Evaluation Department in the Faculty of Education, University of Lagos. Their

Table 1:

modifications and suggestions were used to produce the final copy. The reliability of the instrument was determined through the split-half pilot test. The instrument was administered to 80 non-teaching staff in the College of Medicine and the data obtained was subjected to Cronbach Alpha reliability testing to determine the internal consistency of the instrument. This provided the opportunity to identify the strength of each item in the instrument. Thus, the reliability coefficient of 0.72 resulted in an index of internal constituency. Consequently, the instrument was adjudged to be reliable and useable for the study. The three hypotheses were tested using Pearson Product Moment Correlation Statistics at a 0.05 level of significance.

## **Results**

### **Test of Hypotheses**

Hypothesis 1: There is no significant relationship between the reward system and career development among non-teaching staff at the University of Lagos in the post-COVID era.

Table 1: Reward System and Career Development

Variable	Mean	SD	N	df	r	p-value	Decision
Reward System	18.66	1.24	435	433	0.233	0.000	Reject H <sub>0</sub>
Career Development	17.86	1.78					

Table 1 shows there is a positive and significant relationship between the reward system and career development among non-teaching staff at the University of Lagos, Akoka, in the post-COVID era ( $r=0.233$ ;  $df=433$ ;  $p<0.05$ ). Therefore, the null hypothesis which states that there is no significant relationship between the reward

system and career development among staff at the University of Lagos, Akoka, in post-COVID era is rejected.

Hypothesis 2: Organizational climate does not significantly relate to career development among non-teaching staff at the University of Lagos in the post-COVID era.

Table 2: Organizational Climate and Career Development

Variable	Mean	SD	N	df	r	p-value	Decision
Organizational Climate	17.84	1.32	435	433	0.245	0.000	Reject H <sub>0</sub>
Career Development	17.86	1.78					

Table 2 shows there is a positive and significant relationship between organizational climate and career development among non-teaching staff at the University of Lagos, Akoka, in the post-COVID era ( $r=0.245$ ;  $df=433$ ;  $p<0.05$ ). Therefore, the null hypothesis which states that Organizational climate does not

significantly relate to career development among staff at the University of Lagos, Akoka, in the post-COVID era is rejected.

Hypothesis 3: There is no significant relationship between job satisfaction and career development among non-teaching staff at the University of Lagos in the post-COVID era

Table 3: Job Satisfaction and Career Development

Variable	Mean	SD	N	Df	r	p-value	Decision
Job Satisfaction	17.89	1.86	435	433	0.265	0.000	Reject H <sub>0</sub>
Career Development	17.86	1.78					

Table 3 shows there is a positive and significant relationship between job satisfaction and career development among non-teaching staff at the University of Lagos, Akoka, in the post-COVID era ( $r=0.265$ ;  $df=433$ ;  $p<0.05$ ). Therefore, the null hypothesis which states that there is no significant relationship between job satisfaction and career development among staff at the University of Lagos, Akoka, in post- COVID era is rejected.

### **Discussion of Findings**

- There is a significant relationship between the reward system and career development among non-teaching staff at the University of Lagos, Akoka, in the post-COVID era.
- There is a significant relationship between organizational climate and career development among non-teaching staff at the University of Lagos, Akoka, in the post-COVID era.
- There is a positive and significant relationship between job satisfaction and career development among non-teaching staff at the University of Lagos, Akoka, in the post-COVID era.

The first findings show that there is a significant relationship between the reward system and career development among non-teaching staff at the University of Lagos,

Akoka, in the post-COVID era. The study shows that adequate reward encourages staff to develop their skills which will be of great benefit to themselves and also to the organization. This result agrees with Armstrong (2009) who points out that today's dynamic environment requires continuous professional and managerial development. Boxall and Purcell (2008) also concur that the training and development of employees should be seen as an investment, not a cost; and that bad performance, ignorance and low commitment to duty are very costly barriers in business. The second finding shows that there is a significant relationship between organizational climate and career development among non-teaching staff at the University of Lagos, Akoka, in the post-COVID era. The study revealed that employees working in an organization where the climate is conducive are the ones who internalize the goals and values of the organization, making an effort for the organization to be successful and at the same time wish to stay in the organization. This is confirmed by Jianwei (2010) who agreed that the organizational climate in the career development of employees is important for the employee to perform better in work as providing necessary and related training is required. The study also shows that the organization that considers the well-

being of the employee has won the trust of the employee which also aids performance. This runs in line with Amin Bahrami et al (2015) who emphasize that the relationship between the employee and organization such as employee wellness, priority for minority people, etc. have directly affected the perception of employees as well as their performance.

Finally, the third finding shows that there is a positive and significant relationship between job satisfaction and career development among non-teaching staff at the University of Lagos, Akoka, in the post-COVID era. The study also revealed that satisfied staff put in their best, improve their skills, and stay longer on the job. This agreed with Stoner, Freeman, and Gilbert (2013) who reported that a satisfied employee is always happy with the job and sees the job as the best career path.

### **Conclusion and Recommendations**

It has been seen that career development is the lifelong process of managing progression in learning and work. The quality of this process significantly determines the nature and quality of

individuals' lives, the kind of people they become, the sense of purpose they have, and the income at their disposal. Career development is greatly influenced by an equitable and fair reward system, a conducive organizational climate, and a happy and satisfied staff.

To this end, the following recommendations are hereby suggested based on the findings of the study:

1. There should be an equitable reward system to encourage staff towards career development. The reward system should also be seen as fair by all the staff of the organization. The reward also should be paid as and when due.
2. A friendly and conducive work environment should also be encouraged. This is necessary because it will enable staff to feel relaxed while doing their job and also bring about progress to both the staff and the organization.
3. Job satisfaction should be maintained among staff. This is important because a happy staff is a satisfied staff and a satisfied staff gives their best and stays with the organization.

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**Academic Misdemeanors in University Education: A Global Challenge in the Achievement of Sustainable National Development**

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**ABSTRACT**

University education is universally acknowledged as a vital instrument for the provision of the manpower needs of a sustainable national development. University is where individual's potential is identified, nurtured and developed for the benefit of individuals and the development of society. To achieve these laudable objectives the university employs lecturers knowledgeable in the pedagogical content to ensure that the objectives of education are achieved. The study explores the teacher's academic misdemeanors in university education as a global challenge in the achievement of sustainable development. Sustainable development is the process of improving the well-being of citizens without destroying the ecosystem. Sustainable development means the improvement in quality of life, better income, and inclusive education among others. The study reveals that plagiarism and examination malpractice is academic misdemeanors that enthrone laziness and cripple creativity, innovation and hard work which are pivotal to the growth and development of society. The study reveals that plagiarism and examination malpractices are academic misdemeanors that not only retard development but tarnish the reputation of individuals and educational institutions. As a forward, the study suggests that for university education to be devoid of plagiarism the managers of education must sensitize the students and lecturers on the evils of plagiarism and train them on how to avoid it. The study also suggests the use of digital technology to curtail examination malpractices.

**Keywords:** *academic misdemeanor, university education, sustainable development*

**Introduction**

Education is generally recognized as a veritable instrument for the development of a state. Education is not only fundamental to the development of states but also help individuals to acquire certain skills and capability that will enable individuals to explore the environment. It not only reformed the individuals but instil in the individuals' competence that will enhance

them in the future. Education helps in the total development of individuals by equipping them with skills and knowledge that will help them to integrate into society (Audu, Danladi and Alaku 2022). To achieve these laudable goals are dependent on the purity and sanctity of tertiary institutions. Unfortunately, the tertiary education in the Nigeria educational system

is sieged by the muster called corruption. Corruption has ravaged all facet of Nigerian economy and the tertiary institutions are not exempted. (Stetan, 2107: Madu, 2020).

This academic misdemeanour has not only impeded the growth of tertiary education, social trust deficit but has hindered major thrust of building the desired manpower needs of the community. Misdemeanour destroys the essence of tertiary education which is the search for the truth, dissemination of the truth and the deepening of the truth. It is enlightening to note that the National Policy on Education (FRN, 2014) specified that the goals of tertiary education is to reduce the storage of manpower by producing manpower needs that relevant to the needs of the labour market, encourage and promote scholarship. This monster called academic misdemeanour- corruption has destroyed the whole essence of tertiary education, it foster self-deception, incompetence, and breeds fraudsters that dent the integrity of the institutions, impede the attainment of growth and development. Education helps to transits cultural values from one generation to another. Education becomes an agent of socialization that help not only transmit cultural values but also customs, virtues, and behaviours that enhance nation-building. The importance of

education to the individual and nation cannot be overstressed hence both individuals and nations mobilize resources towards not only having quality education but inclusive education. The National Policy on Education recognizes education as a vehicle that will inculcate national consciousness, value, and national unity. (FGN, 2014). The policy classified education into primary, secondary, and tertiary education. Tertiary education encompasses all education given after post-basic education in Nigeria and it consists of universities, inter-universities, and other specialized learning institutions like colleges of education, and schools of health among others. (Wordu, 2021).

University is the highest ladder in academic pursuit where professionals are nurtured and developed for the development of individuals and the state. The goals of tertiary education as encapsulated in the National Policy of Education are to contribute to national development through high manpower training, instill skills and knowledge that will make the learners self-reliant, and produce the relevant manpower needs of society. (FGN, 2014). These laudable goals according to the policy are achieved through quality intake of students, teaching, learning, and research According

to Robert-Okah, (2017), education is the bedrock of development and the nation's quality of education is used to determine the quality of development of the nation.

Development is an encompassing concept that depicts a positive change in the life of the individual or the nation. It is a progressive movement from a lower to a higher standard of living. (Musa & Madumere, 2022) To others it is a checklist used in determining the rate of poverty, unemployment rate, standard of living, the state of health of the citizens and the participation of the citizens in the democratic process. This brings to the fore the essence of higher education which is used to emancipate individuals from the shackles of poverty and boost employability and status in society. Unfortunately, in the bid to attain academic status students and teachers have adopted certain behaviours that infringe on the integrity of the educational system. Some of these injurious behaviors that are widely becoming norms rather than an exception are plagiarism, examination malpractices, sex-for-marks, and cultism among others. It is against this backdrop that the study tends to explore the influence of academic misdemeanors as it affect national development.

The researcher is of the view that these major dishonest acts that are ravaging the academic community if not checked, and controlled will likely hinder research, cause students to be expelled, hinder the learning process, and obscure the true identity of the source of information. To the teacher, it is a dishonesty act that can lead to litigation, destruction of academic and professional reputation and in the long run retard development through the production of manpower that lack the prerequisite skills and knowledge that enhance sustainable development. To this end, the paper is structured into the following sections, concepts clarification, the implication of academic misdemeanour to sustainable development, how to manage academic writing without plagiarism, the way forward and the conclusion.

### **Concepts Clarification**

#### **Academic Misdemeanors**

Misdemeanors are actions that are bad or unacceptable in the community but not regarded as serious offences. (Oxford Advanced Learner's Dictionary). In academics misdemeanors are those behaviours in the university community that are injurious or undermine the integrity of the system. Wikipedia enumerates examples of misdemeanors to include disorderly



misconduct, trespass, shoplifting and vandalism among others. It is against this background that the concept was borrowed and applied to the academic system. Academic misdemeanor can be defined as actions or inactions in the university community that bring shame and disrepute to the students, lecturers and the university community. It includes those behavior that undermine the learning outcomes these include plagiarism, examination malpractice, sex-for-marks, and cultism among others. These appear to be minor offences in the eyes of perpetrators but it destroys not only the victims but also the institution and retard development in society. For the sake of this paper academic misdemeanor, academic dishonesty, academic malpractices or unprofessional misconduct are used as synonymous.

### **Plagiarism**

Plagiarism and examination malpractice are some of the ills devastating the academic environment. However, it appears that plagiarism and examination malpractice have remained unabated despite the negative colourations it has on victims and academic institutions. Oxford Advanced Learner's Dictionary defines plagiarism as something that has been plagiarized, and the act of presenting another person's ideas, words, or

work and present them as their own. In the same vein, the American Association of University Professors cited in Roig (2015), stated that plagiarism is 'taking over the ideas, methods, or written words of another, without acknowledgement and the intention that they are taken as the work of the deceiver'. It is equivalent to shoplifting items in a supermarket without paying the cashier. It is stealing another person's intellectual property to make economic benefits either by receiving an award, promotion, or an increase in responsibility.

The Oxford Advanced Learner's Dictionary (Eighth edition p781) defines 'intellectual property as an idea, or a design, etc. that somebody has created and the law prevents other people from copying'. In the academic world, the presentation of somebody's ideas, results, tables, and words without acknowledging the author, is seen as an academic incursion that is met with stiff punishment. Roig, (2015), defined plagiarism as the 'taking of words, images, processes, structures, and design elements, ideas of others and presenting as one's own. Also, alluded that plagiarism is similar to kidnapping of ideas, fraud, and literary theft. Therefore, plagiarism connotes the use of other literary works and pretends to be the original works, by not acknowledging the

author. It is academic fraud that has cut across all facets of the educational system and is generally condemned by scholars. But unfortunately, it is still prevalent in educational institutions.

There is evidence that plagiarism cuts across various tertiary institutions irrespective of the regions or the status of institutions. The pressure on the lecturers as the generators of knowledge to write or perish has put a burden on the lecturers to meet the academic standard to ascend to the next promotion cadre. The pressure is not only peculiar to teachers but also to students. The desire for lecturers to be promoted or the desire of students to make better grades among their peers has also led to copying others' people work. A study carried out by Spraju, Urh, Jerebia, Trivan, and Jereb (2017), enumerated some of the reasons why scholars plagiarized. Some of these reasons are lack of proper knowledge of citation and referencing, what constitutes plagiarism, the desire to get better grades, promotion, responsibility and reward. The authors further explained that the proliferation of digital technology with open access to information has increased the urge to plagiarize.

The act of plagiarism has been a common occurrence in the academic community and

it takes different forms and dimensions, either in the styles of writing or even the pattern of writing without proper citation and referencing. Plagiarism can be in the form of the fabrication of fictitious data or falsification of data or experience procedures to achieve a predetermined outcome or result. (Benos et al, 2005). Igbokwe, (2020). Stated the different natures of plagiarism that are worthy of note, are

- Digital plagiarism: this is a situation where a researcher replicates resources from the internet and uses them in academic writing without proper referencing
- Verbatim plagiarism: the writer lifts one word from another author without citing the original author.
- Substantial plagiarism is when the writer paraphrases another person's work by changing words and adding synonyms and refuses to acknowledge it.
- Shadow plagiarism: is where somebody presents the works of others as their own.
- Branded plagiarism is the pick-and-use pattern of copying the works of others.
- Unintentional plagiarism: whereby the writer copied another person's work but is not aware of the procedures of citation and referencing.

- Intentional plagiarism: in this situation, the author is willing and freely copying another's person work without referencing.
- Self-plagiarism: this is when a student decides to resubmit and reuse the previously scored works.

Whatever is the nature of plagiarism, it is usually unacceptable in the academic world and therefore associated with penalties. Unfortunately, it is permeating the entire educational system irrespective of geographical location. Okebukola, (2019), cited in Online Tribune of 8<sup>th</sup> Nov, 2018 alluded that 60% of Nigeria's thesis (undergraduates' projects) were plagiarized works. In the same vein, research conducted in the UK by Selwyn (2008) revealed that about 60% of undergraduate students admitted plagiarism in the previous year, and further stated those prone to the use of the internet are prone to plagiarism

### **Examination malpractice**

It is another academic dishonesty that is ravaging the university community whether at the crèche, basic, post-basic education or in tertiary institutions. Anzene (2014) opined that examination malpractice was first reported in Nigeria in the year 1914 when the question papers of the Senior Cambridge Local Examinations were

reportedly seen by candidates before the scheduled date of the examination. Therefore, examination malpractice in Nigeria is as old as the introduction of Western education into the nation where the premium is placed on certificates.

Although, examination malpractice is a global phenomenon but has taken a dangerous dimension in Nigeria, especially with the upturn in information technology. In the past, it was practiced with caution but unfortunately, with the advent of information technology, it is now practised in a dangerous dimension that if nothing is done to stem the tide it may cripple the educational system. Examination malpractice is any examination misconduct that is likely to erode the integrity of the examination result. Examination malpractice is any behaviour by a candidate or its agents that negates the rules and regulations of the examination to give the candidates an extra edge to obtain a better result. The arrangement may be before, during, or after the examination, it can be in collaboration with the teacher, examination body, or the student. Jimoh (2009), in defining examination malpractice opined that it is any irregular behaviour exhibited by a candidate or anybody charged with the conduct of examination before, during, or after the

examination that contravenes the rules and regulations governing such examination. Therefore, examination malpractice is the process of having a good result through a fraudulent act either by coping from a prepared script, coping from a fellow candidate, or writing outside the prescribed

*which explains examination malpractice as any act of omission or commission by a person who in anticipation of, before, during, or after any examination fraudulently secures an unfair advantage for himself or any other person in such a manner that contravenes the rules and regulations to the extent of undermining the validity, reliability, authenticity of the examination and ultimately the integrity of the certificates issued.*

Examination malpractice negates the essence of examination and education. It

### **University Education**

Education is not only the hallmark of human settlement but also human existence. It is pivotal in the socialization of man and the transformation of accepted behavioral patterns from one generation to the other. It is a conscious effort of man to exploit the environment and adopt strategies for the survival of man, its environment, and sustainability. The National Policy on Education sees education not only as an instrument for national development, and social cohesion but also as an instrument that exploits individuals' skills and potential for self-fulfillment and the development of society. (FRN, 2014).

examination hall or any activities that are inimical to the ethics and ethos of examination. A more elaborate definition of examination malpractice was given by the Examination Malpractice Act (1999) cited in Onyibe, Uma and Ibina (2015),

retard creativity, innovation, and development.

University education is generally adjudged as the citadel of learning, a 'knowledge factory' where leaders and professionals are built, it is a community of scholars and students to develop the manpower needs of society. Universities are knowledge organizations and value producer where human capacity are nurtured, developed, and sustained for the benefit of individuals and society. (Wordu, 2020). The prime reason for the establishment of the university may not only be the provision of the manpower needs of society but also ensuring that teaching, 'inculcates community spirit in the students through project and action research' (FRN, 2014 P42). The roles of university education were further expanded by Sharma (2015), who opined that university roles

include teaching and learning, education, research, and technology. Consequently, the university is involved in the training of skilled high manpower needs of society through teaching and learning. Conducting research and application of technology helps in providing solutions and informed decisions that will help to solve the challenges of society. Also, it helps students to instil high-quality education, nurture their potential, and make them useful to themselves and at the same time contribute to the development of society.

The responsibility is on the lecturers to contribute to the development of the high-skill manpower needs of society, and this is achieved through scientific writing. To achieve these tasks, the university is usually granted academic freedom as an autonomous institution so as to encourage scholarly works that can help the development of society. For a lecturer to be worth their salt, the lecturers must contribute to the development of society through academic research. And this is the hallmark of academic achievement and lectures are advised to publish or perish. Given not to perish some lecturers embark on certain unethical practices that infringe on academic integrity and in the process retard national development. This unwholesome act not

only impedes the integrity of the lecturers but also destroys the reputation of the institution if not addressed. It is instructive to note academic misdemeanor also discourage hard work which is pivotal to the growth and development of a nation.

### **Sustainable National Development**

Development is about the improvement of individuals and society. It is a checklist that is used to determine systematic improvement in the standard of living of individuals and the state. It consists of the level of education, health, the quality of life of particular individuals or communities, and the extent of the allocation of social amenities within a given area or region. It is based on these indices and others that a nation is ascribed as a developed or less developed nation. To others, development is perceived as a socio-economic transformation of society through scientific and technological knowledge that is based on complex cultural and environmental factors and their interaction. (Ihueme & Kpokpo 2015: Robert-Okah, 2017). It is pertinent to mention that development can take place in the lives of individuals, states or nations. The conscious efforts of nations in the improvement of the indices that enhance the quality of life are usually referred to as national development. Micah,

Wordu and Okai (2019), opined that national development is a comprehensive improvement of the quality of life which consists of an increase in national income, the standard of living and the general well-being of society. Egbefo (2012) national development means gradual transmission from lower standards of living to a better standard of living.

The process of improving the quality of life has led to the destruction of the ecosystem and undermining the socio-economic factors that enhance further generations to better their lives. This led to a global call for a shift of paradigm in the process of development of society. Development must be consistent with the international best practices of not destroying future environmental resources for today's development. This led to the concept of sustainable development, according to Munasinghe, 2004 cited by Nwankwo & Ofojebu (2017), it is a process of exploring opportunities that enable individuals or communities to achieve their aspirations while maintaining the resilience of economic, social and environmental systems. Thus, sustainable development became a norm for measuring development globally.

It is interesting to mention that the concept of sustainable development is usually associated with the report of the World Commission on the Environment and Development. (WCED, 1987). Popularly called the Brundland Commission, the Commission Report, *Our Common Future: From One Earth to One World*. Defined "sustainable development as the development that meets the needs of the present without compromising the ability of further generations to meet their own needs". In sum, sustainable development is ensuring that while you explore the resources for effective living never destroy the environmental resources and socio-economic factors that will enhance further generations' lives. Sustainable national development by implication means that the process of improving the well-being of citizens should not destroy the ecosystem. Sustainable development means improving the quality of life, better income, inclusive education, political participation and all indices that aid development to be achieved today and in the future.

#### **Implication of Academic Misdemeanors to Sustainable National Development**

It is incontrovertible that education is *sine quo non* for national development, Oluwuo, (2021 p1), posited that "education is the

inculcation of what is worthwhile to those that are committed to it". Education is a veritable tool for the attainment of sustainable national development. The National Policy on Education in recognition of the importance of education opined that education is not only an instrument for national development, and social change but also to be relevant to the needs of society. (FRN, 2014). It is argued that education is linked to sustainable development, therefore, there cannot be any development without a functional education. It is in this vein that Aguba (2021), states that education is the surest gateway to national greatness and development. Education as an agent of social change provides opportunities for learners to acquire relevant skills competence, knowledge and capability that enable individuals to be responsive and contribute to the development of society. (Wordu, 2021). The prosperity of nations is not dependent on the abundance of natural resources, or the building and construction of beautiful roads and buildings but on the human intellect and cultivated citizens, enlightenment and character. (Aguba, 2006). The author argued that without character an underdevelopment mind can destroy the entire society within a twinkle of an eye, therefore, no nation can rise above the

quality of its educational system. (Aguba, 2021).

From the fore discussion, education is the fulcrum of national development and what affects education affects development. Plagiarism and examination malpractice are catastrophic to national development because they destroy the essence of building individuals with skills and capabilities that will enhance the development of society. Plagiarism and examination malpractice destroy the essence of education whose core value is the development of manpower. (Madu, 2020).

George (2022), opined that plagiarism hinders the learning process, first, it is a dishonest act that is not only injurious to the person being plagiarizing but also to the victim because it may lead to litigation and punishment. Secondly, it obscures the source of ideas and in the university community, it is usually associated with bad writing with grievous penalties. Adedimeji, (2015), opined that the negative effects of academic corruption on the development of society are that it has had grave ramifications on society by producing unemployable graduates, buildings collapsing due to engineers who are theoretically based and hospitals turning to morgues rather than where humans are

saved. This was vividly captured by Bongo Adi an economist who opined that 70% of graduates churned out from Nigerian universities and other institutions of learning are unemployable. (Osazuwa, 2017).

Another core area where plagiarism and examination malpractice has destroyed the educational system and retard national development is in the value system. Education is to inculcate the positive values and virtues that enable the individual to live a productive life. Unfortunately, plagiarism and examination malpractice have killed the values of hard work, integrity and honesty. The virtues of hard work, integrity and honesty are destroyed, and they believe that success comes through manipulation. Examination malpractice and plagiarism are viewed as a system of survival and these are highly destructive to the social and economic development of a country. (Madu, 2021; Nwankwo & Nweke, 2016). Worse is the fact that these unwholesome attitudes are seen as ways to survive therefore, it is further transmitted to further generation and this will lead to sustainable obnoxious practice that is injurious to the individual and development of society.

It is in this regard that scholars have opined that academic dishonesty in whatever form has not yielded the desired educational goals

but has destroyed the educational system by eroding the trust in the institutions, products, quality and the abysmal standards of education. (Asamoah 2018; Essien et al, 2022). These unwholesome act has led to the free fall of the Nigerian educational system, and Nigeria has been referred to as the poverty headquarter of the world with over 133 million Nigerians wallowing in abject poverty. (National Bureau of Statistics). The multiple effects of poverty on national development are obvious namely low income, low investment, poor savings, high illiterate level and poor health facilities among others. These indices in no small measure retard national development.

It is imperative to mention that plagiarism and examination malpractice diminishes the quality of graduates in terms of knowledge, innovation and leadership resulting in very unqualified graduates seeking the white collar job. The implication of this is that universities will produce graduates who cannot occupy the needed workforce in the technological sphere, entrepreneurship and innovation that will drive technological and national development. The graduates will increase the number of unemployed youths with no skills, and no entrepreneurship skills that will enhance national development. Studies carried out by Oke and Olowonefa



(2019), stated that there is a strong relationship between graduates who pass through academic dishonesty and deficiencies in terms of quality of knowledge, entrepreneurship, innovation and critical thinking. The vicious cycle continues with the poor trained individuals managing the economy and not being able to provide the magic wand that will help the economy to develop.

Furthermore, plagiarism and examination malpractice have deepened the rout in the educational system that the elites have decided to send their children abroad for better education. Diamond (2018) opined that Nigeria lost over one trillion to educational tourism. Unfortunately, Nigeria has not only lost the financial resources but also the Nigeria human resource to the detriment of national development. To individuals, plagiarism erodes the integrity of the individual and the institution. For instance, Prof. Mark Chabedi lost his professorship and was fired from the University of Witwatersrand because it was discovered that he plagiarized Kim Lanegran's thesis, a doctoral student. (Lanegran, 2004). In a similar vein Ekiti State\_University, Ado Ekiti, six lecturers were fired for academic dishonesty associated with plagiarism. (Opemipo,

2013). Secondly, plagiarism creates doubt as to the person who owns the patent right, and more importantly, plagiarism can cause harm to the person who is being plagiarized and can lead to a legal dispute. Thirdly, it is imperative to note that plagiarism is a very poor way of writing and denying the reader the source of information, thus discouraging research works and retard development, and finally, the victim can be expelled, demoted, or even ask to repeat the class.

It is instructive to note that academic misdemeanors destroy the essence of tertiary education of inculcating positive values and virtues like hard work, integrity and the necessary skills and competence that enable individuals to live a responsible life and contribute to the development of society. It also discourages creativity and innovation which are vital ingredients in the development of society. There is no gain in saying that plagiarism and examination malpractices breed irresponsibility and incompetence, putting education on a precarious foundation of growing in falsehood.

### **How to Manage Academic Writing without Plagiarism**

The first effective way to manage plagiarism in the academic community is for the lecturers and students to understand what

plagiarism is, and acknowledge that it is an academically dishonest act that is inimical to the individual, the institution, and society. It is an ill wind that blows no good to the academic community, that dimples the integrity of the individual, and more importantly an unethical infraction to academic writing that will impede development.

Furthermore, the creation of awareness of the evils of plagiarism may not yield the anticipated result, if the lecturers and students are not tutored on the proper ways of citation and reference. More importantly, the lecturers should integrate software that can detect plagiarism, examples of such software as Turnitin, Copyfind, Workcheck, and Plagiserve among others. Also, the use of citation management software like Endnote, and RefWorks will in no small measure help in the reduction of plagiarism in an academic environment.

Again, the use of digital tools has heightened the syndrome of 'copy and paste' which is fast growing as the norm rather than an exception. Therefore, researchers must avoid the temptation of quoting verbatim from a text rather they are encouraged to paraphrase the original text or use periphrases artificial intelligence, (AI)

but, in all, it is pertinent that the researcher must acknowledge the author by proper reference and quotation in case of verbatim cum citation mark. For examination malpractices, the educational managers should use modern technology as surveillance during examinations. Teachers' salaries should be reviewed upward for decent lifestyle.

### **Way Forward**

The university should establish an integrity department saddled with the responsibilities of going through research works and journals emanating from the school to scrutinize their works against plagiarism. Furthermore, university administrators should be encouraged to use the model digital tools to check the rate of plagiarism in their academic writings. And lecturers should be trained and retrained in information technology, especially in the aspect of software and artificial intelligence. Again, International laws on copyrights are established to protect intellectual property, the various learning institutions must adhere to these laws and ensure that perpetrators are punished.

### **Conclusion**

Educational institutions are factories where both young and old come to tap from the

fountain of knowledge. University education is where professionals like lawyers, doctors, and educationists are nurtured and developed. It is where ethical values, capabilities, skills and knowledge are integrated into individuals to make them responsible and responsive citizens. Unfortunately, the upturn of digital technology has caused an influx of different lifestyles that has permeated into the educational system and has gradually eroded the virtues and positive values of Nigeria's heritage. Some of these vices are indecent dressing, plagiarism, examination malpractices, and sexual harassment among others. The researcher focuses on plagiarism

and examination malpractices as academic misdemeanors that breed laziness, and mediocrity, and cripple creativity, innovation and hard work which are essential ingredients for the development and growth of society. To avoid plagiarism, the university community should be sensitized about the ills associated with plagiarism and encourage the use of artificial intelligence software in detecting and avoiding plagiarism. Also, the paper encourages the use of digital technology to monitor examination malpractice. Finally, the teachers should be trained and retrained on the use of artificial intelligence in the management of academic writing.

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**Strategies for combating Pharming attacks on University websites in Northern States,  
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**ABSTRACT**

This paper investigates the “Strategies for Combating Pharming Attacks on University Websites in Northern States, Nigeria”. Two objectives were formulated: to identify the types of pharming attacks on the University websites and to determine the types of mitigative information security mechanisms applied in combating pharming attacks on the websites of the Universities. Quantitative research methodology was used for the study. 9 Universities in Northern States of Nigeria with 127 ICT personnel were selected. Questionnaire was used as an instrument in collecting the data. Mean and standard deviation were used to present and analyse the data collected in the study. The research found that the human factors attacks; local host and local networks attacks; domain registration attack; page rank escalation attack; transparent proxies attack and server hijacking attack are the types of pharming attacks the websites of the Universities studied in Northern States of Nigeria are exposed to; it was also found that use of anti-virus program; regularly patching operating system and the installed software; use of Secure Token Service (STS) issued endorsing token; application of whitelisting mechanism; and frequent restriction of administrative privileges were the types of mitigative information security mechanisms applied to combat pharming attacks. The paper concludes that, if security safeguards are not adequate, pharmer affect the functionalities of the University websites undetected. They pharmer can attack a website using skills the software developers never imagined. The study recommended that, there should be intensification of the use of mitigative mechanisms such as use of search engine control, provision of switch off recursive queries in the DNS server configuration and use of advanced DDoS in combating pharming attacks.

**Keywords:** Pharming Attacks, Mitigative, Information Security Mechanisms, University Websites.

**Introduction**

Information is the lifeblood of many organisations. Thus, it needs to be aptly safeguarded. Surfing the web by the

general, gullible Internet users, may be seen as an anonymous atmosphere. The simple truth is that the Internet is not quite

all that safe anonymous at all. Logically, the Internet “has eyes” everywhere. Web browsers can be easily expose malicious attackers such as pharmer and secretly readdress victims to fraudulent site through their browsers. Web browsers also leave footmark any time websites are surfed. The footmark reveals accounts of web surfing history of the Internet users, which creates an opportunity for pharmer to steal individuals’ or organisations’ vital information.

In the present day, pharming attacks has become the rapid growing form of cybercrime. It typically entails unauthorized use and alteration to crucial information of individual or organization. The patterns of pharming attacks are most likely limited to each individual’s thoughts nonetheless expandable by the proliferation of technology advancement. The use of computer network or Internet for transmission of data is growing rapidly in many Institutions. Carli (2013) maintained that “pharming is an attack targeting to transmit a website's traffic to another counterfeit site”. According to Ollman (2015), “Pharmer work by altering DNS server information to readdress the web request to a false site. In practice, such attacks might work through DNS poisoning, spoofed DNS responses, modifying a user’s hosts file, deceiving a user to alter his/her DNS settings, or by

social engineering attacks against a domain name registry”. Many organizations such as Universities and Firms relying on the Internet are facing significant challenges to ensure that their networks operate safely and their systems continue to provide critical services even in the face of attacks.

Achieving information security especially in an academic environment requires vast arrays of technical security mechanisms and legal skills. Abubakar (2014) remarked that “as the volume of information grows and continues to be increasingly stored and communicated electronically, it is mandatory for educational institutions, especially Universities, to safeguard their sensitive information”. Information security is a multidisciplinary field of study, several scholars come up with different definitions of information security. Schneider (2013) viewed information security as “a way of safeguarding information and information systems from illicit access, usage, expose, distraction, alteration, assessment, copy or damage. Information security involved the confidentiality, integrity and availability of data irrespective of the nature of the data: be it in storage, processing or transit”.

Security Mechanism is an aspect of information security. It refers to a technique, apparatus, scheme, appliance, device or process for enforcing security.

According to Stallings (2005), “Security Mechanism is any process (or a device incorporating such a process) that is designed to detect, prevent, or recover from a security attack. Examples of security mechanisms are encryption algorithms, digital signatures and authentication protocols among others”. There are numerous devices or mechanisms to combat pharming attacks. They include: cryptographic techniques, authentication, authorisation, accounting (auditing), physical security, packet filters, firewalls, intrusion detection and prevention system to mention a few.

The rapid advancement and extensive use of storing and transmitting information via Internet along with frequent incidences of cybercrimes in academic environments driven the necessity to enhance the method of securing the institutions vital information.

### **Statement of the Problem**

Internet popularity has brought ultimate changes to the world. It permits a global communication between and among computers. This takes huge profits with it, and also elevates several security challenges. Among them are the risk that pharmer can affect the central way in which user’s system locates and connects to an organisations’ websites. Pharming attacks are dangerous to users since they

are used to steal sensitive information like usernames, passwords, and credit card numbers. “The variety of techniques to acquire personal information, and amount of profit reflect the level of motivation, expertise and commitment of fraudsters. Facts show that cybercriminals alter their techniques based on their motive. Hence, the costs of Identity Theft to individuals are different than to organizations” (Hedayati, 2012). Prevost, Granadillo & Laurent (2011) opined that “phishing and pharming attacks are a major concern for saving Internet users privacy”. Oshinsky, Lorelie, Kenneth, Cherylyn, Briggs, Jenner and Block (2010) remarked that “pharmer can cripple the day to-day operation of organizations. Viruses from hackers or disgruntled employees can disable computers or overload the network, leading to business interruption. Organizations also risk the loss of valuable intellectual property if the security of their computer network is breached”. Pharmers thrives is in areas of delicate interconnected academic environment such as Universities. Most Universities websites are readily accessible from any location, thereby making the Universities to stand out as a potential breeding ground for pharmer. In light of the aforementioned it is expedient to examine the Strategies for Combating Pharming Attacks on



University Websites in Northern States, Nigeria.

### **Research Questions**

The following research questions were posed to guide the study:

1. What type of pharming attacks are the websites of the Universities in Northern States of Nigeria exposed to?
2. What type of mitigative information security mechanisms are applied in combating pharming attacks on the websites of the Universities in Northern States of Nigeria?

### **Objectives of the Study**

The objectives of the study were to:

1. identify the type of pharming attacks the websites of the Universities in Northern States of Nigeria are exposed to.
2. identify the type of mitigative information security mechanisms applied in combating pharming attacks on the websites of the Universities in Northern States of Nigeria.

### **Literature Review**

The term pharming, originated from the words farming and phishing. In recent years both pharming and phishing have been used for online identity theft of information. Pharming has turn out to be one of chief concern to big industries holding ecommerce and online funding websites” (Ollman, 2014). “The word Phishing appeared in early 1996, but it was

not until the end of 2003 that email based phishing attacks began to become a popular attack vector for cybercriminal as a means to conduct financial fraud and identity theft” (Ollman, 2014). Pharming is a method of domain conning. In simple terms, rather than spamming a victim with email requests to confirm his/her financial or personal information, pharmer work unnoticeably. “They modify victim local DNS server to readdress his/her Web request to a bogus site. This means that when one enters a web address, such as www.ib.edu; he/she will be transmitted to counterfeit website rather than the genuine website. As far as user knows, he/she is connected to the correct site” (Afroz & Greenstadt, 2009). No email is involved, and if they copied the appearance of the real site well, the user would not notice that anything was wrong. These types of attacks vary in their sophistication leading gullible users to their trap. By implication, the University’s website may be subjected to variety of pharming attacks in such a manner that the DNS server adhere is constantly affected depending on the situation and circumstances. In another development, a study conducted by Stamm, Ramzan, & Markus (2007) described another form of pharming attack called: Drive by Pharming.

“Abusing Expired Domains: This is a pharming technique in which widespread

websites have out-of-date, remote script inclusions that were referring to domains that had expired letting pharmer to record them and send mischievous JavaScript code. Examined the ecosystem of malicious web shells discovering that some web shells were requesting remote resources from expired domains which allowed researchers (or competing hacking groups) to learn about each new shell deployment and hijack their deployed shells” (Nikiforakis, Invernizzi, Kapravelos, Van Acker, Joosen, Kruegel, Frank Piessens, & Vigna, 2012). Thus, expired domains should always be made public for users to be able to familiarize themselves with these sites. Starov, Dahse, Sharique, Holz & Nikiforakis, (2016) took the abuse of expired domains even further by showing that pharmer can and already have hijack entire autonomous systems by re-registering the appropriate expired domains present in the databases of Regional Internet Registrars, such as Reseaux IP Europeens (RIPE) and American Registry for Internet Numbers (ARIN). Thus, caution should always be taken when registering expired domains. In different vein, Rader & Syed (2013) presented devastating types of pharming attacks which are: Man-in-the-Middle (MitM) Attack; Transparent Proxies Attack; DNS Cache Poisoning; Browser Proxy Configuration Attacks.

Mitigation is the process of making something less severe, dangerous or damaging. “From a people and process standpoint, mitigating breach involves auditing all operator/administrator access and actions, zero standing permission for administrators in the service, ‘Just-In-Time (JIT) access and elevation’ (that is, elevation is granted on one as-needed and only-at-the-time-of-need basis) of engineer privileges to troubleshoot the service, and segregation of the employee email environment from the production access environment” Sumathi & Prakash (2012). Comodo Websecurity (2018) reveals numerous mitigation mechanisms to combat pharming attacks on websites as follows: “Malware scan; Manual malware and hack removal; File change monitoring; Blacklist/spam monitoring; Blacklist removal; Security monitoring; Advanced DDoS mitigation; Web Application Firewall (WAF); Content Delivery Network (CDN); and Site Seal”. “SiteLock Websites Security Scanning: SiteLock checks user websites for a number of different security issues. Some of these include: SQL Injection scans, CSS (Cross Site Scripting) vulnerabilities and search users’ websites for malware users may not know they are hosting” (Patel & Panchal, 2013).

### **Methodology**

Quantitative research methodology was adopted for this study. The target population of this study consisted of all the 61 Universities in the Northern States of Nigeria recognised by the National University Commission (NUC). However, the study population (subjects of this study) were the Information and Communication Technology (ICT) personnel of the Universities studied.

15% was used to arrive at the sample size of the study. Thus, nine (9) universities comprising of 3 Federal, 3 States, and 3 Privates universities were selected as the sample of the study using multistage sampling technique (i.e. stratification, cluster, and simple random sampling). However, the entire 127 ICT personnel from the selected universities were used as the sample because the study population was small. This is supported by Benard (2012) who opined that if the population of the study in research is less than two hundred (200) the entire members of that population can be used. The data collected were analysed using quantitative technique (mean, standard deviation, frequencies and percentages) to answer the research questions raised in the study.

### **Findings and Discussions**

The data collected and analysed were presented and discussed as follows:

### **Type of Pharming Attacks the Websites of the Universities Studied in Northern States of Nigeria are exposed to**

The first research question of this study was raised to identify the type of pharming attacks the websites of the Universities studied in Northern States of Nigeria are exposed to. In order to achieve this objective, a list of types of pharming attacks was outlined for the respondents to indicate as many types of pharming attacks applicable to their respective University websites being exposed to. The data collected in this regard were analysed and presented in Table 1. The acceptable benchmark was 3.0 response mean score. Thus, any item less than 3.0 mean score was not accepted as really acceptable type of pharming attacks.

Table 1: Types of Pharming Attacks on the Websites of the Universities Studied in Northern States of Nigeria

S/N	Types of Pharming Attacks on University Website	Categories of Universities																				ΣF																			
		Federal University						F	%	X	S.D	State University						F	%	X	S.D		Private University																		
		F1		F2		F3						S1		S2		S3							P1		P2		P3														
		Always	Seldom	Never	Always	Seldom	Never					Always	Seldom	Never	Always	Seldom	Never						Always	Seldom	Never	Always	Seldom	Never													
1	Human Factors Attacks	2	3	14	2	2	11	2	2	11	49	86	3.04	0.822	2	2	9	4	0	9	0	0	7	33	87	3.39	0.891	2	3	2	1	1	6	2	2	12	31	97	3.52	0.716	113
2	Local Host and Local Networks Attacks	3	2	12	3	3	8	2	2	14	49	86	3.43	0.714	2	3	6	1	3	4	2	6	6	33	87	3.78	0.792	1	2	5	2	2	9	2	5	3	31	97	3.25	0.916	113
3	Domain Registration	4	1	11	5	2	8	2	1	15	49	86	3.78	0.701	2	5	5	1	2	6	1	5	6	33	87	2.52	0.9	1	4	5	1	5	4	1	5	5	31	97	3.58	0.731	113
4	Domain Configuration Attack	1	3	14	2	2	12	1	2	12	49	86	2.86	1.008	2	1	7	1	3	10	1	1	7	33	87	3.15	0.691	2	3	5	1	8	2	4	5	31	97	2.94	1.025	113	
5	Domain Name System Spoofing Attack		2	19		1	13	1	2	11	49	86	2.35	0.98	2	4	5	4	5	2	2	5	4	33	87	4.55	0.560	3	1	10		2	10	1	1	3	31	97	3.16	0.819	113
6	"New Domain Name System" Attack	1	3	14	2	2	12	1	2	12	49	86	2.86	1.008	2	2	10	1	3	4		3	8	33	87	3.12	0.700	1	1	3	4	6	5	4	4	3	31	97	4.74	0.506	113
7	Page Rank Escalation Attack	2	1	13	3	2	10	1	2	15	49	86	3.06	0.871	2	1	7	1	3	10	1	1	7	33	87	3.15	0.891	1	4	1		3	6	2	3	8	31	97	3.32	0.691	113
8	Growing Zombies Attack	2	2	14	3	2	11	9	2	4	49	86	2.67	0.721	2	5	5	1	3	5	1	5	6	33	87	3.52	0.721	4	4	1		3	6	2	4	10	31	97	3.41	0.771	113
9	Static Pharming Attack	2	1	13	3	2	10	12	1	5	49	86	3.06	0.891	4	8		3	5	7	6		33	87	2.85	0.981	3	1	10		2	10	1	1	3	31	97	3.17	0.693	113	
10	Dynamic Pharming Attack	1	3	14	2	2	12	1	2	12	49	86	2.87	0.923	5	4	2	7	1	10	4		33	87	4.42	0.592	2	4	7	3	4	2	2	1	6	31	97	3.92	0.692	113	
11	Drive by Pharming Attack	3	2	12	3	3	8	2	2	14	49	86	3.43	0.656	2	3	9	2	1			5	5	33	87	3.52	0.761	1	5		1	9	1	5	9	31	97	2.86	0.771	113	
12	Pharming Attack via Sending Email	4	1	10	5	3	8	2	1	15	49	86	3.18	0.892	2	2	10	1	3	4		5	8	33	87	3.13	0.897	5	7		4	2	1	2	10	31	97	2.58	1.002	113	
13	Domain Hijacking Attack	1	2	15	1	2	12	2	1	13	49	86	2.18	1.091	2	3	6	1	3	4	2	6	6	33	87	3.18	0.792	1	1	6	1	1	11	2	5	3	31	97	3.35	0.691	113
14	Transparent Proxies Attack	2	2	14	2	2	11	2	2	12	49	86	3.04	0.801	2	2	14	1	1	4	1	3	5	33	87	3.39	0.794	1	4	5	1	5	4	1	5	5	31	97	3.58	0.713	113
15	Server Hijacking Attack	3	2	12	3	3	8	2	2	14	49	86	3.43	0.676	2	4	5	4	5	2	2	5	4	33	87	4.55	0.597	1	4	5	1	5	4	1	5	5	31	97	3.52	0.792	113
16	Abuse of Expired Domains Attack	1	2	16	1	3	11	1	2	12	49	86	2.71	1.001	5	4	5	5	2	1	7	4		33	87	2.94	1.002	2	3	2	1	1	6	2	2	12	31	97	3.52	0.701	113
17	Man-in-the-Middle (MitM) Attack	1	3	14	2	2	12	1	2	12	49	86	2.86	1.000		13	1	1	2	5	4	7		33	87	2.21	1.000	5	6	1	2	4	1	2	10	31	97	3.84	0.772	113	
18	DNS Cache Poisoning Attack	4	1	10	5	3	8	2	1	15	49	86	3.78	0.789	2	1	7	1	3	10	1	1	7	33	87	3.15	0.762	2	2	7	2	2	5		13	31	97	2.37	1.008	113	
19	Browser Proxy Configuration Attack	2	1	13	3	2	10	1	2	15	49	86	3.06	0.667	4	8		3	5	7	6		33	87	2.85	0.961	2	2	7	2	3	5	4	6	31	97	3.55	0.679	113		
20	Border Router Attack	2	1	15	2	3	11	1	2	12	49	86	2.96	1.004	2	5	5	1	3	6	5	6		33	87	3.52	0.641	1	1	5	4	10	1	9	31	97	2.58	0.901	113		
	Cluster Mean												3.03	0.8												3.45	0.87											3.3	0.668		

Table 1 depicts the responses mean scores and standard deviation of the types of pharming attacks on the websites of the 3 categories of the Universities (Federal, State and Private) studied in Northern States of Nigeria. It shows that, for the Federal Universities, items 1, 2, 3, 7, 9, 11, 12, 14, 15, 18 and 19 respectively have mean scores and standard deviation above the acceptable response benchmark of 3.00. Thus, it can be said that, they are the real types of pharming attacks on the websites of the Federal Universities studied. However, items 4, 5, 6, 8, 10, 13, 16, 17 and 20 are below the acceptable response benchmark of 3.00. Hence, they are not indeed really accepted as the types of pharming attacks on the websites of the Federal Universities studied in Northern States of Nigeria.

On the other hand, for the State Universities studied, items 1, 2, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 18 and 20 respectively also have responses mean scores and standard deviation above the acceptable benchmark of 3.00. This indicates that, they are indeed the real types of pharming attacks on the websites of the State Universities studied in Northern States of Nigeria. However, other items 3, 9, 16, 17 and 19 are below the acceptable benchmark of 3.00. This means that the State Universities studied did not

accept them as really the type of pharming attacks on the websites of their respective Universities.

Similarly, for the Private Universities studied, items 1, 2, 3, 5, 6, 7, 8, 9, 10, 13, 14, 15, 16, 17 and 19 respectively have response mean scores and standard deviation above the acceptable benchmark of 3.00. Hence, it can be said that, they are the most prevalent types of pharming attacks on the websites of the Private Universities studied in Northern States of Nigeria. On the contrary, other hand, items 4, 11, 12, 18 and 20 are below the acceptable benchmark of 3.00. This implies that the Private Universities studied did not consider them as really the prevalent types of pharming attacks on the websites of their respective Universities.

A close analysis of the cluster response means scores for the 3 categories of the Universities studied indicated that, the Federal Universities have cluster mean scores of 3.03, StD=.831, State Universities have the cluster mean scores of 3.40, StD = .871 and Private have the cluster mean scores of 3.33, StD =.868. This implies that the State Universities have higher pharming attacks with higher cluster response mean scores. By implication, the State Governments must make efforts to fund and periodically upgrade the websites of their Universities.

From the foregoing, it can be concluded that all the 3 categories of Universities studied are exposed to different types of pharming attacks such as: human factors attacks; local host and local networks attacks; domain registration attack; page rank escalation attack; transparent proxies attack and server hijacking attack among others. The findings of this study are consistent with the similar studies of Afroz & Greensand (2009), Rader & Sayed (2013), Ollmann (2015), who found the presence of border router attacks, pharming attacks through sending e-mails, local host and local networks attacks, transparent proxies attacks and server hijacking attack respectively as types of pharming attacks on websites.

This finding is not surprising because the advances in technology and the human wicked nature have compelled many people to maliciously attack individuals as well as organisations such as Universities that have larger markets for students in

order to frustrate their effort to meet the goals of education.

### **Types of Mitigative Information Security Mechanisms Applied to Combat Pharming Attacks on the Websites of the Universities Studied in Northern States of Nigeria**

The second research question of this study was aimed at identifying the types of mitigative information security mechanisms applied to combat pharming attacks on the websites of the Universities studied in Northern States of Nigeria. In order to answer this research question, the researcher outlined different mitigative information security mechanisms for the respondents to tick as applicable to their respective Universities as shown in Tables 2. The acceptance benchmark was 3.0 response mean scores. Thus, any item less than 3.0 response mean scores was not accepted as being a mitigative information security mechanism applied to combat pharming attacks on the Universities studied.

Table 2: Mitigative Information Security Mechanisms Applied to Combat Pharming Attacks on the University

No	Mitigative Mechanisms Applied to combat Pharming Attacks on the University Websites Studied	Federal University						F	%	X	S.D	State University						F	%	X	S.D	Private University						F	%	X	S.D	Z									
		F1		F2		F3						S1		S2		S3						P1		P2		P3															
		Always	Seldom	Never	Always	Seldom	Never					Always	Seldom	Never	Always	Seldom	Never					Always	Seldom	Never	Always	Seldom	Never					Always	Seldom	Never	Always	Seldom	Never				
1	Application of DNS server patching, updating and configuring	1	2	16	1	3	11	1	2	12	49	86	3.95	0.991	7	2	4	1	3	5	1	3	7	33	41	3.38	0.711	7	2	2	3	4	13	31	97	2.25	1.52	113			
2	Application of manual malware and hack removal system	1	2	11	3	2	13	3	2	12	49	86	3.11	0.893	2	2	7	1	3	4	2	6	6	33	41	3.73	0.631	1	5	1	9	1	5	9	31	97	2.24	1.23	113		
3	Use of advanced DDoS mitigation mechanism	4	1	10	5	3	11	2	1	15	49	86	3.18	0.679	2	1	7	1	3	10	1	1	7	33	41	3.15	0.81	5	7	4	2	2	10	31	97	2.45	0.1	113			
4	Use of anti-virus program	1	13	4	2	2	12	1	2	12	49	86	3.88	0.931	2	3	6	1	3	4	2	6	6	33	41	3.08	0.611	1	4	4	3	6	2	11	31	97	3.32	0.91	113		
5	Regularly patching operating system and the installed software	3	2	16	2	2	11	2	2	11	49	86	3.04	0.931	2	2	9	4	5	7	33	41	3.38	0.611	1	1	6	1	1	11	2	5	3	31	97	3.35	0.91	113			
6	Use of Hashed Password (ProFTP-Hash) and securing the end host	2	1	13	3	2	10	1	2	15	49	86	2.06	0.811	1	5	4	4	2	5	1	7	4	33	41	2.12	0.573	4	4	3	6	2	3	11	31	97	3.32	0.91	113		
7	Use of Secure Token Service (STS) issued enforcing token	3	2	13	3	3	11	2	2	13	49	86	3.43	0.711	2	1	6	3	1	9	0	3	11	33	41	3.52	0.671	1	2	5	2	9	2	5	3	31	97	3.12	1	113	
8	Application of whitelisting mechanism	2	2	14	3	8	1	2	2	15	49	86	3.67	0.713	1	2	5	2	2	11	2	3	5	33	41	3.73	0.713	3	1	10	2	10	1	1	3	31	97	3.17	0.99	113	
9	Frequent restriction of administrative privileges	3	2	12	3	3	11	2	2	14	49	86	3.48	0.712	2	3	6	1	3	4	2	6	6	33	41	3.72	0.771	1	4	4	3	6	2	3	11	31	97	3.32	0.81	113	
10	Use of network segmentation and segregation	2	1	13	3	2	10	1	2	15	49	86	3.06	0.811	2	2	11	1	3	4	3	11	33	41	3.12	0.821	1	3	2	1	2	6	2	2	12	31	97	3.98	0.71	113	
11	Application of input validation	2	2	14	2	3	11	1	2	15	49	86	3.67	0.771	2	2	14	1	1	2	1	3	7	33	41	3.28	0.811	2	2	6	2	3	6	4	6	31	97	3.95	0.67	113	
12	Use of file reputation system	3	2	14	2	2	11	2	2	11	49	86	2.54	0.713	2	4	5	4	5	2	2	5	4	33	41	2.55	0.676	1	1	6	1	1	11	2	5	3	31	97	3.35	0.71	113
13	Use of AutoCompleter mechanism	3	5	1	12	3	13	8	2	1	49	86	3.43	0.716	2	2	10	1	3	4	3	11	33	41	3.12	0.812	1	4	4	0	3	6	2	3	11	31	97	3.32	0.82	113	
14	Use of Automated Individual White-List (AIWL)	1	2	11	3	2	13	2	2	13	49	86	3.14	0.813	2	5	5	1	3	6	1	5	6	34	41	3.52	0.700	3	1	10	2	10	1	1	3	31	97	3.86	0.91	113	
15	Use of mutual certificate security mechanism	4	1	11	5	3	6	2	1	15	49	86	4.18	0.791	1	5	4	4	2	5	1	7	4	33	41	2.42	0.611	1	2	5	2	2	9	2	5	3	31	97	3.73	0.94	113
16	Use of Webpage Content Analysis	3	2	12	3	3	11	2	2	14	49	86	3.43	0.671	2	1	7	1	3	10	1	1	7	33	41	3.15	0.831	1	4	1	3	6	2	4	10	31	97	3.39	0.99	113	
17	Use of Google's toolbar	3	2	14	2	2	11	2	2	11	49	86	3.04	0.851	2	3	9	2	1	5	3	11	33	41	3.52	0.667	1	4	4	3	6	2	3	11	31	97	3.32	0.91	113		
18	Frequent Use of WHOIS Mechanisms	3	2	12	3	3	11	2	2	14	49	86	3.43	0.671	2	3	6	1	3	4	2	6	6	33	41	3.78	0.711	1	2	5	2	2	9	2	5	3	31	97	3.98	1	113
19	Application of clickjacking anti-fraud toolbar	3	2	14	2	2	11	2	2	11	49	86	3.04	0.852	1	4	5	4	2	5	1	7	4	33	41	2.38	0.651	2	3	2	1	1	6	2	2	12	31	97	3.52	0.77	113
20	Use of game based anti-phishing and pharming education	4	1	10	5	3	11	2	1	15	49	86	3.78	0.712	1	2	5	2	2	11	2	3	5	33	41	2.91	0.689	3	1	10	2	10	1	1	3	31	97	3.78	1	113	
Cluster Mean													3.33	0.639																										3.3	0.8

Table 2 revealed the response mean scores and standard deviation of the mitigative information security mechanisms applied to combat phishing attacks on the websites of the 3 categories of the Universities (Federal, State and Private) studied in Northern States of Nigeria. It showed that, for the Federal Universities studied, items 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, 19 and 20 respectively have response mean scores and standard deviation above the acceptable benchmark of 3.00. This implies that they are indeed the mitigative information security mechanisms applied to combat phishing attacks on the websites of the Federal Universities studied in Northern States of Nigeria. In contrast, items 6, and 12 are below the acceptable benchmark of 3.00. Hence, they are indeed not accepted as the real mitigative information security mechanisms applied to combat phishing attacks on the websites of the Federal Universities studied in Northern States of Nigeria.

On the other hand, for the State Universities studied, items 6, 12, 15, and 19 respectively have response mean scores and standard deviation below the acceptable benchmark of 3.00. It can be said that, they are not accepted as the real mitigative information security

mechanisms applied to combat phishing attacks on the websites of the State Universities studied. On the contrary, items 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 13, 14, 16, 17, 18 and 20 have response mean scores and standard deviation above the acceptable benchmark of 3.00. This means that they are the real mitigative information security mechanisms applied to combat phishing attacks on the websites of the State Universities studied in Northern States of Nigeria.

Similarly, for the Private Universities studied, items 1, 2, and 3 respectively have response mean scores and standard deviation below the acceptable benchmark of 3.00. This indicates that they are not accepted as the real mitigative information security mechanisms applied to combat phishing attacks on the websites of the Private Universities studied. On the other hand, items 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 and 20 have response mean scores and standard deviation above the acceptable benchmark of 3.00. Thus, they are indeed accepted as the mitigative information security mechanisms applied to combat phishing attacks on the websites of the Private Universities Studied in Northern States of Nigeria.

A close analysis of the cluster response mean scores for the 3 categories of the Universities studied indicated that, the



Federal Universities have cluster mean scores of 3.33, StD=.639, State Universities have the response mean scores of 3.23, StD = .634 and Private have the response mean scores of 3.30, StD =.840. This implies that all the 3 categories of the Universities studied have response mean scores and standard deviation on (mitigative information security mechanisms) above the acceptable benchmark of 3.00. Thus, it is a clear indication that the Universities studied accepted the identified mitigative information security mechanisms as the strategies for combating pharming attacks. These include: “use of anti-virus program; regularly patching operating system and the installed software; use of Secure Token Service (STS) issued endorsing token; application of whitelisting mechanism; frequent restriction of administrative privileges; use of network segmentation and segregation; application of input validation; use of Autocompleters mechanisms; and use of Automated Individual White-List (AIWL) among others”.

This finding agrees with the earlier findings of Sumathi & Prakash (2012). In their separate studies, they found detective, preventive and mitigative mechanisms as important in reducing the number of pharming attacks on websites.

The implication of this finding is that the Universities should take holistic measures from people and process standpoint to detect, prevent and mitigate security breaches on their websites. This should involve auditing all operator/administrator access and actions, have zero standing permission for administrators in the service.

**The major findings of the study include:**

1. The types of pharming attacks the websites of the Universities studied in Northern States of Nigeria are exposed to are: human factors attacks; local host and local networks attacks; domain registration attack; page rank escalation attack; transparent proxies attack and server hijacking attack among others.
2. The types of mitigative information security mechanisms applied to combat pharming attacks on the websites of the Universities studied in Northern States of Nigeria are: use of anti-virus program; regularly patching operating system and the installed software; use of Secure Token Service (STS) issued endorsing token; application of whitelisting mechanism; and frequent restriction of administrative privileges.

**Conclusion**

From the analysis and findings of the study, it is clear that the ICT staff of the

Universities studied have realized the need for the application of detective preventive and mitigative mechanisms as part of defense-in-depth strategy for providing reasonable protection of sensitive information vis-à-vis the means of detection and remediation of security breaches. However, the ICT staff did not explore, to a large extent, the advantages of use of PageSafe detective mechanism, use of server certificate and application of DNS server patching mechanisms to protect the occurrences of most pharming on the websites of the University, which include the human factors attacks, local host and local networks attacks, domain configuration attack, domain name system spoofing attack, static pharming attack, pharming attack via sending email and domain hijacking attack. This paved way for cyber-crimes.

### **Recommendations**

The following recommendations are made;

1. The University authorities should evolve more secured techniques or methods of document security. Such documents should include username, password, and access control policy as well as filtering out fake redirects sites vis-à-vis understudy the different types of pharming attacks and train the

operators of the websites in advance ICT skills and knowledge.

2. There should be intensification of the use of mitigative mechanisms such as use of search engine control, provision of switch off recursive queries in the DNS server configuration and use of advanced DDoS mitigative mechanism in combating pharming attacks.

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**An Investigation on the Use of Innovative Teaching Strategies among Chemistry Teachers in Secondary Schools in Ibadan Metropolis, Nigeria**

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**ABSTRACT**

With the rapid changes in the 21st century, the educational system demands innovative actions from all teachers. The adoption and use of innovative teaching strategies (ITS) are vital to ensure that the educational system remains relevant to current developments and trends. Hence, this study investigated the adoption and use of ITS among chemistry teachers in the teaching of chemistry in senior secondary schools in Ibadan Metropolis. This qualitative survey research involved a total of fifteen chemistry teachers from fifteen private and public schools in two Ibadan metropolis, Oyo State, Nigeria. Data was collected using structured interview questions and analyzed descriptively and thematically. The findings revealed that there are teachers who use strategies such as demonstration, scientific table and chart, picture/video and interactive methods. It was also found that ITS has not been effectively utilized among chemistry teachers in Ibadan Metropolis. Also, some of the teachers use ITS despite being unaware. Some of the barriers identified include lack of resources, lack of electricity, time factor, costs and availability of resources, lack of awareness and orientations of teachers, and bulky syllabus. It is concluded that many chemistry teachers experience impediments with using innovative teaching strategies in Ibadan metropolis. It is however, recommended that adequate measures and infrastructures should be put in place in order to facilitate teachers use of ITS.

**Keywords:** *Chemistry, Teachers, Innovative Teaching Strategies.*

**Introduction**

Science education is concerned with the development of scientifically literate individuals with appreciable levels of ability to think critically and make informed decisions. The major disciplines in science are biology, physics, and chemistry. Chemistry is the scientific study of matter, structure, composition, and reactions with other substances, including atoms and molecules. Chemistry is a physical science

that also deals with the properties of these substances and the reactions undergone by them to form new substances. The subject describes the concept of atoms, ions, and molecules which, in turn, make up elements and compounds. These chemical species tend to interact with each other through chemical bonds.

By studying chemistry, students acquire scientific awareness and knowledge of their

environment as well as information about the world around them. As a school subject, students rely on basic qualities like reasoning and creative skills. Woldeamanuel et al. (2013) opined that studying chemistry requires an individual's capacity to engage cognitive, affective and psycho-motor skills. Based on the importance of studying chemistry, adequate attention is needed in chemistry methodology. According to Omwirhiren and Ibrahim, (2016) there is a prevalence of the use of conventional teaching methods in most chemistry classrooms. Within the conventional classroom, the learning process is often rigid and seems unappealing to the students. Concepts are often taught devoid of opportunities for students to relate what is taught in class to everyday life. Also, instead of promoting students' reasoning and critical thinking capability, the learners spend additional time on writing notes and practically, looking at the board or just listening to the teacher. The teacher typically takes a central role in class discussions, controlling the conversations. Failure to engage students in active learning is another limiting factor of the conventional methods of teaching. Hence the need to explore and incorporate innovation in chemistry teaching and learning. Innovation

in education, involves designing excellent teaching methods, practices, techniques and technology, to motivate students' learning (Apata, 2022; Afrianto, 2018; Oyelekan, Igbokwe, and Olorundare, 2018). It results in transformative educational experience for students and provides a veritable scaffold, relevant and important for educational improvement. It is also the introduction of new methods, processes and technologies that are designed to improve educational outcomes (National Center for Education Statistics NCES, 2021). Innovative teaching strategies refers to the techniques which by design, engage and challenge students, which in turn results in greater students' interest, a deeper level of understanding and lasting change in students' perception of the topic. (Achor, Samba and Ogbeba, 2010). The ITS demands that no one teaching method is adequate for effective teaching and learning of a concept or subject-matter. Innovative teaching strategies are teaching techniques that involve new ways of interaction between "teacher-student", a certain innovation in practical activity in the process of mastering educational material. In the context of teaching, for example, innovation can improve the environment that can help students to succeed in learning.

### **Innovative Teaching Strategies (ITS) in Science Education**

Active Learning Method, is a type of ITS which refers to a wide range of teaching strategies that engage students as active participants in their learning during class time with their instructor. Active learning is quite different from "traditional" modes of instruction in which learners are passive recipients of knowledge from their instructor. Education research shows that incorporating active learning strategies into university courses significantly enhances student learning experiences (Freeman et al., 2014). Case-based Learning (CBL) is derived from the constructivist theory, which emphasizes that students construct the knowledge they acquire, it is an inquiry-based teaching strategy because it uses case studies as tools to activate learning (Idika and Adesoji, 2020). A case study is a typical story that engages the reader by presenting an impasse that can only be solved with a basic knowledge of scientific principles (McLean, 2016). Case-Based Learning is a very relevant teaching strategy that has been employed in the instructional practices in several disciplines and courses such as Medicine, Law, Psychology and other subject areas apart from Science (Idika and Adesoji, 2020).

Just in-time Teaching (JiTT) is a teaching and learning strategy that is designed to improve the use of class time for more active learning. It was developed by Gregor Novak and colleagues, JiTT relies on a feedback loop between web-based learning materials and the classroom (Novak et al 1999). It provides structured opportunities for students to actively construct new knowledge from prior knowledge (Brame, 2013). Earlier report showed that it promotes the use of class time for more active learning and allowed the instructor to create an interactive classroom environment that emphasizes active learning and cooperative problem solving (Novak, Garvin, Patterson, and Christian, 1999; Novak, 2011; Nwankwo, Ndanwu, & Ezejiofor, 2019). Another one is Interactive Lecture Demonstrations (ILDs) which involves improving the understanding of physics concepts in chemistry among students who previously, had less success in the subject (Sricharoenchai, Arayathanitkul, & Emarat, 2017). Interactive Lecture Demonstrations involves the active students' engagement in activities that confront their prior understanding of a core concept. The activity can be a classroom experiment, a survey, a simulation or an analysis of secondary data.

Gamification, another ITS, is defined as the process of transforming a typical classroom environment by using gaming themes. The sole aim of gamification is to increase students' engagement through the use of competition (both individual and class-wide), creativity, student-led learning, and immediate feedback. The development and implementation of GAPc, a gamification project in Chemistry. GAPc is an online active student-centered remedial teaching tool allowing prospective and enrolled students to electronically assess their knowledge of basic and advanced chemistry concepts via different game levels of expertise.

Another ITS is the flipped (or inverted) classroom which is primarily student-centered (active), as opposed to instructor-centered (lecture). Flipping the class removes content from the classroom and places it on the student as homework. The means by which the content is delivered outside of class can vary (i.e. tutorials, readings, videos, podcasts, vodcast, lecture-captured videos, etc.). In chemistry, this approach was introduced by two high school teachers, Bergmann and Sams (2014), and has become widely spread among disciplines and curriculum levels. There is a small body of work that discusses the merits

of using the flipped method in chemistry courses with the majority of the cases involving general chemistry in high school (Arnaud, 2013; Bergmann and Sams, 2014).

The use of these innovative teaching strategies is important to meet the educational needs of the students for sustainability of the nation's science, technological and human resource development and for sustainable development in science and technology. However, there may be limiting factors. Khlaif (2018) researched into teachers' perceptions of factors affecting their adoption and acceptance of mobile technology. The research revealed that, all teachers mentioned that they attended at least one workshop on using ICT in teaching. There was agreement among the respondents that training sessions helped them to use different ICT tools in the classroom. In terms of their previous experience using tablets in their teaching practice, the interviewees had a diversity of experience using tablets in their teaching practices. The findings drew attention to the factors reported by teachers such as technical support and infrastructure in the schools. Likewise, findings showed that the availability of technical support, training, suitable infrastructure, and educational

resources have a positive impact on effort expectancy, which reflects positively on the intention to use the devices in classroom instruction.

The findings of another study carried out by Quadri et al. (2017) on the barriers affecting the successful implementation of e-learning revealed that there are many obstacles in E-Learning methodology for successful teaching-learning. The study identified factors associated with student, instructor, infrastructure, technology, and institutional management. The findings of another study that investigated chemistry teachers' awareness and application of ITS (Samuel, 2020) revealed that, chemistry teachers are aware of ITS in this 21<sup>st</sup> century. The study also revealed that chemistry teachers apply innovative strategies in their teaching, thus the perennial poor performance of students in chemistry external examinations had driven teachers from teacher-centered methods of teaching to student-centered methods of teaching, which will therefore enhance the study of chemistry since the students will engage themselves in learning actively leading to sustainability. The researchers therefore concluded that, chemistry teachers are aware of innovative strategies and do apply the ITS in teaching chemistry.

In another study carried out by Alaba (2019) on the factors hindering chemistry teachers adoption of ITS, the responses of ten chemistry teachers revealed that despite the fact that, chemistry teachers are aware of innovative methods of teaching, the prevailing methods adopted by chemistry teachers are conventional teaching methods because it is cheap and readily available. The findings showed that 80% of the respondents believed that unavailability of time and needed resources coupled with lack of training and students' population are the impediments hindering chemistry teachers from adopting ITS in teaching chemistry in many secondary schools, the remaining 20% of the respondents believed that there were no hindrance to the adoption of ITS in teaching chemistry. The researcher therefore concluded that, about 75% of chemistry teachers' still use conventional methods and about 25% use of ITS, the conventional methods used by chemistry teachers makes it appear abstract and uninteresting, while ITS makes it real, relatable and interesting.

Despite the call for the adoption of more effective ways of teaching and learning chemistry such as the array of ITS's discussed above, it appears that many teachers have not embraced this trend. Perhaps, there is lack of awareness caused



by certain hindering factors. This study, therefore, investigated the barriers to the adoption and use of ITS among chemistry teachers in secondary schools in the Ibadan metropolis.

### **Research Questions:**

The following research questions have been formulated to guide this study:

- i. What are the prevailing methods of instruction in chemistry teaching in many secondary schools in Ibadan metropolis?
- ii. What is the extent of use of ITS by chemistry teachers' in senior secondary schools in Ibadan metropolis?
- iii. What are the barriers to chemistry teachers' adoption and use of ITS?

### **Methodology**

This research work adopted the qualitative survey design. This design is considered appropriate as it enabled the researcher to obtain in-depth information, and elicit reliable and adequate responses from chemistry teachers on the adoption and use of ITS.

The random sampling technique was used to select the chemistry teachers in Ibadan

metropolis. Out of all the chemistry teachers in all secondary schools in Ibadan metropolis, a total of fifteen (15) were drawn from fifteen secondary schools (8 private; 7 public) in Ibadan North West and Ibadan North local government areas of Ibadan metropolis. These local government areas were randomly selected from the five in the Ibadan metropolis.

The research instrument used for this study was a structured interview questionnaire which guided a ten-minute face-to-face interview (per respondent). The teachers were assessed based on their adoption and use of innovative teaching strategies, as well as the barriers to their use of these strategies for teaching chemistry. Descriptive statistics was used to analyze the demographics, while thematic analysis (ATLAS Ti version of ATLAS Qualitative Data Analysis (QDA) Software) was used for the analysis of the interview reports.

### **Results**

**Table 4.1: Demography of the respondents**

Variables	Level of variables	No of samples	Percentages (%)
<b>Gender</b>	Male	12	80.0
	Female	3	20.0
	<b>Total</b>	<b>15</b>	<b>100</b>
<b>Type of School</b>	Private Schools	8	53.3
	Public Schools	7	46.7
	<b>Total</b>	<b>15</b>	<b>100</b>
<b>Academic Qualification</b>	NCE	6	40.0
	B.Sc./B.ED	7	46.7
	Masters	2	13.3
	Others	0	0.0
	<b>Total</b>	<b>15</b>	<b>100</b>
<b>Working Experience</b>	0-5 years	4	26.7
	6-10 years	7	46.7
	11-15 years	1	6.7
	16-20 years	1	6.7
	Above 20 years	3	20.0
	<b>Total</b>	<b>15</b>	<b>100</b>

The respondents were fifteen chemistry teachers from private and public secondary schools.

They all responded to the interview questions asked as follows.

**Research Instrument: Interview Question**

1. What are the methods you frequently use in teaching chemistry?
5. Are you aware of innovative teaching strategies (methods)?
6. Can you name any?
7. Do you think chemistry teachers need to adopt and use these innovative teaching strategies (such as flipped learning, cooperative learning, case- based, blended learning etc.)?
8. Why do you say so?
9. Do you use or have used any of these innovative teaching strategies (I.T.S) in teaching chemistry?

2. Why do you use these methods?
3. Are you aware of other teaching methods?
4. Can you name some?
10. (a) If Yes, how often?  
(b) If No, please state why?
11. Why do you not use I.T.S in your chemistry class?
12. Can you suggest ways to encourage/ motivate chemistry teachers to adopt and use I.T.S in the classroom?

**4.2: Codes Generation using Respondents' Interviewed Texts Extraction**

**Table 4.2: Codes generation using respondents' interviewed texts extraction**

Question	Interview text extract (respondents' responses)	Codes
Q1	The teaching method I majorly use is demonstration method of Teaching	• Demonstration method
	Most time the teaching method I use when taking chemistry class is interactive and self-discovery	• Interactive
	The teaching method I use often is traditional method of teaching which is interactive and inquiry method.	• Traditional method
	The interactive method of teaching is what I use often	• Interactive
	It depends on the topic. I either use interactive method or play way method	• Interactive and play way method
	I use demonstration method of teaching each time in teaching chemistry.	• Demonstration Method
	I use video contrary to the idea that chemistry is abstract.	• Video method
	Most times when teaching chemistry, I used scientific chart or periodic Table.	• Use of scientific chart/periodic table
	Majorly, use students-centered method which includes pictures active students' engagement and it always depends on the topic.	• Students-centered method/ picture
	I use demonstration method and lecture method, and sometimes play way method	• Demonstration method
	The method I use in teaching chemistry is interactive method of teaching	• Interactive method
	The method of teaching I use is conventional method	• Conventional method
	I use videos, and different objects to make chemistry attractable to students and for them not to think chemistry is abstract	• Videos method
	I use interactive method when teaching chemistry.	• Interactive method
Q2	It is good in teaching chemistry practical	• Okay for chemistry practical
	It is a very effective method in teaching the subject	• Effective in teaching chemistry
	It is aged long so it can be used when there is no electric power	• It good when there is no electric power
	It enables students to understand the concept	• It enable students to understand the concept
	I just like it	• Interest
	It is good in teaching chemistry	• Effective in teaching
	It enables students to see it themselves	• Students get the concept
	It depends on the topic	• Topic
	It makes the subject easier	• Easier
	It enables student understand the concept of the work.	• It enables student to get the concept
Q3	All yes	• Yes
Q4	Lecture Method	• Lecture Method
	Flipped learning method	• Flipped learning
	Practical method	• Practical
	Not really	• Not really

	Video Aid Method	<ul style="list-style-type: none"> <li>• Video Aid</li> </ul>
Q5	No yes No No Yes Yes Yes No No No No Yes No	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
Q6	Video Aid method Video method Projector	<ul style="list-style-type: none"> <li>• Video Aid</li> <li>• Projector</li> </ul>
Q7	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	<ul style="list-style-type: none"> <li>• Yes</li> </ul>
Q8	<ul style="list-style-type: none"> <li>• Especially during practical class</li> <li>• I used flipped learning method that is taking school work home</li> <li>• There is need to move from archaic method of learning to new system of learning</li> <li>• It is better in practical class</li> <li>• It is good when dealing with some crucial aspect in chemistry subject</li> <li>• It is always good when you have a large class to teach</li> <li>• It is good during the practical class</li> </ul>	<ul style="list-style-type: none"> <li>• Practical</li> <li>• flipped learning method</li> <li>• there is need to move from old</li> <li>• it is better in practical class</li> <li>• when teaching crucial Aspect</li> </ul>
Q9	<ul style="list-style-type: none"> <li>• Yes</li> <li>• Yes</li> <li>• Yes</li> <li>• Yes</li> <li>• Yes</li> <li>• Yes</li> <li>• Yes</li> <li>• Yes</li> <li>• Yes</li> <li>• Yes</li> </ul>	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>

	<ul style="list-style-type: none"> <li>No</li> <li>No</li> <li>Yes</li> </ul>	
Q10a	<ul style="list-style-type: none"> <li>By dividing students into group and assigning work to them</li> <li>By playing videos for students and showing them how content relates to the videos being played.</li> </ul>	<ul style="list-style-type: none"> <li>Dividing students into group</li> <li>Using Videos</li> </ul>
10b	<ul style="list-style-type: none"> <li>I don't use it, it is time consuming</li> <li>It is not easy to apply when there is larger class</li> <li>It consumes a lot of time especially when there is larger class.</li> <li>It requires the use of electricity</li> <li>There are no facilities</li> <li>The 45 minutes allocated for each class is not enough to do such</li> <li>The content of chemistry syllabus is much, not enough time to cover up the scheme.</li> <li>Teaching of chemistry is examination based.</li> </ul>	<ul style="list-style-type: none"> <li>Time consuming</li> <li>It not easy in a large class</li> <li>It consumes time</li> <li>Require use of Electricity</li> <li>No facilities</li> <li>Examination based</li> </ul>
Q11	It is time consuming	<ul style="list-style-type: none"> <li>Time consuming</li> </ul>
	It consumes a lot of time	<ul style="list-style-type: none"> <li>Time consuming</li> </ul>
	The population of students we have in class cannot allow that	<ul style="list-style-type: none"> <li>Student population</li> </ul>
	Electricity problem is the major barrier for not using it.	<ul style="list-style-type: none"> <li>Electricity problem</li> </ul>
	No facilities or equipment to adopt that method	<ul style="list-style-type: none"> <li>No facilities</li> </ul>
	No Electricity and resources to use it.	<ul style="list-style-type: none"> <li>Problem of Electricity</li> </ul>
	There is limited time allocated for the class	<ul style="list-style-type: none"> <li>Time</li> </ul>
	Time is the barrier	<ul style="list-style-type: none"> <li>Time</li> </ul>
Q12	There is problem of bulky syllabus	<ul style="list-style-type: none"> <li>Bulky syllabus</li> </ul>
	Students attitudes at times determine that	<ul style="list-style-type: none"> <li>Student Attitude</li> </ul>
	Provision of adequate resources	<ul style="list-style-type: none"> <li>Adequate resources</li> </ul>
	Provision of modern chemistry teaching Aids	<ul style="list-style-type: none"> <li>Provision of modern learning teaching Aids</li> </ul>
	There is need to adjust over crowded classes	<ul style="list-style-type: none"> <li>Overcrowded classes</li> </ul>
	Adequate internet facilities	<ul style="list-style-type: none"> <li>Internet</li> </ul>
	More resources especially for the practical class	<ul style="list-style-type: none"> <li>More resources</li> </ul>
	More resources needed to be provided	<ul style="list-style-type: none"> <li>More resources</li> </ul>
	Good power supply is the basic thing when one wants to adopt innovative method of teaching	<ul style="list-style-type: none"> <li>Power supply</li> </ul>
	Workshops and seminars for teachers	<ul style="list-style-type: none"> <li>Workshops and seminars</li> </ul>
Self-learning by teachers in order to develop their readiness to adopt these new methods		

### Discussion

The findings revealed that the prevailing methods of instruction in chemistry teaching in many secondary schools in Ibadan metropolis includes interactive method,

demonstration method, conventional method, use of scientific table and chart method, student-centered method, picture/video method, traditional method. In a nut

shell, the basic teaching methods used by chemistry teachers which is very common is interactive teaching method which is also known as conventional teaching method. Mkpá (2009) noted that, in conventional teaching methods, the teacher controls the instructional process and the content is delivered to the students. This approach to teaching chemistry may be posing a barrier to attaining the required success in chemistry education and there is an obvious need to adopt more innovative approaches to teaching the subject. Other researchers, Afrianto (2018); Oyelekan, Igbokwe, and Olorundare, (2018), and Apata (2022) suggested that teachers should be open to learning new ways of teaching.

The findings also revealed that ITS have not been effectively utilized among chemistry teachers in Ibadan Metropolis. It was also revealed that some of the teachers are using innovative teaching method without being known to them. This result supports those of Oyelekan, Igbokwe, and Olorundare, (2018) who found that only two (2) ITS were used by science teachers. It is clear that a number of twenty-first century teachers are still 'stuck' with the traditional ways of teaching chemistry. However, the chemistry teachers attested to the need to adopt and use ITS and are to some extent, ready to use these ITS

more frequently in order to produce individuals who are well equipped, digitally inclined, and have acquired the necessary skills to solve future problems and maintain relevance to the society. No doubt, innovation in education is one of the critical factors that needs attention and cannot be ignored. Efforts towards creating innovation in classrooms can make critical changes in improving chemistry education.

The findings also revealed that barriers to chemistry teachers' adoption and use of ITS include lack of resources, lack of electricity, time factor, costs and availability, bulky syllabus, students' attitudes, lack of awareness and orientation of teachers, internet, lack of modern learning aids as confirmed by respondents. This result partly supports that of Mercader and Gairín (2020) who concluded that teachers' lack of training was a barrier to their use of digital technology. On the other hand, Samuel (2020) obtained a contrasting result submitting that chemistry teachers use ITS in the classroom. The respondents in this study were honest about their difficulties with adopting and using ITS. The materials required for most ITS are costly and this is a challenge to many chemistry teacher. Furthermore, the use of technology in teaching chemistry requires a system of

infrastructure such as electricity and information Technology-based equipment which are scarce in many schools.

### **Conclusion**

Based on the findings of this research, it is evident that chemistry teachers do not utilize ITS frequently; the instructional delivery of chemistry is mostly done by the conventional methods. Also, some barriers such as bulky syllabus, time constraints, lack of awareness and orientations of teachers, inadequate facilities, lack of electricity, large class size, high cost of equipment, were found as the major limiting factors hindering the adoption and use of I.T.S among chemistry teachers. In sum, chemistry teachers are interested in the

adoption and use of ITS, provided all these challenges are solved.

### **Recommendations**

1. Teacher training programs should be enriched in order to equip pre-service teachers with the skills for effective use of innovative teaching strategies.
2. Seminars and workshop on innovative teaching strategies should be organized for the professional development of in-service teachers.
3. Adequate measures and infrastructures should be put in place in order to encourage teachers' use of ITS, especially for chemistry lessons.

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**Effects of Computer Simulation Instructional Package on Academic Achievement in Number Systems among Pre-Service Computer Teachers in Colleges of Education in Kwara State, Nigeria**

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**ABSTRACT**

This study investigated the effects of a Computer Simulation Instructional Package (CSIP) on academic achievement in number system among Colleges of Education pre-service computer teachers in Kwara State, Nigeria. The Colleges have a combined population size of 139 pre-service computer teachers. Simple random sampling procedure was employed to select 79 pre-service computer teachers from intact classes of two selected Colleges of Education in Kwara State. The study adopted a pre-test, post-test, non-randomized quasi-experimental design using one experimental group and one control group. The experimental group was taught using computer simulation instructional package while the control group was taught with conventional instruction method. A pre-test was administered before the treatment to establish equivalence of the experimental and control groups. Number System Achievement Test (NSAT) was used as instrument for data collection on selected topics in number system. The reliability of NSAT was determined using Kuder Richardson KR-20 formula and the reliability coefficient yielded 0.82. Mean and standard deviation were used to answer the research questions while analysis of covariance (ANCOVA) was used to test the research hypothesis at 0.05 alpha level of significance. Results showed that the pre-service teachers in the experimental group had statistically significant higher mean score of achievement in number system than the pre-service teachers in the control group. The result of the study also showed that there was no significant difference in mean achievement of male and female pre-service teachers exposed to Computer Simulation Package, thus the package is gender-friendly. Based on the findings of this study, computer simulation instructional package may be beneficial in teaching number system to pre-service teacher. The CSIP is recommended to lecturers as effective method for enhancing pre-service teachers' achievement in number system in Nigeria Colleges of Education.

**Keywords:** *Achievement, Number System, Gender, Simulation and Instructional Package*

**Introduction.**

In Nigeria, education is structured around three levels; primary, secondary and tertiary education (NPE, 2014). According to the

World Bank (2014), higher education is a fundamental instrument for the construction of a knowledge based economy and the

development of human capital all over the world. It is the facilitator, the bed rock, the power house and the driving force for the strong socio-economic, political, cultural, healthier and industrial development of a nation. World Bank (2014) argued that higher education is fundamental to all developing countries if they are to prosper in a world economy where knowledge has become a vital area of advantage for rapid development.

Colleges of Education are a component of the higher education in Nigeria saddled with the responsibility of training and producing teachers (FRN, 2014). College of education is an institution established with the aim of training teachers for pre-primary, primary and junior secondary schools. It is one of the tertiary institutions in Nigeria where science teachers are trained. The goals of tertiary education indicate that these institutions are established to train and come up with individuals who will be of high intellectual skills and capabilities; that should be able to produce values that will make the society a better place to live and thereby build and promote unity (NCCE, 2016).

One of the subjects taught to the pre-service teachers at the colleges of education in Nigeria is computer science. It is a course studied as a combined course in Nigerian colleges of education. It is usually combined

with other teaching subjects. As stipulated in the NCCE (2016) minimum standard, the computer science combinations include Biology, Integrated Science, Chemistry, Physics and Mathematics.

The performance of pre-service computer teachers in general and in particular in examinations for the award of Nigeria Certificate in Education has remained persistently poor over the years. This has been blamed on many factors with poor teaching method being one. This is evident in the statement of Aladejana (2008) when it was argued that the present situation in which students' record poor academic performance in science may not be unconnected with inappropriate science teaching. The over reliance on the use of conventional teaching method has been found to be inadequate for the expected results. That is why King and Aru (2014) observed that in conventional method, there is very little interaction between the teacher and the students or among the students themselves in the classrooms. In order to address the weakness in the use of the conventional traditional methods of teaching computer, scholars have suggested various modern methods, one of which is the use of computer instructional package. The Integration of Information and Communication Technology (ICT) into the

teaching-learning process is adopted through the use of computers and other technological gadgets for curriculum content delivery. The computer could be accessed individually or as a group for teaching and learning processes unlike what we have in a conventional classroom where students are lumped together irrespective of their individual differences and class size (Laleye, 2019). However, the concern of this study is simulation method.

Simulation is an innovative teaching method which is a learner-centred and activity-oriented teaching strategy. The word simulation comes from Latin word 'similis' meaning 'like' that is to act like, to resemble, to pretend to be. Thus, simulations are activities or materials that present real life situation, past events or organisation in such a way that students will learn and understand more about them (Uchegbu, 2016). According to Goldsim (2018), simulation helps to identify and understand factors which control the system and or to predict the future behaviour of the system. Simulation programmes can be applied to computer by providing real life settings for the application of Computer concepts. Simulation includes role plays, games, computer programs that encourage students to become active participants in computer classroom.

Hence, as it is pertinent for students to retain what is learnt, the use of simulation in instruction design gives the learner such an opportunity and beyond. Computer simulation is a package that presents information in a step by step format with the participation of the user in order to progress and facilitate their learning (Akingbemisilu, 2017). It can also be defined as an imitation of a thing or process or situation of a model especially for the purpose of learning. According to Olele (2008), studies have shown a positive impact of computer simulation on teaching and learning methods. Zamzuri (2016) posited that simulation helps students to learn and understand some learning concepts through the use of visualization. It clearly shows that if technology can be adopted as new innovation in teaching and learning process this will promote good and quality education delivery. However, it is important to note that as good as any teaching method is, other variables may as well play unique roles. One of such important variables in teaching and learning is gender. According to Gambari et al (2015), gender has been linked with the performance of students in several studies without any definite conclusion. Several studies have shown that gender is a pertinent issue in science subjects and computer education in particular, and it is prominent

among the variables identified as being important in research. Some findings indicated that significant differences existed between the performance of male and female students while other findings showed that gender factor had no influence on students' performance (Gambari et. al, 2015).

A number of studies have been carried out on computer simulation. For instance, Ramatu, et al (2015) found that students taught arithmetic progression through computer simulated instructional package had a better learning outcome than their counterparts taught using conventional lecture method. In the same vein, Adebayo and Oladele (2016) in their study investigated the effects of computer simulation instructional strategy on students' academic achievement. They found a significant main effect of treatment on students' achievement. This result was similar to the finding of Umoke and Nwafor (2014) and Elangovan and Ismail (2014). Simulation exposure increased students' understanding and reduced their misconceptions about learnt concepts (Meir, Perry, Stal, Maruca & Klopfer, 2005).

In addition, Mhamed, Mohamad, Abdesselam, Taoufik, and El mehdi.(2021) conducted a study on effect of using Computer Simulation on Students'

performance in teaching and learning of Physics. The sample of 182 students classified in to two groups – The experimental (92) and the Control (90) from the two middle schools in meekness city was used for the study. The outcomes of the administered test to both groups of students; control and experimental were compared and analyzed using t-test with statistical package for the social sciences (SPSS). The results showed that there was no significant difference between girls and boys if the computer simulation were used in the experimental group ( $t=0.471$  and  $P$  value  $0.639 > 0.05$ ). Thus, this suggests that computer simulation do not discriminate against the sexes.

### **Statement of the Problem**

Despite the fact that many pre-service teachers are now active users of some Information and Communication Technology ICT tools, not so much has been done by them to acquire the skills necessary for producing instruction on electronic platforms. This is evident in the poor achievement of students in computer science courses at colleges of education in Kwara state which has been linked to poor practical skills in ICT as well as inappropriate method of teaching and ineffective method adopted by the teachers.

Many studies have been conducted on various aspects of ICT tools, simulation, students' academic performance, there seems to be study in the recent time that has addressed the nexus between gender and simulation. This is the perceived gap the present study set out to fill.

This study is therefore unique in that it sought to investigate the effect of computer simulation instructional package on academic achievement in number systems among pre-service computer teachers in colleges of education in Kwara state, Nigeria.

The study also examined whether gender had any influence on pre-service Computer teachers' achievement when taught through the package.

### **Objective of the Study**

The aim of the study was to ascertain the effects of computer simulation instructional package on academic achievement in number systems among pre-service computer teachers in colleges of education in Kwara state.

Specifically, the study seeks to find out;

1. the differences in the mean achievement scores of pre-service teachers taught number system with Computer Simulation Package and those taught with Conventional method.

2. the differences in the mean achievement scores of male and female pre- service computer teachers taught number system with Computer Simulation Package.

### **Research Questions**

The following research questions were raised to guide the study.

1. What are the differences in the mean achievement scores of pre-service teachers taught number system with Computer Simulation Package and those taught with Conventional method?
2. What are the differences in the mean achievement scores of male and female pre- service computer teachers taught number system with Computer Simulation Package?

### **Hypotheses**

The following hypotheses were formulated to guide the study tested at 0.05 level of significance:

**HO<sub>1</sub>:** There is no significant difference between the mean achievement score of pre-service teachers taught number system using Computer Simulation Package and those taught with conventional method.

**HO<sub>2</sub>:** There is no significant difference between the mean achievement score of male and female pre-service teachers

taught number system with computer simulation package only.

### **Methodology**

This study adopted a pre-test, post-test, non-randomized quasi-experimental design. The study employed two groups; experimental and control groups. The population of the study consisted of all pre-service computer teachers who registered for Nigeria Certificate in Education (NCE) from the three colleges of education in Kwara state. The target population was intact class for pre-service computer teachers where number system is been offered as a course for both experimental and control group. The sample consisted of 43 pre-service computer teachers (25 male and 18 female) for experimental group while the control group consisted of 36 pre-service computer teachers (13 male and 23 female). The experimental group was selected purposively, that is, the college with adequate available and accessible number of serviceable computer systems. Number System Achievement Test (NSAT) was adapted from Nigeria Certificate in Education moderated objective questions as an instrument for data collection. The NSAT consist of 30 questions items with options A-D that tested the pre-service computer teachers' knowledge on selected topics in number system. These topics included

binary and octal arithmetic. The selection of these topics is based on the fact that they often considered difficult to understand by pre-service computer teachers and also for their poor performance in the concepts. The NSAT has been validated by the colleges. The instrument was revalidated for appropriateness of the questions in relation to the content of number system by computer lecturers of the government – owned colleges of the state and was trial tested on a representative sample that was not part of the final study. Kuder-Richardson formula<sup>20</sup> (KR20) was used to determine the reliability of NSAT and reliability coefficient yielded 0.82 which showed that the instrument was reliable enough for the study. This formula was appropriate for use because it assumes that items are not of equal difficulty. Mean and standard deviation were used to answer the research questions while analysis of covariance (ANCOVA) was used to test research hypotheses at 0.05 alpha level of significance. This is taught to be appropriate because there is significance difference at the entry-level of pre-service computer teachers.

### **Development of Number System Computer Simulation Instructional Package (NSCSIP)**

Computer Simulation Instructional Package (CSIP) for Pre-service Computer Teachers was developed by the researcher. The necessity for researcher-made computer package was based on the fact that the commercially produced computer-assisted instructional packages are not common in Nigeria. Even, when available they may not be directly relevant to the topic or objectives to be achieved in a lesson as they may not be culturally relevant to implement Computer and Mathematics instruction in Nigeria.

#### **Experimental Group (Computer Simulation Strategy Guide)**

The following steps guided the use of Computer Simulation Instructional strategy which lasted for one hour for a lesson.

Step1: The disc containing the lesson to be learnt was mounted on the computer system for each participant (one student to one computer).

Step 2: The researcher tells and emphasizes on participants adherence to instructions on how to use the simulation package after which the researcher instruct the participant to click on home icon for guidelines on how to use the package.

Step 3: The participants interacted and listen to the lessons on simulation package for at least 3 times for better understanding of the concept.

Step 4: The researcher with the assistance of the research assistant monitors the participant as they use the simulation package.

Step 5: At the end of each lesson, was followed by a quiz to be attempt by participants (participant were serve with worksheet for their activity).

Step 6: At the end of each quiz, Code to unlock the next lesson was only issue to participant that scores above average otherwise, would be asked to repeat the lesson.

#### **Operational guide for Conventional Teaching Method (CTM)**

The following steps guided the Process of Conventional strategy which lasted for one hour for a lesson.

Step 1: the research assistant introduced the lesson to the pre-service computer teachers by asking them related questions based on their O'level computer science. This is to determine the students'previous knowledge.

Step 2 :The research assistant taught the pre-service computer teachers the topic for the day

Step 3: The research assistant followed the sequential order of teacher's note of lesson

Step 4: The research assistant allows participants to ask questions on areas of the topic that are not clear to them.



Step 5: The research assistant answers the participants' questions.

Step 6: The research assistant gave participants' questions to solve in the class to test how far they understood the topic being taught.

Step 7: The research assistant gave the participants chalkboard summary of the topic.

Step 8: The participants copied the chalkboard summary in their note book

Step 9: The research assistant summarized the lesson and made necessary corrections based on the topic taught.

**Results**

**Research Question One:** What are the differences in the mean achievement scores of pre-service teachers taught number system with Computer Simulation Package and those taught with Conventional Teaching Method?

**Table 1: Means and standard deviation of achievement scores NSAT of pre-service teachers taught number system CSP and those taught using CTM**

	NSCSIP	N	Mean	Std. Deviation	Mean Difference
Pretest	Experimental Group	43	10.12	3.13	8.33
	Control Group	36	7.94	3.89	
Posttest	Experimental Group	43	21.77	2.74	.
	Control Group	36	12.31	3.88	

Table 1 shows the difference in the mean achievement scores of pre-service teachers exposed to Computer Simulation Package and Conventional Teaching method. The Computer Simulation Package group had mean achievement score for post-test 21.77 and standard deviation value of 2.74 respectively and Conventional Teaching method group has mean achievement score for post-test 12.31 with standard deviation value of 3.88 respectively. This indicated that there is a mean difference of 8.33

between post-test mean achievement scores of experimental group and control group of pre-service computer teachers taught number system using computer simulation package in favour of experimental group.

**HO<sub>1</sub>:** There is no significant difference between the mean achievement score of Pre-service teachers taught number system using Computer Simulation Package and those taught With Conventional Method.

**Table 2: Results of ANCOVA on Pre-service Teachers' Achievement scores in NSAT**

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	1791.336 <sup>a</sup>	2	895.668	80.997	.000	.681

Intercept	2768.549	1	2768.549	250.365	.000	.767
Pretest	2.390	1	2.390	.216	.643	.003
Treatments	1591.033	1	1591.033	143.880	.000	.654
Error	840.411	76	11.058			
Total	26843.000	79				
Corrected Total	2631.747	78				

Table 2 shows that there is a significant difference between the mean achievement scores of pre-service computer teachers taught computer science using CSP and those taught with conventional method. This is from the fact that, as indicated in table 2, F-ratio = 143.880 and P-value of .000. Since the associated p-value of .000 was less than 0.05 level of significance. The null hypothesis formulated was rejected. This indicates a significant difference existed

between the mean achievement score of pre-serve computer teachers taught number system using CSP and those taught with conventional teaching method in the favour of experimental group.

**Research Question Two:** What are the differences in the mean achievement scores of male and female pre- service teachers taught number system with Computer Simulation Package?

**Table 3: Mean and standard deviation of achievement of male and female pre-service teachers taught number system using CSP**

	Gender	N	Mean	Std. Deviation	Mean Difference
Pretest	Male	25	9.48	2.786	2.49
	Female	18	11.00	3.447	
Posttest	Male	25	21.36	2.942	.
	Female	18	22.33	2.401	

Table 3 shows the mean score and standard deviation of male and female pre-service computer teachers taught using computer simulation package. The male had a mean score for post-test 21.36 and Standard Deviation (SD) 2.9 respectively, while the female pre-service computer teachers in the same group had a mean score of 22.33 with

Standard Deviation (SD) of 2.4 respectively. This indicated that there is a mean difference of 2.49 between the pre-test and post-test mean achievement scores of male and females pre-service computer teachers taught number system using computer simulation package in favour of female pre-service computer teachers.

**Table 4: Result of ANCOVA on Pre-service Achievement in NSAT based on gender and CSP**

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
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Corrected Model	204.558 <sup>a</sup>	2	102.279	3.203	.046	.078
Intercept	1943.990	1	1943.990	60.870	.000	.445
Pretest	196.303	1	196.303	6.147	.015	.075
Gender	4.255	1	4.255	.133	.716	.002
Error	2427.189	76	31.937			
Total	26843.000	79				
Corrected Total	2631.747	78				

Table 4 shows that there is no significant difference in the mean achievement scores of male and female pre-service computer teachers exposed to computer simulation package-ratio= 0.133 and P-value of 0.716 (table 4 row 5) which is greater than the bench mark alpha level of 0.05. This indicates that there is no significant difference in the mean achievement scores of male and female pre-service teachers. Therefore, the null hypothesis, that there is no significant difference between the mean achievement score of male and female pre-service teachers taught number system with computer simulation package was accepted.

**Discussions**

The result of the study shows significant difference between the achievement of pre-service teachers Computer Simulation Strategy and Conventional Teaching Method in favour of Computer Simulation Strategy. This result is in agreement with that of Asogwa. Muhammed, Asogwa and Ofoegbu, (2016), Efe and Oladikan and Oladele (2016),Falode and Bashir (2015),Umoke and Uwafor (2014) and Ezeudu and Ezinwanne (2013) in their

respective studies on Effects of interactive computer simulation package on senior secondary school students achievement and retention in genetic concepts, who found out that the use of Simulation Instructional Package to teach science subjects enhance achievement and could give positive result over time. This also agrees with the finding of Mihindo, Wachanga, and Anditi (2016) who reported that students taught with Computer Simulation Package achieved better than those taught using conventional methods. The trend of improved achievement by the experimental groups could be as a result of the enabling learning environment provided, where pre-service teachers use the computer simulation package on number system which is an interactive package with students activities and step by step assessment which help the pre-service teachers to master the concept of number system easily. It could be as a result of excitement over the new learning techniques, handling of personal computers, and the elimination of bias and strained relationship between pre-service teachers and lecturers.

The result of pre-service teachers' achievement based on gender shows that there is no significant difference in mean achievement of male and female pre-service teachers exposed to Computer Simulation Package. Thus, the package is gender-friendly. This finding is in agreement with the findings of Tanbayal and Sabitu (2016) in study carried out on Comparative analysis of gender performance in Biology, chemistry and physics among pre-Degree students of federal university. Tambayal, who observed that gender has no significant effect in the achievement of students. But in disagreement with findings of Wagu (2014), Kashu (2014), Anih and Egbo (2015) who observed that gender has significant effect on students' achievement as male students did better than the female students in science and identified teachers' attitude towards female students, teaching method and inferiority complex in girls could be responsible for the difference in the means achievement level between boys and girls in classroom.

### **Conclusion**

The study had showed that computer simulation instructional strategy improves pre-service computer teachers' achievement

in computer science concept. This shows the effectiveness of CSIP as a tool for teaching abstract and difficult topic in computer science. Study has also shows that there is no significant difference in mean achievement of male and female pre-service computer teachers taught using Computer Simulation Instructional Package. Thus, the package is gender- friendly.

### **Recommendations**

1. The use of Computer Simulation Instructional Package in teaching computer science in Colleges of Education should be adopted and encouraged by lecturers.
2. Curriculum planners and curriculum development bodies in Nigeria like NERDC should design programme and policies that will incorporate the use of Computer Simulation Instructional Package in teaching and learning sciences at Colleges of Education level.
3. Gender should not be priority when encouraging pre-service teachers to use Computer Simulation Instructional Package for learning computer concepts.

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**Perceived causes of the Incessant Air Pollution in Halls of Residence among the Students Residents in University of Benin, Nigeria**

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**ABSTRACT**

The study was conducted to find out the perceived causes of air pollution in halls of residence among the students residents in University Of Benin. The study adopted the descriptive research design. Five research questions were raised and analyzed for the purpose of the study. Two hundred respondents made up the sample which was randomly selected from 5 faculties through simple random and purposive techniques from the fourteen (14) Faculties in the University of Benin. The data were collected with questionnaire and analyzed. The result revealed that: Indiscriminate urination is a reason adduced for air pollution by students in halls of residence because of the poor state of hostel facilities in the University of Benin, Indiscriminate dumping of food waste, human waste and other perishables are reasons adduced for air pollution by students in halls of residences. It was also observed that the poor drainage system in the halls of residence is a major cause of air pollution, as most of the drainages are unsafe to use, Irregular supply of water to halls of residence for cleanup and other activities, contributes to air pollution, Overpopulation in the halls of residence, contributes to air population. Based on the results, it was concluded that indiscriminate urination, poor drainage system and indiscriminate disposal of waste are causes of the incessant air pollution in and around the hall of residence. The study therefore recommended that: The University management should provide adequate facilities and equipment for the disposal of wastes and Information on how to use toilet equipment and other facilities should be included in the students' handbook so as to educate them on the proper usage, Regular water supply should be provided through the use of the water supply systems such as a borehole, deep well and so on, adequate and qualified personnel should be recruited to carry out the thorough cleaning of the drainages in the hostels, Accommodation in the halls of residence should be only for those that the bed spaces can accommodate, this would help to reduce overpopulation.

**Keywords:** *Reasons, air pollution, halls of residence, environmental health, University of Benin*

**Introduction**

University is a place of learning, with high population of majorly adolescences with different family background and behaviours.

The hall of residence accommodate a large number of students, this environment, most time are affected by human activities such as



indiscriminate waste disposal, indiscriminate urination and other unsafe environmental behaviours resulting to air pollution. Air pollution is the presence in the atmosphere of chemicals, particulate matter or biological materials in such quantity and for such duration that can cause harm and discomfort to humans and other living organisms (Njoku, 2016; Obanya, 2018). Common air pollutants in the environment include: sulphur dioxide (SO<sub>2</sub>); oxides of nitrogen (NO<sub>x</sub>), carbon monoxide (CO); volatile organic compounds (VOCs); suspended particulate matter (SPM) also called particulates; and lead (Pb). Air pollutant can be in the form of solid particles, liquid droplets, or gases. In addition, they may be natural or man-made. In recent times, indoor air quality has caught the attention of scientists and the general public because indoor levels of many pollutants are often higher than those typically encountered outside (Jurado, 2014). Indoor air pollution (IAP) would cause significant harmful health effects due to a long time period that people stay indoors (Klinmalee, 2008). Indoor air pollution concentrations depend on a large number of factors such as indoor sources and the emission rates, air exchange rate, the penetration of outdoor pollutants into the indoor environment, and the

pollutant sink or removal rate on indoor surfaces (Klinmalee, 2008). University of Benin halls of residence is not left out due to the high population rate in the hostels. The suspected causes of air pollution in halls of residence are inadequate water supply, inappropriate use of the drainage system, indiscriminate waste disposal, urination, over population. Inadequate water supply: there is insufficient water supply to the toilets in the halls of residence. Students use these restrooms without water to clean it up after use, which results in the release of foul smell.

Poor drainage system: due to the dumping of waste into the drainage it results in blockage of the drainage system in the halls of residence which results in the release of foul smell. This also leads to the breeding of mosquito. Urination; this occurs when students go about releasing their liquid waste in inappropriate places like on the walk way, the bathing area, and close to the rooms where the students live. All these activities lead to the release of foul smell which makes the environment uncomfortable for the students to live in.

Indiscriminate solid waste dumping: this is one of the causes of air pollution in the halls of residence. This is when wastes are not properly disposed; they are littered all over

the place which causes the release of foul smell.

Over population: this is one of the main causes of air pollution in the halls of residence. Due to the high ratio of students to the facilities available in the hostels over use is inevitable. Most of the cooking activities are done in the hostel rooms which results in the release of Co<sub>2</sub> which is not good for the consumption of the students. These cooking practices are inefficient, and use fuels and technologies that produce high levels of household air pollution with a range of health-damaging pollutants, including small soot particles that penetrate deep into the lungs. Indoor smoke can be 100 times higher than acceptable levels for fine particles.

In the view of Vivienne (2014), environmental sanitation is the practice of collection, reuse and disposal of human excreta and domestic wastes with the overall objective to protect the school health. In an attempt to keep the environment clean, it is the human lives that are paramount. The concept of environmental sanitation entails the control of water supplies, excreta disposal, waste water disposal, refuse disposal, vectors of diseases, housing conditions, food supplies and the safety of the working environment (Tecer (2007;

Acheampong, 2010). Mmom and Mmom (2011) opined that effective environmental sanitation in cities is a function of positive environmental behavior and availability of facilities and services. Thus, Daramola (2015), Olowoporoku (2014) and Afon and Faniran (2013) complimented that availability of adequate environmental sanitation facilities and enabling environmental sanitation policies positively influence the achievement of a healthy living environment.

Mmon and Mmon (2011) commented in environmental sanitation and public health challenges in a rapidly growing city of the third world: the case of domestic waste and diarrhea incidence in Port Harcourt Metropolis, Nigeria, that poor environmental sanitation practices exhibited in the disposal of solid wastes, wastewater and excreta, cleaning of drainage including personal, household and community hygiene significantly contribute to infant and child mortality and in order to achieve proper environmental sanitation practices, good sanitation behavior and availability of facilities and services must work in unison. They also stressed that numerous studies have shown that the incidence of many diseases is reduced when people have access

to and make regular use of adequate sanitary installations.

According to Olowoporoku (2017) Bello (2007) Uzum and Saglam (2006) studied high school students' environmental attitude: scale development and validation and opined that individuals, who have negative attitude towards the environment an pollution, will be insensitive to environmental problems and may adopt behaviors that damage the environment. So the enhancement of the environmental knowledge of students leads to the development of positive attitudes towards the environment.

The human health effects due to air pollutants include carcinogenicity, pulmonary tuberculosis, cerebrospinal meningitis, pneumonia, whooping cough and measles (Nwachukwu and Ugwuanyi, 2010; Ugwuanyi and Obi, 2002); while the environmental effect is global warming (Bolion, 1991). The health effects which are due to air pollution are called epidemiological diseases. These diseases are well-defined by Nwachukwu and Ugwuanyi (2010), and Ugwuanyi and Obi (2002). It is against this background, the researchers want to investigate the perceived causes of the incessant air pollution in halls of residence, University of Benin.

### **Statement of the Problem**

The state of university of Benin halls of residence has really deteriorated due to the different activities of the students while the students are the ones still being affected. Unfortunately if this problem is not looked into it would lead to an unsafe environment for the students to live in. The University hostels have poor toileting facilities, poor drainages, irregular water supply and are grossly overpopulated. All of the afore mentioned defects are issues that the school hostel faces on a regular basis which results to foul smell of the environment and bad air quality. Indiscriminate disposal of waste is a problem recognized by all nations at the 1992 conference on environment and development and regarded as a major barrier in the path towards sustainability. Students output of daily waste depends on their dietary habits, lifestyle and living standard, students often seem to indiscriminately litter their environment, defecate arbitrarily in unauthorized places e.g. behind rooms, walks ways, hence making the environment unsafe, hazardous due to air pollution. To this effect, this study attempts to empirically analyze reasons adduced for the incessant air pollution in halls of residence in University of Benin.

### **Research Questions**

The following research questions were raised to guide this study:

1. Is indiscriminate urination a reason adduced for incessant air pollution by students in halls of residence, university of Benin?
2. Is indiscriminate disposal of waste a reason adduced for incessant air pollution by students in halls of residence, university of Benin?
3. Is poor drainage system a reason adduced for incessant air pollution by students in halls of residence, university of Benin?
4. Is water supply a reason adduced for incessant air pollution by students in halls of residence, university of Benin?
5. Is over population a reason adduced for incessant air pollution by students in halls of residence, university of Benin?

**The research objectives** is to investigate the perceived causes of air pollution in hall of residence of the University of Benin; if indiscriminate urination, indiscriminate disposal of waste, poor drainage, water supply and over population are reasons adduced for incessant air pollution by students in halls of residence, university of Benin

### **Method and Materials**

This study is designed to find out the reason adduced for incessant for air pollution in halls of residence among the recipients in university of Benin. A descriptive Survey research method was adopted to enable the researcher carry out systematic investigation and obtain information across population of the study. It is considered the most appropriate in enabling a researcher to study a population by collecting information from the respondents who are a representative sample of the entire group as they exist in their various communities. The population of the study comprised fourteen (14) Faculties with the population of Thirty Six Thousand Nine Hundred and Seventy Five (36,975) undergraduate students of the University of Benin (Academic planning, University of Benin, 2022). The sample consists of two hundred respondents which would be randomly selected from 5 selected faculties through simple random technique from the fourteen (14) Faculties in the University of Benin. The research instrument is a questionnaire designed by the researcher entitled "the reasons adduced for incessant air pollution in halls of residence among the recipients in university of Benin Questionnaire". It is divided into two sections: Section A and B. Section A

contains particulars of the respondents (demographic data) such as name of Faculty, level, age, gender, while Section B contains twenty items. The questions contained in the questionnaire revolve round the research questions raised in the study and the response obtained from the respondent will help to validate the research questions. The questionnaire is a modified Likert-type scale with four options of strongly agree, agree, strongly disagree and disagree. In order to ascertain the content validity of the instrument, the questionnaire designed by the researchers was given to three experts in the field of environmental education, health education and measurement and evaluation

from the University of Benin. The reliability of the instrument is established using split-half technique. The data would be correlated using Spearman Brown's Correction Formulae. The reliability coefficient obtained was 0.79. This indicates that the instrument would be adequate for the study. The questionnaires were administered by the researchers. Data collected were sorted, coded and analysed using simple percentages.

**Results**

**Research Question 1:** Is indiscriminate urination a reason adduced for incessant for air pollution by students in halls of residence?

**Table 1:** indiscriminate urination a reason adduced for incessant for air pollution by students in halls of residence

S/N	ITEMS	SA	A	SD	D	Total
5.	There are no good toilet facilities in the school hostel for me to urinate	156 (78%)	10 (5%)	34 (17%)	0 (0%)	200
6.	Open defecation and urination is a major contribution to air pollution	125 (62.5%)	15 (7.5%)	50 (25%)	10 (5%)	200
7.	The smell from urine is dangerous to human health	163 (81.5%)	22 (11%)	11 (5.5%)	4 (2%)	200
8.	If there were clean toileting facilities in the hostel, the air pollution would be reduced.	105 (52.5%)	62 (31%)	23 (11.5%)	10 (5%)	200

*Researcher  
Fieldwork 2023*

Table1 above shows responses for indiscriminate urination a reason adduced for incessant for air pollution by students in

halls of residence. 156(78%) and 10(5%) of the respondents strongly agreed and agreed respectively that There are no good toilet

facilities in the school hostel for them to urinate, 34(17%) and 0(0%) strongly disagree and disagree respectively. Also 125(62.5%) and 15(7.5%) strongly agreed and agreed with the statement that Open defecation and urination is a major contribution to air pollution, but 50 respondents representing (25%) and 10(5%) strongly disagreed and disagreed respectively. Seeking opinion of the respondents on the smell from urine is dangerous to human health, 163 of the respondents representing 81.5% strongly agreed, 22 respondents representing 11% agreed, 11(5.5%) and 4(2%) strongly disagreed and disagreed respectively.

Lastly, 105 respondents representing 52.5% and 62(31%) believe that if there were clean toileting facilities in the hostel, the air pollution would be reduced, 23(11.5%) strongly disagree, while 10(5%) disagreed.

The study therefore conclude that indiscriminate urination a reason adduced for incessant for air pollution by students in halls of residence because of the poor state of hostel facilities in the university of Benin.

**Research Question 2:** Is indiscriminate disposal of waste a reason adduced for incessant for air pollution by students in halls of residence?

**Table 2:** Indiscriminate disposal of waste a reason adduced for incessant for air pollution by students in halls of residence

S/N	ITEMS	SA	A	SD	D	Total
5.	Indiscriminate disposal of waste causes air pollution	159 (79.5%)	26 (13%)	7 (3.5%)	8 (4%)	200
6.	Food waste are not properly disposed in my hostel	100 (50%)	44 (22%)	20 (10%)	36 (18%)	200
7.	Waste collectors are not regular in the school hostel	113 (56.5%)	16 (8%)	41 (20.5%)	30 (15%)	200
8.	There are no proper means of waste disposal in the halls of residence	103 (51.5%)	9 (3.5%)	59 (29.5%)	29 (14.5%)	200

**Researcher Fieldwork 2023**

The above table 2 shows indiscriminate disposal of waste a reason adduced for incessant air pollution by students in halls of residence. This view was reflected in the

responses of 159(79.5%) and 26(13%) strongly agreed and agreed respectively that Indiscriminate disposal of waste causes air pollution, 7 of the respondents representing

3.5% and 8(4%) strongly disagree and disagree respectively. Similarly, 100 respondents representing 50% and 44(22%) agreed that food waste are not properly disposed in my hostel, while 20(10%) strongly disagree, while 36(18%) disagreed. The respondents agreed with the statement that waste collectors are not regular in the school hostels. This was evidenced by the respondents opinion which showed that 113(56.5%) strongly agreed and 16(8%) agreed respectively while only 41 of the respondent representing (20.5%) and 30 representing (15%) strongly disagree and disagree respectively.

Finally, the respondents agreed that There are no proper means of waste disposal in the halls of residence, with 103 of the respondents representing (51.5%) strongly agreed, 9(4.5%) agreed, while 59 of the respondents representing (29.5%) strongly disagreed and 29(14.5%) disagreed.

In the second objective, Based on the result in table 6, the study therefore conclude that indiscriminate dumping of food waste, human waste and other perishables are reasons adduced for incessant air pollution by students in halls of residences.

**Research Question 3:** Is poor drainage system a reason adduced for incessant for air pollution?

**Table 3:** Poor drainage system as a reason adduced for incessant air pollution.

S/N	ITEMS	SA	A	SD	D	Total
5.	The drainage system in the hostel is poor and unsafe to use	114 (57%)	25 (12.5%)	30 (15%)	31 (15.5%)	200
6.	The drainage system in the hostel is good and safe to use	70 (35%)	12 (6%)	100 (50%)	18 (9%)	200
7.	The smell for the hostel drainage system is the cause of air pollution in the hostel	143 (71.5%)	31 (15.5%)	19 (9.5%)	7 (3.5%)	200
8.	The drainage system is not properly maintained, hence the smell that causes the air pollution	155 (77.5%)	32 (16%)	10 (5%)	3 (1.5%)	200

**Researcher Fieldwork 2023**

The above Table 3 shows responses for poor drainage system a reason adduced for air pollution. This view was reflected in the responses of 114(57%) and 25(12.5%) strongly agree and agree respectively to the

statement, that the drainage system in the hostels are poor and unsafe to use. 30 of the respondents representing 15% and 31(15.5%) strongly disagreed and disagreed respectively. On the other hand, 100

respondents representing 50% and 18(9%) revealed that the drainage system in the hostel is good and safe to use, while 70(45%) strongly agree, while 12(6%) agree. The respondents agreed with the statement that the smell for the hostel drainage system is the cause of air pollution in the hostel. This was evidenced by the respondents opinion which showed that 143 of the respondent representing (71.5%) and 31 representing (15.5%) strongly agree and agree respectively, while 19(9.5%) strongly disagreed and 7(3.5%) disagreed respectively. Finally, the respondents agreed that the drainage system is not properly maintained, hence the smell that causes the

air pollution, with 155 of the respondents representing (77.5%) strongly agreed, 32(16%) agreed, while 10 of the respondents representing (5%) strongly disagreed and 3(1.5%) disagreed. In the third objective, the study seeks to find if poor drainage system a factor responsible for air pollution. Based on the result in table 7, the study therefore concludes that the poor drainage system in the halls of residence is a major cause of air pollution, as most of the drainages are unsafe to use.

**Research Question 4:** Is water supply a reason adduced for incessant for air pollution by students in halls of residence?

**Table 4:** Water supply a factor responsible for air pollution by students in halls of residence

S/N	ITEMS	SA	A	SD	D	Total
5.	The water supply in the halls of residence is irregular	101 (50.5%)	11 (5.5%)	62 (31%)	26 (13%)	200
6.	The hostel is always polluted at night because students do not have access to water to use.	133 (66.5%)	10 (5%)	18 (9%)	39 (19.5%)	200
7.	The school water supply does not encourage an environment free of air pollution.	90 (45%)	31 (15.5%)	46 (23%)	33 (16.5%)	200
8.	Water supply does not contribute to air pollution in the halls of residence	29 (14.5%)	24 (12%)	118 (59%)	29 (14.5%)	200

**Researcher Fieldwork 2023**

Table 4 shows response for water supply a reason adduced for air pollution by students in halls of residence. It reveals that 101(50.5%) and 11(5.5%) strongly agreed and agreed respectively to the statement

that, the water supply in the halls of residence is irregular. 62 of the respondents representing 31% and 26(13%) strongly disagreed and disagreed respectively. In the same vein, 133 respondents representing



66.5% and 10(5%) revealed that the hostel is always polluted at night because students do not have access to water to use. 18(9%) strongly disagree, while 39(19.5%) disagreed. The respondents agreed with the statement that the school water supply does not encourage an environment free of air pollution. This was evidenced by the respondents opinion which showed that 90 of the respondent representing (45%) and 31 representing (15.5%) strongly agreed and agreed respectively, while 46(23%) strongly

disagreed and 33(16.5%) disagreed respectively.

Finally, the respondents disagreed that water supply does not contribute to air pollution in the halls of residence, with 118 of the respondents representing (59%) strongly disagreed, 29(14.5%) disagreed, while 29 of the respondents representing (14.5%) strongly agreed and 24(12%) agreed.

**Research Question 5:** Is over population a reason adduced for incessant for air pollution by students in halls of residence?

**Table 5:** Overpopulation as a reason adduced for incessant for air pollution by students in halls of residence

S/N	ITEMS	SA	A	SD	D	Total
1	The halls of residence is generally overpopulated	127 (63.5%)	45 (22.5%)	15 (7.5%)	3 (1.5%)	200
2	Air pollution is bound to occur when an environment is densely overpopulated	122 (61%)	44 (22%)	20 (10%)	14 (7%)	200
3	The air quality in the halls of residence is poor because they are overpopulated	154 (77%)	20 (10%)	16 (8%)	10 (5%)	200
4	Overpopulation does not contribute to air population in the halls of residence.	33 (16.5%)	11 (5.5%)	131 (60.5%)	25 (12.5%)	200

**Researcher Fieldwork 2023**

The above Table 5 shows overpopulation as a reason adduced for air pollution by students in halls of residence. This view was reflected in the responses of 127(63.5%) and 45(22.5%) strongly agreed and agreed respectively that the halls of residence is generally overpopulated, 15 of the respondents representing 7.5% and 3(1.5%) strongly disagree and disagree respectively.

Similarly, 122 respondents representing 61% and 44(22%) agreed that air pollution is bound to occur when an environment is densely overpopulated, while 20(10%) strongly disagree, while 14(7%) disagreed. The respondents agreed with the statement that the air quality in the halls of residence is poor because they are overpopulated. This was evidenced by the respondents opinion

which showed that 154(77%) strongly agreed and 20(10%) agreed respectively while 16 of the respondent representing (8%) and 10 representing (5%) strongly disagree and disagree respectively.

Finally, the respondents disagreed that overpopulation does not contribute to air pollution in the halls of residence, with 131 of the respondents representing (60.5%) strongly agreed, 25(12.5%) agreed, while 33 of the respondents representing (16.5%) strongly disagreed and 11(5.5%) disagreed.

### **Discussions of Findings**

The result of this study has been quite, informative and revealing. Based on the analysis of data or information collected from the opinion of the respondents on: The perceived causes of Air Pollution In halls Of Residence among in University Of Benin.

The analysis of research question one reveals that indiscriminate urination a factor responsible for air pollution by students in halls of residence because of the poor state of hostel facilities in the University of Benin. The study also revealed that the major causes of poor sanitation practices among students are poor toilet and bathroom facilities, insufficient toilet and waste disposal facilities, shortage of water supply and lastly, poor drainage system. Irregular

water supply, and lack of waste disposal facilities.

The results of research question two shows that indiscriminate dumping of food waste, human waste and other perishables are factors responsible for air pollution by students in halls of residences. Poor environmental sanitation practices exhibited by students in the disposal of solid wastes, wastewater and excreta, cleaning of drainage including personal, household and community hygiene significantly contribute to sickness and air pollution and in order to achieve proper environmental sanitation practices, good sanitation behavior and availability of facilities and services must work in unison. They also stressed that numerous studies have shown that the incidence of many diseases is reduced when people have access to and make regular use of adequate sanitary installations.

The results of research question three shows that the poor drainage system in the halls of residence is a major cause of air pollution, as most of the drainages are unsafe to use. Air pollution is not limited to the water pollution and improper disposal of wastes. When students dispose of chemical and physical wastes in ways that directly affect the air supply, it is often results to air pollution.

The finding from Research question four shows that irregular supply of water to halls of residence for cleanup and other activities, contributes to air pollution. Finally research question five revealed that the overpopulation in the halls of residence, contributes to air population.

### **Conclusion**

Based on the result of the study, it can be concluded among others that the reasons adduced for incessant air pollution in halls of residence is as a result of poor sanitation practices among undergraduate students of University of Benin in their halls of residents and that inadequate water supply, poor toilet facilities, insufficient toilet, bathroom and waste disposal facilities and poor drainage system are the major causes of air pollution in the hostels environment.

### **Recommendations**

In view of the above, the following recommendations are therefore put forward:

1. The University management should provide adequate facilities and equipment for the disposal of wastes and Information on how to use toilet equipment and other facilities should be included in the students' handbook so as to educate them on the proper usage
2. Regular water supply should be provided through the use of the water supply systems such as a borehole, deep well and so on.
3. Adequate and qualified personnel should be recruited to carry out the thorough cleaning of the drainages in the hostels.
4. Accommodation in the halls of residence should be only for those that the bed spaces can accommodate; this would help to reduce overpopulation

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## **Teaching Practice Experience of Physics Education Students in Higher Institutions of Kwara State: Challenges and Possible Panacea**

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### **ABSTRACT**

Teaching practice is a compulsory course for all pre-service teachers aimed at earning the pedagogical certification. This study investigated the problems of institutions that poses challenges to student-teachers during teaching practice. Descriptive statistics were employed in the analysis of the data gathered and the reliability of the instrument was tested using Spearman Brown Formula and a coefficient of 0.79 was obtained. Four research questions were analysed using value benchmark of 2.50. The main findings of the study indicated that problems encountered by the teaching practice students there are professional and ethical remedies. The study established that there are problems related to the institutions which can serve as problem to the student-teachers during teaching practice; it was found out that these practices impact the student-teachers' beliefs and attitudes towards the teaching practice programme at the institutions in Kwara state. The conclusion of study; includes the challenges faced by the teaching practice physics students in institutions in Kwara state is much and also recommendation among others are; the authorities' in-charge (University, Faculty of Education) and College of Education) should make proper provision on how to reduce the challenges faced by the physics teaching practice student-teachers and the necessary procedure with which a framework is laid on how to deal with the difficulties that related to the institution and the management of Faculty of Education/College of Education and the Committee on Teaching Practice Programme should make provision for proper and valid assessing of the physics teaching practice student so as to enhance the teaching practice student's performance and good assessing feedback profile from the supervisors

**Keywords:** *Education, Physics Education, Pre-service teacher, Teaching-practice.*

### **Introduction**

Education is the key to human capital development, although the quality of tertiary education in Nigeria is alarming, education remains the key to human capital development. Therefore, the system (Nigeria) needs to reform and reposition its educational policies and practices to foster and enhance societal development (Ibidunni, Nwaodu & Mdaka (2023) and Saint, Hartnett & Strassner (2003))

Agi (2019) defined teaching-learning process as an aided means of teaching from anyone to another individual and further expatiated that, teachers are individuals with special skills and abilities. The teachers' character and quality competence are the most vital factors which enhance the education quality and its contribution to national development like our country Nigeria (Kumar and Ratnalikar, 2005).

Marais and Meier (2004) define the term teaching practice as the range of experiences to which the student-teachers are exposed to the professionalism of the operations in the classrooms and schools. The relevance of teaching practice exercise programme for student-teachers in education is to produce teachers who can perform effectively, efficiently and appropriately in pedagogy. It is also an avenue for the prospect teachers to have the practical knowledge of the teaching profession and meet the present-day challenges.

Adequate preparation of prospective teachers in order to fit into the professional dynamism of teaching roles in today schools through practice need to be validated with thorough implementation and execution of teaching practice. The teaching practice programme is a crucial teacher preparatory programme in teacher training colleges of education and faculties of education in Nigerian universities and are those that oversee the raking of the practicing schools. Raking is the process where the college management send some tutors to go and seek schools where at later will send their student-teachers for teaching practice exercise. (Wang, Lo, Chen & Qin (2023); Buckler (2020))

Agwu udu (2018) described an institution representative called supervisor/assessor as individual responsible for coordinating,

assessing and measuring the teaching professional skills in student-teachers while undergoing the teaching practice exercise. The Supervisor/assessor mediates between the school programmes in order to assess prospect teachers teaching practice exercise. In the supervision part of what are being evaluated are classroom management skills, instructional and behavioral methods of teaching and pedagogical analysis of taught concepts by the student-teachers.

### **Statement of Problem**

There are various challenges that can deter the achievement of the objectives of teaching practice exercise and affects the pedagogical growth of students-teachers in training. According to Kiggundu and Nayimuli (2009) unfamiliar and unexposed classroom situation contribute to the professional discouragement of student-teachers, which leads to defective production of authentic teachers, teachers with superb teaching strategies and those with compelling systematic models of teaching.

However, physics education students do use the teaching practice exercise as a medium to classify effective practical approach towards teaching, analyzing compelling models for teaching difficult physics concepts and provision of best pedagogical odds for student maximum learning and hence, the focus of this study



is to investigate the various challenges and possible panacea of teaching practice experience of physics student-teachers in institutions.

**Purpose of the Study**

In most secondary schools teaching of physics is handled by those that have supplementary training in physics e.g., graduate of engineering, mathematics and even educational technology. The need to improve the number of student-teachers from physics is extremely critical and depends on a complex interplay training of factors within and outside the classroom. The purpose of the study is to examine the challenges faced by physics education students during teaching practice exercise and suggest solutions that will tackle the existing problems. When a teacher becomes the key source of knowledge, his/her pedagogical skills change from focusing on content to focusing on competence

**Research Questions**

1. How does problems from institutions poses challenges to student-teachers during teaching practice?
2. What is the influence of student-teachers preparedness on their supervisor’s evaluation?
3. Are there any predominant tensions encountered by the physics education pre-teachers during teaching practice exercise?
4. What are the impacts of teaching practice exercise on the attitudes an beliefs of student-teachers on teaching profession?

**Scope of the Study**

This study is concerned with the challenges and possible panacea of teaching practice exercise as experienced by physics education student. The research sample consists of final year physics education students in selected institutions in Kwara State which were purposely selected since they have already undergone both observation/peer teaching and teaching practice exercise to have accurate data

S/N	Name of School	Location
1	University of Ilorin	Ilorin South
2	Al-Hikmah University	Ilorin West
3	College of Education, Ilorin	Ilorin South
4	College of Education, Oro	Oke Ero
5	Muhyideen college of education	Ilorin South

### **Significance of the Study**

It is expected that the results of the study will assist the Education policy makers, curriculum planners, and administrators from both institutions and others sharing the same characteristics such as colleges of education to see the need for an improvement in teaching practice experience and the entire physics education programme in general.

The findings of this study are aimed at taking teaching to an enviable position occupied by other professional programmes like medicine, engineering and law. The research findings will help in making teaching practice exercise a befitting one for the following persons or bodies.

1. The planners and organizers of teaching practice for effectiveness of the programme
2. The supervising lecturers will equally gain from the findings of this research work, because they will be aware of the concerns of the students-teachers. This awareness, will make the supervisors adjust and be friendly with their assessment of the student-teachers in their areas of difficulty.
3. It will make practicing school management to be aware that student-teachers are facing challenges during their teaching practice exercise and the practicing school will be ready to give

them their full assistance, maximum cooperation and based on this, the practicing school will equally benefit from the findings of this research.

4. The student-teacher are made to realize the importance of the programme and likely challenges they might face during the period. By exposing the challenges of teaching practice, the student-teacher can prepare for any of them

### **Methodology**

The method used in this study is descriptive research of survey research type, it contains clear objectives derived from research questions and the population of this study was One hundred and forty five tertiary institution physics education undergraduates from selected institutions in Kwara state were the respondents of the questionnaire and that was done in order to get accurate data.

The adopted questionnaire was self-designed using Google Form with 4-point modified Four-likert scale of Strongly Agree(SA), Agree(A), Disagree(D) and Strongly Disagree (SD) to collect the data for the study. The questionnaire was divided into three sections; Section A contains personal data of the respondents; section B contains statements on the challenges faced by the physics education undergraduates during their teaching

practice exercise and section C contains statement possible solutions to the problems encountered during teaching practice exercise.

The research instrument was validated by three lecturers in the department of Science Education, Faculty of Education, University of Ilorin, Ilorin, Nigeria using Spearman Brown Formula and was administered on WhatsApp groups of the targeted respondents and the response was automatically generated on Google Drive of the researcher. Descriptive statistics of frequency count and percentages was used to analyze the demographic characteristics of the respondents in section A. The data in section B and C was coded and analyzed of percentage, mean, standard deviation and variance.

**Data Analysis and Results**

The data collected and analyzed in this section represents the variables for the study and background information of undergraduates that are actively involved in this study.

Table 1 revealed the demographic properties of the participants in this study. As indicated in Table 1, the gender difference rate was less than 50% (26.8%), indicating that the male respondent dominated the study as respondents. By implication the demographic information depicted that the respondents were mostly physics education undergraduate from colleges of education (52.4%) and university respondent were (47.6%) that had undergone teaching practice exercise.

Table 1: Demographic Information of Respondents

<b>Demographic Data</b>		<b>Frequency</b>	<b>Percentage</b>
<b>Gender</b>	Male	92	63.4
	Female	53	36.6
	<b>Total</b>	<b>145</b>	<b>100.0</b>
<b>School Type</b>	University	69	47.6
	College of Education	76	52.4
	<b>Total</b>	<b>145</b>	<b>100</b>

**Research Question one:** How does problems from institutions poses challenges to student-teachers during teaching practice?

In determining the problems that are related to institutions which poses challenges to physics education student-

teachers during teaching practice, descriptive statistics of frequency count, percentage and four-point Four-likert scale of Strongly Agree (SA), Agree(A), Disagree(D) and Strongly Disagree (SD) with a decision scale of 2.50 were adopted to analyze the data collected. As shown in

Table 2, all the items have a mean value indicating that the students agreed to all items. Indicating, an aggregate proportion of the respondents agreed that the normal time period in institutions to teach the concept of physics to student-teachers is not sufficient (3.28); almost equal proportion of the respondents opined that many student-teachers try to memorize the physics techniques and which is due to

higher than the benchmark of 2.50, poor foundation (3.41); an appreciable amount also asserted that many student-teachers do not pick physics education willingly rather they are forced by the institution (3.47). In summary, a grand mean of 3.30 which is greater than the benchmark of 2.50 respectively revealed that there are problems related to the institutions which poses challenges to student-teachers during teaching practice.

**Table 2: Problems related to institutions/ universities that poses challenges to student-teachers during teaching practice**

Items	SA Freq%	A Freq%	D Freq%	SD Freq%	Mean	Standard Deviation	Variance
Most teachers do not know some physics concepts well because of poor foundation.	54 (37.2)	78 (53.8)	12 (8.3)	1 (0.7)	3.28	0.64	0.41
Many students try to memorize the physics techniques without understanding it	64 (44.1)	71 (53.1)	4 (2.8)	0 (0)	3.41	0.55	0.30
Many students do not face physics education willingly but rather they are forced by the institution.	78 (53.8)	55 (38.5)	9 (6.30)	1 (0.70)	3.47	0.698	0.420
Normal time period in institutions to teach the concept of physics to student-teachers is not sufficient.	42 (29.0)	68 (46.9)	32 (22.1)	3 (2.1)	3.03	0.77	0.39

**Research Question Two:** What is the influence of student-teachers preparedness on their supervisor’s evaluation?

In determining the level of preparedness of student-teachers of physics when they are

being evaluated by their supervisor. As shown in Table 3, majority of the students indicated how prepared they were when being evaluated by their supervisors. Perhaps, the ratings skewed more towards

Strongly Agree and Agree, while Disagree and Strongly Disagree enjoyed low ratings. Significantly, more of the student-teacher strongly agreed to their endeavour to carry all the student in the class during supervision (3.53);(3.45) that the class size should be such that the student-teachers can manage during supervision was agreed upon by the student-teacher;(3.59) that the student teachers should monitor the activities and performance of the students was strongly agreed on; making the

teaching aid and learning environment conducive was ranked last (3.45) and was strongly agreed on by the student as one of the preparation made for effective teaching and learning to take place during supervision. A grand mean of 3.51 which is greater than the benchmark 2.50 respectively revealed that there is proper assessing of the pre-service teachers during the teaching practice programmes due to their level of preparednes

**Table 3: The level of preparedness of physics education student-teachers when they are been evaluated by their supervisor.**

S/ N	Items	SA Freq %	A Freq %	D Freq %	SD Freq %	Mea n	Std dev	Variance
1.	The class size should be such that the student-teacher can manage during supervision.	84 (57.9)	54 (37.2)	7 (4.8)	0 (0)	3.53	0.59	0.35
2.	The student-teacher should endeavor to carry all the students in the class during supervision.	72 (49.7)	67 (46.2)	5 (3.40)	1 (0.7)	3.45	0.60	0.36
3.	The teaching aid and learning environment should be made conducive for effective teaching and learning to take place during supervision	91 (62.8)	50 (34.5)	2 (1.4)	2 (1.4)	3.59	0.59	0.36
4.	The student-teacher should monitor the activities and performance of the students.	74 (51.0)	65 (44.8)	3 (2.1)	3 (2.1)	3.45	0.645	0.416

**Research Question Three:** Are there any tensions encountered by the physics education pre-teachers during teaching practice?

In determining the tensions encountered by the physics education pre-teachers during teaching practice. As shown in Table 4, all

the items have a mean value higher than the benchmark of 2.50, indicating that the students agreed to all items. Indicatively, aggregate proportion of the respondents agreed that supervision was not regularly and fairly done (3.09); almost equal proportion of the respondents school

students do not respect students-teachers and are also given more lesson as required in the university regulation (3.14); an appreciable percentage also asserted that student-teachers face accommodation problems in the school they have been posted to (2.96); majority of the students supported the point that they meet some rudely behaved students and they have very little control over them (2.66);

average percentage of the students appropriately agreed to some schools rejecting student-teachers (3.25). In summary, a grand mean of 2.98 which is greater than the benchmark of 2.50 respectively revealed that there are many predominant tensions encountered by the physics education pre-teachers during teaching practice.

**Table 4: Tensions encountered by the physics education pre-teachers during teaching practice.**

S/N	Items	SA Freq %	A Freq %	D Freq %	SD Freq %	Mean	Standard deviation	Variance
1.	Some schools reject student-teachers	53 (37.3)	63 (44.4)	12 (8.5)	14 (9.9)	3.09	0.92	0.85
2.	Student-teachers face accommodation problems in the school they have been posted to.	42 (29.0)	84 (57.9)	16 (11.0)	3 (2.1)	3.14	0.68	0.47
3.	School students do not respect student-teachers.	31 (21.4)	78 (53.8)	35 (24.1)	1 (0.7)	2.96	0.69	0.48
4.	Supervision was not regularly and fairly done.	17 (11.7)	71 (49.0)	48 (33.1)	9 (6.2)	2.66	0.77	0.59
5.	Student-teachers are given more lessons as required in the university regulations.	19 (13.1)	89 (61.4)	31 (21.4)	6 (4.1)	2.83	0.69	0.49
6.	Student-teachers meet some rudely behaved students and they have very little control over them.	48 (33.1)	85 (58.6)	12 (8.3)	0 (0)	3.25	0.59	0.36

**Research Question Four:** What are the impacts of teaching practice exercise on the attitudes and beliefs of student-teachers on teaching profession?

In determining the impact, teaching practice had on the student-teachers' beliefs and attitudes towards the teaching programme in selected institutions in

Kwara state. Table 5, reveal that majority of the students indicated their beliefs and attitudes towards the teaching profession were impacted by the teaching practice. Significantly, more of the student-teacher strongly agreed that teaching practice has made them to master the professional skills (3.43);(3.20) that the teaching

practice has developed in them the interest of teaching was agreed upon by the student-teacher;(3.33) the student decided on how teaching practice has made them decide on whether or not to take to teaching as a profession was moderately agreed on; it was jointly agreed by the student-teachers that teaching practice has helped them broaden the knowledge of subject matter and also helped in learning on how to effectively deploy the use of

reinforcements and assessment skills (3.12); the usage of instructional materials when teaching was ranked last (3.31) and was merely agreed on by the students. In short, a grand mean of 3.28 which is greater than the benchmark of 2.50 respectively revealed that these teaching practice impacts the student-teachers' beliefs and attitudes towards the teaching programme at the institutions.

S/ N	Items	SA Freq %	A Freq %	D Freq %	SD Freq %	Mean	Std dev	Variance
1.	Teaching practice helped me broaden my knowledge of the subject matter	67 (46.2)	75 (51.7)	2 (1.4)	1 (0.7)	3.43	0.56	0.32
2.	Teaching practice developed in me the interest of teaching	45 (31.0)	85 (58.6)	14 (9.7)	1 (0.7)	3.20	0.63	0.39
3.	Teaching practice has made me to master professional skills.	56 (38.6)	83 (57.2)	4 (2.8)	2 (1.4)	3.33	0.60	0.36
4.	Teaching practice has helped me to perfectly use instructional materials when teaching.	46 (31.7)	74 (51.0)	22 (15.2)	3 (2.1)	3.12	0.74	0.54
5.	Teaching practice has helped me learn to use reinforcements and assessment skills correctly	55 (37.9)	81 (55.9)	8 (5.5)	1 (0.7)	3.31	0.61	0.37

### Discussion of Findings

The objective of this study was to investigate the teaching practice experience of physics education pre-teachers, the challenges and possible panacea of selected institutions in Kwara state. The data was collected and analysed using descriptive statistic of simple percentages.

The researcher concluded that most of the problems related to the institutions during the teaching practice exercise were lack of structural and institutional facilities are an integral part of and can be solved with some professional and ethical solutions. This is in line with the studies of Omosewo, Idowu, Daramola, Olorundare, Obiyemi, Ijaiya & Lafinhan (2000) and

Jekayinfa (2012) who asserted that experience influence the assessment made by individuals which also give vivid insight into the student-teacher jobs as a teacher and the experience gained from the teaching practice.

That there is proper assessing of the pre-service teachers due to their level of preparedness was strongly agreed to, this statement is supported by Robinson (2013) who asserted the claim that teachers who receives more professional development are considered to be more effective teachers and created more student learning environment.

The result shows that there is lack of structural and instructional facilities in the school of teaching practice. According to Okorie (2013) who asserted that no programme is problem free, and teaching practice as in teacher education faces a lot of problems, which among other problems are the overpopulation of the students, lack of instructional materials and manpower (unavailability of mentor teacher), problem of resident supervisors and further concluded that in terms of supervision, instructional materials serve as an important part for the presentation of the lesson topic which could pose a threat to the grade of the student-teacher.

Evidence from the data analysis shows that there are indeed professional and ethical remedies to the challenges faced by the

physics education pre-teachers. As explained by Robinson (2013) of the strategies of professional development which is typically embedded into the year of programme such as teaching practice that teachers grow.

Robinson further explained that teachers who receives more professional development are considered to be more effective teachers and created more student learning environment and gives a long-lasting list where he mentioned some strategies such as:

- i. teacher identity
- ii. teacher efficacy and
- iii. classroom control and techniques.

These factors were further explained by Rozati (2017), as suggestion on video presentation as a good modality because visual motion such as simulation of some conceptual and practicable topics in physics theme, mostly in practical promotes learner attentiveness and engagement were asserted by Chen and Thomas (2020).

### **Conclusion**

Based on the findings of this study, it was concluded that:

- i. The challenges faced by the teaching practice physics students in selected institutions in Kwara state is much.
- ii. Every physics teaching practice student should learn about the professional and ethical solutions of



some problems they can encounter during teaching practice and should put in effort to participate in completing their assignment task in the teaching practice schools.

### **Recommendations**

Based on the findings and conclusions drawn from this study, the following recommendations are proffered:

- i. The authorities' in-charge (University, Faculty of Education) and College of Education) should make proper provision on how to reduce the challenges faced by the physics teaching practice student-teachers and the necessary procedure with which a framework is laid on how to deal with the difficulties that related to the institution.
- ii. The management of Faculty of Education/College of Education and the Committee on Teaching Practice Programme should make provision for proper and valid assessing of the physics teaching practice student so as to enhance the teaching practice student's performance and good assessing feedback profile from the supervisors.
- iii. The State Government and Private School Owners should help control the structural and instructional activities in the school of teaching practice that are supposed to lead to the realization of the teaching practice goals which is brought by effective and efficient teaching practice programme.

Every physics teaching practice student should learn about the professional and ethical solutions of some problems they can encounter during teaching practice and should put in effort to participate in completing their assignment task in the teaching practice schools.

### **Research Implication**

- That there is proper assessing of them during teaching practice exercise due to their level of preparedness.
- The students that agreed to these challenges also agreed to their teaching beliefs and skills been enhanced due to the teaching exercise.
- The results of the study will assist the Education policy makers.
- This research, will make the supervisors adjust and be friendly with their assessment of the student-teachers in their areas of difficulty.

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**Effect of Flipped Classroom Strategy among Polytechnic Students' Academic Performance in Functions and Geometry**

By

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**ABSTRACT**

A blended learning strategy known as the flipped classroom combines face-to-face engagement with independent online study. The fundamental components of flipped learning are usually emphasized as video lectures and multimedia tools to improve instruction and learning at any grade level suited for the students and therefore the purpose of this research is to determine how flipped classroom technique affects the academic performance of polytechnic students in functions and geometry. One hundred National Diploma II students from Waziri Umaru Federal Polytechnic Birnin Kebbi participated in this study using a quasi-experimental design. The samples for this study, encompassing experimental and control groups, which were chosen using a purposive sampling technique, fifty-five students were in the experimental group and forty-five were in the control group. A self-developed pretest (FAGT 1) and posttest (FAGT 2) make up the study's instruments and a reliability coefficient of 0.73 was obtained using Cronbach's alpha reliability test after the instrument had gone through a pilot test among students who were not part of the sample but are part of the population. The data was analyzed using t-test, mean, and SD statistics. The independent-sample t-test findings showed a significant difference between the mean post-test scores of the experimental group and the control group at a significance level of  $\alpha = 0.05$  ( $p=0.000$ ). Students' academic performance in functions and geometry is found to be improved by the flipped classroom strategy.

**Keywords:** *Flipped classroom*, polytechnic students, academic performance, functions and geometry

**Introduction**

A flipped classroom is a form of blended instructional approach in which students are given multimedia introductions on the subject matter at home and practice it thoroughly in class (Ahmed & Haji, 2020). It is the opposite of the more traditional approach of teaching new material in the classroom and then giving students homework to finish on their own at home (Shaqalal, 2018). Face-to-face interaction is combined in this

blended learning approach with independent study which is typically conducted using technology and to improve teaching and learning at a level suited for the students, video lectures and multimedia applications are often referred to as the essential elements of flipped learning (Sasa, Rami, Eman & Abeer, 2023). Students might watch pre-recorded videos at home in a typical flipped classroom environment, then return to

school to do their assignments with questions and at least some background information. The flipped classroom model seeks to re-evaluate when students have access to the materials, they most needed and if the problem is that of students need assistance executing the work rather than being introduced to the new viewpoint that drives the work, the flipped classroom approach reverses that tendency (Aburayash, 2021; Hassan, 2021).

The use of flipped classrooms is now becoming highly significant in modern teaching and learning, therefore computer literacy is essential. Computer literacy is defined as a collection of abilities linked to the use of basic information and communication technology (ICT) in an online environment, as well as having an understanding of the weaknesses and legal/ethical considerations associated with ICT usage (Bello, Samaila, Bashar & Sani, 2023). Because flipped classrooms incorporate current technology, the concept of computer literacy has come with the growing popularity of ICT, and students are often considered to be technologically oriented (Robabi & Arbabisarjou, 2015). The flipped classroom is regarded as one of the simplest current ways of utilizing instructional technology without abandoning the principles of conventional

education, which are primarily interaction between students and teachers (Al-Aqili, 2019).

Polytechnic education is an essential sub-sector of the present-day educational system, providing middle-level workforce with the required manpower for a country's economic and technological progress. The continued growth of polytechnic education at the period when Nigeria has suffered from economic recession in recent time is critical, because it can serve as an avenue for economic diversification and unemployment reduction through the growth of entrepreneurship. According to Jahun (2017), the main purpose of polytechnic education is to train students in technical and vocational areas so that they can become independently-employed and also provide employment opportunities for others after graduation; thus leading to the awarding of Certificates:

- i. National Diplomas,
- ii. Higher National Diplomas, and
- iii. Advanced Professional Diplomas that are relevant to the diverse economy and industries needed by any nation (Muhammad, Sani, Abdullahi & Sayyadi, 2023).

The future of any country is determined by the level of education that its people acquire, and the most successful countries

are those with a well-educated populace in the sciences, technology, and social sciences that defined 21st century (Abdur rahman, Abdullahi & Osman, 2020).

### **Statement of Problem**

Among the key basic challenges that learners as well as educators are worried about is the lack of understanding in mathematics, as teachers continue to teach students using traditional methods which only depend on memorization and remembrance. In higher institutions, there is a serious lack of understanding of students' unique individual differences with regards to curricula, and teaching methods (Sasa et al., 2023). In the light of the existing evidence, the challenge is to try and engage students as partners in the learning process by teaching them how to apply flipped learning in the classroom and

### **Research Question**

What is the effect of flipped classroom strategy on the academic performance of polytechnic students in functions and geometry classes?

### **Hypothesis**

HO<sub>1</sub>: There is no significant difference in the academic performance of polytechnic students taught using flipped classroom strategy and those taught using the conventional approach in functions and geometry classes.

activating their engagement in the educational process. As the world is currently witnessing an information revolution and technological growth, there are a number of problems that could hinder students from using ICT in their academic work (Muhammad & Bashar, 2019). Interactive ICT can be integrated into the classroom to create a stimulating learning environment as this is required in order to assist students' progress from lower to higher levels of thinking, which motivates the learner to examine and make decisions.

### **Research Objective**

The main objective of this research is to examine the effectiveness of flipped classroom strategy in improving the academic performance of polytechnic students in functions and geometry.

Ha<sub>1</sub>: There is significant difference in the academic performance of polytechnic students taught using flipped classroom strategy and those taught using the conventional approach in functions and geometry classes.

### **Methodology**

In this study, a pretest-posttest quasi experimental design was used with two groups (experimental and control) to examine the level of students' understanding of the topical areas (i.e., functions/mappings, trigonometric ratios

and identity, measurement of rotation, analytical geometry of a straight line, conics). The groups were observed and

measured before and after being subjected to a treatment (Sani, 2017).

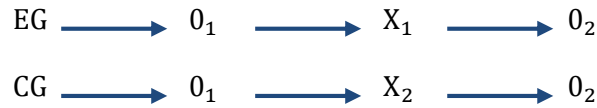


Figure 1: Research design illustration

EG – Experimental group, CG – Control group,  $O_1$  – Pretest,  $O_2$  – Posttest,  $X_1$  – Treatment using flipped classroom strategy,  $X_2$  – Treatment using conventional method

The study’s population is made up of all National Diploma Two (ND II) students of Waziri Umaru Federal Polytechnic Birnin Kebbi, Kebbi State, who enrolled in the functions and geometry course. Simple balloting procedure was used to randomly select two different ND II classes as the study samples from the four different Directorates of the institution. A

hat-draw method was employed in assigning experimental and control groups to the selected classes. The total number of students who participated in this study was 100 (55 in the experimental group and 45 in the control group). This number of students is sufficient for gathering and analyzing quantitative and qualitative data (Sani, 2017).

Table 1: Samples selected for the study

S/N	Group	Programme	Total No. of Students
1	Experimental	Computer Science	55
2	Control	Mechanical Engineering	45
<b>Total</b>			<b>100</b>

A self-developed test was employed as research instruments are developed and were validated by experts and observations and suggestions were incorporated into the final draft of the instrument to enhance its validity. FAG 1&2 were pilot tested among students who were not part of the study sample but are part of the target population, using Cronbach's alpha test, were a reliability coefficient of 0.73 was obtained.

**Results and Analysis**

**Pretest**

Prior to the intervention process, both groups were given the same pretest to measure their level of homogeneity.

Table 2 below is the independent sampled t-test statistic used to determine whether or not the mean pretest scores are statistically significant

:

**Table 2:** T-test comparison on pretest for both experimental and control groups

Group	N	$\bar{x}$	SD	SE <sub>M</sub>	df	T	Remark
Experimental	55	31.95	3.18	0.95	98	0.149	NS
Control	45	30.24	3.06	0.82			

NS – Not significant

Table 2 indicates the mean pretest scores of the experimental group ( $\bar{x} = 31.95, SD = 3.18$ ) and the control group ( $\bar{x} = 30.24, SD = 3.06$ ) are not significantly different;  $t(98) = 0.149$  at  $\alpha = 0.05$ . Based on this analysis, both experimental and control groups are

considered the same and equivalent and therefore they are homogeneous.

**Post-test**

After the treatment process, both groups were given the same posttest in order to see the effect of the intervention. The posttest scores mean, S.D. and t-test statistics are shown in

**Table 3:** T-test comparison on posttest for both experimental and control groups

Group	N	$\bar{x}$	SD	SE <sub>M</sub>	df	t	Remark
Experimental	55	50.09	4.87	0.76	98	0.000	S
Control	45	43.17	3.63	0.61			

S – Significant

Table 3 shows that the posttest scores are statistically significant for the experimental group ( $\bar{x} = 50.09, SD = 4.87$ ) and the control group ( $\bar{x} = 43.17, SD = 3.63$ );  $t(98) = 0.000$  at  $\alpha = 0.05$ . This implies that the null hypothesis is being rejected, whereas the alternate hypothesis is accepted. Hence, there is significant difference in the academic performance of polytechnic students taught using flipped classroom model as a strategy and those taught using the conventional approach in functions and geometry classes.

**Discussion**

A careful perusal of Table 3 shows that flipped classroom model as a strategy has a positive effect on the academic performance of students in functions and geometry because the values obtained indicate a statistically significant difference at  $\alpha = 0.05$ . This demonstrated that flipped classroom strategy is effective for promoting academic gains among polytechnic students and therefore the findings of this study are in line with the findings of Hassan (2021), who discovered that flipped learning strategies increased students’ academic performance

and helped them develop reflective thinking. Students feel more at ease in flipped classrooms since they interact directly with the information provided to them rather than their lecturers. This interaction may allow individuals to devote more time to studying, focus more on the material, and boost their cognitive and social gains. The usage of videos that explain educational information that students watch at home helps to increase the amount of time students have in the classroom.

This study's findings correspond with those of Ahmed and Haji (2020), Shaqalal (2018), who employed flipped classrooms to compare the effectiveness of flipped classroom strategies for improving high-order thinking skills in functions and geometry among polytechnic students at various levels. Their findings proved that flipped classroom approach resulted in much higher academic performance than traditional instruction. However, the findings of this study are consistent with those of Hassan (2021) and Sasa et al. (2023), who discovered that flipped classroom strategy produced greater academic achievement and similarly, Aburayash (2021) conducted a study on students' views toward the flipped classroom strategy and discovered that it increased students' performance and self-organized learning skills.

## **Conclusion**

Based on the findings of this study the following conclusion were drawn. Like other studies, this study used a quasi-experimental method and compared flipped learning strategy to the conventional way as an independent variable in the study.

- i. This research presents an inspiring and constructive perspective on the effects of flipped classroom by building on prior studies and literatures discussed.
- ii. Adapting this type of learning to a subject that students at the polytechnic level believe is challenging resulted in some notable findings that also enrich the current literature on flipped classroom strategy.
- iii. The findings of this study indicate that flipped classroom approach improves the scores of virtually all students in functions and geometry subject, this means that the flipped classroom strategy is effective in increasing students' understanding of functions and geometry concepts because the students performed significantly better after administering the flipped classroom strategy intervention, which allows them to interact and share ideas.
- iv. Furthermore, based on the group's interaction and solutions, it can be stated that flipped classroom assisted in deepening the students' understanding



of functions and geometry, a conclusion that is also reflected in their posttest scores, which caused a higher performance level for the group that receives flipped classroom intervention on particular topics.

- v. It is important to note that flipped classroom strategy is not immediately responsive to all unsuccessful instructional pedagogies. The teacher's role in determining what is appropriate for a given class or student remains paramount, and it is the teacher's judgment that is vital to the method that has the substantial influence based on his personal experience with functions and geometric content.
- vi. Time management, as well as assessing and evaluating the usefulness of students' experience and knowledge, could be some of the challenges for teachers in a flipped classroom. At the same time, one of the teaching philosophies in modifying teaching approaches to match students' diverse backgrounds should be reflective, as their skills and motivation levels are traits that may have a good effect on teaching functions and geometry.

### **Recommendations**

From the findings of this study the following recommendations were made that:

- i. The use of flipped classrooms as a teaching style should be encouraged in order to assist polytechnic students in developing critical thinking abilities through direct engagement with available resources as this will allow students who are frightened of teachers to fully participate and ask questions in order to improve their performance in functions and geometry because they are greatly influenced by multimedia through various mathematical videos that may stimulate their cognitive abilities as well as offer them a great opportunity to overcome their problems and challenges in some subject areas.
- ii. Flipped classroom can be adopted at higher levels of education because of its ability to improve students' self-confidence, inspire cooperative learning, and save time in the classroom.

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**Design and Developmental Research: A means for Self-Reliance for Instructional Technologists in Nigeria**

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**ABSTRACT**

In the mid of rising campaign on education for self-reliance and entrepreneurship education in the institutions of higher learning in Nigerian, this paper aims to provide an impetus on the potentialities of Design and Developmental Research for providing educational opportunities for instructional technologists in Nigeria. Due to the perceived newness of this type of research among instructional technologists of the country, the paper shed lights on the definition, purpose and process of conducting the Design and Developmental Research. In addition to that, the paper elaborates on the potentialities of the research for providing job opportunities for the experts of the specified field in Nigeria. Finally the prospects of this type of research in Nigerian educational system were discussed in the paper.

**Keywords:** *Design and Developmental Research*; Self-Reliance; Job Opportunities.

**Introduction**

For over a decade, design and developmental research has been gaining momentum in the area of instructional technology. This becomes evident as many articles related to the area have been published in the high impact and prominent journals (such as Burkhard & Schoenfeld, 2003; Richey & Klien, 2005; Ibrahim, 2016), book chapters (such as Richey, Klien & Nelson, 2004), books (such as Van den Akker, Branch, Gustafson, Nieveen & Plomp, 1999; Van den Akker, Gravemeijer, Kenney & Nieveen, 2006; Richey & Klien, 2007) as well as PhD theses (such as Hibsman, 2000; Hashim, 2006; Sahil, 2007; and

Ibrahim, 2017). However, such publications by Nigerian authors of the field are very few.

The main motive toward the initiating and conducting design and developmental research is the perceived dissatisfaction with “traditional research approaches” (such as experiments, surveys, co-relational analysis etc.) as they focus on merely descriptive knowledge and hardly provide prescriptions worth useful solutions for a different range of design and development problems in education (Van den Akker, nd). Additionally, Plomp (2013) identify three motives behind the instantaneous raise of design and

developmental research in educational studies. The first motive for initiating design and developmental research is the need to increase the relevance of research for educational policy and practice. This is because, educational researches has been criticised for weak link with practice, thus, design and developmental research can contribute more to practical relevance and the chances for providing policy increase. The second motive is related to scientific ambitions. Design and development research is centred on empirical development of grounded theories through the combined study of learning process and the means that support the process. The third motive concerns with aspiration of increasing the strength of design practice. Many educational designers energetically approach construction of innovative solutions to emerging educational problems; however, their understanding oftentimes remains implicit in the decision made and the resulting time. Thus, Richey and Klien, (2014) expressed that there is need to extract more explicit learning that can further subsequent design effort.

Based on the above points of view, design and developmental research might serve as job opportunity to instructional technologists by design and developing innovative educational gadgets that address the existing issues in teaching and

learning on one hand and contribute immensely to the educational policy on the other. In turns, government and private organizations can buy the gadgets and hire them to conduct such kind of research that may address educational issues which subsequently contribute in enhancing educational policy.

### **Statement of the Problem**

The issues of youth unemployment especially the graduates is one of the major challenges threatening security of many countries all-over the world. Such issues are more palpable in developing countries like Nigeria where it has 23% of unemployment (NBS, 2018). Moreover, the Minister of Labour Chris Ngige said while opening a two day workshop on “Breaking the Resilience of High unemployment rate in the country” in Abuja stated that the rate will reach 33.5% in 2020. Similarly, those with higher degrees such as Masters and PhD are not safe from this issue in Nigeria. National Bureau of Statistics (2017) reported unemployment rate by educational group that there were 16.5% and 11.1% unemployed Masters and PhD Degrees holders respectively. In the Third Quarter of 2018 the rate increased to 19.8% and 13.6% for Masters and PhD Degrees holders respectively. This is very terrifying reports as many of people of such calibre rooming in the street looking for a job as

they cannot create opportunities for themselves despite tens of years they spent in the university.

Instructional Technologists graduate are not exceptional to this dilemma. Their situation might be worst compare to other specialists, because the area is yet to be well understood in Nigerian and many other developing countries. The roles of Instructional technologists in Nigeria are shrunk to teaching and learning situation in schools. It is revealed that many learning institutions in the country are yet realise the importance instructional technology in the development of their institutions. Some of the responsibilities of the instructional technologists such as software design, managing learning resources, e-learning design etc are given to computers scientists who have little or no idea about learning theories and instructional designs. Thus, many of them are suffering for finding means of living despite the values and unrealized opportunities attached to their field. Thus, this paper dwells on the potentiality of Design and Developmental Research in creating job opportunities for instructional technologists in developing countries like Nigeria.

### **Concept of Design and Developmental Research**

Many terms are interchangeably used with the design and developmental research because they are related to design and development work. Some of the terms are design study, design research, design experiment (Brown, 1998), developmental research (Richey & Nelson, 1996; Van den Akker (1999), formative research (Reigeluth, 2003) and design based research (Ritland, 2003). Each of the term has its own definition, though the definitions rooted from the same domains which are; design, development, implementation and evaluation (Ibrahim, 2017). In some of the definitions the domains were categorically or partially mentioned as in Seels and Riche's (1994), and Van den Akker (1999) definitions. While in the other definitions the domains are presumed to be included to the meaning of the definitions.

Van den Akker (1999) defined developmental research as "An interactive, cyclic process of development and research in which theoretical ideas of the designer feed the development of products that are tested in classroom tastings, eventually leading to theoretically and empirically founded products, learning process of the developer and (local) instruction theory". Richey and Seels (1994) defined developmental research as a systemic study of designing, developing and evaluating instructional programs, processes, and

product that must meet the criteria of internal consistency and effectiveness. In the latter definition, domains (design, development and evaluation) of developmental research process were identified. Besides the definition, Richey (1994) pointed out that developmental research could either be:

- 1- A situation in which someone is performing instructional design, development or evaluation activities and studying the process at the same time; or
- 2- The study of the impact of the someone's else instructional design and development effort; or
- 3- The study of the instructional design, development and evaluation process as a whole or of particular process components.

In 2014 Richey and Klien came up with a revised definition of developmental research as it is defined as a systematic study of design development and evaluation process with the aim of establishing an empirical basis for the creation of instructional and non-instructional products and tools and new or enhanced models that govern development. The revised definition clearly identifies the purpose of developmental research such as initiating both instruction and non-instructional gadgets that run improvement of instruction.

### **Design and Developmental Research and its Potentialities for Job Opportunity**

Design and Developmental Research is characterized to link between theoretical and practical aspect of research within educational environment (Wang & Hannafin, 2003), it is design to solve practical issues of education by providing practical solutions (Ibrahim, 2016), it combines research, design, and practice into one process, resulting in usable products that are supported by a theoretical framework (Bowler & Large, 2008). Thus, it is the best research needed in Nigeria where its educational system stagnated as it is bounded with many practical problems which needs practical solutions rather than theoretical.

Design and Developmental Research is championed by Instructional Technologists in 1980<sup>th</sup> due to the increased dissatisfaction of traditional research as it fail to link theory and practice as well as its failure to provide practical solutions to education. Since then, many effective educational software and learning resources have been developed through rigorous adoption of the research process. Consequently, digital companies in the world involved in developing educational software to facilitate learning process and sell it to interested agencies such as government and private educational

organizations, schools, NGOs etc. a lot of money are generated through that.

Such opportunities are more opened for instructional technologists in the developing countries. They can employ the research system in collaboration with Technical Matter Experts like computer scientists, technologists and Subject Matter Experts to design, develop and produce software, gadgets and many other equipment to facilitate students' learning and solve indigenous practical issues of education.

Such design and products could be sold to government, private schools and organization as well as other interested individuals. In the developed countries, there are many prominent companies that produce learning software and tools for teachers and students to use at both schools and home. Such design process consists of doing market research which leads to a design of the package the customer will see on the shelf.

#### **Design and Developmental Research and its Potentialities in Nigeria**

It is a known fact that most of the public schools and higher learning institutions in Nigeria experience inadequate relevant instructional materials and learning resources to facilitate students' learning. Moreover, most the available learning resources, especially the electronic or digital ones are imported from other

countries which might not solve the practical problems of Nigerian education on one hand, and may not suit the need and culture of Nigeria on the other.

Nigerians depend and use instructional materials and learning resources of other countries based on the two assumptions; the first, is that, the locally produced materials and resources are not innovative and do not meet the standard of 21<sup>st</sup> century students. The second is the non-involvement of instructional technologists in the production of such materials and inadequate expertise on the Design and developmental research which is seen as the method to apply for producing unique instructional materials. Therefore, it is the responsibility of the instructional technology professionals to increase awareness on this type of research among themselves. Through this collaborative work, more instructional materials that suite 21<sup>st</sup> century learning strategies and does not contradict our culture could be produced for students.

Similarly, instructional technologists serving as university lecturers should encourage their post graduate students to employ this method for their dissertations through which more learning resources would be produced. Finally, as government invest a lot of money in science and technology, it should equally invest in instructional technology through

which more innovative materials could be produced to facilitate process of learning science and technology. The question is how to Design and Developmental Research?

### **Process for Conducting Design and Developmental Research**

Design and Developmental research is unique in its nature as its procedure is different from the other conventional educational researches. Richey and Klien (2007) expressed that dominant practice in the field, the procedure employed in the Design and developmental research employed the tenets of Instructional System Design (ISD). The basic components of most of the ISDs are Analysis, Design, Development, Implementation and Evaluation are considered as the phases of conducting design and developmental research (Richey & Klien, 2014).

The analysis phase is considered as explanatory phase where problem diagnosis and articulation of theoretical foundation of the research take place. At this stage, the researcher is expected to analyze the learning content and identify the issues related to particular area of investigation through interview, classroom observation and literature review. In the second phase the learning object or prototype is designed based on the information obtained in the analysis phase

and theories of learning. The third phase is the developmental phase of the prototype which is built upon the previous two phases. In this phase, a researcher should work collaboratively with the Subject Matter and Technical Matter Experts till the final production of a prototype. Formative evaluation is very crucial and necessary at this stage; the researcher should work with SMEs and TMESs for formative evaluation at pre-production, production and post production stages of the product. Moreover, after the production, the product should also be evaluated by a group of students to assess its usability in the classroom learning. Their suggestions are considered for the final production of the product. At the implementation phase which is the fourth phase of the video development, the researcher implemented the video for the experiment and was summatively evaluated to assess its effect on students' willingness toward observance of Islamic ethic (instilling of Islamic ethics), intrinsic motivation and cognitive load. Figure 3.1 presented the detail of the developmental process of the video.



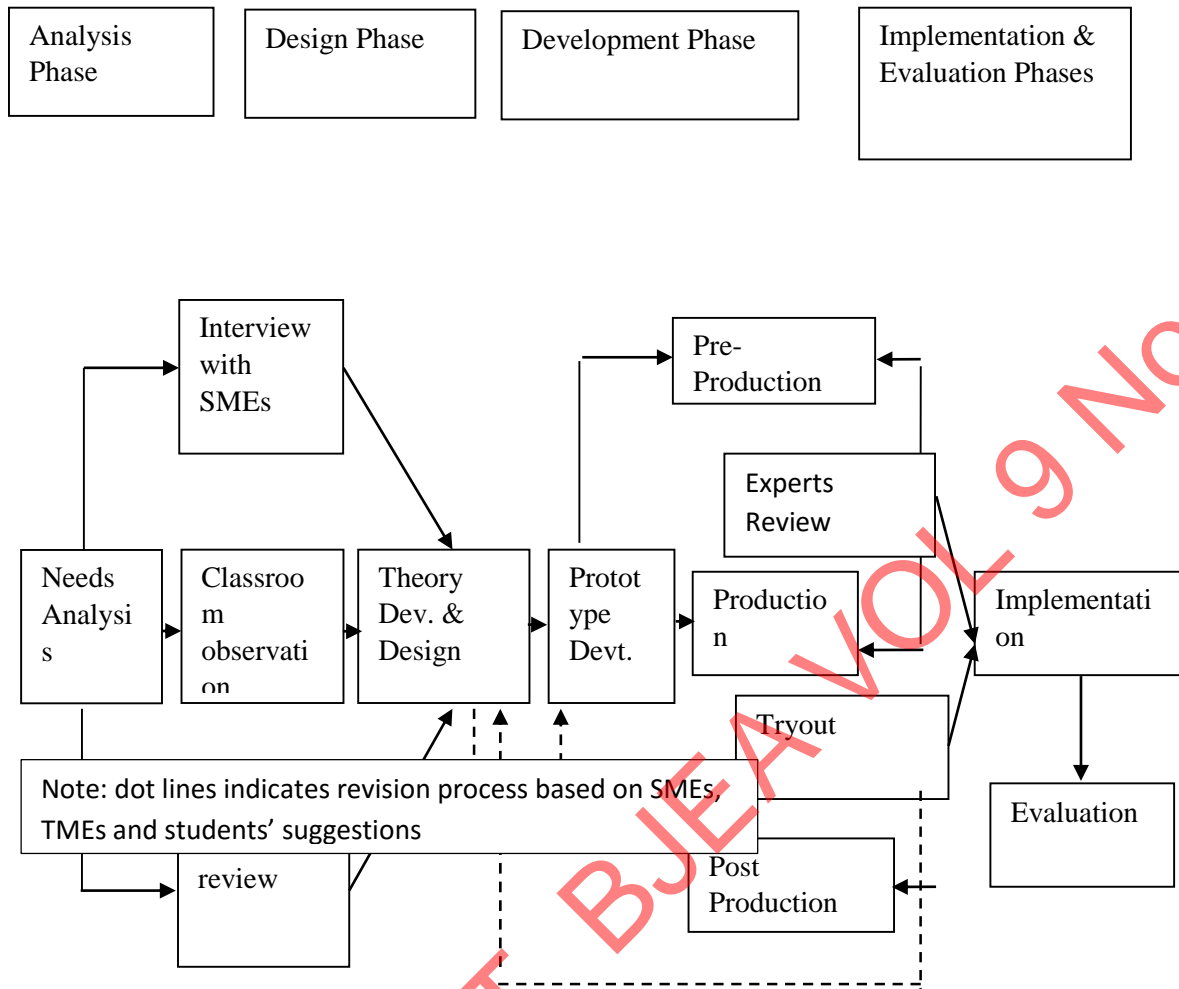


Figure 1 Development Process of Instructional Video in This Study

**Research Instruments and Participants in Design and Developmental Research**

Several instruments and participants are employed and used for data collection in DDR depending on the phase and suitability of the methodology (Richey, Klien & Nilson, 1996; Richey & Klien, 2005). Some of the

methodologies utilized in the developmental research include case study, in-depth interview, observation, survey and experimentation. Table 3.3 presents the common research methods use for design and developmental research studies.

**Table 3.3 Common Research Methods Employed in Developmental Research Studies**

Function/ Phase	Research Methodologies Employed	Research participants
Product Design & Development	Case Study, In-Depth Interview, Field Observation, Document Analysis	
Product Evaluation	Evaluation, Case Study, Survey, In-Depth Interview, Document Analysis	Subject Matter Experts, Technical Matter Experts
Validation of Tool or Technique	Evaluation, Experimental, Expert Review, In-Depth Interview, Survey	& students

Source: Richey and Klien (2005), p.1116

**Conclusion**

Though Design and Development Research seems to be a new and confusing to many educational researchers including those in the area of instructional technology, however, it has many benefits among which are strengthening the nature of research in education, bridging the gap between theory and practice in education, providing practical solutions to educational problems through science and technology by producing artefacts, i. tools to ease teaching and learning process. Interestingly, this can serve as income for instructional technologists through selling output of DDR to government, educational institutions, schools and interested individuals for their own need. If this is given due consideration in Nigeria, more opportunities will be open to instructional technologists to produce tools and gadgets that solve the practical problems of our education, in turns,

this serves as avenue for their income and self-reliance.

**Suggestions**

Despite the immense importance of Design and developmental reseach in education in general and in instructional technology in particular, it is assumed that many educationists and researchers in Nigeria are not adequately aware of it. Thus, this paper suggests the following:

There is need to have an introductory course on Design and Developmental Research for undergraduates students who study Educational Technology. Similarly, a mandatory course on Design and Developmental Research should be offered for post graduate students in Educational/ Instructional Technology. This would enabled them to apply the method in their M. Ed.\PhD thesis which may result to the production of learning prototypes and many educational gadgets

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**Evaluation of Principals' Charismatic and Inspirational Leadership Style Practices in Managing Secondary Education in North Central Geographical Zone, Nigeria**

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**ABSTRACT**

This study evaluated Principals' charismatic and inspirational Leadership Styles Practices in managing Secondary education in the North Central Geographical Zone of Nigeria. The objectives were to examine principal's inspirational leadership style in managing secondary education and to assess principals' charismatic leadership style in managing secondary education in North Central Geographical Zone, Nigeria. The research questions and the null hypotheses were in line with the objectives. The study used a descriptive survey. The population of the study covered a total population of 92,089 which comprised 3,167 principals, 61,825 teachers, 1,665 Ministry of Education officials and 25,432 PTA officials. The total sample size was one thousand four hundred and twenty-six 1,426 which consisted 45 principals, 382 teachers, 321 MOE officials and 378 PTA officials. Self-structured questionnaire was used to elicit responses from participants. Reliability coefficient of 0.72 using split half test was obtained. Perceptions of respondents were analyzed using frequency counts for research questions answered and Analysis of Variance (ANOVA) for hypotheses analyzed to express the result of the findings. The findings showed that principals using inspirational leadership style practices use word of encouragement and praises to motivate staff and students which has helped in managing the students and the teachers. Also, effective charismatic practices of principals' leadership helped in managing secondary education through encouragement of hardworking among the staff and students. The study concluded that principals should continually vary their leadership styles to enhance proper management of secondary school education. The study also recommended that principals using inspirational leadership style should keep motivating the staff and students to enhance harmonious working relationship.

**Introduction**

The principal being the manager of the school has to have some managerial skills

which is the characteristics of successful leaders. These managerial skills are

Leadership skills which are mainly about non tangible things, such as vision, trust, aim, inspiration and attitude. They involve the management of human resources with the assessment of the strengths and weaknesses of each member of the organization; they are mostly about leading people and guiding them towards the accomplishment of common goals. Interpersonal relationships skills: These involve working with people of different backgrounds and educational qualifications (Fabian2014). School leadership is a process of encouraging and helping teachers and learners to work enthusiastically towards realization of the school objectives (Educational objectives). Educators believe that school administration is needed by all. More importantly, principal should be endowed with a kind of knowledge and possession of appropriate leadership skills to perform the assigned tasks. The issue of leadership style is a major and basic concern for all organizations and institutions in various countries. The researcher is therefore of the opinion that school leaders have to adopt various leadership styles or they exhibit various behaviour patterns that can help them to discharge their duties effectively as leadership style is a critical factor that can affect school effectiveness.

Okumbe (2008) wrote that leadership styles refer to particular behaviors applied by the leader to motivate his or her subordinates to achieve the objectives of the organization. The styles are usually identified as: utocratic known as authoritative, democratic also known as participative, laissez faire or free-rein bureaucratic and transactional styles. Principal leadership in schools organization is important because it is responsible for providing direction, support to members of staff, students and parents. Organizational stakeholders according to Yusuf (2010) are people, group or organization that has interest or concern in an organization. Stakeholders can affect or be affected by the organization's actions, objectives and policies. However, he further stressed that stakeholder in education is someone who has vested interest in the success and welfare of schools or education system. This includes all parties that are directly affected by the success or failure of an educational system as well as those indirectly affected. He further enumerates some of these stakeholders as schools board members, administrators and teachers, all these people want their work to have positive impact on the students and their jobs are directly affected by the success of the schools system. Parents desire a successful

education system for their children, while the students themselves have an interest in receiving a good education, the ministry of education officials, also identify community as a whole as a stakeholder in education system because schools are located within the community. A solid education program builds a stronger community by better preparing its students to be successful community members

In Inspirational Leadership Style, the leader creates standard and keep to those standards. They deliver what they promise. An inspirational leader is one who accepts his share of blame that is his share of credit leaders should create an environment where people are respected and trusted, and the sign of a good leader is one who can adapt his leadership style to the personality of each individual. Everyone within an organization is different. While it may sometimes be tempting to incorporate a one-size fits all strategy, people should be treated as individuals who react differently to situations. People require different degrees of motivation, feedback and inspiration and it is the role of the leader to identify their individual traits and adapt their own leadership style accordingly. Trust and respect are vital for the success of a leader; if you don't develop these amongst

the people you work with, all is lost. Leaders are only as powerful as their teams. No leader is powerful enough to overcome a team that doesn't really believe in them and want them to be successful, unless they are a tyrant. Ajibade (2014) Charismatic leaders often try to make the status quo better, while transactional leaders focus on transforming organizations into the leader's vision. However, the researchers view charismatic leaders as those who their followers have confidence in because of special attributes they see in the leader this impacted positively on students' discipline and academic achievement. Leaders who use charismatic leadership style exhibit revolutionary power. They transform their followers' values and beliefs. According to him, characteristics of charismatic leaders distinguishing them from a popular-list leader who may affect attitudes towards specific objects but who is not prepared as the charismatic leader (Fabian 2014). Charismatic leadership is inspiring and seductive in its appeal which charmed employees and induced organizational conformity. He further stressed that charismatic relies on persuasiveness of leader, this shows that charismatic leaders are driven by their convictions and commitment to their cause (Adewuyi 2013).

### Statement of the Problem

There is an expressed public concern by education stakeholders in particular, that the educational system in North Central Geographical Zone is riddled with serious problems linked to poor leadership behaviour by the principals which leads to: Conflict between principals and teachers, teachers' truancy without apparent reason, poor attendance of teachers, mismanagement of school funds, fight between teachers and students, taking decisions without consulting other management staff, late coming of staff and lack of dedication, laziness and poor attitude towards teaching, absence of staff motivation, inadequate supervision, limited professional development opportunities, absence of leadership prestige by principals, and poor management of discipline which affects the school's overall performance.

### Objectives of the Study

The study was set to achieve the following objectives:

1. Examine principals' inspirational Leadership style practices in managing secondary schools in North Central Geographical Zone, Nigeria; and
2. Examine principals' charismatic Leadership style practices in managing

secondary schools in North Central Geographical Zone, Nigeria.

### Research Questions

The following questions were raised to guide the conduct of the study;

1. How do the principals use inspirational Leadership style practices in managing secondary schools in North Central Geographical Zone, Nigeria?
2. To what extent do the principals use charismatic Leadership style practices in managing secondary schools in North Central Geographical Zone, Nigeria?

### Research Hypotheses

The following null hypotheses were formulated for the study:

**Ho1** There is no significant difference among the principals, teacher's, officials of Ministry of Education and PTA officials on principals use of inspirational Leadership style practices in managing secondary schools in North Central Geographical Zone, Nigeria; and

**Ho2** There is no significant difference among the principals, teacher's, officials of Ministry of Education and PTA officials on principal use of charismatic Leadership style practices in managing secondary schools in North Central Geographical Zone, Nigeria.

### Methodology



For the purpose of this study a survey research design was used. A survey research involves gathering of data about a target population from a sample and generalizing the findings obtained from the analysis of sample to the entire population (Afolabi 2013). The population of this study comprised the entire secondary school

principals, teachers, PTA officials in all the secondary schools and Ministry officials in North Central Geographical Zone Nigeria which comprised ,167 principals, 61,825 teachers, 1,665 Ministry of Education officials and 25,432 PTA officials making a total of 92,089.

**Table 1 Breakdown of the Population Distribution.**

State	Principals	Teachers	MOE Officials	PTA Executive Officers
Kogi	420	7,200	200	3,360
Nasarawa	420	7,100	245	3,360
Benue	430	7,800	230	3,440
Niger	419	8954	310	3,352
Kwara	500	10,200	230	4,000
Plateau	520	11,000	200	4,160
FCT Abuja	470	9,600	250	3,760
<b>TOTAL</b>	<b>3,167</b>	<b>61,825</b>	<b>1,665</b>	<b>25,432</b>

**Source: Planning, Research and Statistics Departments (2023) State Ministries of Education North-Central Geographical Zone**

The sample size was one thousand four hundred and twenty-six (1,426). That consisted of 345 principals, 382 teachers, 321 MOE officials and 378 PTA Officials. However, the percentage of the population was used together with the total sample size obtained through the research advisor.

**Instrumentation**

The instrument used for this research was self-structured questionnaire that was designed by the researchers questionnaire was used as an instrument for measuring attitudes. It is agreed that questionnaire has administrative and psychological advantages

of accessing a large number of individuals at minimum cost and it has the possibility of confidentiality which encourages objective responses. Construct validity and criterion validities are established. This is in line with Achara (2001) who asserted that content validity is usually determined by experts and split-half test method was used to ascertain the reliability of the instrument on respondents who were not part of the actual sample of the study with the help of two research assistants. Copies of the instrument were completed and returned on the spot. Data collection took about two

weeks and all the respondents correctly completed the questionnaire. The reliability coefficient obtained was 0.72. Data Analysis and Discussion of Findings Respondentson Principals’ Inspirational Leadership style practices in Managing Education in Secondary Schools in North Central Geographical Zone, Nigeria. Table

2.1 shows the perceptions of the respondents on the use of principals’ inspirational Leadership style practices in managing secondary schools in the North Central Geographical Zone of Nigeria. In the table the perceptions were presented in frequencies and percentages.

Table 2.1: Perceptions of Respondents on the use of Principals’ Inspirational Leadership style practices in Secondary Schools in North Central Geographical Zone, Nigeria

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S/N	Items statement	Category of Respondents	Agree		Undecided		Disagree	
			F.	%	F.	%	F.	%
1	The principal uses words of encouragement praises to motivate staff and students.	Principals	340	98.6	4	1.2	1	0.3
		Teachers	357	98.2	4	1.0	3	0.8
		MOE	317	98.8	3	0.9	1	0.3
		PTA	371	98.1	4	1.1	3	0.8
2	My principal influences the staff and students to good works through his actions .	Principals	341	98.2	0	0	4	1.8
		Teachers	367	96.1	9	2.4	6	1.6
		MOE	318	99.1	0	0	3	0.9
		PTA	363	96.0	9	2.4	6	1.6
3	My school principal leads by example when it comes to issue of school activities.	Principals	332	96.2	0	0	13	3.8
		Teachers	351	91.9	25	6.5	6	1.6
		MOE	312	97.2	9	2.8	0	0
		PTA	347	91.8	25	6.6	6	1.6
4	My principal holds meetings with staff and students to discuss the goals of the school where necessary.	Principals	323	93.6	18	5.2	4	1.2
		Teachers	359	94.0	18	4.7	5	1.3
		MOE	304	94.7	13	4.0	4	1.2
		PTA	355	93.9	18	4.8	5	1.3
5	The principal actively engages the teachers in their lesson in the school	Principals	337	97.7	0	0	8	2.3
		Teachers	373	97.6	0	0	9	2.4
		MOE	316	98.4	0	0	5	1.6
		PTA	369	97.6	0	0	9	2.4
6	The principal values and recognizes is teacher’s ideas and contributions in the school.	Principals	319	92.5	18	5.2	8	2.3
		Teachers	352	92.1	18	4.7	12	3.1
		MOE	300	93.5	13	4.0	8	2.5
		PTA	348	92.1	18	4.8	12	3.2
7	The principal as a crystal clear school vision for the future.	Principals	320	92.8	12	3.5	13	3.8
		Teachers	344	90.1	13	3.4	25	6.5
		MOE	298	92.8	12	3.7	11	3.4
		PTA	340	89.9	13	3.4	25	6.6
8	Principal curbs the issues of	Principals	233	67.5	12	3.5	100	29.0

examination malpractice in my school among students and teachers through words of encouragement.	Teachers	267	69.9	12	3.1	103	27.0
	MOE	215	67.0	11	3.4	95	29.6
	PTA	263	69.6	12	3.2	103	27.2
9 The principal gives listen ear to staff and students and this has bound the principals, staff and students together.	Principals	254	73.6	5	1.4	86	24.9
	Teachers	284	74.3	5	1.3	93	24.3
	MOE	235	73.2	4	1.2	82	25.5
10 Principal esponds immediately to any act of indiscipline between staff and students whenever it is detected in my school.	PTA	280	74.1	5	1.3	93	24.6
	Principals	329	95.4	5	1.4	11	3.2
	Teachers	358	93.7	5	1.3	19	5.0
	MOE	306	95.3	4	1.2	11	3.4
	PTA	354	93.7	5	1.3	19	5.0

In response to items 1 to 10 which sought the perceptions of principals' inspirational Leadership style practices in secondary schools in the North Central Geographical Zone of Nigeria., responses of all respondents were collected, analysed and discussed.

Response to item 1 revealed that 340 (98.6%) of principals agreed that principals uses words of encouragement and praises to motivate staff and students.1 (0.3%) disagreed and 4 (1.2%) were undecided with the statement. Among teachers, 357 (98.2%) agreed, 3 (0.8) disagreed and 4 (1.0%) were undecided. 317 (98.8%) of MOE agreed, 3 (0.9) were undecided and 1 (0.3%) disagreed with the statement. 371 (98.1%) of PTA agreed, 4 (1.1%) were undecided and 3 (0.8%) disagreed that principal uses words of encouragement and praises to motivate staff and students in the school in the North Central Geographical Zone of Nigeria.

In response to item 2, it was revealed that 341 (98.2%) of principals agreed that, principal influences the staff and students to good works through his actions as seen in strict adherence to school rules. 4 (1.8%) disagreed, none of the principals responded to undecided. While 367 (96.1%) teachers agreed, 6 (1.6%) disagreed, and insignificant number of respondents 9 (2.4%) were undecided. Among the ministry of education officials, 318 (99.1%) agreed 3 (0.9%) disagreed while 0 (0.0%) were undecided. Also, 363 (96.0%) of PTA agreed While, 6 (1.6%0) disagreed and 9 (2.4%) were undecided. In all, the respondents showed a greater magnitude of their responses that principal influences the staff and students to good works through his actionsin the school in the North Central Geographical Zone of Nigeria. The result shows that, they are affirmatively.

Going by the respondents' perceptions on items 3, 4 and 5 where no respondent had

less than 75% in respect of disagreement, it is evident that there was a positive perception from the respondents toward principals' Inspirational Leadership style practices in secondary schools in the North Central Geographical Zone, Nigeria. It was agreed that school principals leads by example when it comes to issue of school activities, that include total adherence to school rules, principals holds meetings with staff and students to discuss the goals of the school and principals actively engage the teachers in their lesson in the school in North Central Geographical Zone, Nigeria.

In response to item 6,7, 8, 9 and 10 was revealed that 319 (92.5%) principals agreed that principals values and recognizes his teacher's ideas and contributions in the school, towards effectiveness and efficiency 8 (2.3%) disagreed, 18 (5.2%) of the principals were undecided. While 352

(92.1%) teachers agreed, 12 (3.1%) disagreed, and insignificant number of respondents 18 (4.3%) were undecided. Among the ministry of education officials, 300 (93.5%) agreed, 8 (2.5%) disagreed while 13 (4.0%) were undecided. Also, 348 (92.1%) of PTA agreed While, 12 (3.2%) disagreed and 18 (4.8%) were undecided. In all, the respondents showed a greater magnitude of their response that principals value and recognize his teacher's ideas and contributions towards managing secondary school education in North Central Geographical Zone of Nigeria. The result shows that, they are affirmatively.

2.2 Respondents' Perceptions on the use of Principals' Charismatic Leadership style practices in Managing Education in Secondary Schools in North Central Geographical Zone, Nigeria

Table 2.2: Perceptions of Respondents on the use of Principals' Charismatic Leadership style practices in Managing Secondary Education in Secondary School in North Central Geographical Zone, Nigeria

S/N	Items statement	Category of Respondents	Agree		Undecided		Disagree	
			F.	%	F.	%	F.	%
1	My principal is diligent in his assignment especially in managing secondary education.	Principals	233	67.5	12	3.5	100	29.0
		Teachers	267	69.9	12	3.1	103	27.0
		MOE	215	67.0	11	3.4	95	29.6
		PTA	263	69.6	12	3.2	103	27.2
2	Staff and students admire the principal because he is very persuasive in adhering to school rules	Principals	254	73.6	5	1.4	86	24.9
		Teachers	284	74.3	5	1.3	93	24.3
		MOE	235	73.2	4	1.2	82	25.5
		PTA	280	74.1	5	1.3	93	24.6
3	My principal is trust worthy in his dealing with the staff and students.	Principals	329	95.4	5	1.4	11	3.2
		Teachers	358	93.7	5	1.3	19	5.0
		MOE	306	95.3	4	1.2	11	3.4
		PTA	354	93.7	5	1.3	19	5.0
4	My principal has a soothing word that motivate staff and students to adhere to school rules.	Principals	340	98.6	4	1.2	1	0.3
		Teachers	357	98.2	4	1.0	3	0.8
		MOE	317	98.8	3	0.9	1	0.3
		PTA	371	98.1	4	1.1	3	0.8
5	My principal is humble and he is able to carry the staff and students along especially in management of staff and students	Principals	341	98.2	0	0	4	1.8
		Teachers	367	96.1	9	2.4	6	1.6
		MOE	318	99.1	0	0	3	0.9
		PTA	363	96.0	9	2.4	6	1.6
6	The principal maintains his integrity at all times when dealing with staff and students by showing good example always. .	Principals	233	67.5	12	3.5	100	29.0
		Teachers	267	69.9	12	3.1	103	27.0
		MOE	215	67.0	11	3.4	95	29.6
		PTA	263	69.6	12	3.2	103	27.2
7	My principal is compassionate when dealing with staff and students.	Principals	254	73.6	5	1.4	86	24.9
		Teachers	284	74.3	5	1.3	93	24.3
		MOE	235	73.2	4	1.2	82	25.5
		PTA	280	74.1	5	1.3	93	24.6
8	My principals encourages hard work among his staff and students.	Principals	319	92.5	18	5.2	8	2.3
		Teachers	352	92.1	18	4.7	12	3.1
		MOE	300	93.5	13	4.0	8	2.5
		PTA	348	92.1	18	4.8	12	3.2
9	My principal now how to draw the attention of staff and students in the right direction towards total submission to school rules.	Principals	320	92.8	12	3.5	13	3.8
		Teachers	344	90.1	13	3.4	25	6.5
		MOE	298	92.8	12	3.7	11	3.4
		PTA	340	89.9	13	3.4	25	6.6
10	The principal in my school is realistic and objective about himself and others when dealing with people.	Principals	254	73.6	5	1.4	86	24.9
		Teachers	284	74.3	5	1.3	93	24.3
		MOE	235	73.2	4	1.2	82	25.5
		PTA	280	74.1	5	1.3	93	24.6

In response to items 1 to 10 which sought the 'perceptions of principals' Charismatic Leadership style practices in managing secondary schools in the North Central Geographical Zone of Nigeria., responses of all respondents were collected, analyzed and discussed.

Response to item 1 revealed that 233 (67.5%) of principals agreed that, principal is diligent in his assignment especially in managing the staff and students in the school, 100 (29.0%) disagreed, 12 (3.5%) of the principals were undecided. While 267 (69.9%) teachers agreed, 103 (27.0%) disagreed, and insignificant number of respondents 12 (3.1%) were undecided. Among the ministry of education officials, 215 (67.0%) agreed, 95 (29.6%) disagreed while 11 (3.4%) were undecided. Also, 263 (69.6%) of PTA agreed While, 103 (27.2%) disagreed and 12 (3.2%) were undecided. In all, the respondents showed a greater magnitude of their response that principals is diligent in his assignment especially in managing staff and students in the school in e North Central Geographical Zone of Nigeria. The result shows that, they are affirmatively. In response to item 2, 3 and 4 it was revealed that 254 (73.6%) of principals agreed that, staff and students admires the principals because he is very

persuasive to adherence to school rules and guidelines in the school, 86 (24.9%) disagreed, 5 (5.4%) were undecided. While 284 (74.13%) teachers agreed, 93 (24.3%) disagreed, and insignificant number of respondents 5 (1.3%) were undecided. Among the ministry of education officials, 235 (73.2%) agreed, 82 (25.5%) disagreed while 4 (1.2%) were undecided. Also, 280 (74.1%) of PTA agreed, 93 (24.6%) disagreed and 5 (1.3%) were undecided. In all, the respondents showed a greater magnitude of their response that staff and students admire the principals because he is very persuasive to adherence to school rules and guidelines in the school in the North Central Geographical Zone of Nigeria. The result shows that, they are affirmatively.

Going by the respondents' perceptions on items 5, 6, 7 and 8 where no respondent had less than 75% in respect of disagreement, it is evident that there was a positive perceptions from the respondents toward principals' Charismatic Leadership style practices in secondary schools in the North Central Geographical Zone, Nigeria. It was agreed that principals is trust worthy in his dealing with the staff and students, principals is humble and he is able to carry the staff and students along in the schools in North Central Geographical Zone, Nigeria.

In response to item 9 and 10, was revealed that principals maintain his integrity at all times when dealing with staff and students by showing good example always in the school, the result shows 233 (67.5%) of principals agreed, 100 (29.0%) disagreed and 12 (3.5%) were undecided with the statement. Among teachers, 267 (69.9%) of teachers agreed, 103 (27.0) disagreed and 12 (3.1%) were undecided. 215 (67.0%) of MOE agreed, 11 (3.4) were undecided and 95 (29.6%) disagreed with the statement. 263 (69.6%) of PTA agreed, 12 (3.2%) were undecided and 103 (27.2%) disagreed that principals maintain his integrity at all times when dealing with staff and students in the school in North Central Geographical Zone of Nigeria.

**Hypothesis 1:** There is no significant difference in the perceptions of principals,

teachers, officials of Ministry of Education and PTA officials on principals' use of inspirational Leadership style practices in Managing Education in secondary schools in North Central Geographical Zone, Nigeria. The responses of the respondents on item 1 to 10 were collected and analyzed to find out the principals' inspirational Leadership style practices in managing secondary schools in North Central Geographical Zone, Nigeria. A One-way analysis of variance (ANOVA) statistical procedure was employed as can be seen in table 4.19. Table 3.1 shows the mean score of the perceptions of principals, teachers, officials of Ministry of Education and PTA officials on principals' inspirational Leadership style practices in managing education in secondary schools in North Central Geographical Zone, Nigeria, it shows significant difference.

**Table 3.1: Analysis of Variance (ANOVA) on the Stakeholders' Perceptions on Principals' Inspirational Leadership style practices in managing Secondary Education Amidst Covid 19 in North Central Geographical Zone, Nigeria**

Source	Sum of Square	DF	Mean Square	F-ratio	F-critical	P-value
Among groups	34.913	3	11.638	18.091	24.483	1.04
Within groups	675.924	1422	.495			
<b>Total</b>	<b>710.837</b>	<b>1425</b>				

In table 3.1, the computed probability was 1.04 and this was higher than the p-value

0.05 set for this study. In other words, the calculated F- ratio value of 18.091 was less

than the critical value of 24.483 while the calculated P-value of 1.04 was greater than the 0.05 level of significance. Therefore, the null hypothesis (Ho8) was retained. It could be concluded that there was no significant difference among the perceptions of principals, teachers, officials of Ministry of Education and PTA officials on principals' inspirational Leadership style practices in The responses of the respondents on item 1 to 10 were collected and analyzed to find out the principals' charismatic Leadership style practices in managing education in secondary schools in North Central Geographical Zone, Nigeria..

Table 3.2 shows the mean score of the perceptions of principals, teachers, officials

**Table 3.2: Analysis of Variance (ANOVA) on the Stakeholders' Perceptions on Principals' Charismatic Leadership style practices in Managing Secondary Education in North Central Geographical Zone, Nigeria**

Source	Sum of Square	DF	Mean Square	F-ratio	F-critical	P-value
Among groups	2.968	3	.989	0.178	2.853	1.17
Within groups	493.145	1422	.347			
<b>Total</b>	<b>496.113</b>	<b>1425</b>				

In table 3.2, the computed probability was 1.17 and this was higher than the p-value 0.05 set for this study. In other words, the calculated F- ratio value of 0.178 was less than the critical value of 2.853 while the calculated P-value of 1.17 was greater than

managing education in secondary schools in North Central Geographical Zone, Nigeria.

**Hypothesis 2:** There is no significant difference among the perceptions of principals, teachers, officials of Ministry of Education and PTA officials on principals' use of charismatic Leadership style practices in secondary schools in North Central Geographical Zone, Nigeria. of Ministry of Education and PTA officials on principals' use of charismatic Leadership style practices in managing secondary education in North Central Geographical Zone, Nigeria, it shows significant difference.

the 0.05 level of significance. Therefore, the null hypothesis

(Ho9) was retained. It could be concluded that there were no significant difference in the perceptions of principals, teachers, officials of Ministry of Education and PTA



officials on principals' charismatic Leadership style practices in managing

### **Summary of the Findings**

1. Principal who uses the inspirational Leadership style practice soften use words of encouragement and praises to influence staff and students to adhere to school rules and guidelines as no significant difference was reported in the perceptions of respondents as evident in computed probability of 1.04 which was greater than the p.value of 0.05 level of significance set for the study; and
2. The principal who uses charismatic Leadership style maintains integrity at all times as he leads example through adherence to school rules and guidelines assignificant difference was reported in the perceptions of stakeholders as evident in computed probability of 1.17 which was greater than the p.value of 0.05 level of significance set for the study.

### **Discussion of the Findings**

In response to items 1 to 10 which sought the stakeholders' perceptions of principals' inspirational Leadership style practices secondary schools in the North Central Geographical Zone of Nigeria., responses of all respondents were collected, analyzed and discussed. Going by the respondents' perceptions where no respondent had less

secondary education in North Central Geographical Zone, Nigeria.

than 75% in respect of disagreement, it is evident that there was a positive perceptions from the respondents toward principals' inspirational Leadership style practices in managing education in secondary schools in the North Central Geographical Zone, Nigeria. It was agreed that school principals lead by example when it comes to issue of school activities and adherence to school rules and guidelines, principals holds meetings with staff and students to discuss the goals of the school and how this goals can be actualize Likewise principals actively engage the teachers in their lesson by ensuring effectiveness and efficiency in lesson deliveryin schools in the North Central Geographical Zone, Nigeria. This was evident as computed probability of 1.04 which was greater than the p.value of 0.05 level of significance, this is also in agreement with empirical studies of Vincent, and Nyame, (2016) which findings also shows that there was positive significant difference with head teacher inspirational leadership style and teachers' performance. It can be deduced from this finding that teachers perform better with principals that motivates, inspires and lead by example, because these among others are

characteristics of inspirational leaders which is seen in students and staff as they comply to all school rules and guidelines. In response to items 1 to 10 which sought the perceptions of principals use of charismatic Leadership style practices secondary schools in the North Central Geographical Zone of Nigeria, responses of all respondents were collected, analyzed and discussed. Going by the respondents' perceptions where no respondent had less than 75% in respect of disagreement, it is evident that there was a positive perceptions from the respondents toward principals' charismatic Leadership style practices in managing education in secondary schools in the North Central Geographical Zone, Nigeria. It was agreed that principals is diligent in his assignment, the principals has a soothing words that motivate staff and students to take all school activities serious. Likewise, the principals is realistic and objective about himself when dealing with people, and know how to draw the attention of staff and students in the right direction to obey school rules and guidelines as computed probability of 1.17 was obtained which was greater than 0.05 level of significance set for the study. The study of Abdul, and Novita, (2017) shows that

principals charismatic leadership style has a direct and positive effect on teachers works ethic. While Obonyo, Adino, and Nyerere (2017) are in disagreement as the findings of their work shows that charismatic leadership style practiced by the principals in public schools in Siaya, Kasumu and Kajiado counties was found less effective in the school as the p.value is 0.014 which was less than 0.05 level of significance.

**Conclusion:** The principal that use inspirational leadership style make use of words of praise and encouragement to motivate staff and students to adhere to school rules and guidelines, while those that adopt the charismatic leadership style make sure they are firm and objective when dealing with the students and the staff towards addressing all issues .

**Recommendations:** The study recommends that principals who practice inspirational leadership style should involve subordinates in making decision on issues that bother on the school for effectiveness and efficiency. Principals using charismatic leadership style should be very objective and firm in every decision about the welfare of staff and students.

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**A Historicist Perspective to Migrant Literature and Neo-Slavery in the 21st Century**

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**ABSTRACT**

A historicist perspective to migrant literature and neo-slavery in the 21st century examines migrant literature and neo-slavery in the twenty-first century. Migrant literature and neo-slavery focuses on “migritude” literature which describes the work of a distinct group of contemporary African American authors in diaspora who critically focus on migration within the context of globalization, emphasizing that the “past” of immigration is irreducibly entangled with neo-slavery processes. These writers often refashion the perspectives or discourses of earlier movements within the black radical tradition, such as Negritude or pan-Africanism, as a way to engage immigration in the present. The paper argues that although immigration as a system developed as an imperial project in the late nineteenth century along with the modern nation-state, it evolved into the present era of global capitalism as an international assemblage of techniques of power. The migritude writers in this study therefore add to our understanding of the condition of immigration and neo-slavery while challenging gendered, racialized and often heteronormative anti-immigrant law and perspectives that shape the migrant. It assesses the works of Claude McKay, Aime Cesaire, Leopold Sedar Senghor, and others.

**Keywords:** *Historicist, Immigration, Literature, Migrant and Neo-slavery*

**Introduction**

Négritude is arguably predicated upon the affirmation of African roots in the face of colonial racism, but as Dadié’s lines appear to suggest, also upon uprooting, through movement, migration, or diaspora—of gaining insight precisely in leaving a colonized Africa for metropolises in the North. “The plane has lifted off.” Secondly, Dadié’s concise phrase is symbolic not simply of

immigration, but a particularly modern and perhaps bourgeois mode of movement—air travel—indicating the economic class of many Négritude authors who, in Paris, combined to represent something of an African elite.

Transcontinental air travel differs from the ways in which many migrants in the world emigrate, those of modest or no means who

would travel by foot, truck, or boat, or refugees who must move quickly and without resources or the protections that citizenship and passports offer.

John Torpey's immeasurably useful, *The Invention of the Passport: Surveillance, Citizenship, and the State* argues that in the past century or so, modern nation-states and the international system of which they are apart, have "expropriated" the means of movement from individuals.

In other words, just as Karl Marx argued that the central experience of the modern involved "the expropriation of the 'means of production' from workers by capitalists" (2) and for Max Weber, "the successful expropriation by the state of the 'means of violence' from individuals," (4) Torpey's project demonstrates that "modern states, and the international state system of which they are a part of, have expropriated from individuals and private entities the legitimate 'means of movement,' particularly though by no means exclusively across international boundaries." Immigration control, passports, borders, deportations, Identification Cards, Residence Permits, legal categories such as "illegal alien," "undocumented," or sans-papier and so on, have all become naturalized over literary production, show their pernicious, historical, and

For Torpey:

...the emergence of passport and related controls on movement is an essential aspect of the 'stateness' of states... documentary controls on movement were decisively bound up with the rights and duties that would eventually come to be associated with membership—citizenship—in the nation-state. (45)

systemic national and international situatedness.

Migrant literature transcribes the experience of everyday life in a globalised world and reflects on the challenges existence in multicultural and multilingual contexts. Prior migrant was discussed in terms of world literature, it was, along with postcolonial literature emerging from the centres of the empires called "world fiction" as was the case in Great-Britain for instance.

It is quite imperative to note that, the inclusion of migration literature into the studies of world literature may be considered as an outcome of the fundamental revision that the concept and indeed the methods for studying world literature have undergone these last few decades.

Thomson makes a persuasive argument when he says that the inclusion of migrant literature into world literature is legitimated by the way it renegotiates or re-evaluates the cosmopolitan dimension (13).

Critical work on migration and refugee literature has focused firmly on the 'Age of migration' and the twenty-first century, the first two decades of which have been marked by specific movements of people such as 'Migration Crisis' in Europe. Declercq remarks that scholars tend to focus on more recent examples of literature, which obscures historical examples and long-term patterns of migration and its literary representations. Other examples of migrant literature can be revealing of how historical societies and cultures viewed migration—this is especially significant for historical time periods for which we have less first-hand evidence. With the neo-classical literature, man was seen as basically good, the writers of neoclassical period portrayed man as inherently imperfect.

### **The Concept of Black Migrant Literature and Immigration**

Black Migrant Literature examines immigration, Diaspora, and movement in late-twentieth and twenty-first century African literature, particularly the ways in which "migrature" engages with and

refashions earlier moments in the black radical tradition such as Négritude or anti-colonial Pan-Africanism. "Migrature" authors critically focus on migration within the context of globalization, emphasizing that the "past" of immigration is irreducibly entangled with colonial processes.

Shailja Patel's *Migrature*, (58) for example, repurposes Négritude's focus on the reclamation of blackness against colonial racism, as a migrant challenge to twenty-first century neoliberal capital. Patel and other migrature writers illustrate the ways in which immigration has evolved into an ever-broadening network of borders, passport, controls, checkpoints, as well as modes of "othering." In response, Patel vaunts a "migrant attitude" as a challenge to the systemic national and international expropriation of the means of movement from, most pointedly, non-white peoples.

Immigration in the present is inextricable from historical processes of imperialism, which Patel's text incisively brings to bear. Vijay Prashad states in his introduction to *Migrature*:

Immigration, as a concept, is born in the era of imperialism. 'Immigrants,' in this context, are not just those who cross boundaries, but those who pointedly enter the advanced industrial states from lands of

dusky skin. Immigration is always already about mobile capital and immobile race. Colonial rulers went where they willed, and they even moved people from one colony to another; but the colonized were not to be fully welcomed in the heartlands of Empire, in Europe, in the United States. If they came, they were allowed in for their labor, not for their lives. (65)

This paper approaches immigration phenomenologically and as a system, as interrelated techniques of power that manage and discipline the movement of migrant bodies (both interdicting and catalyzing its movement); these material structures succeed their concept (that is, the idea that there are insiders and outsiders and that both, in different ways, must be relieved of their capacity to move freely, without surveillance, without monitoring); the synthesis of the concept, institution, and practice of immigration creates what I call, paraphrasing Senegalese-French novelist Fatou Diome, the condition of immigration.

It shapes not just the ways people move or don't, but their very being. I begin with Shdilja Patel's relationship to Négritude, which for her opened up the possibility and the terms that would challenge white supremacy and would later allow her to

connect racism and imperialism to immigration. I assess the Afro-Asian diasporas that subtend Patel's critique both historically and in terms of identity, and finally, I conclude with remarks on gendering in migration in Patel's work.

For Patel, Césaire and Senghor (56) are "not direct influences or primary sources for Migritude but the political and cultural space they opened up through Négritude, and the discourse that continues from that, were the soil in which Migritude could germinate. In an interview, Patel (61) reflects upon the legacy of Négritude and the ways in which aspects of it might be mobilized and refashioned, but for the figure of the migrant within globalization: when I coined the term I was looking for a word that would draw from the legacy and tradition of Négritude that reclaimed and celebrated African cultures, black cultures around the world as powerful and central in their own right, and not as something that always needed to be measured against, and compared to European culture... I wanted to claim that same power for migrant cultures, for all migrant populations, that there is a culture, a space, a place where we inhabit, that world that does not need to be assessed against where we came from, or where we are, how well we have assimilated, that migrants have

an unapologetic voice, and world view that enriches the world and that we need to claim and celebrate (67).

Chung (106) argues that the term *migritude* as Patel has crafted it “shares the richness of connotation and inspiration of *négritude*, as applied to immigrants: a celebration and revalorization of immigrant/diasporic culture and identity, its greatness ‘measured by the compass of suffering’ (Aimé Césaire). with overtones of spiritual and political liberation *Migritude* is a liberatory and reparative celebration of migrants and, as Patel proclaims, it “is unabashedly political—feminist and anti-imperialist.

*Migritude* then explicitly ties the conditions of immigration to gender and imperialism. For Patel, her project is “a tapestry of poetry, history, and politics, packed into a suitcase, embedded in my body, rolled out into a theatre. An accounting of Empire enacted on the bodies of women.” (Chung 82) The poem, “The Making (*Migrant Song*)” acts as the *raison d’être* for Patel’s *Migritude* project, the “why?” behind the performance piece and text. “The Making” is bookended with italicized personal reflections beginning with her sari and family. “Make it out of the sari that wraps

you... make it out of every scar and callous/ on your father’s hand” (83).

Patel engages into a narrative about everyday features of migrant life. We overdress, we migrants. We care too much how we look to you. We get it wrong. We ought to look like we don’t give a fuck. But indeed Patel argues that the quotidian is connected to larger structures symptomatic of immigration as a system. “We absorb information without asking questions” (1).

Immigration may have arisen as a theme in African literature due to the experiences of African authors who had leave their native homes and face what it means to be black in a white world. Immigration in African literature may have become a-theme as a result of the disconnect that second generation Africans in diaspora feel when they visit the motherland.

Black migrant literature mainly focuses on African women writers within new diasporas in the late twentieth and twenty-first centuries such as Somali-British writer Nadifa Mohammed, Senegalese-French writer Fatou Diome, and Kenya-born Shaija Patel who now lives in the United States.

**Towards a Historicist Perspective to Migrant Literature**



For Robinson in *Black Marxism: The Making of the Black Radical Tradition*, “the historical development of world capitalism was influenced in a most fundamental way by the particularistic forces of racism and nationalism,” that they both “anticipated capitalism in time.” For example, “the bourgeoisie that led to the development of capitalism were drawn from particular ethnic and cultural groups; the European proletariats and the mercenaries of the leading states from others; its peasants from still other cultures; and its slaves from entirely different worlds” (73).

Williams (156) following C. L. R. James then seems to get it wrong when he states that modern “slavery was not born of racism: rather, racism was the consequence of slavery... the reason of slavery was economic, not racial.” If, for Hobsbawm (136), the concept of the nation, or nationalism, “comes before nations, [that] nations do not make states and nationalism but the other way around,” then there must, for Robinson, be a racial dimension to both the nation and its predecessors, nationalism and capitalism (157).

In other words racial capitalism, its various nationalisms, as well as the contemporaneous management of movement, precedes chattel slavery. Spain’s nationalism, for

example, would then have to precede its imperial ventures in the fifteenth and sixteenth centuries and thus its status as an Empire. How, then, does immigration substantially enter into these histories? Torpey’s study of the history of passport controls and more generally the regulation of movement by burgeoning nation-states illuminates the ways in which the movement of people and racialization were bound up in the origins of the modern nation and its imperial projects. For Torpey, “the institutionalization of the idea of the ‘nation-state’ as a prospectively homogenous ethnocultural unit [was] a project that necessarily entailed efforts to regulate people’s movements” (278).

Later, “documents such as passports and identification cards that help determine ‘who is in’ and ‘who is out’ of the nation here took center stage, and thus became an enduring and omnipresent part of our world. These documents were an essential element of that burgeoning ‘infrastructural’ power to ‘grasp’ individuals that distinguish modern states from their predecessors (2000).

In addition to immigration as a system and racialization within a capitalist economic system, was integral to the rise of the nation-state as well. Hobsbawm (198) finds in his

study of the nation and nationalism, for example that, “In practice there were only three criteria which allowed a people to be firmly classed as a nation,” 1) “its historic association with a state,” 2) having a “long-established cultural elite, possessing a written national literary and administrative vernacular;” and, 3) “a proven capacity for conquest.” Immigration, the nation, racism, and nationalism, then cannot be thought apart from the historical processes of colonialism.

The point must be made that if immigration and the nation (in the European context), are contemporaneous and historical, then the nation itself (as well as immigration), cannot be understood nationally. The nation and its nationalists have a vested interest not in truth, but in the reproduction of the nation. Hobsbawm (182) paraphrases this point in Ernest Renan’s *What is a Nation?* quite poignantly: “Nationalism requires too much belief in what is patently not so.

Hobsbawm (19) Etienne Balibar would later describe a “fictive ethnicity,” a national mythology developed in the production of the citizen. *In Race, Nation, Class* Balibar considers the way in which The people are produced’ as such. For Balibar, “A social formation only reproduces itself as a nation

to the extent that, through a network of apparatuses and daily practices, the individual is instituted as homo nationalis from cradle to grave, at the same time as he or she is instituted as homo economicus, politicus, religious ... I apply the term ‘fictive ethnicity’ to the community instituted by the nationstate.”

Balibar (88) Produced ethnicity is fictive in the sense that it imposes homogeneity upon a heterogeneous group loosely bound by geography and a state and which has material effects, since one is compelled to act according to certain laws and norms, is protected and given access to resources, etc.; in the same way, one who arrives is immediately clothed in a sort of fictive otherness and produced as an “Immigrant” and is also compelled to act in other ways, is disafforded protection and access while being branded or reduced.

Balibar analyzes the French context of the 1980s:

Racist organizations most often refuse to be designated as such, laying claim instead to the title of nationalist and claiming that the two notions cannot be equated... In fact the discourses of race and nation are never very far apart, if only as a form of disavowal: thus the presence of ‘immigrants’ on French soil is referred to as the cause of

'anti-French racism'. The oscillation of the vocabulary itself suggests to us then that, at least in already constituted national states, the organization of nationalism into individual political movements inevitably has racism underlying it. (36)

Similarly, Gilroy (44), in *There Ain't No Black in the Union Jack*, describes a "new racism," taking Britain in the 1980s as his case study. "It will be argued that its novelty lies in the capacity to link discourses of patriotism, nationalism, xenophobia, Englishness, Britishness, militarism and gender difference into a complex system which gives 'race' its contemporary meaning."

Gilroy (67) analyzes the British Immigration Acts of 1968-1981 to suggest that immigration control and its attendant national ideologies, are inextricable from the racism-nationalism dyad which institutes a sort of racial governmentality. The 1971 Immigration Act brought an end to primary immigration and instituted a new pattern of internal control and surveillance of black settlers. It was paralleled by a new vocabulary of 'race' and crime which grew in the aftermath of the first panic over 'mugging'." (Gilroy 89). Although anti-immigration racist rhetoric varies and shifts over time, the 1980s marked a more severe

turn by France, the United States, Britain, (and later Italy). These discourses continue into the present day.

Migritude literature discloses the violence of systems of immigration and provides a challenging retort that, necessarily, cannot come from Western nations themselves. Gilroy (65) further analyzes the re-use of earlier moments in black radicalism by actors in black urban struggle in Britain.

Such conflicts are possible because black Britain's repertoire of symbols is relatively unfixed and still evolving. It includes the language of Ethiopianism and Pan-Africanism and the heritage of anti-colonial resistances as well as the inputs from contemporary urban conflicts. These diverse elements combine syncretically in struggles to reconstruct a collective historical presence from the discontinuous, fractured histories of the African and Asian diasporas. (59)

Ultimately then, this paper will show not only that migritude is, in part, born of these urban struggles in Northern metropolises, but that its refashioning of the black radical tradition, from pan-Africanism and Négritude to postcolonial African literature, provides both a sophisticated understanding of immigration in the era of global-

neoliberal capitalism, and resistance to it with reference to Africa and Africas in tire global North. Migrant writer Miano's (89) poetic reflection upon what she calls the "Afropéan opening this section wonderfully captures the above discussion.

### **Theoretical Thrust of the Study**

Consider Ray's modernist theory of what he calls "world conquering and leveling machine civilization..." (Ray 76) perspective is an anti-capitalist vagabond openness to the world and to the other, which, in contemporary parlance might be called transnational and/or postcolonial. For civilization had gone out among these native, earthy people, had despoiled them of their primitive soil, had uprooted, enchained, transported, and transformed them to labor under its laws, and yet lacked the spirit to tolerate them within its walls.

Ray's description of modernity here illustrates the dialectic of resource extraction and enslavement on the one hand, and metropolitan inhospitality on the other, as black immigrant subjects are disallowed citizenship-Europe and the U.S. "lacked the spirit to tolerate them within its walls." Ray's monologue also operates as an anticolonial fashioning of Marx's global premonitions in *The Communist Manifesto*. Marx famously argues that "Modern

industry has established the world market, for which the discovery of America paved the way... The East-Indian and Chinese markets, the colonisation of America, trade with the colonies, the increase in the means of exchange and in commodities generally, gave to commerce, to navigation, to industry, an impulse never before known, and thereby, to the revolutionary element in the tottering feudal society, a rapid development. In one word, for exploitation, veiled by religious and political illusions, it has substituted naked, shameless, direct, brutal exploitation... In one word, [the bourgeois mode of production creates a world after its own image. These passages show an already global Marxist society. Ray (76) reiterates Marx's capitalism, modern industry, or bourgeois mode of production as a "world conquering machine civilization" utilizing black internationalist perspectives. This move both retains and refashions Marx's prescient yet ultimately European work.

### **Neo Slavery as reflected in Migrant literature in the 21st Century**

Mbembe (77) explicates three major "attributes" of the historicist culture of Africa: multiplicity, movement, and the compositional. In terms of movement he offers these remarks: Another important

concept that we haven't explored much, but which comes from the African historical cultural experience is the modes of circulation and of mobility, of movement. Almost everything was on the move. It was not at all true as Hegel, and those who rely on him, intimated that Africa was a closed continent—not at all. It was always a continent that was on the move. In terms of migration Mbembe argues that in opposition to Europe's continued racist practice of harsh immigration laws and the closing-off of its borders, Africa must "open itself up. It must "become a vast regional space of circulation which means that it will have to dismantle its own internal boundaries, open itself up to the new forms of migration, internal as well as external, as we see happening, to a certain extent in Mozambique, and Angola where some Portuguese are coming back. As Europe closes its borders, Africa will have to open its borders. Here Mbembe (9) speaks eloquently to the economic and cultural configuration under globalization in which, as Vijay Prashad argues, "capital is mobile and race immobile." Against a closed colonial model Mbembe proffers a new model in which the constricting European nation-state becomes outdated and is replaced by an Africa "always on the move."

African migrature writers utilize the trope of movement as a hinge through which to address colonialism, racism, globalization and modernity with specific reference to Africa and the world. As such, migrature provides both a new and sophisticated way of understanding immigration in the era of global capitalism as well as a critical engagement with it; it lends a new perspective to the study of African literature itself by bringing to the fore conditions of diaspora, movement, and migration. Further, just as Mbembe's comments echo Blyden's, so migrature writers echo, mobilize, and refashion earlier pan-African works. Neo Slavery as reflected in migrant literature is in connection to "Trafficking in persons", "human trafficking", and modern slavery. People may be considered trafficking victims regardless of whether they were born into a state of servitude, were exploited in their home town, were transported to the exploitative situation, previously consented to work for a trafficker, or participated in a crime as a direct result of being trafficked. At the heart of this phenomenon is the traffickers' aim to exploit and enslave their victims and the myriad coercive and deceptive practices they use to do so. It is worth to mention that, sex trafficking, child sex trafficking, force labour, bonded labour

or debt bondage, domestic servitude, forced child labour and unlawful recruitment and use of child soldiers are all parts of Neo Slavery migrant literature.

**Claude McKay's *Banjo* as a (Proto) Migrant Text**

So Banjo moves. He “was a great vagabond of lowly life. He was a child of the Cotton Belt, but he had wandered all over America... He had worked at all the easily picked up jobs—longshoreman, porter, factory worker, farm hand, seaman.”(287). Yet for all his wanderings in America he had never been to the great sailor’s port, Marseille, and thus, after having returned from Canada he is again ready to move. “Seized by the old restlessness for a sea change while he was working in an industrial plant, he hit upon the unique plan of getting himself deported”(288). He had seen his friends, who had entered the United States illegally, held for deportation, and so Banjo calmly announces that he is not American. And although the immigration officers do not believe him as his “accent, attitude, and movement—shouted Dixie,” he is eventually given a chance to work his way across the Atlantic to Marseille, where the majority of the novel is set, relating the experiences and conversations of the black beach boys and descriptions of the world at

large (29). Within the first few pages of our “story without a plot” the narrator, in describing the multi-racial and multi-cultural beach in Marseille, introduces the immigration laws that catalyze migration in the first place: “They were all on the beach, and there were many others besides them—white men, brown men, black men. Finns, Poles, Italians, Slavs, Maltese, Indians, Negroids, African Negroes, West Indian Negroes-deportees from America for violation of the United States immigration laws—afraid and ashamed to go back to their own lands.”(291) The novel not only depicts U.S. immigration law, but French and English as well—each tied in different ways to race and the colonial project. In addition to portraying a diasporic condition of modernity as the beach is made up of those coming from all over the global South in addition to European working-class migrants, it also portrays the conditions and structures producing diasporic movement such as laws and techniques of power managing migrant populations. The second irony in this double-bind is ideological. Taloufa is alienated from his local African traditions, language, and culture by the colonizing mission—“Christian missionaries had educated him out of his native life” (296)—yet he is not allowed in “civilization”:

“The paper bore Taloufa’s name and fingerprint and read: The above-named is permitted to land at this port on condition that he proceeds to London in charge of an official of the Shipping Federation, obtains document of identity at the Home Office, and visa (if required), and leaves the United Kingdom at the earliest opportunity.

*In Race and Racism* in Britain, John Solomon argues that it is important to analyze “the politics of black migration and settlement in Britain in the early twentieth century, since it was during this period that the terms of political debate and domestic ideologies and policies towards ‘coloured workers’ and their communities began to be formed. Indeed it was during that period that the question of racial difference began to play a central part in the politics of immigration.” (Solomon, 299) Legislating citizenship becomes a colonial mode of relation. Early immigration legislation was concerned with the entry into Britain of people who were by law aliens, that is, non-British citizens. The condition of the black migrant, which as we saw earlier, is shaped by world-level structures, is outlined in *Banjo* as Talufa and others are categorized and managed as “nationality doubtful.” Consider the following excerpt near the end of *Banjo* directly preceding Taluofa’s story:

The majority of the papers were distinguished by the official phrase: Nationality Doubtful. Colored seamen who had lived their lives in the great careless tradition, and had lost their papers in low-down places to touts, hold-up men, and passport fabricators, and were unable or too ignorant to show exact proof of their birthplace, were furnished with the new “Nationality Doubtful” papers. West Africans, East Africans, South Africans, West Indians, Arabs, and Indians—they were all mixed up together. Some of the Indians and Arabs were being given a free trip back to their lands. Others, especially the Negroes, had chosen to stop off in French ports, where the regulations were less stringent. They were agreed that the British authorities were using every device to get all the colored seamen out of Britain and keep them out, so that white men should have their jobs. (120) Immediately interesting in this passage is the transnational awareness of the differences in stringency between French and British immigration laws, an everyday practical knowledge necessary to the well-being of the black migrants that McKay here, and later Nadifa Mohamed in *Black Mamba Boy* will, portray. This also shows that McKay interrogates the laws, subject-positions, categories, State practices,

and economy that structure the world and life of the migrants, including day-to-day issues like identity papers (which have a particularly violent history in South Africa) and passports that become daily instances of colonial governmentality each conditioning the being-in-the-world of black migrants. These instances were not solely the daily condition of the colonized and mobile black workers, but also shaped the lives of middle-class black expatriates from Africa and the diaspora who came to Paris to study and work. The Négritude authors are one such example and further, they were necessarily struck by *Banjo*. In *Paulette and Jane Nardal's* Paris salon for black students, writers, and artists, Aimé Césaire, Leon Damas, and Leopold Senghor were all reading and inspired by the Harlem Renaissance (including Langston Hughes and Claude McKay), the antiracist project of the black Haitian anthropologists such as Antenor Fermin and Jean Price Mars, European Surrealism, Rene Maran and others. Leopold Senghor describes this era of burgeoning pan-African and global consciousness. Wilder (76) eloquently states that “McKay’s representation of black migrants [in *Banjo*] demonstrates that global capitalism created a multiracial imperial city through which commodities, laborers, and

ideologies circulated.” Indeed, and we would build upon this and posit that McKay’s novel reveals that global capitalism creates a multi-racial imperial world, from the “Indian archipelago” to the Caribbean Sea. *Banjo* images the economy within which colonial exports and imports, a nomadic black workforce, as well as philosophies and various radicalisms are circulated. McKay (58) details not only the flow and movement of commodities from the global South-particularly Africa-to the global North, but also the labor and flow of black bodies as commodities, eternally “under the whip, under the terror,” Ray’s poetic, political, and phenomenological description of the Ditch in Marseilles is well worth studying.

### **Conclusion**

Jean-Paul Sartre has famously argued that Négritude is not an ‘ensemble of vices or virtues or of intellectual and moral qualities, but rather a certain affective attitude toward the world... To use Heidegger’s language, negritude is the Negro’s Being-in-the World (338). This paper argues that migritude is an ontological phenomenology of the being-in-the-world of the migrant, encompassing all the above mentioned structures and conditions. To riff on Simone de Beauvoir’s famous pronouncement in *The Second Sex*,



one is not born an “immigrant” but becomes one. It is thus important to consider what call McKay’s “politics of vagabondage” which ontologically produces a situated aesthetics that would challenge colonial modernity and its twin, racial capitalism, with specific reference to the black migrant body. The paper has shown above through a sustained reading of McKay’s *Banjo* in terms of movement that his novel is not just about individuals who cross borders, but about the being-in-the-world of black migrants and the oppressive structures and conditions (both material and ideological) that produce and manage this pan-African cast of characters; and that if it is about the being-in-the-world of the black migrant it is also about challenges and interrogations of those oppressive structures and the “system of relations” that create the “magic” of black

pan-African internationalism. Furthermore, it illustrates how immigration was radically re-figured in the early twentieth century as an imperial project to be managed and was tightly bound up with racial capitalism and colonialism. *Banjo* then, as a (proto) migitude text, speaks directly to twenty-first century African writers who show that migration in the era of globalization and mobile capital is indeed constituted by and entangled with imperial-era structures of migration, immobile race, and the movement of capital. This intertextual relationship indicates the temporal movement of radical concepts and practices through time and across oceans, seas, and gulfs, from Négritude, to migitude, where *Banjo* in many ways embodies both locations.

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**Management of policy Implementation in Secondary Education in Nigeria: The Implication for Effective Practice**

By

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**ABSTRACT**

This paper examined the Nigerian Management policy implementation in secondary education. The objectives of the study are to identify the various policies binding the management of secondary schools, to examine the rate of implementation of the policies and its challenges, and prospects. The study used a survey research design. Both primary and Secondary data were used in the papers. The primary data were sourced from interview, while the secondary data were sourced from print materials, online journals and articles. The paper discusses the Concept of Management, educational policy, Secondary Education Management, Problems associated with policy implementation in secondary schools, National Policy on Secondary Education, Implementation of the secondary aspect of the National Policy on Education, Nigerian factors that militate against the implementation of educational policies, The study finds that policy implementation problem is traceable to the planning stage which comes immediately after policy formulation. Implementation is constrained by the following factors; overestimation of available resources, corruption, underestimation of the costs of implementing a plan, lack of political will, Overreliance upon external assistance, the following reasons, among others, account for this deplorable situation in policy implementation in secondary school management. The study concludes that policy implementation, monitoring and maintaining minimum standards cannot be attained in an atmosphere of non-payment of teachers and other staff in the education sector. Recommendations were thereafter made on the implementation of policies in secondary school in Nigeria which are as follows; government should devote more money to the education sector, curb corruption, and ensure transparency and accountability in the education sector.

***Keywords: Management, Secondary Education, Policy, Implications, Practice.***

**Introduction**

Education is a veritable instrument for bringing about positive changes in the pattern of life of people. Various authors

defined education in different ways. Maduewesi (2020) opined that education is a universal aspiration and also an instrument

of development and social integration. Buttressing this, the (FRN, 2004) stated that “the Federal Government of Nigeria has adopted education as per excellence for effecting national development”. Education is therefore a great necessity for human existence on earth because it helps to prepare, equip, and secure learners/ individuals’ life and also provide them with the basic foundation to function and develop well in their society. From the foregoing, one can easily see that education ensures all-round security for a person or an individual.

### **Research Objective**

The broad aim of the research is:

- i. To identify the various policies binding the management of secondary schools management.
- ii. To examine the rate of implementation of the policies.
- iii. To find out the challenges, of policy implementations of secondary schools management.

### **Concept of Management**

Management focuses on facilitating the realization of the stated objectives of a given organization through systematic management of problems and careful utilization of scarce resources which include human and material resources. The human resources in the educational system consist

of both men and women, teaching and non-teaching staff. The material resources, on the other hand, include monetary and non-monetary resources such as facilities, supplies, finance, space, and working strategies.

Peretomode (2020) drew a line of distinction between educational management and administration. According to him, educational management is essentially concerned with the formulation of plans, programmes and policies while educational administration is the implementation or execution of these policies, plans, and programmes. Just like management, administration consists of such components as planning, organizing, programming, staffing, budgeting, coordinating, reporting, and evaluating or appraisal. However, these activities are carried out on a smaller scale when compared to management.

Management occurs in every organization. Whenever two or more people are gathered to work together, they must plan, organize and co-ordinate, make decision and evaluate or appraise their working strategies from time to time. In the school or educational system, this process is referred to as school administration or educational administration respectively. School management or

educational management is thus the person who is charged with the responsibility of implementing educational plans, programmes, or policies in the educational sector such as school. A typical example of a school administrator is a principal or a head teacher of a school.

### **The concept of educational policy**

Educational policies are initiatives mostly by governments that determine the direction of an educational system (Okoroma 2020:190). According to Osokoya (2021:2): Education is a distinctive way in which the society inducts its young ones into full membership. So, every modern society needs some educational policies to guide it in the process of such initiation. In the view of Awokoya (2021), educational policy is directed towards increasing the quality of life of a people. He believes that the objective of any policy is to satisfy individual needs, community pressures, and the degree of complexity and sophistication to which socialized personnel must be educated and trained to meet these demands. The following considerations, according to Awokoya (2021), are necessary to guide the formulation of adequate educational policy.

- It should be formulated and adopted through a political process that acknowledges the reality and legitimacy

of conflicting interests and desires among its participants

- It should portray some elements of guidance for properly directed and coordinated action toward the attainment of the desired goals
- It should contain information on the broad objectives that should be reached
- It should be a binding guide on the actions of those implementing it
- It should be enforceable and enforced by the society which formulates it.

### **Secondary Educational Management**

Educational Management is the theory and practice of the organization and management of existing educational establishments and systems like secondary education. Educational organizations that are truly conscious of secondary education plan and implement policies and programs that improves learning and teaching in secondary schools.

Everywhere in the world, both the developed and under-developed nations are investing in secondary education. This is mainly because secondary education is perceived as a tool for national development and a solution to problems facing humanity. Etesike (2011) observed that in the 20th century, human society the world over was faced with tremendous problems of natural

disasters, epidemics, famine, primitive transportation, inefficient communication, lack of health care, poor agriculture etc. education especially at the secondary level has helped to drastically reduce these through the development of knowledge and power that was necessary to make the transition to modern society in which we live.

The management of education at the secondary level helps produce high-level manpower. Inyamah (2019) states that in this age and time, education is aiming to produce human beings that are intelligent, knowledgeable, and hopefully leaders in their various fields of endeavors. These qualities will go a long way in promoting national development.

The Federal Government of Nigeria having realized the indispensable nature of her education adopted it as an instrument of excellence for affecting development and national security. Despite the indispensable position of education in solving human problems, the Nigerian education system in the 21st century is known to be faced with lots of serious challenges. Attempted solutions of one type of crisis inevitably led to another Okenwa (2013). Here are some of the challenges constraining secondary education from being an effective

instrument for development and national security.

In my own view, the problem of policy implementation is attributable to the planning stage, which comes immediately after policy formulation. However, every good planning will ensure effective implementation and positive outcomes. Good planning that can facilitate effective implementation should consider factors such as the planning environment, political environment, social environment, and financial and statistical problems. The plan must consider the needs of the society; the political, socio-cultural, economic, military, scientific, and technological realities of the environments that are also fundamental to its survival.

#### **Problems associated with policy implementation in secondary schools**

The gap that often exists between policy formulation and implementation provokes inquiry to identify factors that constrain the effective implementation of educational policies. The problem of policy implementation is traceable to the planning stage which comes immediately after policy formulation. Ukeje (2006) and Okeke *et al.* (2005) have stated clearly that good planning will ensure effective implementation. Good planning that can

facilitate effective implementation ought to consider such factors as the planning environment, social environment, political environment, and financial and statistical problems. It is in recognition of this observation that Aghenta (2004: 239) noted: For education to achieve all ends, it has to be carefully planned. The plan must take into consideration ... the needs of the society; the political, socio-cultural, economic, military, scientific, and technological realities of the environment are very important to its survival.

Adesina (2007) notes that planned implementation is constrained by the following factors:

- Overestimation of available resources – This is a situation where estimated resources are greater than actual available resources to implement a program.
- Underestimation of the costs of implementing a plan, This happens when cost estimates do not make adequate provisions for inflation and actual implementation costs become unmanageable.
- Overreliance upon external assistance plans that substantially rely upon assistance from foreign sources for their implementation run into hitches when such aid fails to come, and inaccurate

statistical data – planning education requires accurate and up-to-date data. Plans that do not adequately provide for this usually have implementation problems.

### **National Policy on Secondary Education**

Before 1977 Nigeria operated an educational policy inherited from Britain at independence. The inability of this policy to satisfy the national aspirations of the country rendered it unpopular. In 1969 a National Curriculum Conference was organised which reviewed the inherited curriculum and identified new national goals for Nigeria's education. A National Seminar was organized by the National Educational Research and Development Council (NERDC) in 2018. This gave rise to the National Policy on Education in 1977 (Akangbou 2005; Bello 2014; Okoroma 2020).

The National Policy on Education is anchored on Nigeria's philosophy on education as enunciated through the nation's objectives. Nigeria has five main national objectives as provided by the Second National Development Plan and accepted as the necessary foundation for the National Policy on Education. They are the building of:

- A free and democratic society

- A just and egalitarian society
- A united strong and self-reliant nation
- A great and dynamic economy
- A land of bright and full opportunities for all citizens (FRN, 1998).

### **Implementation of the secondary aspects of the National Policy on Education**

An analysis of the implementation efforts of the secondary aspects of Nigeria's education policy will give an insight into the relationship between policies and goal attainment through implementation. Universal Basic Education (U.B.E.) The implementation of universal basic education in Nigeria started in 1976 under the name Universal Primary Education (U.P.E.).

### **Nigerian factors that militate against the implementation of educational policies**

Efforts have been made to develop education in Nigeria since independence in 1960. Various policies in the interest of education have been formulated, some of which have been presented in this paper. Unfortunately, these efforts have not produced the desired effect. The state of education in Nigeria is still deplorable. It is so bad that some resourceful Nigerians prefer to send their children to Europe, America, and even small African countries such as Ghana which has only two universities as against over sixty universities

in Nigeria that lack adequate learning facilities. Apart from the general problems of policy implementation common to most countries, especially those of the third world, some factors have been identified as peculiar to Nigeria and inhibiting her educational growth. It is no longer news that Nigeria is the giant of Africa in terms of resourcefulness as a major oil and gas producer. Ironically, most Nigerians live below the poverty line of one dollar per day. The following reasons, among others, account for this deplorable situation.

### **Lack of political will**

Ordinarily, Nigerian leaders would want the country to stand out best in everything, including education. However, political will has been lacking. Perhaps this is a result of the instability of governments or lack of continuity. Between 1960 and 2005, the country had several governments led by Dr. Nnamdi Azikiwe (late), General Aguiyi Ironsi (late), and General (Dr.) Yakubu Gowon, General Murtala Mohammed (late), General Olusegun Obasanjo (as Military Head of State), Alhaji Shehu Shagari, General Muhammadu Buhari, General Ibrahim Babangida, Chief Earnest Shonekon, General Sani Abacha (late), General Abdusalam Abubakar and Chief Olusegun Obasanjo. In 45 years, Nigeria has



had fifteen heads of state out of which only four were democratically elected. Others came through military groups. This shows that most Nigerian leaders have never had time to draw up plans of action before they drafted themselves or were drafted into leadership and therefore have been ill-prepared for any development efforts whether in education or other spheres. Most of their actions were not patriotic but for personal aggrandizement. Even Chief Olusegun Obasanjo had no program of action before he was drafted to become president in 1999. Chief Obasanjo was jailed for life by the late General Sani Abacha on treasonable charges. The demise of General Abacha installed General Abdusalam Abubakar who released Obasanjo from jail, granted him a presidential pardon, and supported him to become president. So, Chief Obasanjo had no political programs for education or anything else. His dismal performance, especially in the area of education, may not be surprising. The points canvassed here are supported by Hodges (2001:26) when he noted:

In the final analysis, Nigeria's development failures have sprung from the lack of success in achieving an effective model of governance. At the head of this problem has been the instability generated by the rivalry

for control of the huge resources accruing to the State from the oil industry, and the use of political power to milk the state for personal gain rather than promote economic and social development.

So, educational policies were formulated by various governments but political instability stalled or discouraged the political will to implement such policies. As new governments came in quick succession and with relative uncertainty, continuity in policies could not be guaranteed. Every political player was in a hurry to help himself before he was displaced by another group. This has affected educational policy implementation in Nigeria.

### **Corruption**

If anything has contributed greatly to the stagnation of corporate development in Nigeria, it is this virus called 'corruption'. It is found in all aspects of human endeavor in Nigeria. Its prominence in Nigeria has earned our nation a place of negative prominence in the world.

Adesina (2004:16) noted:

The 2004 Corruption Perceptions Index, released by Transparency International (TI), the watchdog on global corruption, ranks Nigeria as the third most corrupt country in the world. In 2003, the organization ranked Nigeria second, a one-step improvement

from its previous position as the most corrupt country in the world.

Although President Olusegun Obasanjo of Nigeria was uncomfortable and disputed the rating, many Nigerians agreed that it was correct. This is because corruption pervades all segments of Nigeria's national life. Despite enormous oil and gas wealth at the disposal of the country, basic things of life such as food, shelter, potable water, electricity, good roads, and education have become luxuries to the citizens. However, people at the various levels of government and their agents wallow in enormous financial and material wealth.

Corruption has contributed to stagnate the development of education in Nigeria. Some good educational policies have been put in place. An example is the National Policy on Education already discussed. The designers of the policy, from all intents and purposes, were quite visionary. The objectives of most policies in Nigeria are often derailed at the implementation stage due to of reasons:

- (1) The budgets for the implementation of the policies are often passed by lawmakers with strings attached to them;
- (2) Even when the budgets are passed, the executive arm of government is often reluctant to release the funds to facilitate implementation, and

- (3) The inadequate funds often released to the operators of the education system (primary schools, secondary schools, and tertiary institutions) are not honestly and fully utilized to promote the cause of education. Many corruptly divert much of the available education resources to serve personal interests.

Agenda (2004) supports these observations with the following assertion:

The money available is never carefully used. The money the government votes for running the schools does not get to the schools and the little that gets there is normally wasted by those whose responsibility it is to manage the schools.

### **Methodology**

The research design for this study is a survey research method. This research method adopted by the researchers is to aid achieve the purpose of the study which is purely an investigative research into the management of policy implementation in secondary education in Nigeria: the implication for effective practice, using both primary and secondary data in forms of interviews, printed materials, online journals and articles to elicit information on the policy implementation in secondary education in Nigeria.

**Results and Discussions**

**Rate of policy implementation in secondary schools in Nigeria**

<b>Responses</b>	<b>Frequency</b>	<b>Percentage</b>
Very high	20	10%
Low	60	30%
High	40	20%
Very low	80	40%
<b>Total</b>	<b>200</b>	<b>100%</b>

**Fieldwork: 2023**

The table above, shows that 20 respondents representing 10% opined that the rate of policy implementation in secondary schools is very high, 60(30%) says the rate of policy implementation is low, 40 respondents with 20% says policy implementation is high in secondary schools in Nigeria while 80

respondents representing 40% opined that policy implementation in secondary education in Nigeria is very low. This shows that majority of the respondents are of the view that policy implementation in secondary education in Nigeria is very low

**Challenges of policy implementation in secondary school in Nigeria**

<b>Items</b>	<b>Frequency</b>	<b>Percentage</b>
Lack of political will	<b>50</b>	<b>25%</b>
Change in government	<b>40</b>	<b>20%</b>
Corruption	<b>45</b>	<b>22%</b>
Overestimation of available resources	<b>30</b>	<b>15%</b>
Underestimation of the costs of implementing a plan.	<b>25</b>	<b>13%</b>
Overreliance upon external assistance	<b>10</b>	<b>5%</b>
<b>Total</b>	<b>200</b>	<b>100%</b>

**Fieldwork: 2023**

The table above, shows that 50 respondents representing 25% opined that lack of political will is the factor affecting policy implementation in secondary school in Nigeria, 40 representing 20% says the change in government is the factor affecting

policy implementation in secondary school in Nigeria, 45 respondents representing 22% opined that corruption is the factor affecting policy implementation in secondary school in Nigeria, 30 representing 15% says overestimation of available resources is the

factor affecting policy implementation in secondary school in Nigeria, 25 respondents factor affecting policy implementation in secondary school in Nigeria while 10 respondents with 5% says overreliance upon external assistance is the factor affecting policy implementation in secondary school in Nigeria. This shows that majority of respondents are of the view that the lack of political will is a major factor affecting policy implementation in secondary schools.

### **Conclusion**

This paper concludes that the lack of successful implementation of educational policy in Nigeria's secondary education, majorly caused by insufficient funding, has led to the inability to meet desirable educational standards, goals and objectives even in the 21 century. It is thus recommended that the federal government of Nigeria should work hand in hand with expertise in the formulation and analysis of educational policy to re-assess both past and current factors that constrain effective education policy implementation and how negatively it affects the teaching and learning in Nigeria. Monitoring and maintaining minimum standards will not work in an atmosphere of non-payment of teachers and other staff in the education sector. Sometimes, schools are shut down

representing 13% says underestimation of the cost of implementing a plan is the for several months due to strike actions, and no learning occurs. Essential education for emancipation is given haphazardly when teachers eventually resume work, and maintaining standards becomes impossible. These factors are also responsible for the high level of brain drain in Nigeria, as financially able students, teachers, and scholars always opt to study abroad and later develop no interest in returning to Nigeria.

### **Recommendations**

The following recommendations are therefore suggested:

The federal and state governments should devote more money to the education sector, curb corruption, ensure transparency and accountability in the education sector, restructure the sector to ensure that the functions and responsibilities of various government agencies are established, consider the critical role played by private providers in the education delivery system; ensure that the policy formulation process is participatory; and decrease the politicization of education ministry roles and a level of involvement in the education delivery system.

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## **The Role of Social Studies Education in Achieving National Security**

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### **ABSTRACT**

The paper titled: The Role of Social Studies Education in Achieving National Security briefly looked at the concepts of social studies as a discipline of how man influences and is in turn influenced by his physical, social, political, religious, economic, psychological, cultural, scientific, and technological environments. Meaningful social, economic, and political development can only be achieved in an atmosphere of peace and security where all agents of development co-exist in harmony. Nigeria as a nation is beclouded with multifarious problems of insecurity such as kidnapping, robbery, ritual killing, rape, drug addiction, bribery, corruption, and herdsmen attack among others. These problems brought about backwardness in all ramifications to sustainable national development and attainment of national security. As a result of this existing situation, this write-up examined how knowledge acquired in social studies could be used as a veritable instrument in solving the problem of national insecurity in Nigeria.

**Keywords:** *Social studies*; education; national security

### **Introduction.**

There is a general agreement that Social Studies Education is about the grooming of good citizens, (Nyiekaa 2016). The objective is to reposition the young people so that they possess the knowledge, skills and values necessary for active participation in societal activities. Important to Social Studies Education are the efforts that are geared towards bringing new meaning to citizenship participation in community and

national development. The roles of Social Studies education in engineering sustainable national development were highly appreciated when Ogunsanwo, & Iyanda, (2017) asserts that we need the insights and critical thinking skills gained in History and Social Studies to fight poverty and homelessness, crime and discrimination, and to make our nation fairer and freer. Meaningful social, economic and political

development can only be achieved in an atmosphere of peace and security, where all agents of development co-exist in harmony. Their national security involves effective policing and careful watch against elements that could breach peace or jeopardize Nigeria's social economic and political development. National security therefore means the process and act of effective protection of lives and property in a country. Nigeria as a nation has been beclouded with problems of insecurity mostly in these recent times such as cultism, armed robbery, herdsmen attack, kidnapping, prostitution, money laundering, embezzlement of public funds, advance-free fraud (informally referred to as 419), assassination/murders, thuggery/touting, and election rigging among others. The consequence of instructing is that the country does not experience meaningful development. There is always political instability and survival of the fittest.

The purpose of this paper therefore is to examine the roles social studies education could play in producing good citizens who could assist in no small measure in tackling this complex problem of national insecurity in Nigeria and how it can help in the achievement of national security. This paper also examined the roles of citizens in

promoting national security, the consequences of insecurity, and also the remedy to the problems of national insecurity in the country. It also offered some recommendations as the citizens should develop a sense of patriotism that is to put the country above any selfish interest capable of destroying peace and harmony in the country and Political leaders should avoid the use of foul language that can cause inter or intra ethnic crisis.

In Nigeria, the peace and security situation has deteriorated in the last two decades, most specifically after the last general election in 2011. In the Niger Delta region, Shell Producing Development Company (SPDC) in 2011, for example pointed out that the area in relation to their operations, was characterized by heavily armed and Well organized gangs, called "Freedom Fighters". They have genuine agitation against the criminal neglect of the oil-producing areas by the oil development companies, the states, and the federal government. Okiro (2008) Etim (2009)

Adesima and Ujomu (2011) and Odeh cited in Onuoha, (2017). have all observed the unpalatable state of security of the Nigeria Nation which is highly lamentable. There are also destructive demonstrations of militancy in the Niger Delta region of the

country. Ikelegbe (2018) noted that violence has been observed in the Niger Delta region, where upward of one hundred barrels of oil per day is stolen, costing the country about one hundred billion dollars lost at revenue. The foreign oil workers are being kidnapped on a daily basis, setting fire to offshore oil. The above picture points out clearly that the country is faced with a lot of security challenges.

### **The Concept of Social Studies Education**

Social Studies as a discipline covers a broad area of study dealing with Man. It is a subject that is closely related to the social science subjects like Sociology, Geography, Economics, Government, Political Science and History. Its area of focus is therefore very wide. As an emerging school subject, social studies were introduced into the school curriculum like other subjects (especially the social science subjects) that had firmly taken root and were well known. Consequently, social scientists and other interested educationists and scholars have been in the forefront of the development of the subject across the world. In view of this, social studies have attracted a multitude of definitions from those who helped to propagate the subject. According to Adaralegbe (1980) social studies is a study of how man influences and is in turn

influenced by his physical, social, political, religion, economic, psychological, cultural, scientific, and technological environments. On the other hand, Ikelegbe (2018) states that social studies is an interdisciplinary approach to the study of human beings in group interrelations with both their social and physical environment. Amadi, (2015) defines social studies as a problem-solving discipline, which studied Man and his environment where he interacts in order to have a better way of living. In other words social studies provides and suggests reasonable solutions to man's problem in any environment or society he finds himself. In addition to this, social studies provide knowledge and skills for dealing with human environment in any society he finds himself. In addition to this, social studies provide knowledge, skills and attitudes that will enable people to understand their physical and human environment in order to act or behave as responsible citizen Babatunde, (2021). Ogundare (2000) explained that social studies is a study of problems of survival in an environment and how to find solution to them. He stressed further that it is a multidisciplinary study of topic, a problem, an issue, a concern or an aspiration. That is it deals with how man can fit into the society by utilizing necessary



attitudes, values and skills; implicating on social science, history, government and economics. Social Studies as a subject is an amalgamation of the social sciences. Agbibo, (2016) noted that social studies is a contemporary and environmentally formed field of study and therefore provides the learner with requisite knowledge, skills, values, attitudes and competencies to contribute meaningfully to Nigeria's national development. One theme that runs through the various concepts of social studies is the fact that it deals with the interaction of man within a given community and the relationships that exist between him and his various environment.

### **Meaning of Security**

Security, as a concept, is derived from the Latin word "Securus", meaning to be safe, freedom from anxiety or fear to be emotionally secured, affording grounds to be confident. It has been defined as: The conduction or feeling of safety from harm or danger,

-The defense, protection and observation of core values and

-The absence of threats to acquired values  
Amadi, (2015)

### **Concept National Security**

Security can be said to be the activities involved in the protection of life, properties,

and territorial integrity of a community against threats, mishaps, and other forms of destructive tendencies either from within or outside the community. However, Babangida (2012) viewed national security as the physical protection and defense of our citizens and our territorial integrity of which it is a part but also the promotion of the economic well-being and prosperity of Nigerians in a safe and secured environment that promotes the attainment of our national interests and those of our foreign partners.

Furthermore, Yusuf and Babatunde (2009) asserted that security is the condition that enhances the ability of the government, its agencies, and its citizens to function without hindrances. Section 14 (1) of Chapter II of the 1999 constitution of the Federal Republic of Nigeria captures the importance of security when it states that security and welfare of the people shall be the primary purpose of government. Seen this way, "security is a social contract between the state and its citizens in when the former is expected to protect, defend and provide for the latter in the public area. On the other hand, Agbibo, (2016) opined that security means protection from hidden and hurtful disruptions in the patterns of daily life in homes, offices or communities. Security must be related to the presence of peace,

safety, happiness and the protection of human and physical resources or the absence of crisis, threats to human injury among others. National security in a broad sense implies the absence of threat to life, property and socio-economic wellbeing of the people. A proper understanding of security is important for an adequate explanation of the remote causes of breach of peace and security, whether historical, religious, civil, ethnic, economic, social, or political issues, that have contributed to reoccurring conflicts, which Nigeria has witnessed over the years, resulting in wanton destruction and loss of life and property. These institutions: the Police, Military, State Security Agencies, Immigration and Correctional services are charged with the responsibility for the protection of life and property and well-being of the people which is the primary purpose of government. Similarly in line with assertion made by Babatunde, (2021) nation security is taken to mean the totality of measures instituted by government to protect the territorial integrity and the cherished values and interest of the people as well as guarantee the freedom of the citizenry from anxiety, threats to life, and property and their safety from natural or manmade disasters.

### **Dimensions of Security**

According to Ogunsanwo, & Iyanda, (2017) there are seven dimensions of security, call it human security, from the macro perspective.

They are:

- i. Economic security;
- ii. Food security;
- iii. Health security;
- iv. Environmental security;
- v. Personal security;
- vi. Community security/national security;
- vii. Political security (UNDP 1994)

Accordingly, UNDP (1995) in Babatunde, (2021), endorsed that, human security is not concerned with weapons –it is concerned with human life and dignity

Human security is defined as an encompassing condition in which people and communities live in freedom, peace and safety, enjoy the protection of vital freedoms. It means protecting people from critical and pervasive threats and situations, building on their strengths and aspirations.

It also means creating systems that give people the building blocks, dignity and livelihood, have access to resources and basic necessities of life and inhabit on environment which is not detrimental to their health and wellbeing, it means protecting people's freedom from fear and to

take action on one's own behalf. Therefore, national security means the process and act of effectively protecting lives and property in a country. National security involves effective policing and careful watch against elements that could breach peace or anything that can jeopardize the socioeconomic and political development of the country.

### **Factors Responsible for Insecurity in Nigeria**

There are numerous factors posing as a threat to security challenges in Nigeria.

They could be summarized as follows: Crime, Crime against the individual and against the state, Selfishness, Chronic Poverty, Inefficiency, Disobedience, Favouritism, Bad Leadership, and Massive Youth Unemployment, Violation of Human Rights, Marginalization, Unequal Development, Activities of Political Parties.

### **Consequences of Poor Security**

People are always in perpetual fear and heartbreak over issues of security challenges around them; it is obvious that in an insecure environment, no meaningful development can be achieved when there is the absence of security. Poor security network causes political instability as lawlessness takes order of the day, leading to the disrespect of the rule of law, which brings about elections

ringing, thuggery, and all other forms of social vices.

### **Ways of Promoting National Security**

1. Good governance, transparency, and accountability holding the government accountable; for its actions will help the government to step up her actions towards achieving the above mention areas.

2. Maintenance of justice and fair play. The judiciary should discharge their responsibilities without fear or favour and those found wanting should be prosecuted as the law deems it accordingly.

3. Development of sense of patriotism. Citizens should have the love of the country at heart in order to protect and safeguard the national's integrity within and outside the country.

4. Formation of police/community relations committees/ community policing. There should be a working relationship between the community and security agents, in this regard, community policing will achieve its aims and objectives to make the environment safe and conducive for all inhabitants.

5. Quality education against clashes of culture. The education system should be tailored toward practical education rather than theoretical aspect. This practical aspect

will be able to harmonize the cultural differences that exist among societies.

6. Empowerment and development of personal analytical skills and critical thinking, understanding one's environment, and working against ignorance will boost individual efficiency and promote personal and societal development.

7. Adequate political awareness. Society should be enlightened on the basic needs of the society.

The role of social studies education in ensuring national security in Nigeria's frequent kidnapping in the east, south-south and some states in the north herdsman attack and the Boko Haram menace in the North-East are major peace and security challenges in Nigeria. Social studies education as a problem-solving subject could play a vital role in bringing about sustainable peace and security in Nigeria as a whole. UNESCO in its preamble to her 2009 publication stated that "Since war begins in the minds of men, it is the minds of men that defense of peace must be constructed. Social studies as a contemporary and environmentally focused field of study that provides the learners with requisite knowledge, skills, values, attitudes and competencies to contribute meaningfully to Nigeria's national development can play a vital role in

changing the mind of the individual from evil to good, from conflict to the resolution of conflict, from war to peacemaker.

Through the teaching of social studies, the citizen will develop the spirit of national consciousness. The citizens will identify themselves with the nation by holding the ideas and values of the society. It involves placing the national interest first before the personal ones. If the Citizens should place the national interest first before personal ones and have the nation in mind, the country will be secured. The teaching of positive attitudes and appropriate values of honesty, integrity, hard work, fairness, justice, and togetherness which are necessary for national development, should start from the near education. Emphasis on the above concepts by social studies will enable citizens to develop a positive attitude towards the country which will help in promoting national security.

### **The Role of Citizens in Times of Security Challenges**

It is appropriate and socially discreet to submit that the State or Government by its commitment to the social contract that exist between it and the citizens accepted to take responsibility for the protection of the lives and properties of not only that of the citizens

but also its'. The existence of this contract presupposes the fact that the citizens naturally submitted their 'Powers or Might' to the state. Hence, Government through legitimates means carry out actions aimed at protecting the lives and properties of the citizens. These functions are performed by governments all over the world, including the Nigeria Government. Even supposing, in this present modern world, the business of security of lives and properties is perceived in clear terms as a collective responsibility, which by implication involves not only the Government but also the corporate and non-corporate citizens. By some further expounding, just as the Government has the responsibility of protecting of the polity, the citizens are not expected to stand aloof and fold their hands as onlookers. The citizens have got roles to perform. The saying, which goes that 'for every right you have there is a corresponding responsibility', is pertinent in this circumstance.

The citizens in this situation ought to perform certain duties especially vigilance to complement the efforts of the government or the state for the contract to be effectively implemented. Citizens' vigilance plays a vital role in preventing terrorism and other criminal activity. Vigilance does not mean spying. It means noticing what is around you

and recognizing when it is out of the ordinary and reporting such to the authorities either in possibly anonymous style. In no instance is this responsibility of the citizens expected to be performed more than now that we are at war against the wanton destruction of lives of innocent citizens in the guise of Boko Haram, herdsmen a wicked militant sect, who are intimidating law-abiding citizens to submit to their threat. Without any proclivity to appropriating the facts of the role of citizens in times of terror in a State, it is arguably apt to tender that primarily, Government, Security agencies, and the Military has the task of fighting terrorism. But there are practical roles or things ordinary citizens can do to make a significant difference in defeating terrorism. Therefore, it would be socially circumspect to state distinctly that; the security of a nation is a joint task of government, citizens and to some extent corporate organizations.

### **Functions of Citizens in Safeguarding National Security**

The term National security is a national issue that has to be treated in such a way that it will not degenerate into conflict but rather geared towards collected responsibilities of citizens to contribute their quota in issues of national interest and promote harmonious

coexistence among citizens irrespective of tribe, religion, and educational background.

The citizens can contribute in various ways to maintaining national security through;

1. Developing the sense of patriotism and tolerance among citizens by having genuine love of the country above any selfish interest capable of destroying peace and harmony in the country, that will treated the peace and national security of the country.

2. Having respect for Nigerian constitution by keeping to the rules and regulations of the country will greatly improve the security conditions of the country as tenets and provisions of the constitution regarding human dignity and labour are well respected and will prevent issues that will bring about insecurity in the country.

3. National security is a collative responsibility of all citizens in respect of tribe, religion, sex, and status; therefore, all security-related matters should be reported to the security agents for prompt attention and preventive measures before it occurs.

4. Citizens should distance themselves from negative values that can negate the peaceful co-existence of citizens and create a setback for underdevelopment through wanton destruction of life and property caused as a result of insecurity posed by negative values.

5. Respect for the constituted authority and worth of every individual in society. This is to say respect is reciprocal and every individual ought to be respected on its potentials and values as the society demands.

6. Citizens should carry their civic responsibilities and obligations accordingly as responsible citizens and have total allegiance to the nation.

### **Conclusions**

Peace and security are fundamental prerequisites to the success and sustainable development of any nation in achieving national security and securing of lives and property of its citizens as a functional, critical, and responsible government. The teachings of Social studies education will help the citizen in working toward achieving national security in Nigeria through its moral values. The inculcation of positive attitudes and appropriate values of honesty, integrity, hard work, fairness, justice, and togetherness are the bedrock of any national development and should start from their early education and continue as a process throughout the individual lives span. I will doubly state that Boko Haram like any other terrorist group in the world wants us to submit to their threats so that they can control us. As very responsible citizens of

Nigeria, we should continuously show more resolute resistance to the attempts of Boko Haram to threaten us with incessant bombings by acting as whistle-blowers at any suspicious actions of anybody around us and report such suspicion to the appropriate security agencies. We enjoin all Nigerian citizens to work in concert with the Security agents and discard the very insensitive utterances aimed at discrediting the efforts Federal Government by some politicians. We call on the Federal Government to resolutely show more commitment and step-up strategies in the fight against terrorism in Nigeria.

### **Recommendations**

Looking at issues raised in the paper and the role social studies education can play, the following recommendations were made to prevent the occurrence of all manner of conflicts and insurgency and ensure national security in Nigeria. These include:

- i. In order to reduce or curb insecurity in our societies the citizens should develop a sense of patriotism and tolerance, that is they should have strong feelings and love for the country above any selfish interest capable of destroying the peace and harmony that is existing in the country.
- ii. Social studies education should be extended to all levels of our educational institutions in

order to build in the citizen's moral values and also facilitate a new culture of politics that promote political tolerance, and political accommodation among the political class. This would greatly strengthen the survival of democracy in the country.

- iii. National security involved allots of issues and processes therefore, citizens should pay their taxes regularly to enable the government generate the needed revenue to finance security agencies in order to manage the security challenges as they arises in the country.
- iv. Political gladiators should be encouraged to avoid the politics of bitterness that will spice up crises at the end.
- v. Our religious leaders should try to preach sermons that will promote peaceful coexistence among countrymen in their worshiping places.
- vi. Political leaders should avoid the use of vow languages that can cause inter or intra-ethnic crises.
- vii. Government should fashion out programs and policies that will reduce Poverty and unemployment to the barest minimum, this will help reduce insecurity in the country as most youth will be busy doing one thing or another other which prevents them from engaging in evils that posed a threat to national security.

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## Knowledge of the Causes and Implications of Induced Abortion among Female Adolescents in Ilorin West LGA, Kwara State

By

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### ABSTRACT

This study examined the causes and implications of induced abortion among female adolescents in Ilorin West Local Government Area, Kwara state. Abortion is a major public health problem that is done by female adolescents through removal of a fetus from the uterus resulting in death. Descriptive research design of the survey type was adopted for the study. The population of the study comprised all the 182,791 female adolescents in Ilorin West Local Government Area, Kwara State. Multistage sampling procedure was used to select 160 respondents for the study. A self-structured questionnaire was the instrument used for data collection through a test re-test method. Data collected was analysed using descriptive statistics of frequency count and percentage for demographic information and chi-square for research hypotheses at 0.05 alpha level of significance. The result revealed that culture and mortality are perceived as cause and implication of induced abortion ( $\chi^2=124.76 > \chi^2 \text{ crit } 16.92$ ); ( $\chi^2=137.25 > \chi^2 \text{ crit } 16.92$ ). It was concluded that culture and mortality are perceived causes of induced abortion among female adolescents in Ilorin West Local Government Area, Kwara State, Nigeria. Based on the conclusion drawn from the study, it was recommended that education programmes involving stakeholders should be organized among ethnic groups to eradicate induced abortion which causes death among female adolescents.

**Keywords:** Knowledge, Cause, Implication, Induced Abortion, Adolescents.

### Introduction

Abortion is the termination of a pregnancy by the removal or expulsion of a fetus or embryo from the uterus resulting in or causing its death. It is also classified into two broad types, which includes spontaneous abortion termed as “miscarriage”, meaning the kind of abortion which occurs unintentionally due to

complications during pregnancy and induced abortion which is the kind of abortion done on purpose for which medication is taken and procedure is done. Induced abortion is classified into two which are the therapeutic abortion, that is, abortion carried out when there is danger to the life of the mother or the child to be born and elective abortion

which is the kind which is carried out for any other reason, other than danger to the mother and unborn child (Mill, 2016).

Induced abortion is a practice that has been used since generations as a method of fertility regulation. It is practiced in all countries regardless of the level of development, the strength of family planning programs, or the legal policies that regulate it. However, factors such as legislation concerning abortion, moral convictions, poverty, and access to abortion services contribute to make some abortions “safe” and other “unsafe” (Natalie et al., 2016). Studies (especially quantitative) have shown that women in poor countries with low socioeconomic resources are more likely exposed to unsafe induced abortion compared to women with high socioeconomic resources in developing countries or women living in countries where there is a liberalized access to abortion. (Lancet, 2018). Globally, 40% of women of childbearing age (15-44years) live in countries with highly restrictive laws where abortion is prohibited altogether or only allowed to save a woman’s life. In countries like Chile, Honduras, El Salvador, Nicaragua where abortion is illegal, women have to resort to illegal and often unsafe interventions to get an unwanted pregnancy

terminated. In most parts of the world affluent women have virtually always been able to obtain safe abortions, performed by a skilled provider under hygienic circumstances, regardless of law codes or religious decrees. In contrast, women who cannot afford to pay a skilled provider often have to resort to unsafe methods. Unsafe abortion is a significant contributor to the high maternal mortality rate in low income states and accounts for 13% of all maternal deaths. The circumstances under which women obtain unsafe abortion varies from one setting to another and depends on the traditional methods known, the type of providers present and the availability of trained health professionals who are willing to perform abortion despite the intervention being illegal (Bankole & Gaia, 2021). All over the world, women experience indulge in premarital or unprotected sexual intercourse which leads to unwanted pregnancy, in so doing, many of these women seek to terminate the pregnancy by safe medical means if possible but often by other means. The termination of pregnancies most generally known as “abortion” is a universal phenomenon occurring throughout all levels of societal organization and recorded history. Techniques implemented are highly varied as are circumstances under

which it is practiced. Abortion is not unique at any point in time or level of societal organization. An abortion by definition is the discarding by the uterus of the product of conception before the 24th week of pregnancy (Smart, 2016).

Historically, abortions have been attempted by different methods such as using herbal medicines, sharp tools, and forceful massage or through other traditional methods. Abortion laws and cultural or religious views of abortions are different around the world. In some countries, abortion is legal only in specific cases such as rape, fetal defects, poverty, risk to a woman's health, or incest. There is debate over the moral, ethical, and legal issues of abortion those who oppose abortion often argue that an embryo or fetus is a person with a right to life and they may compare abortion to murder. Those who support the legality of abortion often hold that it is part of a woman's right to make decisions about her own body. Others favor legal and accessible abortion as a public health measure (Marco, 2019). Abortion affects every nooks and crannies of the world. The Centre for Human Development, Ile-Ife in conjunction with United Nations International Children Emergency Funds (UNICEF) declared that over 50% women in Nigeria are pregnant by

the age of 20 (in some communities, it is high as 80% in the year 2003). Out of this number, 21-28% delivered parturition between the ages of 15 and 17 and 40% are mothers by the age of 18. This is to say that abortion among adolescents is higher than among women. Adolescent is the period when children begin to identify some notable change in their physical body such changes would make them to be aware of their bodies. Changes like growth of the breast, beginning of menstrual period among women, broadness of the chest and growth of hairs in the public areas in girls occur during this period. Abortion or termination of unwanted babies among adolescents owes to so many reasons ranging from poverty, illiteracy, incompetence and so many other reasons (Jeje, 2014).

In Nigeria, the law makes it a criminal act to perform or seek for abortion except it is for the purpose of saving the women indulging in the act and the people demanding for it. Abortion is still secretly practiced by medical practitioners and is still on the high side especially among adolescents. The highest incidence of abortion among adolescents has led to deaths and health consequences such as barrenness, sterility, infection of the womb, perforating of the uterus, amongst others. Nevertheless,

adolescents in Nigeria have continued to seek for abortion with unqualified physicians providing the services in private clinics and hospital where in most cases unsafe methods are used resulting to severe health consequences or even death among the adolescents (Ayanwale, 2016).

In Nigeria, 50% of maternal deaths are among adolescents due to illegal abortion while abortion complications accounts for about 72% of all death among girls under the age of 19 (Saka, 2016). Many youths uses drugs or surgery to remove the embryo or fetus and placenta from the uterus. The procedure is supposed to be done by a licensed health care professional (WHO, 2021). Meanwhile, adolescents are at higher risk for unintended pregnancy and induced abortion, especially those at young ages and living in developing countries where the access to contraception is low due to financial, social and cultural barriers. Annually, 55.7 million abortions are taking place worldwide, of which an estimated 30.6 million are safe abortions performed by a trained professional and in a suitable medical environment. The proportion of unsafe abortions, that is, the proportion of pregnancy termination carried out by persons lacking the necessary skills or in an unsuitable environment is significantly

higher in developing countries than in developed countries (49.5% vs. 12.5%). Unsafe abortion is a major cause of maternal death, especially in the developing world. The World Health Organization states that "access to legal, safe and comprehensive abortion care, including post-abortion care, is essential for the attainment of the highest possible level of sexual and reproductive health" (WHO, 2018).

Around 56 million abortions are performed each year in the world and about 45% are done unsafely, abortion rates changed little between 2003 and 2008, before which they decreased for at least two decades as access to family planning and birth control increased. As of 2018, 37% of the world's women had access to legal abortions without limits as to reason. Countries that permit abortions have different limits on how late in pregnancy abortions are allowed. Abortion rates are similar between countries that bans abortion and countries that allows it (Dave, 2020).

According to Olewei (2019) the circumstances under which women obtain unsafe abortion vary and depend on the traditional methods known and the type of providers present. In rural Tanzania, women often resort to traditional providers who use plant species as abortion remedies. Many do

not know how the importance of these plants, how they are used and their potential effects on the health. Among women admitted with incomplete abortions, 67% had an unsafe abortion. Almost half of the women who had experienced an unsafe abortion had resorted to traditional providers and plant species which were in these cases often used as abortion remedies. In all the 21 plant species that were identified as potential abortion remedies and analyzed, 16 of the species were found to have a uterine contractive effect; they significantly increased the force of contraction, increased the frequency of contractions or did both. Unsafe abortion is common in rural part of Nigeria where many women use plant species to terminate an unwanted pregnancy. The plants have a remarkable strong uterine contractive effect (Olewei, 2019). Women in most cultures have throughout history employed traditional methods to control their fertility, and anthropologists studying contraception and abortion in non-western societies have reported the use of an enormous number of plant specimens, but they have rarely focused on the substance effects and side effects. Additionally, most medical professionals and scientist have considered traditional use of plant specimens as merely symbolic or mythic

with no physiological foundation. Therefore the information, which is available about how traditional providers induce abortion, is mostly of anecdotal character provided by women who have been admitted with abortion complications or health staff who have attended women with abortion. Hence there is a lack of detailed, structured information, which describes the remedies and methods used to induce abortion in more detail (WHO, 2019). Adewole (2015) stated that because of Nigeria's low contraceptive prevalence, a substantial number of women have unintended pregnancies, many of which are resolved through clandestine abortion, despite the country's, restrictive abortion law. Up-to-date estimates of abortion incidence are needed. Levels of unintended pregnancy and unsafe abortion continue to be high in Nigeria. Improvements in access to contraceptive services and in the provision of safe abortion and post abortion care services (as permitted by law) may help reduce maternal morbidity and mortality.

#### **Statement of the Problem**

Abortion is a common risk act and also a major public health problem carried out by many female adolescents without the help of a medical personnel. It is widely practiced in Kwara state, Nigeria. The researchers

noticed that many female adolescents in the state get pregnant unintentionally and try to get rid of it clandestinely. While carrying out the act, they end up using many unsafe means to achieve this unhealthy act despite being knowledgeable about the consequences. As a result of off-campus cohabitation, premarital sexual relations which is common among adolescents, consequently, induced abortion is becoming rampant. This could be because of the shame, insults, discomfort and an array of psychological problems associated with unwanted pregnancy among female adolescents. Thus, in trying to avoid shame or being disowned by parents, getting insults or bullying from colleagues in school, trying to avoid all these, induced abortion poses more problem which are psychological, emotional, reproductive in nature, it sometimes lead to even sudden death (Omotu, 2021).

Meanwhile, induced abortions have grievous reproductive implications such as death, infertility and potential complications related to abortions which includes pain, bleeding, infection in the upper genital tract that causes endometritis, oophoritis, parametritis, and salpingitis and sometimes these complications may result to death (WHO, 2019). However, it is a common

practice carried out in Government hospitals secretly but mostly in private hospitals, these and many more are the major reasons why the researchers are investigating the cause and implication of induced abortion among female adolescents in Ilorin West Local Government Area, Kwara state, Nigeria.

### **Research Questions**

The following questions are raised to guide this study:

1. Do female adolescents have knowledge of culture as a cause of induced abortion in Ilorin West Local Government Area, Kwara State?
2. Do female adolescents have knowledge of mortality as an implication of induced abortion in Ilorin West Local Government Area, Kwara State?

### **Research Hypotheses**

The following hypotheses were formulated for this study:

**HO<sub>1</sub>:** Female adolescents do not have significant knowledge of culture as a cause of induced abortion among female adolescents in Ilorin West Local Government Area, Kwara State.

**HO<sub>2</sub>:** Female adolescents do not have significant knowledge of mortality as an implication of induced abortion among

female adolescents in Ilorin West Local Government Area, Kwara State.

### **Methodology**

A descriptive research design of survey type was adopted for the study. This method was used because the study requires the researcher to collect information for the purpose of describing the study in details. Survey research, According to Check and Schutt, (2012) is the collection of information from a sample of individuals through their responses to questions. The information of data collected was used to draw a general conclusion on while population in which a representative's sample research comes about as a result of the desire to find out problems that are facing education, society and nation at large. The descriptive research was therefore found to be relevant & useful for the present study as it tries out the situation as it exists in the population. The population of this study comprised all residents of Ilorin West Local Government Area of Kwara State.

The target population cut across all the twelve wards in Ilorin West Local Government Area of Kwara state. The Local Government consist 364,666 people, out of this population, the number of males is 181875 and females are 182791 (National Population Commission, 2006). Multi-stage sampling technique was used for this study. Simple random sampling technique of Fish Bowl method was used to select four (4) wards (Adewole, Baboko, Oko Erin and Warah/Osin-Egbejila) out of twelve (12) wards (Adewole, Ubandawaki, Oko-Erin, Warah/Osin-Egbejila, Oloje, Ogidi, Baboko, Magaji-nger, Alanamun, Badari, Ajikobi, Oju-Ekun) in Ilorin West Local Government Area of Kwara State. Proportionate sampling of 0.25% was used to select the respondent, where 0.25% of each selected ward population was sampled. Simple random sampling technique was used to select the actual 160 respondent for the study.

**Table 1:** Sample Size from Selected Wards

Wards	Selected wards	Population of the wards selected	Percentage of the respondent used	Actual respondents used
Adewole	Adewole	14,559	36.4	36
Alanamu				
Ajikobi				
Ubandawaki	Baboko	16,061	40.2	40
Badari				
Baboko				
Oko-Erin	Oko-Erin	17,424	43.6	44
Oju Ekun				
Ogidi				
Magaji Ngeri	Warah/Osin/Egbejila	16,011	40.0	40
Oloje				
Warah/Osin/Egbejila				
<b>Total</b>		<b>64,055</b>		<b>160</b>

The main instrument that was used to gather information from the respondents was a researcher’s structured questionnaire. The questionnaire consisted of two section, A and B. Section A of the questionnaire elicited information on the demographic characteristics of the respondents; while section B elicited information on the variables under study. The questionnaire was a closed-ended of four point Likert rating scale format of; strongly Agree (SA) = 4, Agree (A) = 3, Strongly Disagree (SD) = 2, Disagree (D) = 1. It is generally regarded as the most important property of measurement. In order to ascertain the validity of the instrument, three (3) drafted copies of questionnaires were given to three (3) experts in the Department of Health Promotion and Environmental Health

Education, University of Ilorin, Nigeria. Their suggestions and comments in line with the researcher’s supervisor was used to make the final draft of the instrument. To ascertain the reliability of the instrument, 20 questionnaires was administered to a ward apart from the sampled wards and re-administered to the same selected wards after two weeks interval. Pearson Product Moment Correlation (PPMC) was used to analyze the data and to determine the reliability of the instrument. A coefficient of 0.72 was obtained which implies the instrument is very reliable for the study. A letter of introduction was obtained by the researcher from the Department of Health Promotion and Environmental Health Education, Faculty of Education, University of Ilorin. This is to gain access to the



respondents for the purpose of instrument administration and data collection. The researcher personally carried out the administration of the questionnaire on the respondents with the aid of the community union and friends in the same wards who were well-trained for the purpose of the research. The researcher attempted to answer any question that might not be clear to the respondents. The respondents responded to the item and the researcher collected the questionnaires immediately to avoid loss of instrument. The data collection was coded and subjected to appropriate statistical analysis. Section A which entailed

the demographic data of the respondents was analysed using descriptive statistics of frequency counts and percentage; while the inferential statistics of chi-square was used to test the postulated null hypotheses at 0.05 alpha level.

**Results**

The results obtained from the two hypotheses used for the study are shown in Table 2 & Table 3.

**Ho<sub>1</sub>:** Culture will not significantly be perceived as a cause of induced abortion among female adolescents in Ilorin West Local Government Area, Kwara State.

**Table 2:** Chi-square Analysis Showing the Result of Abortion and Culture

S/N	STATEMENT	SA	A	D	SD	Df	Cal. Value	Table Value	Remarks
1	Society expectations help in encouraging induced abortion	39 (24.4%)	75 (46.9%)	17 (10.6%)	29 (18.1%)				
2	Incompetent evacuation of child during abortion is a result of fear of cultural beliefs	51 (31.9%)	71 (44.4%)	26 (16.3%)	12 (7.5%)				
3	Adolescents are at risk of induced abortion in a society that discourage teenage pregnancy	61 (38.1%)	79 (49.4%)	15 (9.4%)	5 (3.1%)	<b>9</b>	<b>124.76</b>	<b>16.92</b>	<b>Ho rejected</b>
4	Adolescent girls who may want to continue their pregnancy and raise a child might get unwanted attention from relatives, friends, and society.	65 (40.6%)	80 (50.0%)	10 (6.3%)	5 (3.1%)				
<b>Column Total</b>		<b>216</b>	<b>305</b>	<b>68</b>	<b>51</b>				

Table 2 shows that the critical value of 124.76 is greater than the table value of 16.92 at 0.05 alpha level at degree of freedom 9. Thereby the null hypothesis ( $H_0$ ) was rejected. Hence, culture is significantly perceived as a cause of induced abortion

among female adolescents in Ilorin West Local Government Area, Kwara State.

**H<sub>02</sub>:** Mortality will not significantly be perceived as an implication of induced abortion among female adolescents in Ilorin West Local Government Area, Kwara State.

**Table 3:** Chi-square Analysis Showing the Result of Abortion and Mortality

S/N	STATEMENT	SA	A	D	SD	Df	Cal. Value	Table Value	Remarks
1	Induced abortion can lead to damages to body organs leading to death.	106 (66.3%)	46 (28.8%)	3 (1.9%)	5 (3.1%)				
2	Unsafe induced abortion can escalate to mortality.	59 (36.9%)	88 (55.0%)	6 (3.8%)	7 (4.4%)				
3	Young female athletes who engage in abortion are at high risk of death	67 (41.9%)	74 (46.3%)	13 (8.1%)	6 (3.8%)	9	137.25	16.92	<b>H<sub>0</sub> rejected</b>
4	Ruptured uterus during induced abortion remains one of the leading causes of maternal mortality.	60 (37.5%)	72 (45.0%)	15 (9.4%)	13 (8.1%)				
<b>Column Total</b>		<b>292</b>	<b>280</b>	<b>37</b>	<b>31</b>				

Table 3 shows that the critical value of 137.25 is greater than the table value of 16.92 at 0.05 alpha level at degree of freedom 9. Thereby the null hypothesis ( $H_0$ ) was rejected. Hence, mortality is significantly perceived as an implication of induced abortion among female adolescents in Ilorin West Local Government Area, Kwara State.

**Discussion of Findings**

The result of the first hypothesis showed that the critical value of 124.76 is greater

than the table value of 16.92 at 0.05 alpha level at degree of freedom 9. Therefore, the null hypothesis ( $H_0$ ) was rejected. Hence, culture is significantly perceived as a cause of induced abortion among female adolescents in Ilorin West Local Government Area, Kwara State, Nigeria. This findings is in line with Ushie et al. (2019) that cultural and religious intolerance to abortion, among communities and service providers, manifesting most saliently as abortion stigma, as well as the cost of care, continues

to drive women and adolescent girls to self-managed abortion procedures or those offered clandestinely mainly by unqualified providers. Senior (2016) added that, almost all over the world, there are demonstrable social gradients in health. And the associations are invariably one-directional, namely that the poorer you are or the lower you are on the social hierarchy, the worse your health is. This is especially true for solid life and death indicators like infant mortality rate, life expectancy, under-five mortality, and likewise. People living in poor countries, at an aggregate level, have shorter life expectancy than more well-off. At the aggregate level, we also know some of the causes of ill health: improper nutrition, poor access and utilization of preventive interventions (immunization coverage), poor housing, and more exposure to infectious agents, and so forth. Disparities in health based on socioeconomic status and the nature of social relationships have been demonstrated in different studies in the social and medical sciences. These studies revealed that disparities in health are driven by a complex set of causal processes including largely social determinants. Therefore, social factors (social network, level of education, the status in the social hierarchy, and economic status, etc.) would

make people more vulnerable and being at risk of diseases than others (Obianwu, 2018). The result of the second hypothesis showed that the critical value of 137.25 is greater than the table value of 16.92 at 0.05 alpha level at degree of freedom of 9. Thereby the null hypothesis ( $H_0$ ) was rejected. Hence, mortality is significantly perceived as an implication of induced abortion among female adolescents in Ilorin West Local Government Kwara State. This findings is in line with Ghazaleh et al (2020) that adolescent girls comprise a considerable proportion of annual abortion deaths worldwide with 15 percent of all unsafe abortions taking place among girls under 20 years of age. Misoprostol has been reported to cause the uterus to rupture/tear when given after the eighth week of pregnancy which can result in severe bleeding, hysterectomy or maternal or fetal death (Pfizer, 2007). According to the WHO, nearly 42 million adolescents who are faced with unplanned pregnancy have abortion, and about 20 million of them do so unsafely, either inducing abortion themselves or obtaining abortion clandestinely. It is among the latter group that most of the deaths occur that constitute the 13% of worldwide maternal mortality attributable to abortion. More effective sex education, more

accessible effective contraception, better access for all women to safe abortion when needed, must all play a part if we are to reduce these figures. According to the research carried out by Gonzalez (2016) a 13 year-old girl self-administered 10 tablets of oral misoprostol to terminate an 18-week pregnancy. She expelled the fetus the following day. A week later, she developed excessive vaginal bleeding, difficulty in breathing and tachycardia. She was hospitalized and diagnosed with sepsis due to a retained placenta. Uterine curettage and aggressive conservative management, followed by total abdominal hysterectomy, failed to stop the fulminant septic process. The patient's condition deteriorated rapidly and she died 15 hours after admission to hospital. Ruptured uterus remains one of the leading causes of maternal morbidity and mortality in developing countries (Moller & Gulmezoglu, 2017).

### **Conclusions**

Based on the findings of this study, the following conclusions are made;

1. Culture was perceived as a cause of induced abortion among female adolescents in Ilorin West Local Government Area, Kwara State.
2. Mortality was perceived as an implication of induced abortion among female adolescents in Ilorin West Local Government Area, Kwara State.

### **Recommendations**

1. Education programmes involving stake holders should be organized for different ethnic groups in order to cultures to eradicate induced abortion.
2. Educating the female adolescents on mortality and other severe health implications caused by induced abortion should be the duties of the government.

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**An assessment of Relevant Information and Communication Technology (ICT) Skills Possessed by Postgraduate Students in Nigerian Library Schools: A Gender Difference Approach**

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**ABSTRACT**

The paradigm shift in the academic environment as a result of the adoption of Information and Communication Technology (ICT) tools for enhanced learning which promotes an integrative approach to learning has provided a platform for new competency expectations from Library and Information Science (LIS) Postgraduate Students (PGs). Therefore, this study investigated if the possession of ICT skills is relevant for LIS PGs in library schools in Nigeria using a gender differences approach. The descriptive survey research design of the correlational type was adopted for the study. Total enumeration was used to capture two hundred and three (203) PGs in the selected library schools using a questionnaire as the research instrument. The findings of the study revealed that the level of ICT skills of postgraduate students' in library schools in South-West Nigeria was fair. There was no significant difference in the level of ICT skills of male and female postgraduate students' in library schools in South-West Nigeria ( $P = 0.766 > 0.05$ ). There was however a significant relationship between ICT skills and the research competence of LIS PGs in library schools in South-West Nigeria. The study therefore recommends that more ICT related courses, apart from the ones identified in the study, should be included in the curriculum so as to improve the ICT skills of the students. In addition, the study also recommends, that ICT as a course should be more practical oriented in the curriculum of LIS PGs in library schools in South-West Nigeria.

**Keywords:** *ICT skills, library and information science, postgraduate student, LIS curriculum*

**Introduction**

Information and communication technology (ICT) is extensively occupying all the fields of workplaces. The application of information technology (IT) knowledge, skills and understanding has become a reality for employees including postgraduate

students. The value of having ICT skills therefore transcends the learning environment. Skills of using ICT is necessary in our emerging knowledge society and these involve the ability to solve increasingly complex problems in a variety

of knowledge-rich domains, participate in knowledge work as well as engage in various networked activities. The effect of ICT on education is directly associated with students' access to and usage of digital devices. ICTs skills have brought efficiency and effectiveness in developing the research competence of PGs through storing, processing, analyzing and sharing vast amounts of data. Information and communication technologies (ICTs) can therefore be defined as technological tools and resources which are employed to communicate, create, disseminate and manage information. Acquisition of ICTs skills by PGs might help in accessing, gathering, manipulating and communicating information for an enhanced research conduct (Oguejiofor & Ikedimma, 2021).

The level of confidence of ICT skills and exposure to ICT of a student may affect use of ICT (Rae, 2005). Using computers effectively is now a crucial part of every student including LIS PGs because of the myriads of benefits it offers. Some core ICT skills required by postgraduate students in the present era include knowledge of spreadsheet, word processors, database and presentation tools etc. (Oguguo, Okeke, Dave-Ugwu, Ocheni, Ugorji, Nwoji and Ike 2020). ICT skills are needed by postgraduate

students to make use of most of the technological tools to excel in their research work during the programme and after. Previous observations have shown that PGs who possessed greater ICT skills might find it easy to draw up a good research work (Amini-Phlips & Nwanosike, 2018) because PGs ICT skills can greatly influence the success of their research work during and after their programme. The use of ICTs in a fast changing learning environment is becoming one of the most fundamental building blocks of contemporary civilization in a relatively short period. Similarly, ICT adoption as a foundational academic standard is one of the most significant transformation processes over the decade (Nketiah-Amponsah, Asamoah, Allassani, & Aziale, 2017). Because of the disparities in access to and use of ICTs between men and women, therefore, this study intends to investigate the relevance of ICT skills to LIS postgraduate students using a gender approach.

### **Problem Statement**

Enrolling for a Library and Information Science (LIS) Postgraduate Degree programme is not to add to already existing statistics of librarians doing so, rather it is a requirement for the job as an academic staff. LIS PGs irrespective of gender are thus



expected as part of their requirements for the conferment of a PG degree to carry out research project by articulating a problem that can be investigated, identify why the problem should be studied, formulate testable hypotheses, review related literature, collect and analyse the data using appropriate statistical tools, interpret the result, draw conclusions and make recommendations based on the findings while ensuring they are in tandem with the objectives of the study. All of these therefore require that the student irrespective of gender is equipped with the right ICT skills so as to retrieve and use relevant information sources either online or offline. As a PGs, some of the 'unwritten' skills expectations for both genders are the ability to use presentation tools such as PowerPoint to present research findings, browse the internet for current materials on their research, send and receive electronic mail, use excel and spreadsheets etc. Thus, excelling as a PGs of LIS either male or female requires a high level of ICT skills to improve their research skill, dissertations writing among others. However, Qazi, Abayomi-Alli, Hasan & Sarker (2022) reported that there is a gender imbalance in the use of ICT and skills involved. Consequently, perhaps these sets of people

are the future librarians and academic staff and will be required to carry out research in the higher education environment, hence, ICT skills is a necessity whether as a male or female. As a result of the foregoing, can we say that both male and female LIS PGs possess the same relevant ICT skills in Nigerian Library schools? Hence, the need for this study.

### **Research Question**

This research question guided the study

1. What are the types and the level of ICT skills possessed by LIS PGs in Nigerian library schools?

### **Research Hypotheses**

The following research hypotheses guided the study

**H<sub>01</sub>:** There is no significant difference in the level of ICT skills of male and female LIS PGs in Nigerian library schools.

**H<sub>02</sub>:** There is no significant relationship between the ICT skills of LIS postgraduate students and their research competence.

### **Review of Related Literature**

The discovery of ICT has transformed every facets of man's activities and has also changed the entire way of life of humanity as it cannot be ignored any longer in our contemporary society. Thus, the possession of ICT skills by PGs cannot be

overemphasised, this is because it helps to demystify the learning and research processes throughout the period of training. ICT is therefore the integration of both hardware (computers) and its associated software (applications and systems) to produce, store, process, display and distribute certain information (Nyabisi 2019). It is also the application of computers and other technologies to the acquisition, organization, storage, retrieval and dissemination of information. Higher education training especially postgraduate training plays a critical role in developing the workforce of a thriving economy hence their possession of ICT skills cannot be downplayed.

In education the possession of ICT skills by students including postgraduate students helps to improve classroom engagement and knowledge retention by the students as the students can learn same thing in a different and more enjoyable way from the lecturer. Additionally, having ICT skills as a PGS helps the student to communicate, learn and even collaborate with other researchers working in the same area of research globally online. According to Nyabisi (2019) the application of ICT in research has caused significant transformation in postgraduate studies; because it helps to

save time and money used during and after research, and also reduces the difficulty in working with big data or information resources which were impossible in the past. Therefore, ICT is the application of computers and other technologies to the acquisition, organization, storage, retrieval and dissemination of information. OECD (2013) defined ICT skills as “the ability to use digital technology, communication tools and networks to acquire and evaluate information, communicate with others and perform practical tasks.”

These set of skills has been regarded as the core competencies of twenty-first-century learning and skills students must master to participate effectively in the society (Binkley, Erstad, Herman, Raizen, Ripley, Miller-Ricci, & Rumble, 2012). Studies have also revealed that due to the widespread use of ICT especially in higher education, university students generally have higher levels of related skills (Yalman and Tunga 2014) if they possess requisite ICT skills. Requisite ICT skills in performing activities such as; writing term papers/assignments, proposal/grant writing, plagiarism check, collecting and analysing data, communicating with supervisors/other experts etc. Other programs on the computer that PGs can use to support the research and

learning process are word processors (Microsoft Word), Presentation tools (Microsoft PowerPoint), Spreadsheet (Microsoft excel) etc. Nyabisi (2019) study added that students can utilize word processors, such as Microsoft Word, to support faster typing and avoid grammatical and spelling errors. Writers with spelling difficulties can also use word banks to select words as well as generate ideas of word choice; or use spell checkers in identifying misspellings or typing errors.

Similarly, Yarullin and Tsyrukun (2015) found out that information competences use of postgraduate students include the ability to search, analyze and select necessary information, to organize, transform, keep and transfer it independently for research development. Also, Ankamah (2021) study on the awareness and utilisation of ICT applications to facilitate research of postgraduate students, found out that most postgraduate students had adequate ICT skills and they were also aware that ICT use in research can facilitate their scientific inquiries. The use of ICT tools in research makes it easy for researchers to work with big data and information resources. Therefore, the awareness and publicity of research technologies to students would enhance their usage. This was corroborated

in Adegbilero-Iwari, Odefadehan, Owoeye and Christopher (2021) study on the assessment of the information and communication technology (ICT) skills of PG students in a Nigerian private university. The findings showed that the students are more skilful in E-mail (159%), web browsing (53%), online registration (57%), mobile apps use (53%), e-banking (49%), e-commerce (44%). Additionally, Hosain & Sormunem, (2019) measured the levels of ICT skills of LIS students for both Bachelor's and Master's degree student in Bangladesh. The total population of this study was 589 students (476 bachelor's and 113 master's degree students). The results indicated that the LIS students ICT skills (word processing, presentation graphics, browsing the internet, using search engines, downloading from and uploading on the internet, email tools and services, installation of application software in the computing devices, and installation of operating systems) in overall computer and internet tasks was good ( $M = 3.05$ ), the advanced computer and evaluation of internet resources, indicated average for LIS student.

However, analysing the data of 228 students from 30 HEIs in Mexico, Bordas-Beltrán and Arras-Vota (2018) found that female

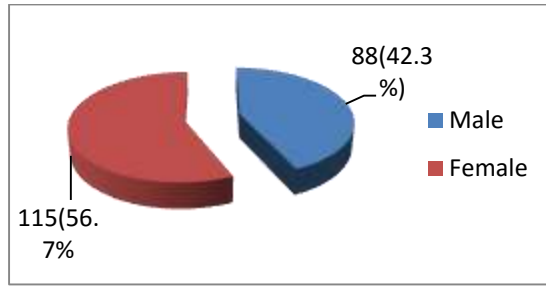
students' perceived ICT competencies were higher than the male students. In a study on ICT skills of Library and Information Science (LIS) students in Bangladesh, the results of the study also suggest that the students perceived their skills at the average (i.e., below good) level in advanced computer and internet tasks. It was surprising that the experienced fourth-year bachelor and master's degree students also reported that their skills in advanced ICT were not good Hossain & Sormunen (2019). In a related study Yalman, Basaran & Gonen (2016) found out that in terms of gender that the male students had higher level of computer and communication technology skills when compared to the female students. Walcott, Garner-O'Neale and Depradine (2013) also found out that both male and female were most highly skilled in the use of word processing software, although there is no significant difference based on gender. The study further established that females' weakest competence was computer maintenance, while males' weakest was the use of presentation software.

### **Research Methods**

The research design for this study was descriptive survey design. The population of this study comprised of all the postgraduate

students of Library and Information Science (LIS) in South-West, Nigeria for the present academic session in the various institutions in 2021/2022. As at the time of this study only University of Ibadan (UI), Oyo State, Babcock University, Ilisan, Ogun State, Tai Solarin University of Education (TASUED), Ogun State, Lead City University, Ibadan, Oyo State, Federal University of Agriculture (FUNNAB), Abeokuta, Ogun State and Adeleke University, Ede Osun State had PG programmes in LIS. Total enumeration technique was therefore used to capture all the postgraduate students for the study. A total of two hundred and eighty-seven (287) copies of the questionnaire were administered, however only two hundred and three (203) of the questionnaire were returned and found useful for the study.

**Demographic Characteristics of the Respondents**

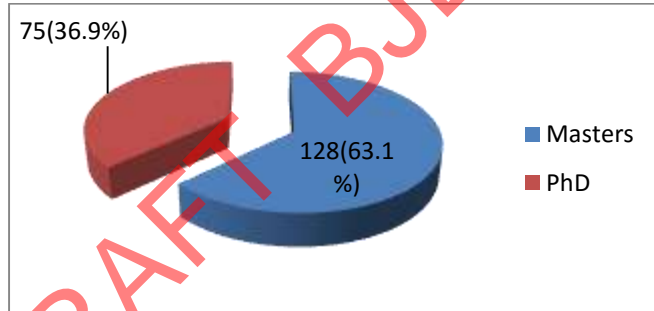


**Figure 1: Pie-chart representing gender distribution of the respondents**

The pie-chart in figure 1 revealed that 88 respondents representing 43.3% of the sample size were male while 56.7% were

female. This implied that greater number of the respondents were female

Degree Sought	Frequency	Percentage (%)
Masters	128	63.1
PhD	75	36.9
<b>Total</b>	<b>203</b>	<b>100</b>



**Figure 2: Pie-chart representing degree sought distribution of the respondents**

Figure 2 indicated that 128 respondents representing 63.1% of the sample size were those who sought for Master’s Degree while 36.9% were those of Ph. D. The implication of this result was that a large percentage of the respondents were those who sought to acquire Master’s degree in library and information science.

**Table 1: Study Population**

Selected Institutions	Number of Postgraduate Student
University of Ibadan	76
Babcock University	45
Tai Solarin University of Education	25
Leadcity University	34
Federal University of Agriculture (FUNNAB)	03
Adeleke University	20
<b>Total</b>	<b>203</b>

**Results Presentation**

**Research Question 1:** What are the types and the level of relevant ICT skills

possessed by LIS PGs in Nigerian library schools?

Table 2: Types and Level of ICT skills of LIS postgraduate students

Items	Very Good	Good	Fair	Poor	Very Poor	Mean	SD	Remark
<b>WORD PROCESSING SKILLS</b>								
Create and save new documents	28(13.8)	89(43.8)	53(26.1)	23(11.3)	10(4.9)	3.50	1.01	High
Use font formatting features	53(26.1)	62(30.5)	60(29.6)	8(3.9)	20(9.9)	3.59	1.08	High
Use paragraph formatting features	28(13.8)	79(38.9)	59(29.1)	24(11.8)	13(6.4)	3.42	1.07	High
Use the mail merge	36(17.7)	59(29.1)	70(34.5)	25(12.3)	13(6.4)	3.39	1.11	High
Generate table of content	39(19.2)	72(25.5)	56(27.6)	22(10.8)	14(6.9)	3.49	1.13	High
Create an index for a document	54(26.6)	56(27.6)	52(25.6)	17(8.4)	24(11.8)	3.49	1.29	High
Put a footnote on a document	35(17.2)	49(24.1)	69(34)	37(18.2)	13(6.4)	3.28	1.14	High
Put a endnote on a document	31(15.3)	78(38.4)	55(27.1)	13(6.4)	21(10.3)	3.43	1.15	High
Compile a bibliography	30(14.8)	36(17.7)	60(29.6)	47(23.2)	25(12.3)	2.99	1.24	Moderate
Inserting table, picture, smart art and chart	47(23.2)	30(14.8)	71(35)	29(14.3)	21(10.3)	3.27	1.27	High

<b>SPREAD SHEET SKILLS</b>	<b>Very Good</b>	<b>Good</b>	<b>Fair</b>	<b>Poor</b>	<b>Very Poor</b>	<b>Mean</b>	<b>SD</b>	<b>Remark</b>
Create and save new data table	44(21.7)	55(27.1)	41(20.2)	45(22.2)	13(6.4)	3.36	1.24	High
Format cells	42(20.7)	54(26.6)	66(32.5)	18(8.9)	18(8.9)	3.42	1.18	High
Apply formula	33(16.3)	75(36.9)	65(32)	13(6.4)	17(8.4)	3.46	1.18	High
Apply excel function	19(9.4)	64(31.5)	85(41.9)	17(8.4)	18(8.9)	1.10	1.10	Low
Create a worksheet database	23(11.3)	74(36.5)	84(41.4)	8(3.9)	14(6.9)	3.24	1.04	High
Use data form to enter data and to find a record	39(19.2)	39(19.2)	59(29.1)	52(25.6)	14(6.9)	3.41	.98	High
View data using filter	42(20.7)	53(26.1)	56(27.6)	33(16.3)	19(9.4)	3.18	1.21	High
View data using sort	51(25.1)	75(36.9)	38(18.7)	22(10.8)	17(8.4)	3.33	1.24	High
Analyze data using database functions	64(31.5)	52(25.6)	56(27.6)	16(7.9)	15(7.4)	3.60	1.21	High
Display data that meet comparison criteria	58(28.6)	73(36)	41(20.2)	14(6.9)	17(8.4)	3.66	1.21	High
Draw chart (Pie chart, bar chart etc)	49(24.1)	51(25.1)	58(28.6)	36(17.7)	9(4.4)	3.69	1.20	High
<b>DATABASE SKILLS</b>	<b>Very Good</b>	<b>Good</b>	<b>Fair</b>	<b>Poor</b>	<b>Very Poor</b>	<b>Mean</b>	<b>SD</b>	<b>Remark</b>
Create a new blank database	15(7.4)	54(26.6)	75(36.9)	40(19.7)	19(9.4)	3.03	1.07	High
Create a table and add record	39(19.2)	59(29.1)	74(36.5)	20(9.9)	11(5.4)	3.47	1.08	High
Create relationship between tables	44(21.7)	50(24.7)	66(32.5)	16(7.9)	27(13.3)	3.33	1.28	High
Create relationship between tables	51(25.1)	29(14.3)	45(22.2)	50(24.6)	28(13.8)	3.12	1.39	High
Set the primary key for table	24(11.8)	75(36.9)	42(20.7)	45(22.2)	17(8.4)	3.22	1.17	High
Create form of data entry and data display	21(10.3)	76(37.4)	67(33)	20(9.9)	19(9.4)	3.30	1.09	High
Apply query and display requirement criteria	18(8.9)	68(33.5)	81(39.9)	18(8.9)	18(8.9)	3.25	1.04	High
Prepare reports based on the database records	24(11.8)	68(33.5)	81(39.9)	16(7.9)	14(6.9)	3.35	1.02	High

<b>POWERPOINT PRESENTATION SKILLS</b>	<b>Very Good</b>	<b>Good</b>	<b>Fair</b>	<b>Poor</b>	<b>Very Poor</b>	<b>Mean</b>	<b>SD</b>	<b>Remark</b>
Create and save the presentation slides	41(20.2)	43(21.2)	70(34.5)	28(13.8)	21(10.3)	3.34	1.28	High
Work in different views	42(20.7)	61(30)	48(21.6)	28(13.8)	24(11.8)	3.43	1.17	High
Change the size and colour of texts	39(19.2)	68(33.5)	55(27.1)	24(11.8)	17(8.4)	3.20	1.16	High
Apply theme background	27(13.3)	60(29.6)	61(30)	36(17.7)	19(9.4)	3.55	1.14	High
Embed multimedia elements	41(20.2)	81(39.9)	44(21.7)	23(11.3)	14(6.9)	3.24	1.17	High
Link presentation slides with other slides	31(15.2)	59(29.1)	56(27.6)	41(20.2)	16(7.9)	3.13	1.03	High
Deliver presentation using highlighter and pen	15(7.4)	60(29.6)	82(40.4)	29(14.3)	17(8.4)	3.02	1.21	High
<b>INTERNET AND EMAIL SKILLS</b>	<b>Very Good</b>	<b>Good</b>	<b>Fair</b>	<b>Poor</b>	<b>Very Poor</b>	<b>Mean</b>	<b>SD</b>	<b>Remark</b>
Navigate links	26(12.8)	85(41.9)	60(29.6)	20(9.9)	12(5.9)	3.46	1.03	High
Conduct a simple search	37(18.2)	41(20.2)	87(42.9)	12(5.9)	26(12.8)	3.25	1.20	High
Conduct an advanced search	18(8.9)	49(24.1)	59(29.1)	52(25.6)	25(12.3)	2.92	1.16	Moderate
Create a bookmark/favourites	10(4.9)	74(36.5)	67(33)	25(17.2)	17(8.4)	3.12	1.03	High
Organize bookmarks/favourites using folders	18(8.9)	60(29.6)	81(39.9)	14(6.9)	30(14.8)	3.11	1.14	High
Copy and paste text from web page into document	24(11.8)	49(24.1)	57(28.1)	52(25.6)	52(25.6)	3.01	1.18	High
Save an image from web page	41(20.2)	63(31)	55(27.1)	33(16.3)	11(5.4)	3.44	1.14	High
Save information from web page onto a hard drive	41(20.2)	58(28.6)	51(25.1)	36(17.7)	17(8.4)	3.34	1.22	High
Download files from the internet	52(25.6)	51(25.1)	57(28.1)	21(10.3)	22(10.8)	3.44	1.27	High
Create/use Facebook site	47(23.2)	79(38.9)	48(23.6)	18(8.9)	11(5.4)	3.66	1.09	High
Create/use twitter	54(26.6)	55(27.1)	66(32.5)	14(6.9)	14(6.9)	3.60	1.15	High
Send and receive e-mail	39(19.2)	81(39.9)	53(26.1)	11(5.4)	19(9.4)	3.54	1.14	High
Average Mean						<b>3.22</b>		



Result from table 2 showed that on the average all the postgraduate students affirmed that the type ICT skills they possess were in word processing, spread

sheet, database, PowerPoint presentation and internet skills. Similarly, the level of the skill was high on the average on all the identified skills measured by the PGs.

**Research Hypothesis 1 (H<sub>01</sub>): There is no significant difference in the level of ICT skills of male and female LIS PGs in Nigerian library Schools.**

**Table 3: Significant difference in the level of ICT skills of male and female LIS PGs**

Groups	N	df	Mean	SD	T	p	Decision
Male postgraduate students	88	201	27.5000	3.37782	0.089	0.766	<b>Accept the null Hypothesis</b>
Female postgraduate students	115		26.0351	3.49698			

The result from table 3 revealed that the t-value is 0.089, the degree of freedom (df) is 201 and P=0.766. Since P= 0.766>0.05 it implied that it is not significant. Therefore, the null hypothesis was hereby accepted.

This implies that there is no significant difference in the level of ICT skills of male and female postgraduate students in selected library schools in South-West, Nigeria

**Research Hypothesis Two (H<sub>02</sub>): There is no significant relationship between the ICT skills of LIS postgraduate students and their research competence.**

**Table 4: Relationship between ICT skills and research competence of LIS PGs**

Variables	N	Mean	SD	r	d	P-value	Remark
ICT skills		3.22	1.9223				
Research competence		3.28	0.8992				
	201			0.201	201	0.05	<b>Significant</b>

Table 4 shows Mean, Standard Deviation and zero order correlation between the variables. It was observed that there was significant relationship between the independent variable (ICT skills) and the dependent variable (research competence) in

the order of (r = 0. 201, P<.05). On this premise the null hypothesis is hereby rejected and the researcher concluded that there is significant relationship between ICT skills and research competence of Library and Information Science postgraduate

students in universities in South-West, Nigeria.

### **Discussion of Findings**

The demographic information of the respondents revealed that majority of the respondents are female which is consistent with the literature that the feminine gender dominate LIS profession (Salaam & Owolabi 2010). A good number of the postgraduate students in the selected library schools sought for Master's degree in library and information science. The university of Ibadan (UI) had the highest number of postgraduate students in the demographic distribution, this might have been possible because UI is the oldest library school in South-west Nigeria with long standing record of admitting more PGs than undergraduate, hence this result. The level of ICT skills of LIS postgraduate students in universities in South-West, Nigeria was high in terms of word processing, spread sheet, database, power-point presentation, internet and email skills on the whole. This finding is consistent with the findings of Adegbilero-Iwari, Odefadehan, Owoeye and Christopher (2021) that found out that the postgraduate students are more skilful in the use of E-mail. These ICT skills possession is germane for postgraduate students because upon graduation and when practising as an

information professional they need to be able to provide value-added information services and access digital based information resources for their users.

A closer look at the ICT skill of the respondents revealed that, an item in the word processing skills and internet skills showed that the mean score for compiling bibliography and conducting advanced search was moderate. This implies that the postgraduate students are a bit deficient in using Microsoft word in compiling bibliography and carrying out advanced search on the internet. The findings also revealed that there is no significant difference in the level of ICT skills of male and female postgraduate students in universities in South-West, Nigeria. This finding negates the findings of Yalman, Basaran & Gonen (2016) that found out that in terms of gender that the male students had higher level of computer and communication technology skills when compared to the female students.

Additionally, the study established that there is significant relationship between ICT skills and research competence of the postgraduate students. These findings corroborates the study of Adeniran and Onuoha (2018) that found out that the utilization skills of ICTs among postgraduate students promoted

access to current information among them. Likewise, Yarullin and Tsyrcun (2015) study that found out that ICT skills and competences of postgraduate students include the ability to search, analyze and select necessary information, to organize, transform, keep and transfer it independently for research development.

### **Conclusion**

The level of ICT skills of the postgraduate students was concluded to be high in terms of word processing, spreadsheet, database, PowerPoint presentation, internet and email skills. Although, moderate ICT skill level was recorded in compiling bibliography and conducting advanced search on the internet. There was no significant difference on the level of ICT skills of male and female LIS postgraduate students in universities in South-West, Nigeria. Postgraduate students who possessed ICT skills had better research competence as revealed from the findings that there was a significant relationship between the ICT skill and research competence. Based on gender, there is no significant difference in the level of ICT skills of male and female postgraduate students in the selected library schools.

### **Recommendations**

The following recommendations are made base on the findings of the study:

1. The postgraduate students should be made to learn how reference managers like Zotero, Mendeley etc can be used for the compilation of bibliography for their research.
2. During the programme, teaching of ICT topics should not be taught in abstract rather it should be practical oriented, this calls for the efficiency of the lecturers in the use of Information Communication Technology tools.
3. Possession of ICT equipment such as laptop should be mandated for each LIS postgraduate student before admission which will help in familiarizing them with necessary ICT tools.
4. More ICT related courses, apart from the ones identified in the study, should be included in the curriculum so as to improve the ICT skills of the students.

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**Reading as Panacea for Solving Societal Problems: The Role of National Library in Promoting and Reviving Reading Culture in Nigeria**

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**ABSTRACT**

The study investigated reading as panacea for solving societal problems, the role of National Library in promoting and reviving reading culture in Nigeria. The objectives of the study are: to determine the causes of societal problems leading to poor reading culture in Nigeria and to identify ways for reviving reading culture by National Library of Nigeria. This study was guided by descriptive research design. The study population consisted of 294 registered youths across various strata of the country. Simple random sampling in probability sampling techniques was used for this study and the sample size of the study was 169. The findings of the study indicated that poor influence, drugs, peer groups and lack of interest in reading were still paramount that cause societal problems leading to poor reading culture. The results of these findings show that this was one of the reasons for the falling standard of education amidst of other various factors. The findings also indicated that National Library of Nigeria played and still plying huge roles in reviving the reading culture among the people so that they can contribute positively towards secured and progressive Nigeria. The study concluded that there is the need to change the perspectives of reading because reading has become the most desirable goals that contributes positively to knowledgeable society, economic transformation and all-inclusive development as champion by National Library of Nigeria. It was recommended that there is the need for education and public enlightenment as a cornerstone in the society to close the gaps on poor influence, drugs, peer groups and lack of interest in reading among the people

**Keywords:** *Reading, Reading Culture, Societal Problems, National Library of Nigeria*

**Introduction**

Experts generally agree that it is difficult to describe reading through ordinary vocabulary (Alex-Nwecha & Horsfall, 2019). Psychologically, reading is a complex process involving decoding and encoding of print or written symbols into meaningful communication processes. To decode means to be able to recognize meaningful phonemes, syllables word, sentences, from print or writing. Encode on

the other hand, implies the process of associating decoded print or written symbols into meaningful messages usually signified by signs of comprehension and verbal communication responsibilities. For reading to be sensible, therefore, it has to involve the articulation and composition of print and written symbols into meaningful wholes by the learner (Brian, 2018).

Naturally, the reading capacity of a society shapes, to a large degree, its economic, political and cultural destiny. This is because reading is a central element in the reception, interpretation, transformation and sharing of experiences. A society's reading processes are the nerve centres of its adaptive capability which allow individuals to engage the present and imagine the future. Ailakhu and Unegbu, (2017) observed that reading process is now increasingly based on the capacity to find and access knowledge, and to apply it in problem-solving situation. Many scholars and researchers have agreed that reading have assisted individuals to fasten their ability to understand printed text, and to communicate properly (Alex- Nwecha and Horsfall, 2019). However, in Nigeria, problems of Boko Haram phenomenon, kidnapping, Kalare activities, corruption, nepotism, abductions, banditry, militancy and unknown gun men as well as drug abuse. These challenges have affected the reading habit as well as hindered the growth of the country socially, politically, educationally, economically, technologically and intellectually. National Library of Nigeria (NLN) in recent times have championed readership promotion campaign to shape individuals ability to read and learn new skills and knowledge in order to transform the socio-cultural, political, educational and mental alertness

to advance the country from the threshold of societal problems. Therefore, libraries are associated with the concept of identifying, acquiring, processing, and disseminating literary output as a by-product of formal education and literacy development. Brian, (2018) remarked that the levels of reading is influenced and determined by the levels of production, distribution and utilisation of written and printed records of man. What is however important is the fact that the selection and acquisition of information resources be it written or oral, including body gestures should be primarily based on the actual needs of the audience so as to ensure full utilisation and transformation.

### **Reading in Perspectives**

Before the advent of writing, the pre-literate man in his relatively stable and open society communicates mostly through verbal and inter-personal means for understanding and sharing of views and opinion among each other. Oral tradition forms the most valuable sources of information for reconstruction of the past; and even those people who have developed the art of writing still use historical sources which are based on oral information. Studied by UNESCO (2022) revealed that the origin of reading would be incomplete without making reference to orality as an important component of literacy and literary

development because written documents were still read out loud and vocalised. Adamu (2023) argued that reading had existed in the European Middle Ages (476-1453), but remained restricted and largely limited to the Clergy and the medieval Schoolmen who tirelessly copied and recopied Aristotle. Alex-Nwecha and Horsfall (2019) stated that oral documentation remained the sources of preservation of information resources until the arrival of the moveable-type and Guttenberg's printing press and movable type in about 1455. Until Johannes Guttenberg's invention, the only way to reproduce text was copying by hand, a laborious task left mainly to monks in their monasteries. The printing press made books a mass commodity and precisely for that reason, literacy became a mass phenomenon and standardized typeface made reading an easier activity because readers no longer had to deal with the idiosyncrasies of another person's handwriting. The errors so frequently made by scribal copyist were eliminated. Thus, thousands of people could have access to the same presumably error-free standard edition of a text (Adamu, 2023). At the 1990 World Conference on Education for All (WCEFA) held in Jomtien, Thailand, a joint committee was adopted by Member countries to provide a basic Education for the people as prescribed in the Declaration that was adopted in the

conference. The conference influenced the definitional aspects of the literacy goal by broadening the discussion to that of mastery of the 3 R's (Reading, WRiting and ARithmetic), but also in terms of other knowledge, problem-solving and life skills. Today, reading has become an integral part of life because they shape mental, physical (competencies), moral and intellectual being of the individual as well as promote the socio-economic, political, educational and cultural destiny of a society because a reading society is a progressive one.

#### **Situation of Reading Culture in Nigeria**

Alex-Nwecha and Horsfall, (2019) in a review of issues of reading culture in Nigeria highlighted that research has indicated numerous problems that are associated with reading among people in Nigeria. These problems include: slow reading rates, slow comprehension rates, difficulties in distinguishing main ideas from a mesh, and ineffective capability for recall what was read. The growing rate of failure among Primary and Post primary school students and more worrisome the massive failure recorded in both National Examination Council (NECO) and West African Examination Council (WAEC) in recent times can be attributed to poor reading culture. Kagara (2011) blamed the poor reading culture on the government for failing to respond to its responsibility in



providing the enabling environment as well as failure to provide reading materials that would stimulates individual to cultivate the habit of reading as a way of life. The author also blamed stakeholders for not making a policy statement on reading as a right; and the society for not responding to the call. He lamented that people read for achieving certain target like passing examination, assignment, aptitude test for employment rather than for enrichment of the mind or passion. Similarly, Wasiu (2011) blamed failure of reading to total collapsed in the educational system. He advised the government and other stakeholders in the education sector to take a proactive measure in reversing the trend. He maintained that adequate funding, good policies and welfare package should be given adequate consideration. Poor reading has crippled the educational system to the extent that secondary school graduates cannot read nor write properly. Research has shown that a number of reasons are attributed to the failure of reading culture in Nigeria. Leonard (2011) in his contribution to education in Nigeria argued that high cost of fees, cost of textbooks, high rate of poverty among the people; societal problems, infrastructural decay and cultural belief are some of the causes of reading. He warned that if the trend continued in this way, the target of achieving the Sustainable Development Goal (SDG) would be a

mirage. Going by the 2020 report of the Sustainable Development Goal (SDG), the literacy levels in the country has steadily and gradually deteriorated as a result of activities of Boko Haram phenomenon, kidnapping, Kalare, kidnapping, abductions and drug abuse. The UNESCO (2020) report also indicated that the overall literacy rate had declined to 54.1% from 71.9% in 2010. The report is linked to the fact that Nigerians in all spheres of life do not appreciate the value of reading as a component of life.

The world Culture Index reveals that an average Nigerian reads less than one book in a year and only 1% of professionals read one non-fiction book per month. The study shows that 30 million Nigerians have graduated from higher institutions with poor reading skills (Otache, 2020). Nigeria is hoping to be among the giant economic Nations by the year 2030. In order to achieve the set target, reading culture must be given due attention as a key component to development socially, economically, and technologically.

Unfortunately, many of the Nigerian libraries are still battling with the problems of standards in terms of provision of information that would meet the needs of users. The inability of the Nigerian government to stock libraries with current literature posed serious challenges to

reading, learning, research and scholarly development (Liman, 2022). Alex-Nwecha and Horsfall, (2019) on the other hand, observed with dismay the failure on the part of stakeholders in the education system which led to the total collapse of reading and learning in Nigeria. He argued that Many employers observe that the quality of university graduates has worsened during the 1990's... poor state of library services, poor quality library resources, outdated books, journals, abstracts, and other academic collections have hampered the progress of intellectual development (Alex-Nwecha, & Horsfall, 2019).

These concerns are worrisome because the level of literacy and literary development is gradually diminishing. A research conducted on Reading Abilities of Junior Secondary School Students in Kano state by Garba (2003) revealed that the poor state of reading and learning in Nigeria can be attributed to the inability of the students to grasp what they are taught using English Language as a medium of instruction in all subjects in the school. This factor according to her is responsible for the falling standard of education amidst of other various factors. She recommended for provision of standard library equipped with necessary information resources that would bring to life the reading habit as a way of life for the people.

### **National Library Initiatives towards Promoting and Reviving Reading Culture in Nigeria**

In the past two decades, there have been various initiatives from government agencies, non-governmental organizations and individuals towards Reviving Reading Culture in Nigeria. For example, the National Library of Nigeria (NLN) initiated the Readership Promotion Campaign Programmes to educate, enlighten and inform Nigerians the value of reading as part of life. As such, various workshops, seminars, conferences and fora were organised in every geo-political zone of the country to create awareness among the general populace. The campaign has taken a national approach since 2017 when it began to be holds across the 36 states and the FCT through physical and media engagements with millions of Nigeria cutting across hospitals, IDP camps, schools, correctional facilities, motor parks and on both print and broadcast and electronic media (Anunobi, 2022). Ikpahindi (2009) emphasized that the essence of the readership promotion campaign is to deepen readership among Nigerians. Anunobi (2022) again reiterated that 2022 readership campaign was different from the previous years because vulnerable centres and grassroots were the most desirable because a knowledgeable society contributes positively to economic

transformation and all-inclusive development of its members in the society.

This efforts led to distribution of books, journals, tablets, smart phones, mini computers and other digital technology platforms to school children, Prisoners, vulnerable people at IDP camps and Motor Park across the country by National Library of Nigeria to boost reading culture among the populace to enhance a literacy society (Premium Times, 2022).

In appreciating the value of promoting the reading culture among the people, the National Policy on Education (2004) made it categorically clear that libraries are one of the most importance education services, every state Ministry of Education needs to provide funds for the establishment of libraries in all educational institutions and to train library assistants for this services (NPE, 2004). Therefore, every library is established with the basic aim of enriching the mind and intellectual well-being of every user as well as to promote the literary development of the individual and society at large. Many libraries, irrespective of their vision, mission and objectives have adopted various strategies to make reading a cornerstone for development. Among the strategies introduced by the libraries is the establishment of information literacy programmes in higher institutions of learning across the country to promote the reading abilities of students as well as

researchers as well as reviving the readers club to boost value of reading and learning as a central element of academic achievement of individuals.

The National Library of Nigeria has also prioritize the activities of indigenous publication among authors as part of strategies to engaged the people to read about the history, culture and tradition of the country. Authors were compelled to submit copies of their publications to be domiciled at the National Library of Nigeria in order to encourage the people to be engaged in reading as part of personal and intellectual development. Annunibi (2022) maintains that the strategies to encourage indigenous writers have helped to improved level of readership among the youths especially the students across the country.

### **Statement of the Problem**

Despite the benefits of reading culture in promoting public awareness, knowledge, literacy and literally development through enlightenment and disseminating information relating eliminating or reducing levels of illiteracy, ignorance and societal problems in Nigeria. Recent study conducted indicated that societal problems posed serious challenges in Nigeria especially the activities of Boko Haram, kidnapping, abduction, rape and gender violence (United Nation, 2020; Premium Times, 2022). The central argument in various studies indicated that the experience

of Boko Haram, kidnapping, rape and drug abuse have become an upsurge in recent which scholars believed was as a result of illiteracy and poor reading culture (UNESCO, 2020; Abdullahi, 2022).

Although, various initiatives from government agencies, non-governmental organizations and individuals towards Reviving Reading Culture in Nigeria. For example, the National Library of Nigeria (NLN) initiated the Readership Promotion Campaign Programmes to educate, enlighten and inform Nigerians the value of reading as part of life through workshops, seminars, conferences and fora (Sule, 2021; Ibrahim, 2022). However, challenges such as slow reading rates, slow comprehension rates; difficulties in distinguishing main ideas from a mesh, and ineffective capability for recall what was read. The growing rate of failure among Primary and Post primary school students and more worrisome the massive failure recorded in both National Examination Council (NECO) and West African Examination Council (WAEC) in recent times can be attributed to poor reading culture (Anunibi 2022). Adamu (2022) blamed the poor reading culture on the government for failing to respond to its responsibility in providing the enabling environment as well as failure to provide reading materials that would stimulates individual to cultivate the habit of reading as a way of life. the

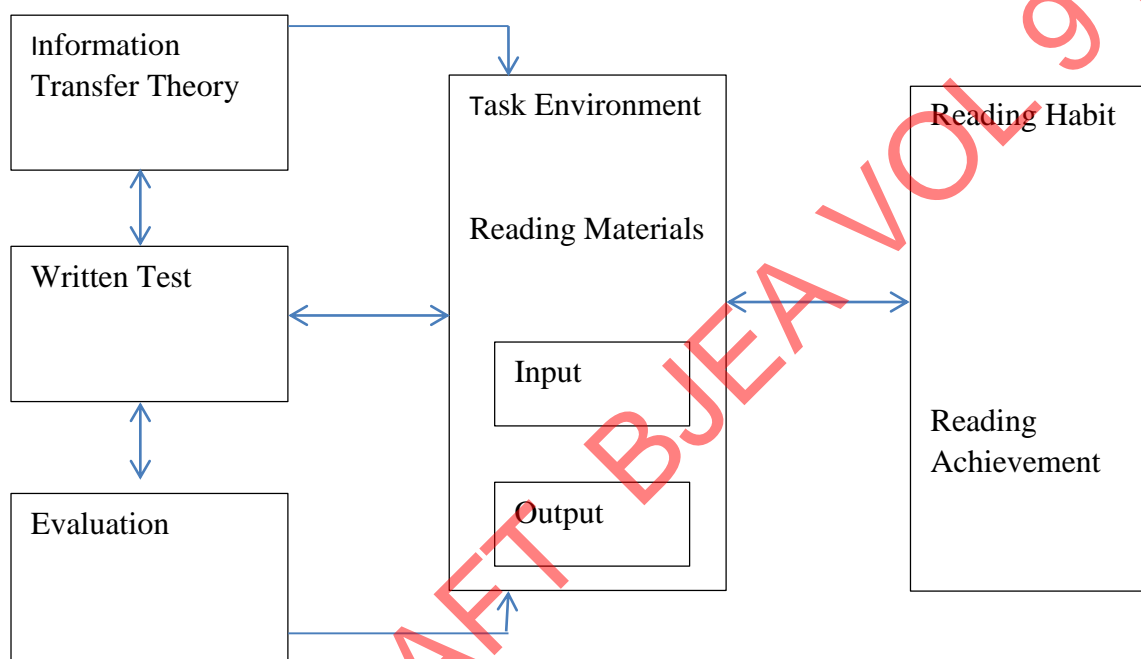
Sustainable Development Goal (SDG) (2020) report indicated that the literacy levels in the country has steadily and gradually deteriorated as a result of activities of Boko Haram phenomenon, kidnapping, Kalare, kidnapping, abductions and drug abuse. The UNESCO (2020) report also indicated that the overall literacy rate had declined to 54.1% from 71.9% in 2010. The report was linked to the fact that Nigerians in all spheres of life do not appreciate the value of reading as a component of life. The world Culture Index revealed that an average Nigerian reads less than one book in a year and only 1% of professionals read one non-fiction book per month. The study shows that 30 million Nigerians have graduated from higher institutions with poor reading skills (Otache, 2020). Therefore, in order to address the identified gaps, this study became important to explore and investigate the role of National Library in promoting and reviving reading culture in Nigeria as a way of solving societal problems.

### **Theoretical Approach**

This study adopts Information Transfer theory to examine reading as panacea for solving societal problems, the role of National Library in promoting and reviving reading culture in Nigeria. This theory consists of a set of reading models that focus on how information is transferred from texts to readers' minds and consider

reading as a method of information transfer (Gough, 1972). It best measures students' understanding of reading materials based on the amount of information conveyed. The information transfer. In this sense, "readers extract meaning from written materials by processing the text in a linear way, allowing them to transfer meaning from the written

theory, which is primarily influenced by cognitive psychology, represents the presumption that reading is a system of materials to their minds" (Muhamad et al., 2020, p. 1155). The theoretical framework of this study is depicted as follows.



*Figure 1: Theoretical Framework*

Besides the extraction of meaning from texts, reading serves as a process of relating information obtained from texts with readers' knowledge (Gough, 1972). Thus, reading in this aspect is viewed as a matter of making sense of written language rather than decoding print to sound. The theory is of significant to this study because it viewed reading from the perspectives of top-down strategies which consisted of ascertaining major thoughts,

observing how new information fits the reading material generally by means of contextual knowledge, skimming, or predictions. Determining the role of reading habits in improving learners' ability to transfer information from texts to their minds is paramount (Smith, 1994). This is because learners with positive reading habits are expected to achieve a high level of reading ability (Ribqotul, 2020). Good readers, then, possess the

ability to transfer information from reading materials to their minds. Thus, the success of reading habits depends on the amount of information obtained by readers.

### **Objectives of the Study**

1. To determine the causes of societal problems leading to poor reading culture in Nigeria
2. To identify ways for reviving reading culture by National Library of Nigeria

### **Methodology**

This study was guided by descriptive research design. The study population consisted of 294 registered youths across various strata of the country. Simple random sampling in probability sampling techniques was used for this study. Probability sampling is a sampling technique that permits the researcher to specify the probability or chance, that each member of a defined population will be selected for the sample (Crosswell, 2012). According to table 1, a sample size for a population of 294 to 300 (N) is 169 (S). 'N' is a population size and 'S' is a sample size. However, the registered youths are 294 which fall under the range of 169 as given in the Krejcie and Morgan's table. Therefore, the sample size of the youths is 169. Therefore One-hundred and sixty nine copies of a structured questionnaire were randomly distributed to the study population of the respondents across the

country. Of the 169 copies of the questionnaire administered, 110 copies were returned. Data analysis was done using frequency count and simple percentages. Statistical package for social sciences (SPSS) software version 24.0 was used as tool for data analysis in research.

### **Findings and Results**

This section is concerned with data presentation, analysis, interpretation and discussion of findings. The results are presented and analysed based on the objectives of the study.

**Research Objective 1:** To determine the causes of societal problems leading to poor reading culture in Nigeria

The first objective sought to determine the causes of societal problems leading to poor reading culture in Nigeria.

To address this objective the researcher identified sub- themes that addressed causes of societal problems leading to poor reading culture in Nigeria. The respondents were given statements to answer by stating their level of agreement with them using a scale: Strongly Agree (SA) = 4, Agree (A) =3, Disagree (D)=2 and, Strongly Disagree (SD)=1 respectively. Table 1 shows the statements that the respondents were presented with and how they responded

**Table 1: Causes of societal problems leading to poor reading culture in Nigeria**

Causes of societal problems leading to poor reading culture in Nigeria.	Strongly Agree	Agree	Strongly Disagree	Disagree
	Count%	Count%	Count%	Count%
I have no interest in reading	39 (35.4%)	29 (26.3%)	24 (21.8%)	18 (16.3%)
I have been brain washed about obtaining western education as a scam	38 (34.5%)	28 (25.4%)	25 (22.7%)	19 (17.2%)
I have no money to go to school	37 (33.65)	32 (29.0%)	23 (20.9%)	18 (16.3%)
I am under the influence of drugs which makes it difficult for me to comprehend	22 (20.0%)	15 (13.6%)	45 (40.9%)	28 (25.4%)
I am inspired my peer groups to cause may hem rather than going to school	39 (35.5%)	29 (26.3%)	24 (21.8%)	18 (16.3%)
I am so indebted to social media which makes it difficult for me to read so long	39 (35.4%)	29 (26.3%)	24 (21.8%)	18 (16.3%)
I am so lazy when it comes to reading and also consider those attending western education as wasting time	38 (34.5%)	28 (25.4%)	25 (22.7%)	19 (17.2%)

The findings revealed that 68 (61.8%) of the respondents indicated that they have no interest in reading and knowledge of western education generally, hence, there involvement in social vices and other activities, while 42 (38.1%) had a divergent view. Similarly, the finding also showed that 66 (60%) of the respondents revealed that they have been brainwashed about obtaining western education, while 44 (40%) had contrary view. On the aspect of influence of drugs rather than going to school, 69 (62.7%) of the respondents strongly agreed or agreed with the

statement, while 41 (37.2%) disagreed or strongly disagreed. The findings also reveals that 68 (61.8%) of the respondents shows that strongly agree or agree that they are inspired by peer groups to cause may hem rather than going to school, while 42 (38.1%) strongly disagree or disagree with the statement. On the aspects of indebtedness to social media which makes it difficult for participants to read so long, (61.8%) of the respondents shows that they are facing challenges of reading for long because they are always glued to social media which distract them to read

thoroughly, while 42 (38.1%) indicated otherwise. Also 66 (60%) of the respondents indicated that they are lazy when it comes to reading and also consider those attending western education as wasting time, while 44 (40%) of the respondents disagreed or strongly disagreed with the statement. Overall, the implication of these findings suggested that most of the participants indicated poor influence, drugs,

peer groups and lack of interest in reading were attributed to cause societal problems leading to poor reading culture. The results of these findings are one of the reasons for the falling standard of education amidst of other various factors.

**Research Objective 2:** To identify ways for reviving reading culture by National Library of Nigeria

**Table 2: To identify ways for reviving reading culture by National Library of Nigeria**

To identify ways for reviving reading culture by National Library of Nigeria	Strongly Agree	Agree	Strongly Disagree	Disagree
	Count%	Count%	Count%	Count%
various workshops, seminars, conferences and fora were organised in every geo-political zone of the country to create awareness	39 (35.4%)	29 (26.3%)	24 (21.8%)	18 (16.3%)
through physical and media engagements with millions of Nigeria cutting across hospitals, IDP camps, schools, correctional facilities, motor parks to sell the idea of reading culture in Nigeria	37 (33.65%)	32 (29.0%)	23 (20.9%)	18 (16.3%)
distribution of books, journals, tablets, smart phones, mini computers and other digital technology platforms to school children, Prisoners, vulnerable people	38 (34.5%)	28 (25.4%)	25 (22.7%)	19 (17.2%)
Information literacy enlightenment on the values of reading continue to change the values of the people towards self-sufficient in the society	45 (40.9%)	38 (25.4%)	12 (20.0%)	15 (13.6%)
I need information to be self -independence	39 (35.5%)	29 (26.3%)	24 (21.8%)	18 (16.3%)

The findings revealed that 68 (61.8%) indicated that National Library of Nigeria have been organizing various workshops, seminars, conferences and fora were organised in every geo-political zone of the country to create awareness, while 42 (38.1%) had a different opinion. On the

aspect of the public engagement to create public awareness, 69 (62.7%) of the respondents showed that National Library of Nigeria engaged the public through physical and media to millions of Nigeria cutting across hospitals, IDP camps, schools, correctional facilities and motor parks to sell the idea of reading culture in



Nigeria, while 41 (37.2%) of the respondents disagreed or strongly disagreed with the statement. Similarly, on the aspect of distribution of books, journals, tablets, smart phones, mini computers and other digital technology platforms to school children, Prisoners, vulnerable people in order to revived the reading culture in Nigeria 66 (60%) of the respondents agreed or strongly agreed with the statement while 44 (40%) had a divergent view. Similarly, the findings also reveals that 83 (75.4%) of the respondents shows that strongly agree or agree that they Information literacy enlightenment on the values of reading continue to change their values towards self-sufficient in the society, while 27 (24.5%) had contrary opinion on the statement. This finding implies that National Library of Nigeria played and still plying huge roles in reviving the reading culture among the people so that they can contribute positively towards secured and progressive Nigeria.

### **Discussion**

Objective one of the study was to determine the causes of societal problems leading to poor reading culture in Nigeria. The study found that poor influence, drugs, peer groups and lack of interest in reading were attributed to cause societal problems leading to poor reading culture. The results of these findings are one of the reasons for

the falling standard of education amidst of other various factors. The finding is in line with a study by UNESCO (2022) who reported that 9.7 million students in Nigeria are at risk of never returning to school. In a same development, the Federal Ministry of Education and the Universal Basic Education (2021) reports stated that 12 million children at the risk of been dropped out of school as a result of poor reading habit. Out of this figure, states of Bauchi, Borno, Yobe and Gombe have the highest numbers of out of school children on the street. This study is also in consonance with findings of United Nation (2021) who stated that most of the insecurity witnessed in most part of north east states is as a result of poverty, out of school and drug abuse.

Objective two also revealed that National Library of Nigeria have been organizing various workshops, seminars, conferences and fora to every geo-political zone of the country to create awareness as well as mobilize public engagement to create public awareness. The findings of the study also indicated that National Library of Nigeria engaged the public through physical and media to millions of Nigeria cutting across hospitals, IDP camps, schools, correctional facilities and motor parks to sell the idea of reading culture in Nigeria. This is achieved through distribution of books, journals, tablets,

smart phones, mini computers and other digital technology platforms to school children, Prisoners, vulnerable people in order to revived the reading culture in Nigeria as indicated in the findings. The findings of this study is in line with the National Policy on Education, 2014, revived edition) who stated that every library is established in the country (including National Library of Nigeria) provide the basic aim of enriching the mind and intellectual well-being of every user as well as to promote the literary development of the individual and society at large. UNESCO (2022) reports is of the view that libraries are established in the country with the view to promote literacy through reading and research as well as promote the reading abilities of students as well as researchers as well as reviving the readers club to boost value of reading and learning as a central element of academic achievement of individuals. The findings also corroborates with the policy statement of the Federal Ministry of Education which makes it clear that the promotion of reading culture is one of the top priorities of the Ministry's mandate. This is reflected in Pillar 10 (Library Service in Education) of the ministry mandate whose aim is to enhance the culture of reading for personal and societal development.

## **Conclusion**

Quality education cannot be achieved without reading. This is because reading is core issues in educational advancement of any nation. The level of literacy is determined by the level of those who are able to read, write and learn new ideas, skills as well as comprehend them. Therefore, reading and learning has become an indispensable phenomenon in moving the society forward socially, economically, technologically and globally. Although, findings revealed that poor influence, drugs, peer groups and lack of interest in reading were attributed to cause societal problems leading to poor reading culture. However, the study concluded that there is the need to change the perspectives of reading because reading has become the most desirable goals that contributes positively to knowledgeable society, economic transformation and all-inclusive development as champion by National Library of Nigeria.

## **Recommendations**

- There is the need for National Library of Nigeria to be proactive in creating awareness and information literacy to the general public to engage in reading as a cornerstone in the societal development in order to societal problems.

- There is also the need for National library of Nigeria to be proactive to continue to educate, enlighten and informing the general public on the way of preventing mechanism engagement

with stakeholders especially the traditional rulers, head of schools and authors on the value of reading in the society

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## Acquisition of Phonological skills in relation to English consonants in Nigerian Schools and Colleges

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### ABSTRACT

One of the language skills that have proven a serious level of difficulty to the second language learners of English is the speaking skill; this is the skill that the teaching of English phonology tries to develop in the learner-speaker of English language. Phonology is taught in segmental and supra-segmental dimensions and the segmental phonology, particularly the consonant types have been influenced adversely by the fossilized aspects of the mother tongues of the learners. Therefore this paper is intended to proffer solutions to such linguistic problems by identifying the criteria for the description of the consonant types in English and embarking on the concise and comprehensive description of each consonant type. To do this, the researcher has relied more heavily on the library type of research, though some important cues have been taken from some language laboratory works.

**Keywords:** Phonological, consonants, Skills & acquisition

### Introduction

Traditional linguistic studies, accepted the fact that there are forty-four (44) sounds in English language. Chomsky and Halle (1968) took a structuralist approach to the study of English sounds and have posited that more than forty-four (44), there could be other sounds that the traditional linguists have not considered. According to Chomsky and Halle, apart from the pure vowels and the diphthongs, we have triphthongs which are also among the vowels. However, out of the forty-four sounds recognised by traditional grammar, twenty (20) are called vowel sounds. According to Uzoezi (1992; 30), the vowels are distinct sounds of English made 'without any partial or total obstruction of the pulmonic egressive air

as it passes from the lower pharynx up, through the oral cavity, into the outer atmosphere'.

Counting out the twenty vowel sounds from the total sound system of English language, one will be left with twenty-four (24) more sounds.

What are these twenty-four sounds called?

How are they classified and what are the characteristics of each of them?

Answering these questions is the focus of this paper.

### The English Consonant Sounds

According to Gimson (1970), consonants are distinctive sound units which can be identified in terms of their functions:

– They tend to be non-central or marginal in the syllable, and also in terms of their phonetic nature

– They have articulations involving the obstructions or narrowing which produce acoustic noise.

Uzoezi (1992; 61) also says, ‘one main characteristic of consonant sounds is that they are produced by a constriction of the vocal tract at some points, in such a way as to divert, impede, or completely shut off the flow of air in the oral cavity’. This underscores the issue of obstruction in their production as a particular characteristic that distinguishes the consonant sounds from the other sounds of English language. While the vowel sounds are produced without obstruction in the vocal tract, the consonant sounds are produced with clear obstruction(s) at one point or the other in the vocal tract.

### **Classifying English Consonant Sounds**

Gimson (1970) identified two categories of the English consonant sounds, these include

1. Those articulations in which there is a total closure, or a stricture causing friction. Where we have a total stop, the sound is called plosive while the stricture produces fricatives and affricates. The plosive consonant sounds (which are made with plosion) include [p, b; t, d; k, g]. The fricative

consonant sounds (which are made with friction) include [f, v; s, z; ʃ, ʒ; θ, ð; h]. Each of the affricate consonant sounds is a combination of a plosive and a fricative and the two in English are [tʃ] and [dʒ].

2. Those articulations in which there is only a partial closure or an impeded oral or nasal escape of the air. This classification accounts for the nasal, lateral and frictionless continuants called semi-vowels, the argument here may be that there should be no sitting on the fence when describing the consonant sounds and they are distinct from the vowel sounds in the sense that they are made with clear obstruction(s) to the egressive pulmonic air; why then are some referred to as semi-vowel sounds even when their production involves clear obstruction(s)? All the English sounds should be either consonant or vowel sounds, no ‘semi-’, no sitting on the fence.

The above categorization runs contrary to Uzoezi’s (1992) model which sees the nasals as one of the stops and calls the other members of the second category approximants. Whichever is right, the nasals are [m, n, ŋ]; the lateral is [l] and the continuants are [r, w, j]. From the foregoing, we can identify therefore that the consonants are

classified according to manner of articulation – how they are being produced and perceived.

According to Uzoezi (1992; 61), also Omachonu (2010; 32 – 41), consonants can also be identified and/or classified according to place of articulation. In each case, we have a point at which two organs meet to articulate a given consonant sound. O'Connor (1967), also Roach (2000) identify the organs of speech in two major parts: the upper and the lower organs of speech. According to O'Connor, (1967) the upper organs include the parts ranging from the vocal cords to the upper and lower lips while the lower organs include all the parts from the vocal cords down to the lungs. The lungs are erroneously excluded by some scholars from the organs of speech, but it should be noted that without the air which emanates from the lungs there would not be any sounds.... Since the lungs generate the air with which we make sounds, they are parts of the organs of speech (Roach: 2000; 27 – 37).

Focusing on sound articulation which involves the upper section of the organs of speech, the following places and the sounds produced are identified (Jones: 2010; Ape: 2014):

1. The bi-labial which is the meeting of the lower and the upper lips, as in [p, b, m,w].
2. The labio-dental which is the contact between the lower lip and the upper teeth, as in [f, v].
3. The inter-dental which involves the tongue coming between the lower and the upper teeth, as in [θ, ð].
4. The alveolar which is the tip of the tongue interacting with the teeth ridge to produce [t, d, n, s, z, l, r].
5. The palato-alveolar which involves the tongue making contact with the hard palate to produce [tʃ, dʒ, ʃ, ʒ].
6. The palatal which involves the tongue making contact with the area between hard and the soft palate to produce [j].
7. The velar which involves contact between the back of the tongue and the soft palate, as in [k, g, ŋ].
8. The glottal which involves contact between the root of the tongue and the epiglottis, as in [h].

Apart from the parameters of manner and place of articulation, Jones (2010) explains the roles of the velum and the vocal cords in the articulation of the consonant sounds and if the velum is raised in the articulation of a sound, the air escapes through the mouth cavity; and if it is lowered, the air escapes



through the nasal cavity and the sound is described as nasal, as in [m, n, ŋ]. The vocal cords can either vibrate or run up and down in the production of a sound and if they vibrate in the process of production, the sound is described as voiced; but if they run up and down, the sound is voiceless. From laboratory investigations made in pursuit of this paper, it was observed that nine (9) of

the English consonant sounds are voiceless while fifteen (15) are voiced and are presented below.

**Describing each type of English Consonant Sounds**

Following the above criteria of classifying the consonant sounds, the following table can be constructed for easy description of each consonant type.

Place of articulation	Bi-labial	Iabio-dental	Inter-dental	Alveolar	Palato-alveolar	palatal	velar	glottal
<b>Manner of articulation</b>								
plosive	p, b			t, d			k, g	
Fricative		f, v	θ, ð	s, z	ʃ, ʒ			h
Affricate					tʃ, dʒ			
Nasal	M			n			ŋ	
lateral approximant				l				
approximant	W			r		J		

Adapted from Uzoezi (1992) model

From this table therefore, each consonant type can be comprehensively described thus:

[p] is voiceless bi-labial plosive consonant sound

[b] is voiced bi-labial plosive consonant sound

[t] is voiceless alveolar plosive consonant sound

[d] is voiced alveolar plosive consonant sound

[k] is voiceless velar plosive consonant sound

[g] is voiced velar plosive consonant sound

[f] is voiceless labio-dental fricative consonant sound

[v] is voice labio-dental fricative consonant sound

[θ] is voiceless inter-dental fricative consonant sound

[ð] is voiced inter-dental fricative consonant sound

[s] is voiceless alveolar fricative consonant sound

[z] is voiced alveolar fricative consonant sound

[ʃ] is voiceless palato-alveolar fricative consonant sound

[ʒ] is voiced palato-alveolar fricative consonant sound

[h] is voiceless glottal fricative consonant sound

[tʃ] is voiceless palato-alveolar affricate consonant sound

[dʒ] is voiced palato-alveolar affricate consonant sound

[m] is voiced bi-labial nasal consonant sound

[n] is voiced alveolar nasal consonant sound

[ŋ] is voiced velar nasal consonant sound

[l] is voiced alveolar lateral (approximant) consonant sound

[r] is voiced alveolar central (approximant) consonant sound

[w] is voiced bi-labial central (approximant) consonant sound

[j] is voiced palatal central (approximant) consonant

### **Conclusion and Recommendations**

The English consonant types have been classified into three major groups, these are the stops which include the plosives, the nasals and the affricates; the fricatives and the approximants which include the lateral and the central. All the three groups are the products of the criterion of manner of articulation. Each type of the consonant sounds can also be described according to the state of the vocal cords – whether they are vibrating or not. By these, three major criteria for the description of the consonant sounds have been identified – criteria

according to manner of articulation, place of articulation and state of the vocal cords.

The fourth, however, is the state of the velum which is raised or lowered to produce oral or nasal sounds.

It is therefore recommended that lecturers and teachers in higher institutions should emphasize these criteria to help the learner-speaker of English to articulate the English consonant sounds appropriately and by so doing, learners will make conscious efforts to conquer the mother-tongue interference in their English speech. The use of a well-built language laboratory is also a sine qua non for successful acquisition of phonological skills in higher education. It is therefore recommended that good language laboratories should be built in all the departments of English in Nigerian universities and other higher institutions in the country.

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**An Overview of Prevalence, Challenges and Prospects of Private Schools in Kano**

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**ABSTRACT**

The demand for education in Nigeria today is far greater than the supply. There has been unsatisfied supply of education in Nigeria, when there are over 10 million out-of-schools children roaming about Nigerian streets, and all the efforts to ensure education for all stand abortive. Yet, the existing government schools' capacity cannot absorb the number of pupil/students seeking for admission into primary, secondary and tertiary institutions nationwide, this has invariably necessitated the establishment of private schools, which would go a long way to take care of large number of students. No doubt, public schools have remarkably been unable to respond to the challenges of service excellence; resulting to poor performance with lots of challenges that left parent with no option that sending their children to private schools. This paper discusses Kano educational practice; development of western education in Kano; growing demand of private education; education laws and policies; violation of law and policies by the private schools. It finally recommends that revalidation of Kano state private education sector and immediate articulation of the state and national education policies, with proper and constant scheduled/unscheduled monitoring and supervisions of the schools, for quality education policies implementation must be done among others. Yet, any society where the bright ones' do not want to be teachers, their children will be taught by dulls.

**Keywords:** *Boko, Ilmi, Private Schools, Zaure,*

**Introduction**

The Nigerian private sector education continues to struggle with the educational policy implementation, quality assurance of educational resources, teaching/learning problems, befitting structures, discipline,

staff remunerations etc. All these challenges call for immediate action which lies in effective management. Yet, continue negligence of the sector by government and stakeholders, remained a great havoc to the

community survival, and invariably can risk the quality education assurance in Kano and Nigeria in general. Ekenyerengozi (2012) added in this connection that the systemic collapse of Nigerian education is no longer news but apart from being bad, it is now becoming worst with the recurrent rampant cases of examination malpractices reported at all level in both public and private schools. Similarly, the Chairman Kano Private Schools Taskforce in Webmaster (2014) also submits that any society that has no benchmark in monitoring education is likely to be a moribund society, and that society is technically heading to collapse.

#### **Kano Educational Practice**

Kano is said to be educationally developed state from onset, its people were attached to Islamic education, culture and civilization long before the coming of colonial invaders. The system of education before the coming of western education, where children were enrolled in the Quranic School at infancy still remains. It is there the Muslims children learnt to read the holy Qur'an from the beginning to the end, which involves learning of Arabic alphabets, reading and trying to commit as much of it to memory as possible, and also writing each of the chapters of the holy Qur'an on a wooden slate (Muhammad, 2021). Shekarau in

Naniya and Kurawa (2004) opined that western type of education, culture and civilization were seen as a threat to Islam, which transpires to the negative attitudes towards western education in Northern Nigeria, and that renders the state as western educationally disadvantaged.

Qur'anic schools remained the first type of school to be attended by every Muslim child in northern Nigeria. After which a student can further his studies on other Islamic disciplines in *Zaure* or *Ilimi* schools (mostly for adult learners and it holds in either morning or evening session). Quranic, *Zaure* and Islamiyya schools produced not only the scholars who mediated the religious and social activities of the society, but also the literates and technocrats that supported state institutions and the managers of state affairs in all angles and human endeavor.

Moreover, Kano State Revised Education Strategic Plan (2008) maintained that, basic and senior secondary education is provided by a number of different providers. Government schools provide conventional education through a network of primary and secondary schools across the State. Complementing the conventional system of schools is a number of religious school options which include: Tsangaya, Qur'anic

schools; Islamiyya schools, and *Ilimi* or *Zaure* schools.

### **Evolution of Western Education in Kano**

In their submission, Kayode and Adedeji (2012) discovered that the historical domination of religious bodies in education has over the years given way to secularism. In the contemporary Nigeria education has, until most recently, become a state function. Our post-independence experience (most especially under military rule) has been that the establishment, management and control of schools are an ultimate responsibility of the state.

In Kano and other northern states Muslims remained critical of western education and western cultures, this place a disparity between the South and the North in terms of western education. In those days as observed by Muhammad (2021) children were forcibly conscripted from their parents and enrolled in Western education schools, which were called "*Boko schools*", children of well-known personalities in the community were persuaded by the traditional rulers to surrender them to *Boko* schools, cited mostly in the cities, and citing the enrolment of traditional rulers children as an example. As at that time many of those associated with traditional institutions were

forced to send their children to elementary school, so many children were taken away for hide in the nearby villages for fear of possible enrolment into *Boko* schools. Some parents were devastated by their children going to those schools then, for the fear of western education as a subtle means of indoctrinating the Muslim children into other religious beliefs.

The first western school in Kano was established by one of the colonialists' administrators, Hans Vischer (Dan-Hausa) in 1909, it was meant for the training of local teachers, and in the same year, a boarding school was opened for the sons of chiefs from the Northern states. The whole idea was to get the local community accept the new education systems, which northerners had been suspicious of. The enrolment in 1909 was 209 pupils' who were drawn from several towns in the Northern Province (SUBEB, 2020). Prior to official creation of Kano state in 1968 when the Kano ministry of education was established, the state had only 241 government owned primary schools and 16 post primary schools, from that time onward attempts were made by the successive governments to boost education in all aspect. Also Naniya and Kurawa (2004) noted that Kano served as a pacesetter in

educational innovations in Nigeria, established the Science and Technical Schools Board, the State Universal Basic Education Board, the Adult Education program among others.

Kano is the top region by public primary schools in Nigeria, as of 2018 Kano has 6,300 public primary schools and 7,844 public secondary schools; the enrolment figures grew to 3,804 million in primary, junior and senior secondary schools in the state (Adedigbe, 2018). Equally, the enrolment figures indicates that Kano has 2.1 million primary 1-3 pupils as of 2021 annual school census, that increase is attributed to Kano state free and compulsory education law coupled with school home grown feeding programme (Agency report, 2021).

#### **Devaluation of Public Education Sector**

Formal educational backwardness is a national tragedy in Nigeria and it is not restricted to a section but it is more compounded in the north because of several factors (Naniya and Kurawa, 2004). Also Kano State Revised Education Strategic Plan (2008) states that, the quality of primary and secondary education is low in Kano in absolute terms and in comparison with other states in Nigeria. Furthermore, there is evidence to suggest that the quality

of primary education in Kano has deteriorated since the mid-1990s relative to other Nigerian states. However, by 2003 Kano fell below the national average which suggests that relative to other states in Nigeria, learning outcomes in Kano public primary schools deteriorated.

Looking at the determinants of quality, high pupil classroom ratios in primary and secondary schools, and the generally poor state of school infrastructure are important factors leading to poor learning outcomes. Pupil classroom ratios suggest that classroom overcrowding is common because only 30% of primary and junior secondary schools in urban areas are not double shift (Kano State Ministry of Education in Kano State Revised Education Strategic Plan, 2008). Overcrowding is also higher in urban areas where pupil classroom ratios can reach up to 200 in primary and junior secondary schools. Levels of overcrowding are high in comparison to other Nigerian states where the average state primary school pupil classroom ratio was 69 in 2005/06 (NEMIS in Kano State Revised Education Strategic Plan, 2008).

The stock of classrooms is also of poor quality and generally in need of repair and renovation. The recent public expenditure review, found that 20% and 10% of all

classrooms were in need of major repair in primary and junior secondary schools respectively (Bennell and Dandago et-al. cited in Kano State Revised Education Strategic Plan, 2008). In the same vein Abdulrahman (2021) opined that majority of public schools are completely down, they lack the infrastructure required of schools, they lack quality teachers, they experience truancy of both teachers and students/pupils, and they are not well financed.

In their submission, Kayode and Adedeji (2012) discovered that the failure of public institutions in Nigeria manifests in the form of enlarged teacher student ratio; overcrowded classes; poor quality teaching etc. necessitated private schools patronize in Nigeria. Private sector involvement with particular reference to Kano is now getting more noticeable. Jekayinfa and Akanbi (2011) noted that, the establishment of private schools is no doubt a response to the failings of the public school system, with increasing awareness of the importance of education for human emancipation and development. Nigerians continue to adopt the usual and peculiar response, which is the private option. In the past decades, there have been crises of different types and intensity, and of all the crises, that of scarce resources arising from under-funding has

been central. Resources for public education in terms of staff need, funds, physical facilities and equipment have continuously been in state of acute shortage in Nigeria.

### **Growing Demand for Private Education**

In Kano until recently the practice of private schools was purely non-indigenous investment, both the teachers, managers, pupils/students were not indigenes, and the schools were operating in the urban areas, more especially in a site where non-indigenes resided. The first private school in Kano is St. Louis Nursery and Primary School, which is a missionary educational institution founded in 1949 at Airport road in Kano by the Catholic Sisters of Saint Louis to provide both academic and moral teaching for the future leaders; St. Louis Secondary School followed the suit on 18th January 1951 as a boarding school located at Bompai. It is also Catholic mission school owned by the Catholic Diocese of Kano, and run by the Sisters of St. Louis (Nigeria Province). It is the first Secondary Schools for girls in Kano State; the Archbishop John McCarthy of Kaduna sought the permission of Kano State Government to establish a boys' school at Airport road. Following the approval, St. Thomas' Secondary School was established in January 22, 1959. The school was built by Fr. Thomas Duffy



(SMA), and named after his patron saint, St. Thomas Aquinas.

The recent proliferation of private schools in Kano is connected to the massive involvement of indigenes into the profitable investment, religious sentimentalities, desire to sanitize the operation of the schools, yearning aspiration of Kano populace towards western education, and the inability of government schools to absorb the teeming number of pupils into primary and the secondary schools system etc. The Chairman Kano Private Schools Taskforce in Webmaster (2014) stated that as of year 2011, there were about 1023 private schools surrendered to them by their predecessors, but they discovered that there were over 3000 to 4000 private schools operating in Kano state, they also identified about 1700 unregistered private schools.

In Nigeria according to Abubakar (2022) private investors fill in the Nigerian educational sector gap as indicated by primary school enrollment in Nigeria. In 2018, Nigeria counted 22.4 million children enrolled in public elementary schools and 5.5 million in private schools, which is about 19.7% of the total enrollment of children from the ages of six to seven, are catered for by private intervention in the nation's education sector. In this regards,

section 2 no 28 of National Policy on Education in Federal Republic of Nigeria (2014) states that in addition to public schools, government welcomes the establishment of Daycare centers, Nursery, Pre-primary, Primary and Junior Secondary Schools by voluntary agencies, communities and private individuals, provided the set minimum standards are met.

Kano has one of the highest population growth rates of Nigerian states. This rapid growth puts significant pressure on education services with an increasing number of children requiring school places every year (Kano State Revised Education Strategic Plan, 2008). In the same vein conventional primary school provision is heavily dominated by government schools; only 1% of all primary schools were privately owned in the 2005/06 school year (NEMIS in Kano State Revised Education Strategic Plan, 2008).

### **Education Laws and Policies**

Education laws are said to be rules and regulations meant to guide actions, inaction, behaviors or activities, which specify conduct of educational practice in a country; it controls, guides, and specifies various activities of personnel and agencies that are concerned with the school system (Uba, 2018). Moreover, education laws contain the

objectives and policies of the government on educational procedures. It is a document that spells out regulations guiding the management of the schools and education in general. On the other hand educational policies are initiatives mostly by governments that determine the direction of an educational system (Okoroma in Uba, 2018).

Additionally, Kayode and Adedeji (2012) submitted that, the management and administration of education in Nigeria by law is vested under the stable of the three tiers of the Nigerian government on the concurrent list. The legal structure of public education in Nigeria involves the three layers of government (i.e. Federal, State and Local Governments). The legislature enacts laws or may delegate its rule-making functions to the administration. An enabling legislation on educational institutions usually prescribes extensive provisions affecting policies, regulations and decisions in schools. Sweeping powers are delegated or conferred on administrators to enact, implement and review the laws under which schools operate and to which they may be called upon to give account.

Section 2 no 10 of the National Policy on Education in Federal Republic of Nigeria (2014) states how basic education shall be

given to children aged 0-15 years, which it encompasses the Early Child Care and Development Education (ECCDE 0-4) and 10 years of formal schooling. ECCDE is segmented into ages 0 -4 years, situated in Daycare or Crèches fully in the hands of the private sector and social development services, whilst ages 5-6 (Pre-primary) are within the formal education sector. Also section 2 no 12 of the same article states the composition of the basic education as it comprises: 1 year of pre-primary education, 6 years of primary education, and 3 years of junior secondary education. Whereas there is post basic of 3 years in senior secondary school and or technical colleges.

Pre-primary education in Nigeria by whatever name it may be given shall be run prior to primary school. The government is responsible to the development of suitable curriculum, supervise and control the quality of such institutions whether public or private. In this vein government make provision in teacher education programmes for specialization in early childhood education, it also encourage private participation in the provision of pre-primary education, and ensure that the medium of instruction is principally the mother-tongue or the language of the immediate community, and control of all these is in the

hands of government.

The Nigerian private schools establishments act according to state and federal government provided that anybody can venture into the most rewarding investment of a private school business, unlike before when such opportunity was reserved to educationist only but now any proprietress or proprietor that have the funds and desire to set up a standard nursery, primary or secondary school can do it anywhere in Nigeria. The acts as cited by Sigma (2023) stipulated that the headmaster/mistress or principal must to have a B.Ed. or NCE teaching qualification, and a minimum of 10 years working experience in the field of teaching. The school owner must also ensure that the school meets the standard set by the ministry of education which includes the followings:

1. Physical building structure
2. Physical facilities
3. Conducive classrooms
4. Qualified teachers
5. Health and sanitary facilities
6. Playground
7. Safety facilities
8. Teaching and statutory records
9. Beautification of school compound

There are so many questions to ask in connection to the conduct and operation of

private schools in Kano, based on the above standard set. Some of the questions here are how many schools meet the above criteria in Kano? And what Government is doing to ensure all the private schools are to the above standard?

### **Dubious Practices of Private Schools**

The proliferation of private schools has affected the quality of education, as well as what the education Ministry desired for the children in Kano, as stated by the laws and policies. Abdulrahman (2021) submits that most of the private schools (except few) are a scam, not up to standard and part of the cheating industry. Also Chairman cited an example of one private school the taskforce discovered operating Nursery, Primary, Junior and Senior Secondary schools in only three rooms. Majority of the private school in Kano are only in this business because they want to exploit the society in terms of increments of school fees, imposition of purchase of books and other materials that are not even relevant to the curriculum, and by collection of development levy, Other rampant charges are forcing their students on paying excursion, test, sandals, identity card, exercise books fees, etc. nobody knows when they turned school into a business ventures where they sell everything

and render such kinds of business as orthless.

Of the problems identified by the Private Schools Taskforce as cited by the Chairman are: majority of such schools does not have the facilities and qualified teachers among other inefficiencies. They do not comply with the government directive to pay 10% of their tuition fees charged to the government as required by the law, they do not want to employ qualified teachers neither want to pay the teachers good salaries, and they do not want to provide good facilities rather they prefer to operate in mushroom environments with mostly secondary graduates as teachers. Low-free private schools enroll a growing proportion of children in Nigeria, and Kano, a trend that raised questions about the quality of provision in such schools.

There are many problems associated with operating private schools in Kano; Chairman Kano Private Schools Taskforce in Webmaster (2014) stated that the taskforce came on board when the government realizes that there is need to checkmate the excesses of some private schools existing in Kano because some are operating without government approval while some operate with expired approval. Others are the formal setting which varies from one school to

another, in some school they operate crèche or daycare, play group as the beginning from which a child may proceed to pre-nursery, then nursery after which he may be enroll into basic education. No age limit consideration and duration is designed uniformly.

The fact is that, private schools have failed woefully to produce brilliant students and scholars, because majority of their teachers are not certified and qualified to teach, and they cannot afford world class teachers (Ekenyerengoz, 2012). It has become clear to many parents that the task of teaching their children has been shifted to them, despite the huge fees they keep doing out to private schools. Children come home with homework that requires over 6 hours to complete and their children are usually clueless about the topics, and clearly some of the topics were never introduced in class, and the burden is shifted to parents (Lordsterlin, 2022).

On examination malpractice that now becoming alarming in Nigeria, Atueyi (2019) reveals how private school proprietors aid exam malpractice through bribing examiners, to not only allow their candidates cheat during examination, but to also disclose question papers to them before examination. This misdemeanor has become

a norm that any examiner that opposes it, is not only dubbed '*holier than thou*', but also receives hostile treatment and threat to life. He further stressed that, that WASSCE (West African Secondary School Certificate Examination) period is a big business deal that cannot afford to be exploited, and why most proprietors are desperate when it comes to WASSCE, they charge exorbitant fees for enrollment and so they have to justify the amount people are paying.

In his submission, Abdulrahman (2021) stated that, for many years' parents whose children are passing out through many MIRACLE WAEC (West African examination Council) and NECO (National Examination Council) centers think that their children are actually passing those exams out of their own efforts. Most results Nigerian schools churn out are not true reflection of students' performances. Of course, there are still a few honest schools around. Nevertheless, Abdulrahman further stressed that schools are helping Nigeria develop a cheating industry, where every student is helped to pass the ordinary level exam, even the JAMB exam too, has been a part of this cheating industry. However, as long as there are gullible examination officers, the scourge will continue, the private schools would go to extra length to

ensure their students pass with unmerited distinction, as the candidates may have done well, but their success is a product of fraud that has dire consequences (Atueyi, 2019).

The phenomenon of purposefully compelling children to skipping classes is no longer new among the private schools; while many uniformed parents indulge in the dastardly act mainly out of mere competition; many others caught the act ignorantly. The process of getting education has a well-defined process that must be painstakingly follows without trying to neither compete nor please anyone (Opera News, 2021). It is normal among some private school admitting underage into basic one, jumping classes, skipping primary five and six classes to proceed to secondary school, as well as permitting students to take external examination while they are in SS (Senior Secondary) 1 or SS 2. The practice is against the law as pupils involved are emotionally unprepared for the upper classes. Egbujo (2020) indicated that public schools are dead; private schools are running wild. Some private school owners are restless for profit; the school curricular is shiny without substance, and school inspectors are either absent or have sold themselves for plates of porridge.

### **Conclusion**

The contributions of private sector education if properly managed and handle cannot be overemphasized, as it supplement the government in ensuring education for all, but apart from badly organized environments that is far to be a conducive learning environment in some private schools, poor quality of teachers, sexual abuses, bullying among students or pupils, corruption to induce marks etc. there were so many incidences that led to the death of some students/pupils of different private schools in Nigeria which requires a total overhauling of private sector education. Even Abdulrahman (2021) stressed that there cannot be quality education in a badly organized society.

### **Recommendations**

- i. Revalidate the entire private education sector and immediate articulation of the state and national education policies with proper and constant supervisions for implementation.
- ii. Involved the LGEAs and Ministry of Education zonal directorates for itinerary inspections and monitoring of all private

schools within their locations and jurisdictions,

- iii. Ensure a holistic count of all private schools in the state to ascertain accurate data in which a uniform policy of action shall be put in place for their operations.
- iv. Collaboration of all the stakeholders to checkmate the activities of quack private school for an immediate and permanent termination of such schools.
- v. Strict and thorough revalidation exercise of private schools proprietors and teachers' shall be the government priority as to ensure quack among them are removed from the system.

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## Influence of Information Literacy on Career Development of Office Technology and Management Lecturers in Polytechnics

By

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### ABSTRACT

The study investigated information literacy skills and career development of Office Technology and Management (OTM) lecturers in public polytechnics in South West Nigeria. The aim was to determine the information literacy skills possessed by OTM lecturers. Survey research design was adopted. The population comprised 121 OTM lecturers. The instruments used for data collection were achievement test and a questionnaire. To establish the reliability of the instrument, the Kuder-Richardson formula (20) and Cronbach alpha statistics were used to ascertain the internal consistency. The coefficient for the multiple choice objective questions yielded r-value of 0.72 while that of the career development scale yielded r-value of 0.76. The study questions were answered with Pearson Product Moment Correlation Coefficient, simple Linear Regression was used to test hypothesis 1 and Fisher Z statistics was used to test hypotheses 2 and 3. The findings revealed that information literacy skills had high positive influence on career development of OTM lecturers. Consequently, information literacy skills predict the career development of OTM lecturers. Based on the findings, it was concluded that information literacy skills contributed to the career development of OTM lecturers. It was recommended that OTM lecturers should develop information literacy skills to find, synthesize, evaluate and use information resources meaningfully to publish quality papers for their promotion speed, remuneration growth and recognition in their career development.

**Keywords:** *information literacy*, information literacy skills, career, career development, OTM lecturers.

### Introduction

Career development is contingent on information literacy prowess of academic staff of tertiary institutions including the polytechnic system. Career development (CD) is the process of improving and advancing along a career path. Scholars recognize the value of career development

as critical in the twenty first century world of work (Strauss & Kelly, 2016; Greenhaus, Callanan, & Godshalk, 2018; De Vos, Akkermans, & Van Der Heijden, 2019; Wilhelm & Hirschi, 2019; Skakni, Masdonati, & Maggiori, 2020; Hirschi & Koen, 2021). People are expected to be

responsible for their career development (Blokker, Akkermans, Tims, Jansen & Khapova, 2019; Hlengwa, 2019; Zacher, Rudolph, Todorovic, & Ammann, 2019; Matsepe, Cross, & Maluleke, 2020; Barnes, du Plessis & Frantz, 2022).

Wilcox (2019), defined career development as the systematic process of maintaining work life. Similarly, Barnes et al., (2021) stressed that career development is the stage to stage progression of people in their endeavors. CD of academic staff consists of the upward movement of lecturers in hierarchy, designation, salary structure, status and tenure. In the context of this paper, CD refers to the upward progression of lecturers in their promotion speed, remuneration growth and recognition. Consequently, career development is a function of publications, which is dependent on information resources.

The value of information cuts across every facet of life. One of the major characteristics of the modern technology-driven society is the exponential growth of information resources (Aghauche, Nkamnebe & Nkamnebe, 2019). The information age poses the challenge of selecting relevant, up-to-date and reliable information from the avalanche of information resources (Head, Alison, Fister

& MacMillan. 2020; Iqal, Sohail, & Idrees. 2021; Singh, Prashasti, Mosumi, Jacqueline, & Philipp, 2021; Zhu, Mengyue, Yanbing, Xin, Shifan, & Zhiguang, 2021; Edewor, 2022). The ability to utilize information resources effectively is a vital tool to success in every field of endeavor (Ridley & Pawlick-Potts (2021). According to Hemamalini and Shobha (2020), people have to be information literate if they must access and use all kinds of information resources effectively. Therefore, the skills to navigate, search, sort, evaluate and use the avalanche of information resources is referred to as information literacy (IL).

Information literacy (IL) means the skill to identify, find, seek, evaluate and use information sources meaningfully. The Chartered Institute of Library and Information Professionals (CILIPs) (2018) pointed out that IL is the ability to undertake information-related tasks such as identifying, accessing, creating, storing, retrieving, managing and sharing information. Cerny (2022), defined information literacy as the ability to explore, assess, categorize, process, and utilise information. Similarly, Edewor, (2022) pointed out that information literacy is the ability to effectively access and use information resources. Edewor reiterates

that IL requires developing information literacy skills. IL skills are the competencies, knowledge and ability to access, evaluate and use information resources for various needs. There are many dimensions of information literacy skills, which include recognizing the source of information, accessing, evaluating, storing, managing, organizing, retrieving and usage (Okiki, 2009; Madu, 2013; ACRL, 2016; Carretero, Riina & Yves, 2017; Ekong & Ekong, 2018; Goes, Keysy & Carmen, 2020; Cerny, 2022). Information literacy skills are the tools that are used for combating information poverty (Strand & Britz 2018). In the context of this paper, the information literacy skills focuses include the ability to find, synthesize and evaluate information resources.

Finding information means knowing how to exploit information where they are available. Synthesizing information refers to bringing together or linking pieces of information into a coherent order. Evaluating information is assessing the quantity, quality and relevance of the information in terms of value, accuracy, authenticity and trustworthiness. The skills needed to find, synthesize and evaluate information are useful to lecturers. That is why Edewor (2022) stressed that ILS is a

must-have for students and other researchers in this information age. Information literacy skills development may help to boost the publications of lecturers and consequently lead to their career development.

### **Literature Review**

Literature has shown the benefits of acquiring information literacy skills. For example, Hemamalini and Shobha (2020) stated that people need information literacy skills to appropriately seek, access and use various kinds of information resources to succeed in what they do. In line with the findings of Hemamalini and Shobha, Ridley and Pawlick-Potts, (2021) maintained that the critical skills to work with, read and use information is essential for career development. Information literacy skills are the tool that are used for combating information poverty (Strand & Britz 2018). Nishikawa and Izuta (2019), establish that information literacy is a path to self-sufficiency in family and social contexts. Life success can be achieved through improved information literacy skills (Dzula, Sydney, Janitza, Amelie & Summer, 2020; Nzomo, Peggy & Fehrmann 2020; Irving 2020). Marcella and Chowdhury, (2020) reiterates that ILS aids self-development. Similarly, Kirschner and Stoyanov (2020) claim that information literacy leads to

individual's social change. This concurs with a previous study that was carried out by Igwe, Emezie and Uzuegbu's (2014) that ILS is a critical set of proficiencies used to effectively manage and disseminate information for educational activities, workforce readiness and everyday life.

The study of Madu (2013) on the influence of ILS on the research productivity of academic staff of universities revealed a significant relationship between ILS and lecturers' promotion, status and appointments to positions. Ziemba (2019) presented that the contemporary complex society, needs information literacy skills as pathway to sustainability. The study of Stonebraker, Caitlan, Kenny and Jerrit (2017) offered that information literacy skills are prerequisite for identifying societal problems and remediation. Also, the findings of Irving, (2020) show that information literacy skills help people to succeed in the labour market as they compete with colleagues.

In the reviewed literature, several scholars have discovered the relationship between information literacy skills and career development. Hamamalini and Shobha (2020) conducted a study on the information literacy competencies of undergraduate students in Mysore City, India. They

maintained that students must be information literate to properly seek and use information for their various school needs. The findings of their study revealed that information literacy competencies are germane to students' career success. Nevertheless, they found that the students' lack basic ICT knowledge impedes their ability to locate, retrieve and utilize information resources available in the library.

Member, Famaren and Ternenge (2021) carried out a study on students information retrieval skills in Benue State, Nigeria. They discovered that the students lack the skills to navigate, retrieve, evaluate and use information resources effectively. The findings of their study revealed that the challenges the students encounter include insufficient networked computer systems, poor internet connectivity, and irregular power supply.

Cerny, (2022) carried out a study on searching for a definition of information literacy as a socially cohesive component of community: a complementarily of experts and student approach in Faculty of Arts, Masaryk University, Arne Nováka. The study showed that ILSs are fundamental requirements for viable information society. Results show significant relationship that

exists between information literacy and students' school related activities. The researcher found out that information literacy skills is aimed at individual, educational and societal development.

Edewor (2022) investigated information literacy competencies of undergraduate students in Federal University of Petroleum Resources, Effurun, Nigeria. The researcher stressed that students need to acquire high level of information literacy skills to be able to do assignments and carry out other school activities. Furthermore, the researcher stressed that the acquisition of ILS is useful to students in school and when they enter the labour market. However, he lamented that most students lack skills to access information from the library and other sources. The outcomes show that the students encountered problems in accessing information due to poor internet facilities, poor power supply and other challenges.

Apart from the fact that the level of IL skill is a key element to the level of career development of OTM lecturers, they can however be moderated by demographic variables. Demographic variables are personal characteristics such as age, gender, marital status, years of experience and so on. Thakur (2015) claimed that the increasing trend of demographic diversity has several

implications for information seeking and research productivity. Among the demographic variables that were identified from existing literature as correlates of information literacy and academic publishing, the two discussed in the present study include sex and ownership of institution.

Gender has been perceived to have a positive influence on lecturers' ability to access information for research publications. Findings from previous studies showed significant gender differences in accessing information, publishing and career development of lecturers (Eloy, Svider, Cherla, Diaz, Kovalerchik, Mauro, Baredes, & Chandrasekhar, 2013; Obers, 2015; Nasser-Abu & Majdob 2017; Prozesky & Beaudry, 2019). Women compared to their male counterparts may not be persistent to face the challenges of accessing information and getting their articles published. Family responsibilities limit the upward mobility of female lecturers. The dual division of labour both at home and in the institution negatively affects the CD of African women.

Ownership of institution has been seen to influence information literacy, publishing and career development of lecturers in public institutions. Studies revealed that

there is a correlation between the type of institution and career development of lecturers (Nwakpa, 2015; Iroaganachi & Izuagbe, 2018) school support enjoyed has been perceived as a significant predictor of career development among lecturers. The quality of publication by lecturers is greatly dependent on the accessibility of funds, resources, facilities and support provided by federal and state institutions. It is believed that public institutions support lecturers' career development by providing incentives to embark on career development activities such as conferences and seminars.

#### **Statement of the Problem**

Information literacy skills are essential tools that lecturers of tertiary institutions should possess to advance in their career. In addition to the basic skills of accessing, synthesizing and evaluating information resources, they must develop the skills to utilize information resources and hone their career development. To meet this criterion the information literacy skills of OTM lecturers come to play. Some scholars have argued that most of the OTM lecturers lack the skills that are required to access, identify, locate, retrieve, evaluate and make use of information resources. This inadequacy often leads to unethical publication misconducts.

Examples of publication malpractices are plagiarism, citation amnesia, multiple submissions, salami slicing and many more. These unwholesome practices attract severe sanctions from institutional authorities. Some lecturers have stagnated in one position as a result of their inability to meet the minimum requirements for their career development.

Whether lack of information literacy skills stultifies their career development remains to be seen. What prevents some lecturers from meeting these criteria? Could this be related to poor information literacy skills possessed or outright non-possession of information literacy skills? Thus, this is the gap the current study has filled.

#### **Research Questions**

This study was guided by the following research questions:

1. what level of career development has been attained by OTM lecturers in public polytechnics in South West Nigeria?
2. what is the relationship between information literacy skills and career development of OTM lecturers in public polytechnics in South West Nigeria?
3. what is the difference in the relationship between information literacy skills and the career development of male and

female OTM lecturers in public polytechnics in South West Nigeria?

4. what is the difference in the relationship between information literacy skills and the career development of federal and state OTM lecturers in public polytechnics in South West Nigeria?

### **Hypotheses**

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

1. there is no significant relationship between information literacy skills and career development of OTM lecturers in polytechnics in South West Nigeria.
2. there is no significant difference in the relationship between information literacy skills and the career development of male and female OTM lecturers in polytechnics in South West Nigeria.
3. there is no significant difference in the relationship between the utilization of research skills and the career development of federal and state OTM lecturers in polytechnics in South West Nigeria.

### **Methodology**

Survey research design was adopted. The study comprised OTM lecturers in public polytechnics in South West Nigeria. The

population included 121 lecturers in ten public polytechnics in South West, Nigeria. The entire population of one hundred and twenty-one (121) OTM lecturers in the area covered constituted the sample, because of the manageable number of the respondents. There was no need for sampling, hence a census. The instrument used for data collection was an achievement test and a questionnaire. The instrument covered three sections. Section A measured the demographic variables, which included sex and ownership of institution. Section B was an achievement test while section C was a questionnaire on promotion speed, remuneration growth and recognition. Out of the 121 questionnaires that were administered 112 were returned, which is equivalent to 92.56 per cent retrieval rate. Research questions were answered by using mean, standard deviation and Pearson r. Hypothesis 1 was tested with Simple Linear Regression. Fisher Z statistics was used to test hypotheses 2 and 3 at 0.05 alpha level of significance.

### **Results**

**Research Question 1:** What level of career development has been attained by OTM lecturers in polytechnics?

**Table 1: Mean and standard deviation showing the level of career development of**

**OTM lecturers**

S/N	Item	N	Mean	SD	Remarks
1	My promotion speed in the present institution is fast.	112	2.90	0.92	High
2	My probability of being promoted in my institution is high.	112	3.04	0.63	High
3	My position in my institution is ideal.	112	2.87	0.88	High
4	Compared with my colleagues, I am being promoted faster	112	2.02	0.71	Low
5	My salary is growing quickly in my present institution.	112	2.52	0.91	High
6	In my institution, the chance of my current salary being increased is very high.	112	2.39	0.80	Low
7	Compared with my co-lecturers, my salary has grown more quickly.	112	1.89	0.59	Low
8	Compared with my colleagues, I am drawing other benefits	112	2.18	0.73	Low
9	I receive verbal and written praises for my excellent research.	112	2.81	0.61	High
10	I receive tangible memory items like plaque, certificate, laptop	112	2.38	0.73	Low
11	I receive appointments to higher positions.	112	2.40	0.72	Low
12	I accomplish greater achievements	112	2.75	0.72	High

**Note: SD (Standard Deviation), N (Sample Size)**

In response to research question 1, Table 1 shows the level of career development of OTM lecturers. Items 1, 2, 3, 5, 9, and 12 show high level of career development with mean ratings ranging from 2.75 to 3.04 while items 4, 6, 7, 8, 10 and 11 indicate low level of career development with mean

ratings ranging from 1.89 to 2.40. With these results the level of career development of OTM lecturers is high.

**Research Question 2:** What is the relationship between IL skills and career development of OTM lecturers in polytechnics?



**Table 2: Pearson’s correlation of information literacy skills and career development of OTM lecturers**

Variables	N	Pearson’s r	Remark
Information literacy skills and career development	112	.519	Moderate positive relationship

**Key: 0.00 – 0.30 = Low; 0.31 – 0.59 = Moderate; 0.60 – 1.00 = High**

Table 2 shows a calculated Pearson’s r value of .519, falling between .031 – 0.59 which shows a positive relationship. Therefore, there is a positive relationship between information literacy skills and career development of OTM lecturers in polytechnics in South West Nigeria.

**Hypothesis 1:** Information literacy skills does not significantly predict the career development of OTM lecturers in polytechnics.

**Table 3: Simple linear regression ANOVA of information literacy skills predicting career development of OTM lecturers**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	304.566	1	304.566	40.151	.000 <sup>b</sup>
	Residual	826.830	109	7.586		
	Total	1131.396	110			

a. Dependent variable: career development

b. Predictors: (constant), information literacy skills

Data analysis in Table 3 indicates calculated F value of 40.151 and P value of .000, at alpha level of .05. The P value is lower than the alpha level, therefore, the null hypothesis, which states that information literacy skills do not significantly predict the

career development of OTM lecturers in polytechnics is rejected. Consequently, information literacy skills significantly predict the career development of OTM lecturers in polytechnics in South West Nigeria.

**Table 4: Summary of regression model of information literacy skills predicting career development of OTM lecturers**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.519 <sup>a</sup>	.269	.262	2.75420

a. Predictors: (constant), information literacy skills

Table 4 shows calculated R value of .519 and R' square value of .269. Therefore, information literacy skills account for 26.9% of career development of OTM lecturers.

**Hypothesis 2:** There is no significant difference in the relationship between information literacy skills and career

development of male and female OTM lecturers in polytechnics in South West Nigeria.

**Table 5: Fishers Z of information literacy skills and career development by sex**

Sex	N	r	Z'	Z	Z <sub>table</sub>
Male	70	0.6	0.693	0.399	1.96
Female	41	0.554	0.624		

$\alpha = .05$

In Table 5, data analysis shows Z 0.399 value and 1.96 table Z, testing at 0.05. The Z value falls within the acceptance region. Hence, the null hypothesis, which states that, there is no significant difference in the relationship between ILs and CD of male and female OTM lecturers in polytechnics in South West Nigeria is accepted.

**Hypothesis 3:** There is no significant difference in the relationship between IL skills and career development of federal and state OTM lecturers in polytechnics in South West Nigeria.

**Table 6: Fishers Z of information literacy skills and career development by ownership**

Ownership	N	r	Z'	Z	Z <sub>table</sub>
Federal	44	0.518	0.574	-0.767	-1.96
State	67	0.631	0.743		

Table 6 shows -0.767 as Z value and -1.96, indicating table Z being tested at 0.05. The Z value falls around the acceptance region. Consequently, the null hypothesis stating

that there is no significant difference in the relationship between IL skills and career development of lecturers in federal and

those in state polytechnics in South West Nigeria is accepted.

### **Discussion of Findings**

The findings of research question 1 showed that career development of OTM lecturers was high. This finding is consistent with that of Barnes et al (2022) which revealed that academic career competency development leads to successful career progression. The present study also conformed to the findings of Skakni et al., (2020), which revealed that developing career competencies are vital for successful career development.

Results from research question 2 revealed that there was high positive relationship between IL skills and career development of OTM lecturers. Similarly, the result of the corresponding hypothesis revealed that information literacy skills significantly predicted the career development of OTM lecturers in polytechnics in South West Nigeria. The finding is in agreement with the findings of Edewor (2022) which revealed that the development of information literacy ability is valuable to students in school and when they join the workforce. This concurs with the findings of Cerny, (2022) and Oyewo and Samuel (2016) who reported that effective use of information literacy skills enhance career development. It means that when the

lecturers access, synthesize and effectively use information resources, they will enjoy promotion speed, remuneration growth and recognition in their career development.

The test of hypothesis 2 indicated there was no significant difference in the relationship between information literacy skills and career development based on the sex of OTM lecturers. The findings of this present study are in congruence with the findings of Migosi, Muola and Maithya (2012) who observed that there is no difference between males and females in searching for information to publish which is the key to their career development. This is also in agreement with Strachan et al (2016) who found that there is no difference between men and women in their research publishing for career progression. They claimed that women and men have the same ability and can attain the same heights in their career. Conversely, these findings disagreed with the finding of Obers (2015) who reported that male and female academics differ significantly in conducting research for their career development. This is corroborated by Prozesky and Beaudry (2019) who reported that men do better than their female colleagues in scholarly publications for their career development. The relationship that existed between information literacy for

research publishing and career development was the same for both male and female counterparts.

The test of hypothesis 3 showed no significant difference in the relationship between IL, research publishing skills and career development of federal and state owned OTM lecturers. The result was accepted stating that there was no significant difference in the relationship between information literacy, research publishing skills and career development of federal and state OTM lecturers. Thus, ownership of institution did not relate to OTM career development.

### **Conclusion**

It was concluded that information literacy skills and demographic variables relate to promotion speed, remuneration growth and recognition in career development of OTM lecturers in public polytechnics. When information skills for academic research publishing are developed, OTM lecturers would publish books, attend professional conferences and publish high-impact journal articles for their promotion speed, remuneration growth and recognition for career development. Similarly, irrespective of the sex and ownership of institution,

OTM lecturers would publish in both local and international journals for their career development.

### **Recommendations**

The following recommendations were made:

1. Efforts should be made by OTM lecturers to develop information literacy skills to find, synthesize, evaluate and effectively utilize information resources to produce high-quality publications for their career development.
2. Office Technology and Management lecturers need to development appropriate information skills to sift the chaff from the avalanche of information resources on the internet and other sources to enable them decode, extract and comprehend read materials for publications.
3. Management of polytechnics should regularly sponsor lecturers to workshops, seminars and conferences to pull knowledge from experienced colleagues to enable them write scholarly publications for their promotion speed, remuneration growth and recognition.

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FINAL DRAFT BJEAT



## **Relevance of Social Studies Education in Combating Cybercrimes among Nigerian Youths**

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### **ABSTRACT**

Local and international attention has been drawn to the alarmingly high prevalence of cybercrime in Nigeria among youths and this overwhelming participation in internet fraud has had a negative impact on the nation's reputation globally. Nigeria experiences adverse effects such as the refusal of visas, a decline in commercial partnerships, an increase school dropout rate, and a worsening of the unemployment situation already existing in the nation. The possibility of social studies education to reduce the high rate of internet fraud among young people in Nigeria is examined in this paper. Social Studies can help young people make well-informed choices, avoid being drawn into fraudulent activities, and positively contribute to society by encouraging moral behavior and teaching good values. To encourage young people to reject online fraud, develop good moral values, and respect the dignity of hard work, this study suggests that the current Social Studies curriculum be improved upon to adequately accommodate this social problem. By engaging Nigerian youths through an enhanced Social Studies curriculum, it is possible to mitigate the alarming rate of internet fraud, empower the youth population, and contribute to a positive transformation of the country's image. This research paper also emphasizes the need for collaborative efforts among policymakers, educators, and stakeholders to prioritize the enhancement of Social Studies education in Nigeria. Only through this concerted approach can we effectively tackle the underlying factors driving internet fraud, fostering a culture of integrity and ethical conduct among the youth population.

**Keywords:** *Internet Fraud, Cyber Crime, Social Studies Teaching, Ethical Behavior, and values*

### **Introduction**

In the vast landscape of contemporary issues and challenges in Nigeria, one issue has captured both local and international attention, casting a shadow of concern upon the nation's reputation: the pervasive prevalence of internet fraud among its youth. This alarming participation in cybercrime has had far-reaching implications, permeating the nation's global standing and giving rise to a host of

detrimental consequences. From the denial of visas to the erosion of commercial partnerships, the repercussions of this pervasive issue are manifold, exacerbating the already precarious state of unemployment and amplifying the disheartening rates of school dropout.

Internet fraud also referred to as cybercrime and “yahoo”, has been defined as the use of Internet services or software with internet

access to defraud victims or to otherwise take advantage of them (FBI; Gillespie & Magor, 2019) and has gained prominence particularly among Nigerian youths. Cybercrime also includes offenses committed against individuals or groups of individuals with a criminal intent to intentionally harm the victim's reputation or cause physical or mental harm to the victim, either directly or indirectly, through the use of modern telecommunication networks such as the internet (chat rooms, emails, etc.) and mobile phones (Muraina & Muraina, 2015). Its prevalence not only poses financial risks but also undermines ethical values and tarnishes the country's reputation causing significant socio-economic consequences. The issue of internet fraud in Nigeria is so widespread that "schools" are created to train young people in cybercrime and it has been observed that some parents and guardians withdraw their children/wards from formal schools and enroll them into these schools popularly referred to as "HK" or "yahoo-yahoo school" (Adejoh et al, 2019). According to Tade and Aliyu (2011), Internet fraudsters, particularly in Nigeria, do not see internet fraud as a deviant behavior but rather as a result of innovation in their quest to cope with the economic

hardship in the country. In other words, it has become a 'new normal' in the country. This pervasive issue raises concerns about the ethical behavior and values of Nigerian youths. While various interventions have been implemented to combat internet fraud in Nigeria such as the adoption of improved strategies to fight cybercrime by the Economic and Financial Crime Commission (EFCC) and commercial banks, the rate of this crime is on the increase and it appears to be becoming even more sophisticated. This raises concerns about the efficiency of cybercrime legislation in Nigeria, as well as the Nigerian Cybercrimes Act of 2015 and the government of Nigeria's use of it to combat the activities of online fraudsters (Eboibi, 2018).

Internet fraud has reached frightening proportions in our culture, owing to a confluence of factors such as a high rate of unemployment, growing poverty and hunger, a need for immediate gratification (get-rich-quick syndrome), weak cybercrime laws, policy implementation problems, and the inexperience or even outright complicity by security personnel. Several empirical researches have also identified a variety of explanations for Internet fraud. For example, Hassan, Lass, and Makinde (2012) said that urbanization and bad role models are the

root reasons of cybercrime, while Okeshola and Adeta (2013) cited poor socialization, peer pressure, group influence, lax regulations, easy access to the internet and poverty. To address this developing issue, immediate and comprehensive initiatives are required. We need to examine the potential of Social Studies education as an effective tool for combating internet fraud among the Nigerian youth. This study intends to demonstrate the effectiveness of educational interventions, with a particular emphasis on the critical significance of Social Studies education. Education has the capacity to change behavior for the better, making it essential in preventing crime and criminality including internet fraud. Conscientiousness and a profound understanding of the repercussions of indulging in cybercrime can be instilled by providing learners with knowledge, critical thinking abilities, and ethical behavioural modification. The holistic approach of Social Studies education, which includes civic involvement, moral decision-making, and digital literacy, holds enormous potential for developing resilience and strength in young people. Pursuing educational interventions has considerable challenges, it is however, worth the effort and success rate depends on collaboration between educators,

lawmakers, parents, and the general public. We must forge collaborative initiatives, improve curricula, and invigorate pedagogical approaches to seamlessly integrate anti-cybercrime education into our educational system.

In particular, Social Studies education plays a crucial role in addressing social issues and fostering ethical behavior among youths, including combating internet fraud. By incorporating Social Studies education into anti-fraud efforts, we can equip young individuals with the necessary knowledge and skills to navigate the digital world responsibly and ethically. It provides a platform for imparting knowledge, developing critical thinking skills, and instilling positive values that guide students' decision-making processes (UNESCO, 2015). Social Studies education provides a good avenue to meet this need and there remains a critical gap in understanding the role of Social Studies in fostering ethical behavior and positive values among Nigerian youths to address this problem effectively.

### **Overview of Internet Fraud in Nigeria**

Recent developments indicate that Nigerian youths are participating in major worldwide fraud schemes aimed primarily at other

nations and victims, resulting in massive financial losses (US Attorney's Office, 2021b). The growing concern surrounding the increase of internet fraud within the Nigerian landscape has elicited considerable scrutiny from scholars and policymakers alike, navigating the intricate terrain of this disconcerting phenomenon. Indeed, the nation has garnered notoriety as a breeding ground for a diverse array of online fraudulent schemes, ranging from advance fee fraud to identity theft and phishing schemes and this has caused internet users worldwide to experience unfavorable effect on their psyche, finances, and emotions (Aiezza, 2020). These criminal activities thrive on the expansive reach and cloak of anonymity afforded by the boundless expanse of the internet, enabling cybercriminals to prey upon unsuspecting victims on a global scale.

Within the empirical realm, painstaking investigations into the alarming prevalence of internet fraud in Nigeria have unveiled a disconcerting landscape characterized by burgeoning statistics that demand immediate attention. The Nigerian Communications Commission (NCC) has diligently tracked the surge in reported cybercrime incidents, revealing an unsettling trend marked by annual financial losses amounting to

millions of dollars (NCC, 2021). Moreover, a revealing survey conducted by the National Bureau of Statistics (NBS) disclosed the unsettling fact that over 64% of Nigerians have been ensnared in the tangled web of cybercrime, a testament to the pervasive nature of this issue (NBS, 2020). Such staggering figures serve as a resounding wake-up call, illuminating the gravity of internet fraud in Nigeria and necessitating urgent and efficacious countermeasures to curb its pernicious influence.

The ramifications of internet fraud extend beyond the realm of monetary loss, exerting a profound toll on the emotional well-being and societal fabric of its victims. The psychological distress, reputational damage, and erosion of trust experienced by those ensnared in the web of scams form an indelible mark on their lives. Furthermore, the ripples of cybercrime cascade onto the international stage, as negative perceptions of Nigeria permeate global consciousness, impeding foreign investments and confining the nation within the constrictions of restricted access to global financial systems (Adebowale & Olaleye, 2021). Indeed, the socio-economic impacts of internet fraud cast an imposing shadow over individuals and the nation as a whole, necessitating an

immediate and concerted response to mitigate its pernicious effects.

The complex nature of internet fraud demands a multi-faceted approach, calling for a convergence of strategies to address its multifarious challenges. Research has illuminated the efficacy of raising awareness and imparting education to individuals, empowering them with the discernment and acumen necessary to recognize and circumvent the treacherous pitfalls of online scams (Bakare, 2020). Within this realm of educational interventions, the pivotal role of Social Studies Education demands greater consideration and attention as a discipline with transformative potential to equip young minds with the tools and knowledge required to navigate the digital realm safely and ethically.

Summarily, the escalating specter of internet fraud in Nigeria looms large, embodying a formidable challenge that necessitates immediate and holistic redress. The pervasive prevalence of scams and their profound impact on individuals and the nation unequivocally necessitate a multifaceted approach. Heightened awareness, educational interventions, robust legislative frameworks, and stakeholder collaborations emerge as indispensable

strategies in combating internet fraud. Only through a comprehensive and concerted response can Nigeria forge a safer digital milieu, safeguarding its citizens from the deleterious effects of cybercrime.

### **Promoting Ethical Behavior and Values in the Fight against Cybercrime through Social Studies Teaching**

Social Studies, as a discipline that encompasses comprehensive understanding of societal dynamics, possess the transformative power to equip young individuals with the knowledge and discernment necessary to make informed choices. It equips students with a comprehensive understanding of societal issues, including the ethical implications of their actions in the digital realm. It also encompasses various subjects such as history, geography, economics, and civics, providing a holistic approach to education that integrates social, cultural, economic, and political aspects of society. By instilling a moral compass and inculcating ethical values, it enables them to navigate the intricate web of fraudulent activities that threaten to ensnare their futures. By fostering a sense of responsibility and encouraging a commitment to positive contributions within society, Social Studies

stands poised to shape the cognitive, affective, and behavioral dimensions of young minds. The discipline plays a major role in the inculcation of values and development of attitudes, habits, and other social attributes which help the individual to relate well to himself, his neighbours and his environment as a guarantee for a harmonious society (Iyamu, 2016).

Critical thinking, a cornerstone of Social Studies education, assumes paramount importance in addressing the underlying causes of internet fraud. By nurturing analytical abilities, this discipline empowers students to decipher the intricate webs of deceit and manipulation that underpin cybercrime. Research suggests that Social Studies Education can empower students to make responsible choices and navigate the digital world safely and ethically (Akintayo & Ogunnaike, 2019). Through engaging pedagogical strategies and relevant curriculum content, students can develop critical digital literacy skills, including the ability to evaluate online information, recognize online scams, and protect their personal information (Greenhow & Gleason, 2017; Owolabi & Folarin, 2020). By emphasizing values such as honesty, integrity, and a strong work ethic, Social Studies hold the potential to lay the

foundations of a morally upright society, nurturing individuals who embrace the dignity of hard work and eschew the allure of fraudulent schemes. Additionally, Social Studies teaching offer chances for discussions and analysis on ethical dilemmas, societal ideals, and the implications of immoral actions and unethical behaviour, such as committing online fraud. Students are made to examine the ethical implications of cyber fraud and cultivate a feeling of responsibility for themselves and their communities in the classroom through case studies; role-playing games, and debates.

It is essential to update and improve the current curriculum in order to maximize the benefits of Social Studies learning and successfully address the growing threat of internet fraud. It is imperative to make a determined effort to include topical subjects and useful applications that address this urgent social issue. We can close the knowledge gap between academic theory and the problems experienced by Nigerian youth by expanding the Social Studies curriculum to include comprehensive and focused content.

In addition, research suggests that Social Studies instruction might help students

develop empathy and social awareness by prompting them to think about how their actions might affect others (Anao, 2018). By fostering a sense of social responsibility, students are more likely to make ethical choices and resist engaging in fraudulent activities, including internet fraud. It is within the purview of an enriched Social Studies curriculum that Nigerian youths can be engaged, empowered, and imbued with the necessary tools to reject the allure of online fraud. By fostering a moral conscience, instilling strong values, and cultivating a deep respect for the virtues of integrity and hard work, we can effectively mitigate the alarming rate of internet fraud. Furthermore, such endeavors hold the promise of transforming the youth population into agents of positive change, thereby reinvigorating Nigeria's image on the global stage.

However, the task at hand cannot be undertaken in isolation. It is important to note that the effectiveness of Social Studies Education in addressing internet fraud relies on the quality of curriculum design, instructional methods, and assessment techniques as well as continuous professional development programs for teachers which are essential to ensure their competency in teaching ethical issues

related to the digital world. Collaborative efforts among educators, policymakers, and other stakeholders are crucial in designing and implementing effective interventions that address internet fraud and foster ethical behavior. To realize the vision of an enhanced Social Studies education and its potential to counter internet fraud, collaborative efforts must be undertaken by policymakers, educators, and stakeholders alike. Only through a united front can we adequately prioritize the advancement of Social Studies education in Nigeria, ensuring that it receives the attention and resources necessary for its comprehensive development. By fostering an ecosystem of collaboration, innovation, and dedication, we can effectively dismantle the underlying factors driving internet fraud, ultimately fostering a culture of integrity and ethical conduct among the youth population.

Yet, the integration of internet fraud education into the Social Studies curriculum presents its own set of obstacles. These hurdles encompass the swift pace of technological advancements, the imperative for ongoing teacher professional development, and the necessity for current resources and instructional materials (Berson & Berson, 2020). Overcoming these challenges necessitates a collaborative

approach among educators, policymakers, and pertinent stakeholders to guarantee the seamless integration of internet fraud prevention and the cultivation of ethical conduct within the educational system.

### **Designing an Internet Fraud-Focused Social Studies Curriculum**

The development of a curriculum that adequately covers the issue of internet fraud in Nigeria demands meticulous attention to key elements, learning objectives, and teaching methodologies. These essential components are explained as follows:

1. **Clear Learning Objectives:** The learning objectives must be clearly stated to provide students with the necessary information, skills, and values to combat cybercrime/internet fraud and avoid engaging in such criminal activities. These goals should encompass promoting critical thinking skills, fostering adherence to ethical conduct and values, instilling a sense of social responsibility, enhancing digital literacy skills, and equipping students with the knowledge needed to make informed decisions online.
2. **Relevant Content:** The curriculum should include a wide range of topics that dive into the complexities of online fraud as well as the negative implications. This

includes familiarizing students with various online scams, empowering them to recognize manipulative tactics, honing their skills in evaluating online information, instilling vigilance in protecting personal data, and cultivating an understanding of the ethical ramifications associated with fraudulent activities.

3. **Social-Emotional Learning (SEL):** Integrate socio-emotional learning into the curriculum to promote empathy, social awareness, and responsible decision-making. As described by the Collaborative for Academic, Social, and Emotional Learning (CASEL, 2003), SEL is the process of acquiring and effectively applying the knowledge, attitudes, and skills necessary to recognize and manage emotions; developing caring and concern for others; making responsible decisions; establishing positive relationships; and handling challenging situations capably. SEL activities assist students in comprehending the impact of their actions on others, nurturing a moral conscience, and fostering values such as integrity, honesty, and a strong work ethic.

4. **Dynamic Pedagogical Approaches:** Teachers need to be trained and encouraged to adopt and utilize engaging educational



techniques that stimulate critical thinking and active learning in the students. These methods can involve case studies that encourage analytical thinking, role-playing games that foster empathy and perspective-taking, passionate discussions that promote complex discourse, group projects that encourage cooperation and enlightening debates that challenge students to consider moral dilemmas as against the overreliance on the popular and widely adopted lecture method. By employing these approaches, students can explore the moral implications of online fraud, evaluate real-world scenarios, and cultivate a strong sense of personal and communal responsibility.

5. Continuous Professional Development for Educators: Emphasize ongoing professional development programs that will greatly impact pre-service Social Studies teachers, ensuring they possess the necessary knowledge and pedagogical expertise to effectively teach lessons on ethical issues. These programs should focus on keeping teachers up-to-date with the ever-evolving technological landscape and equipping them with effective instructional strategies that will achieve success in the classroom.

6. Collaboration and Stakeholder Engagement: There is need for collaborative

effort among educators, policymakers, and relevant stakeholders to design and implement impactful interventions. This collaborative spirit ensures the seamless integration of internet fraud prevention and the promotion of ethical behavior within the educational framework in such a way that will be relevant and achieve the overall objective of such interventions. Engaging stakeholders enables access to up-to-date resources, instructional materials, and support for successful curriculum implementation.

7. Effective Assessment Techniques: Devise appropriate assessment methods to evaluate students' grasp of internet fraud concepts, critical thinking abilities, ethical decision-making skills, and digital literacy. Assessments can take the form of written assignments, projects, presentations, and interactive discussions.

Addressing the challenges associated with integrating internet fraud education into the Social Studies curriculum necessitates acknowledging the rapid pace of technological advancements and the imperative of continuous teacher professional development. By fostering collaboration among educators, policymakers, and stakeholders, these

challenges can be surmounted, ensuring the seamless integration of pertinent and up-to-date content and instructional materials. By incorporating these essential components and considerations into the curriculum design, Social Studies education can effectively equip students with the knowledge, skills, and values required to combat internet fraud, foster ethical behavior, and contribute to the development of a more virtuous society.

### **Conclusions**

Conclusively, it becomes evident that education, particularly Social Studies Education, emerges as a potent force in combating internet fraud, nurturing ethical conduct, and empowering the younger generation. By infusing pertinent content, dynamic pedagogical approaches, and social-emotional learning, educators can furnish students with the indispensable knowledge, skills, and values required to navigate the digital realm responsibly, make judicious choices, and actively contribute to a more ethical society. The boundless potential of Social Studies education to confront this challenge head-on cannot be understated. Empowering young minds with knowledge, values, and critical thinking prowess holds the key to deterring

fraudulent pursuits and fostering positive societal contributions. Through an enriched Social Studies curriculum and a synergistic endeavor involving policymakers, educators, and stakeholders, we possess a unique opportunity to shape the trajectory of Nigerian youth, instill a culture of integrity, and pave the path for a profound transformation of the nation's image. Social Studies, with its unwavering emphasis on virtuous values, can facilitate the holistic development of students across cognitive, psychomotor, and affective/behavioral domains. It fosters critical thinking abilities, shapes ethical behavior, and instills essential values such as honesty, integrity, and a strong work ethic. By addressing the root causes of internet fraud, Social Studies can effectively deter young people from engaging in fraudulent acts. It is therefore crucial to enhance the existing Social Studies curriculum as this can mitigate the alarming rate of internet fraud, empower young individuals, and contribute to a positive transformation of the country's image.

### **Recommendations**

The following recommendations were therefore proposed:

1. There is need to enhance the Social Studies curriculum to tackle internet fraud, integrating content on online scams, manipulative tactics, online information evaluation, personal information protection, and ethical considerations.

2. Learning objectives in Social Studies should be clearly stated to address cybercrime, emphasizing critical thinking, ethical behavior, social responsibility, digital literacy, and informed decision-making.

3. Teachers need to adopt dynamic teaching methods to engage students actively, creating an innovative classroom environment that encourages participation and boosts learning outcomes.

4. Teachers should be exposed to continuous professional development to effectively teach ethical issues in the digital world, staying updated on technology and instructional resources/materials.

5. Curriculum planners need to infuse the Social Studies curriculum with social-emotional learning, fostering empathy,

social awareness, and responsible decision-making to resist fraudulent activities.

6. Lastly, there should be strong measures, sustainable policies, and programs in place to reduce and eradicate poverty in our society. It must be supported by actions and forceful measures. Unemployment must be addressed in order to eliminate this national threat.

By implementing these recommendations, Nigeria can harness the transformative power of Social Studies education to empower its burgeoning youth population, stem the tide of rampant internet fraud, and contribute to a resplendent transformation of the nation's image. However, it is vital to recognize that combating internet fraud necessitates a multifaceted approach, demanding active involvement from diverse stakeholders, including policymakers, educators, law enforcement agencies, financial institutions, and internet service providers.

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FINAL DRAFT BJEAVOLUME9

**Influence of Family background factors on Secondary School Students' Career aspirations in Etche Local Government Area, Rivers State, Nigeria**

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**ABSTRACT**

The study investigated influence of family background factors on secondary school students' career aspirations in Etche Local Government Area, Rivers State, Nigeria. Descriptive survey research design was adopted in the study. Two research questions and two hypotheses guided the study. The population of the study was 13,543 public secondary school students. A sample of 200 students was selected for the study using simple random sampling technique. "Family Background Factors and Career Aspirations Questionnaire" (FBFCAQ) developed by the researchers was used for data collection. The instrument was face validated while test retest was used to determine the reliability of the instrument and a reliability coefficient of 0.72 was obtained justifying the use of the instrument for the study. Mean and standard deviation statistics were used in answering the research questions while one way analysis of variance was used to test the corresponding null hypotheses at 0.05 level of significance. The findings of the study were that parental level of education and family size significantly influence secondary school students' career aspirations. The study concluded that parental educational level and family size are strong determinants of secondary school students' career aspirations. Based on the findings, it was recommended among others that guidance counsellors should step up sensitization programmes on how students can effectively make realistic career decisions.

**Keywords:** Family, background, factors, influence, career, aspirations

**Introduction**

Career aspiration is having a strong desire, ambition or longing towards a job. Career aspirations vary from individual to individual. While some people may enter into jobs that have financial security, high status and responsibilities, others may seek jobs that would allow them to become experts in their chosen field. Yet, there are those who may want freedom from working for others while some people want a balanced fulfilment in their work

and their personal lives. Career choice is the stepping stone to career fulfilment. The strong desire, longing, or aim for a given career which the present researchers have already established as career aspiration begins with the choice of career especially at the early stage of life. In Nigeria, the majority of children and adolescents spend a greater part of their early life in the school. When a student gets to senior secondary school class one, he/she is

expected to choose a set of subjects which he/she will focus on to build his/her career or to meet his/her career aspiration. This stage is very crucial in the life of the student. If a student misses it at this point, he/she could ruin his/her career for life (Agi & Amakiri, 2018).

According to Ukaegbu and Amachree (2022), a career is a pattern of work experiences comprising the entire life span of a person and which is generally seen with regard to a number of phases or stages reflecting the transition from one stage of life to the next. Put differently, a career refers to the amount of work which a person executes throughout his/her lifetime. Eremie (2015) defines career broadly as all life time roles people play including students, parents, employees, retirees and employers, in securing a livelihood. This means that a person's career is one of the determinants of the level of success or failure which such an individual attains. The essence of who a student is revolves around what the student wants to do with his/her lifelong work. That is why no matter the age, socioeconomic background, religion or tribe, the choice of career or desire for a good career, otherwise known as career aspiration remains an important issue for every individual student as well as everyone else. This is because the roles a

person plays in his/her entire life are predicated on his/her ability to make a wise and informed career aspiration.

Based on the important roles played by an individual's career therefore, the present researchers are interested in conducting a research to ascertain whether there is a link between family background factors and career aspirations of secondary school students. There is no controversy that the family is the bedrock on which the socio-cultural, religious, educational and other aspects of child development are built. For there to be a good, functional society, a proper foundation must be laid at the family level. The family plays the function of giving the child early foundation in the learning process. Through family influences, a child is exposed to values, attitudes, feelings, and a climate for learning. This underscores why the family has profound influence on the evaluative aspects of a child's development including judgement of which career to pursue. This is because the family is the social group which the child has the most frequent direct contact with especially at the early stages of growth and development and thus could determine not only the child's personality but also the child's career interests, at least to some appreciable point. According to Udoh and Sanni (2012), a child is raised in accordance with

the values of the family and as he/she grows he/she learns, internalizes and concretizes the behaviour patterns to which he/she is exposed. All these behaviour patterns and training which the child learns from the family often determine his/her job perception and subsequent occupational decision. Thus, it may be stated that there is a relationship between children's early rearing experiences and their occupational choice, since they spend most of their years at home and they naturally regard the family as their reference group with parents as significant figures. To further buttress the link between the family and an individual's career choice, studies conducted by Owoyele and Muraina (2015) as well as Otto (2015) reveal that the family plays a critical role in career aspiration of secondary school students. Other family variables that have been shown to influence career aspirations include parental occupation (Barnett, 2017). According to Blau (2014), the father's occupational status is highly correlated with his son's occupation.

However, family background factors of interest in this study are parental level of education and family size. Parental level of education refers to the highest educational qualification of a person's father and mother. Obot et al (2014) observe that the

highly educated parents tend to show more affection and warmth towards their children compared to lowly educated or uneducated parents. The researchers posited that educated parents are likely to influence their children's career aspiration through placing emphasis on high ambition, affection and warmth as a means of motivation. Udoh and Sanni (2012) posit that a child's desires, satisfaction and dissatisfaction, and sense of values are influenced by the educational statuses in the family. The authors further explained that parental educational level determines the amenities and the cultural level of the home. Parents armed with adequate education often get gainful employment. Thus, with their level of income and exposure, they are better disposed to procure educational materials for their children and discuss job opportunities with them. Without doubt, a child surrounded with good magazines, books, as well as intelligent discussions could be expected to develop different, and perhaps better, vocational interests than a child not exposed to those things. This suggests the existence of a link between parental formal education and career aspirations of students.

Akinsanya et al (2011) conducted a study to find out the relative effects of parents' occupation, qualification,



academic motivation on wards' and students' career aspiration in senior secondary school in Ogun State, Nigeria, and it was found out that parents' education has the highest significant influence on the career aspiration of students compared to academic motivation of wards. In the same vein, Wilson and Wilson (2016) found out that the family, level of parental education, school, peers, personality, and socio-economic status influence students' occupational goals. In their own study, Mau and Bikos (2020) found out that both parental education and income influence career aspirations, while other studies show that only parental education has an influence (Hossler & Stage, 2018; Muraina, 2018). In another study conducted by Obomanu (2019), it was revealed that parental level of education does not significantly influence career decisions of secondary school students in Bonny Local Government Area, Rivers State, Nigeria. Thus, from the review of empirical studies above, it is clear that the issue of influence of parental education on career aspirations of students has not been completely resolved hence, the need to conduct this present study.

Another variable of interest in this study is family size. Family size refers to the total number of occupants of a household.

Family size may be designated into small, mid-size and large families. Families with small number of children tend to achieve higher occupational status than large size families because as contended by Rehberg and West (1967) as cited in Hashim and Embong (2015), the smaller the family size, the higher parental encouragement to children to continue education beyond high school. With a small family size, children enjoy more parental attention, care and encouragement which can influence their career aspirations.

However, a large family size most times is characterized by lack of parental attention, care, and encouragement which is capable of affecting the career aspiration of students. Also, family size influences availability and distribution of material resources and this can affect the career aspiration of students. Thus, the capacity to aspire for a profitable career cannot be detached from the size of the family a student belongs to. In a study conducted by Stewart et al (2007) cited in Muraine et al (2022), it was revealed that occupational aspirations of students could be influenced by family backgrounds and one of the key family background variables is the size of the family which could influence the socioeconomic status of the family. Another study by Muraina (2018) reveals that family size has a link with career

aspirations of students. More so, Samal (2020) found that family size influenced the vocational aspiration of secondary school students. Downey (1979) as reported in Pepple (2017) found that family size is an important family variable that influences the career aspiration of students. However, the study conducted by Obomanu (2019) reveals that family size does not significantly influence career decisions of secondary school students. The study was conducted in Bonny Local Government Area, Rivers State, Nigeria, using a sample of 326 public and private senior secondary school students. The respondents were selected for the study using stratified random sampling technique. Mean, standard deviation and independent t-test were used for data analysis at 0.05 level of significance. Thus, from the review of empirical studies above, it is clear that the issue of influence of family size on career aspirations of students has not been completely resolved hence, the need to conduct this present study.

Theoretically, this study was anchored on the Ecological Systems Theory by Urie Bronfen Brenner (1999). The Ecological Systems Theory by Urie Bronfen Brenner (1999) states that career development depends on the heterogeneity of individuals and is influenced by the

context in which they live. It believes that development is best understood by examining ones' context. The theory believes that a person's ability to reach their potential is dependent on the presence of real life opportunities in the environment the person is. This theory argues that individuals better adjust and are more satisfied in environments that match their attitudes, values, goals and experiences, that is, they are more satisfied when there is a fit between themselves and their environment.

This study was anchored on the Ecological Systems Theory because it relates to the subject matter being investigated. Following from the theory, parents influence the development of their children through their interactions, relationships and expectations. Being congruent with one's parents on career matters reflects a fit which is likely to foster career development. Incongruity or lack of fit on the other hand is a potential external barrier to career development. In relation to this study, this theory helps to clarify that family background variables influence career aspirations of students. Thus, this present study examined the influence of parent educational level and family size on secondary school students' career aspirations in Etche Local Government Area, Rivers State, Nigeria.

**Research Questions**

The following research questions were raised to guide the study:

1. What is the influence of parental level of education on secondary school students’ career aspirations?
2. What is the influence of family size on secondary school students’ career aspirations?

**Hypotheses**

The following hypotheses were formulated to guide the study, tested at 0.05 level of significance:

1. There is no significant difference between Parental level of education and career aspiration among secondary school students.
2. There is no significant difference between Family size and career aspiration among secondary school students.

**Methodology**

The descriptive survey design was adopted in this study. Descriptive survey design

according to Wali (2002) is a design that involves the use of questionnaire, interview, checklist, observation and test to determine the opinion, preference, attitude, and perception of people about a particular situation. The descriptive survey design was employed to find out the influence of family background factors on career aspirations of secondary school students. The population of the study consisted of ten (10) public secondary schools in Etche Local Government Area, Rivers State, Nigeria. The schools and their respective populations are tabulated below.

S/N	Name of School	Population of Students
1	C.G.S Ikwerre/Etche	1,765
2	C.S.S Igbo-Etche	1,995
3	C.S.S Egwi Etche	1,487
4	C.S.S Umuozoche, Igbodo	598
5	C.S.S Ulakwo	1,797
6	C.S.S Okoroagu	1,006
7	C.S.S Nihi	842
8	C.S.S Umuechem	1,368
9	C.S.S Odagwa	1,048
10	G.S.S Okehi	1,637
	<b>Total</b>	<b>13,543</b>

The population of students in the ten selected public secondary schools as at the

time of this study was 13,543 (Zonal Schools Board, Okehi, Etche, 2023). The

sample of the study was 200 public secondary school students. Simple random sampling technique was used to select the sample of the study. Twenty students were selected from each of the ten public secondary schools selected for the study. This gave a total of 200 sampled respondents. However, Taro Yamen's formula was applied to justify the use of 200 as the sample size of the study.

The instrument used for this study was the "Family Background Factors and Career Aspirations Questionnaire" (FBFCAQ) developed by the researchers. The instrument had sections A and B. Section A consisted of respondents' personal data such as parental educational level and family size. Section B of FBFCAQ consisted of 25 items which elicited information from secondary school students on their career aspirations. The instrument was face validated by one Professor and one Senior Lecturer in Test and Measurement in the Department of Psychological Foundations of Education, University of Uyo, Uyo. The test retest method of determining the reliability of an instrument was employed in this study and a reliability coefficient of 0.72 was obtained justifying the fact that the instrument was reliable.

The copies of the research instrument were administered on the respondents by the researchers after obtaining due permission from the principals of each of the selected public secondary schools. Two hundred (200) copies of the questionnaire were given to the respondents in their respective schools with the assistance and cooperation of the schools' staff. In addition to instructions written on the questionnaire, the respondents were given verbal instructions and clarifications where necessary. All the 200 copies of the questionnaire administered were properly filled and retrieved by the researchers on the spot for analysis. Mean and standard deviation statistics were used in answering the research questions while one way analysis of variance was used to test the corresponding null hypotheses at 0.05 level of significance. All data were subjected to analysis by statistical package for social science (SPSS) version 22.

## **Results**

**Table 1:** Means and standard deviation of parental level of educational on secondary school students' career aspirations in Etche Local Government Area of Rivers State, Nigeria

Parental level of education	n	$\bar{X}$	Std.
No formal education	50	8.76	0.16
FSLC/SSCE	20	10.54	0.19
OND/NCE	30	12.43	2.04
B.Sc	60	15.27	2.65
M.Sc	40	21.71	3.11
Total	200	11.53	1.48

**Table 1:** shows that students whose parents had no formal education obtained mean and standard deviation scores of 8.76 and 0.16 respectively; those whose parents' highest level of education is FSLC/SSCE had mean and standard deviation scores of 10.54 and 0.19 respectively; while students whose parental highest level of education is OND/NCE obtained mean and standard deviation scores of 12.43 and 2.04 respectively. More so, students whose

parental highest level of education is B.Sc obtained mean and standard deviation scores of 15.27 and 2.65 respectively while those whose parental highest level of education is MSc/PhD had mean and standard deviation scores of 21.71 and 2.11 respectively. This shows that secondary school students' career aspirations in Etche Local Government Area, Rivers State, Nigeria differ based on their parental level of education.

**Table 2: Means and standard deviation of family size on secondary school students' career aspirations in Etche Local Government Area, Rivers State, Nigeria**

Family size	n	$\bar{X}$	Std.
1 - 4	153	16.12	2.71
5 - 6	38	19.27	2.96
Above 6	9	24.88	3.15
Total	200	20.17	2.24

**Table 2:** shows that students whose family size is between 1 - 4 obtained mean and standard scores of 16.12 and 2.71 respectively; those whose family size is between 5 – 6 had mean and standard deviation scores of 19.27 and 2.96 respectively while students whose family size is above 6 had mean and standard deviation scores of 24.88 and 3.15

respectively. This shows that secondary school students' career aspirations in Etche Local Government Area, Rivers State, Nigeria differ based on their family size.

**Table 3:** Summary of ANOVA of the influence of parental educational level on secondary school students' career aspirations in Etche Local Government Area, Rivers State, Nigeria

	Sum of Squares	Df	Mean square	F	Sig.
Between Groups	16.946	4	.020		
Within Groups	11894.611	195	.970	.020	.001
Total	11911.557	199			

**Table 3:** shows that the sums of squares are 16.946 and 11894.611, with degrees of freedom of 4 and 195. More so, F value of .020 is significant at .001 when subjected to probability level of .05. Therefore, null hypothesis one is rejected while the

alternate hypothesis is retained. By implication, parental level of education significantly influence secondary school students' career aspirations in Etche Local Government Area, Rivers State, Nigeria.

**Table 4:** Summary of ANOVA of the influence of family size on secondary school students' career aspirations in Etche Local Government Area, Rivers State, Nigeria

	Sum of Squares	Df	Mean square	F	Sig.
Between Groups	36.876	2	.010		
Within Groups	11874.681	197	.989	.010	.000
Total	11911.557	199			

**Table 4:** shows that the sum of squares are 36.876 and 118794.681, with degrees of freedom of 2 and 197. More so, F value of .010 is significant at .000 when subjected to probability level of .05. Therefore, null hypothesis two is rejected while the alternate hypothesis is retained. By implication, family size significantly influence secondary school students' career aspirations in Etche Local Government Area, Rivers State, Nigeria.

Government Area, Rivers State, Nigeria. This present finding is not surprising because highly educated parents understand the role of occupation in the development of an individual and try as much as possible to provide guidance to their children/wards for proper career decisions. The outcome of this study is in agreement with the findings of Akinsanya et al (2011) that parents' level of education has the highest significant influence on the career aspirations of students compared to students' academic motivation. More so, the outcome of this present study corroborated Udoh and Sanni (2012) who had earlier stated that a child's desires, satisfaction and dissatisfaction, and sense of values are influenced by the educational statuses in the family. However, this present finding disagrees with Hashim and Embong (2015) who in their study found out that parents' educational level had no influence on their children's choice

**Discussion**

Analysis of data in Table 3 showed that the sum of squares are 16.946 and 11894.611, with degrees of freedom of 4 and 195. More so, F value of .020 was significant at .001 when subjected to probability level of .05. Therefore, null hypothesis one was rejected while the alternate hypothesis is retained. Thus it was found out that parental level of education significantly influence secondary school students' career aspirations in Etche Local

of career. The disparity between the two findings may be due to differences in the sample size and area of study. More so, analysis of data in Table 4 showed that the sums of squares are 36.876 and 118794.681, with degrees of freedom of 2 and 197. In addition, F value of .010 was significant at .000 when subjected to probability level of .05. Therefore, null hypothesis two was rejected while the alternate hypothesis is retained. The findings of the study showed that family size has a significant influence on secondary school students' career aspirations in Etche Local Government Area, Rivers State, Nigeria. Students from small family size are likely to enjoy more parental support in their educational pursuit which will impact on their career aspirations. This reason may have influenced the outcome of this present study which aligns with the findings of Samal (2020) that family size influences the educational aspirations of secondary school students. It further agrees with Pepple (2017) that children with large family size but good texts, motivation will have good academic achievement. Also, if a child has a large family size but poor family psychological environment lacks textbooks and motivation, the child will perform badly academically and have low career aspiration. However, this present finding

disagrees with Kariuki (1976) cited in Sjogen (2002) who in his study found no significant relationship between students' family size and their educational and occupational aspirations. The variations in the two findings could be due to dissimilarities in the locale of the study.

### **Conclusion**

Based on the findings of the study, it was concluded that parental educational level and family size are strong determinants of secondary school students' career aspirations. Thus, if parents improve their educational status and also maintain a small family size, there is every tendency that the career aspirations of their children would be affected positively. Additionally, it is important for parents generally to get involved in the education of their children/wards by supporting them in any possible meaningful ways.

### **Recommendations**

1. Parents should pay more attention to the career aspirations of their children to enable them (children) carve out a good career path for themselves in future.
2. Parents should adopt good family planning methods to avoid bearing children like a factory.
3. Guidance counsellors should step up sensitization programmes on how students can effectively make realistic career decisions.

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## Heightening Pre-Service Teachers' Attitude towards Learning and Metacognitive Learning through ICT: Pre-Service Science Teachers' Perspective

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### ABSTRACT

ICT can heighten pre-service teachers' attitude towards learning and metacognitive learning however, there is a dearth of literature on the perception of the pre-service teachers on heightening their attitude towards learning and metacognitive learning. Thus, this study investigates the perception of pre-service science teachers on heightening their attitude towards learning and metacognitive learning through ICT. Two research questions and four hypotheses guided the research. A mixed methods research was adopted for the study in concurrent triangulation type of integrating qualitative and quantitative approaches to the study. Cluster random sampling technique was adopted to select 250 pre-service science teachers in Oyo township. Two researcher constructed instruments: Heightening Pre-service Science Teachers' Attitude towards Learning and Metacognitive Learning through Information and Communication Technology Scale (HPALMIS,  $r=.73$ ) and an unstructured interview were used for data collection. Thematic analysis, frequency counts and percentages, t-test and Analysis of Variance were used for data analysis. The perception level of the pre-service science teachers on heightening their attitude towards learning and metacognitive learning through ICT is above average with majority perceived that ICT can enhance their thinking about their learning. The perception was significant (Mean=92.68, SD=10.86,  $df=249$ ,  $t=134.91$ ,  $p<.05$ ). The perception was significantly differentiated by gender ( $t=2.10$ ,  $df=248$ ,  $p<.05$ ) in favour of the female pre-service teachers and based on first time of ICTs use ( $F_{(5,244)}=9.586$ ,  $p<.05$ ). Lecturers of science and science-related courses should therefore imbibe the use of ICTs in heightening pre-service teachers' attitude towards learning and metacognitive learning. Government should organize workshops, seminars, lectures, symposia along with professional bodies for the Science Education lecturers to keep abreast of the trending ICT.

**Keywords:** Pre-service teachers' attitude towards learning; Metacognitive learning, ICT, Pre-service teachers' perspectives

### 1.1 Introduction

Universities and other postsecondary institutions operate as independent entities, and teacher education programs differ in

both content and structure. It is impossible to overstate a teacher's responsibility. Students undergoing teacher preparation in

the faculties of education at universities or colleges of education are referred to as pre-service teachers. Teachers in service have a propensity to acquire professional knowledge both vertically and horizontally by upgrading to enhance qualitative, scheduled induction courses, refresher courses, seminars, moral and ethical training (Jacklyn et al., 2019). Any nation that values its teachers and appreciates their contributions to education picks the best candidates and carefully trains them in pedagogical practical skills, pedagogical knowledge, and subject knowledge. This has made it possible for that no educational quality system can surpass the quality of its teachers. Students' outcome factor is dependent on the teachers' quality and their teaching methodology. And the students' outcome is achieved by enhancing instructional quality (Barber & Mourshred, 2007). According to research (Birgitte, 2009; Afolabi et al., 2018), pre-service teachers develop the majority of their instructional skills during their training programme. There would be a greater understanding of our path to success if teacher educators understood that new teachers or pre-service teachers are our only remaining and best hope for improving schools. Concerning pre-service

programmes, it is vital to address the crucial concerns of transformation and leadership. In various tertiary institutions, Information and communication technology (ICT) can be used to train pre-service teachers. It is true that ICT is potentially prevailing tool to broaden educational opportunities by enhancing, enabling, enriching, and empowering both the learners and the instructional facilitator. (Al-Ansi et al., 2019; Badger et al., 2019).

In their research study, Cenal and Erdal (2013) found that problem-based learning (PBL) is particularly successful at enhancing metacognitive learning in slow learners while chemistry is being taught. This shows that teaching weak chemistry students via problem-based learning can have a favorable impact on their understanding.

Metacognition has an impact on learning processes, according to Baykara (2011). Although metacognition isn't really able to predict success in advance, it does play a little part as an intermediary in the learning process. When compared to those with low metacognitive consciousness, higher metacognitive consciousness plans better, debugs errors, manages information, detects errors, monitors, and evaluates.

Metacognitive thought is thought about thought. Senomoglu (1990) also defined

metacognition as a person's awareness of their own learning patterns and their capacity to organize their own problems, learning, and memory in an efficient manner. The concept of metacognition is very wide and has two parts: metacognitive knowledge and metacognitive control. According to Cemal and Erdal (2013), metacognitive control is the same as metacognitive techniques, which are mental constructs used by students to study using modern technology.

According to the European Commission (2015) on strengthening teaching in Europe, teacher preparation is frequently cited as a key element in ensuring high standards in education. In order for pre-service teachers to be adequately prepared to handle the teaching challenges they will encounter in the near future, they must be given the resiliency or knowledge to do so. Stefan et al., (2017) recognize several areas in which teachers needed expert knowledge. In their study, Stefan et al. (2017) came to the conclusion that teacher education should pay attention to a variety of learning opportunities, such as observing professional teachers, in addition to formal learning activities designed to develop the necessary content knowledge for future advanced study. As pre-service teachers are

being trained, Grossman et. al. (2005) suggested that teachers are supposed to know the content they are to teach, and also have the disciplinary structure as regards the content domain so as to encourage their learners to consider pursuing a career in the course. Hohenstern et al. (2017) suggest four major components a teacher must possess as follows (i) principles of general teaching (ii) knowledge with development and motivation (iii) management of classroom and (iv) strategies of adequate assessment/evaluation.

To support the development knowledge foundations of classroom observations and considerations must be involved in all the stages of training to enable pre-service teachers acquire assimilated understanding as regards teaching planning and enactment (Hohenstern et al; 2017). Gess-Newson (2015) concludes that it is very necessary to develop professional knowledge bases in every individual pre-service teacher. This is to assist future teachers to cultivate a proper planning repertoire, teaching and skills reflections; and also develop a broad theoretical bases in all aspects of necessary professional skills, (Shulman 1987).

Ling (2017) investigated the attitudes of pre-service teachers as regards teaching

profession in Myanmar. The researcher discovered that most of the pre-service teachers found the courses they were taught very interesting and pleasant. The author also discovered that teaching profession is highly gender imbalanced such that female teachers outnumbered their male counterparts. The academic courses they were taught during their training period were favorable to them, including the practicum. It is good to understand that human resource is the main essential focus to upgrade a nations' quality.

Human resources are mostly nurtured and trained in primary, secondary and tertiary institutions. Teachers mold and shape human resources in their hands by giving them due trainings. Ling (2017) stated that both pre-service and in-service teachers are very necessary for effectual teaching/learning process. It is the duties of the teachers to carry out certain obligations in the society like educating, admonishing the students, safe guarding the pupils, keep pupils in their individual proper place. Every society has high anticipation for teachers and their teaching profession; many duties are expected from the teachers by the public not withstanding that they are not being regarded so much in the developing countries like Nigeria.

Teachers in India are regarded and according to Bindu (2017) teachers have positive attitude as regards ICT integration in India. This is due to the reason that ICT enhances their teaching and learning thereby inquiring students' performance when the facilities are provided. Also studies conducted by many researchers like Ndibalemas (2014); Albirinis (2006) from different countries on attitude of teachers toward ICT integration in schools, proved that teachers have positive attitudes.

Mayer (2009) propounded 'multimedia principle states that individuals learn much easier and more deeply from pictures and words. This means that pictures have a lot of roles to play in impacting knowledge rather than words alone. This is obtained mostly in the early year's foundation stages. Multimedia learning can easily be achieved when pictures are supported with words, learning will be effective. Learning theories are in cognizance with visual and auditory which a times is called dual-coding theory. Mayer (2009) argued that the human brain does not only interpret words, pictures including auditory messages in a jointly special style but also organize pictures and words with auditory messages dynamically so as to give out logical intellectual construct.

Metacognitive and self-regulation have been new interests in education (Prather et al., 2020). Metacognitive is defined as a set of knowledge that includes awareness of one's own abilities, strategies about how to learn, and choosing effective strategies according to certain learning conditions. Metacognitive knowledge means what a learner should know about learning, (Miharja et al., 2019; Cetin, 2017). In actual sense, metacognition includes the ability of the learner to learn, learners plan, monitor control and evaluate learning. Though learning is in phases but there must be a set goal or objective to achieve which if the set goal is not achieved, the learner will strategize the conditions required in phases. Metacognitive is simply defined as thinking about one's own thoughts (Jaleel & Premachandran, 2016; Prather et al., 2020). A student is said to have metacognitive skills if he has the ability to plan, monitor, and evaluate the learning process and outcomes (Herlanti et al., 2019; Efklides & Panayiota, 2020). John Favela's metacognitive theories of learning in 1963 were the theorist that portrayed Jean Piaget's theory of learning comprehensively. Flavell according to Cooper (2005) concentrated on a child's role taking skills as regards seeing, knowing, needs and a child intention,

(EDCII 6340 Learning Theories and Theorists).

Therefore, in the study of metacognitive learning, the theories of both Mayer and Flavell must be observed else the study cannot achieve any goal. Flavell et al (1993) reported that children do not find it easy to utilize their knowledge or skills about memory including learning strategies so as to control their cognition. This is as a result that the metacognitive knowledge as well as regular skills of young children has not been integrated within a specific conceptual framework. Students are to be provided with instructional material to enhance metacognitive knowledge and individual performance. This can also be enhanced by mere self-talk, interaction among peers facilitated with ICT (Schraw & Moshman, 1995; Feyzioglu et al., 2018; Herlanti et al., 2019).

ICT promotes reflective and critical thinking (metacognition) in teachers and students, according to Phelps et al., (2004) study of teachers and ICT. They found that the metacognitive approach to ICT professional development has broader effects and implications than a straightforward approach. The metacognitive approach to ICT actively encouraged the building of networks and support systems that could

continue to support teachers' learning after they left the professional development program. ICT thus becomes a potent catalyst for transformation processes within the context of schools.

Metacognition is ranked as the second-most effective intervention in the Education Endowment Foundations' Teaching and Learning Toolkit from 2018. One of the seven recommendations from the EEF's most recent guidance on the subject is that teachers can support students' metacognitive skills development by modeling their own thinking, or what is frequently referred to as "thinking aloud" (EEF, 2018). This "think aloud" strategy has had some success in the teaching and learning process thanks to the development of tablet technology (ICT).

Halamis (2018) carried out a study on pre-service and in-service teachers' metacognitive knowledge of learning strategies. The researchers discover that the pre-service and in-service teacher was not able to envisage the merits in testing interleaving and spacing as regards learning strategies. The researcher also opined that their understanding of knowledge of learning strategies could not increase along with their teaching experience. This study involved 83 pre-service teachers that were being trained in university and 82 in-service

teachers from high school, junior-high school and elementary schools to know teachers' level of metacognitive knowledge as compared with their teaching experience. There is a suggestion of empirically reinforce learning strategies ought to be included as regards any continuing teacher professional development and teacher training programs

Alibali *et al.* (2019) in reviewed factors of contextual, individual metacognition learning strategies which influence the methods of change in solving mathematical problems. It is observed that these factors influenced learners' activities both independently and collaboration or in togetherness. The researchers argue that there is need to bring together all the change in strategy which will include comprehensive conceptual approaches that will explain how to combine all different factors to give the behavioral explanation. These models or approaches are vulnerability trigger models, dynamic system models and cumulative risk models. Any research guided by these models will show superior progress of strategy change and strategy use.

Maras *et al.* (2019) looking at the degree of relationship as regards learning, metacognitive and educational attainment,

used computer based assisted metacognitive backing to test mathematical learners with autism range disorder and 95 developing learners who finished the mathematics challenge with a feedback response. In disagreement with the previous results, learners with autism exhibited an undiminished capability in detecting errors. The researchers highlighted the essential suggestion for educational interventions with regards to providing learner with autism with metacognitive support to improve low performance in mathematics when teaching.

A study by Nieto-Márquez et al. (2020) was undertaken with 130 pupils in Grade 3 of their primary education (8 years old) at a state school in the Community of Madrid (Spain). The feedback provided in the digital activities may have an impact on students' metacognition, therefore the research made use of a digital teaching tool called Smile and Learn. The study's findings indicate a greater utilization of spatial and logical activities. It has been found that developing logic and visuospatial skills through the use of digital workouts with specific feedback and metacognitive knowledge is related.

A study by Akkas and Eker (2021) in the 7th grade of middle school during the 2019–2020 academic year examined the impact of

a phenomenon-based learning strategy on students' metacognitive awareness. The experimental group used a phenomenon-based learning technique, while the control group received standard instruction. According to findings from the study's conclusion, the experimental group's students' levels of metacognitive awareness were significantly higher after engaging in educational activities that followed the phenomenon-based learning strategy. 84 biology students at Universitas Negeri Surabaya participated in the innovative learning in course while Susantini et al. (2021) studied the e-book of metacognitive learning strategies: design and implementation to activate students' self-regulation using ADDIE development model. The results showed that students' self-regulation and metacognitive learning outcomes were in an excellent category with ICT-based content.

All these researchers used different methodologies to research on Learners' metacognitive knowledge and requested for conditions to improvement. This study is based on heightening pre-service teachers' attitude towards learning and metacognitive learning by using ICT the pre-service teachers' perspectives.

## 1.2 Statement of the Problem



Pre-service teachers concentrate their effort to learn by cramming and regurgitation of facts, concepts, hypotheses, theories, laws and principles of learning. This is borne owing to the transmission of knowledge in the conventional, didactic, traditional, non-heuristic instructional strategies adopted by the teachers. Students hardly think about their thoughts (metacognition), they scarcely cogitate about the learning process, also, pre-service teachers barely reflect on their learning to teach. Information, Communication Technology (ICT) can enhance, enable, enrich and empower the pre-service teachers thinking about their thoughts. The perception holds by the pre-service teachers about heightening their attitude towards learning and metacognitive learning through ICT is quite germane for their enhanced learning outcomes in teacher education. Thus, this study investigates the pre-service teachers' perspectives of heightening their attitude towards learning and metacognitive learning through ICT in Oyo town, Nigeria. Are the pre-services teachers' perspectives of heightening their attitude towards learning and metacognitive learning through ICT beclouded by their gender, course combinations and their first time of use of ICT? All these were factored in the research.

### **1.3 Purpose of the Study**

The main purpose of this research is to investigate pre-service science teachers' perspectives on heightening their attitude towards learning and metacognitive learning through ICT. The following are the specific purposes of the study; to:

1. assess the pre-service science teachers' perspectives on heightening their attitude towards learning and metacognitive learning through ICT based on gender;
2. evaluate the pre-service science teachers' perspectives on heightening their attitude towards learning and metacognitive learning through ICT based on course combinations;
3. appraise the pre-service science teachers' perspectives on heightening their attitude towards learning and metacognitive learning through ICT based on first time of ICTs use

### **1.4 Research Questions**

1. What is the perception level of the pre-service science teachers' attitude towards learning and metacognitive learning through information and communication technology?
2. Does gender influence the perception level of the pre-service science teachers' attitude towards learning and metacognitive

learning through information and communication technology?

### **1.5 Hypotheses**

The following hypotheses are tested at 0.05 level of significance:

Ho 1: There is no significant perceived effect of ICTs on heightening pre-service science teachers' attitude towards learning and metacognitive learning;

Ho 2: There is no significant difference in the perceived effects of ICTs on heightening pre-service science teachers' attitude towards learning and metacognitive learning based on gender;

Ho 3: There is no significant difference in the perceived effects of ICTs on heightening pre-service science teachers' attitude towards learning and metacognitive learning based on course combinations;

Ho 4: There is no significant difference in the perceived effects of ICTs on heightening pre-service science teachers' attitude towards learning and metacognitive learning based on first time of ICTs use.

## **2.0 Methodology**

### **2.1 Research Design**

The study adopted a mixed methods research design (concurrent triangulation) with qualitative and quantitative approach to examine Heightening Pre-service Teachers' Attitude towards Learning and

Metacognitive Learning through ICT: Pre-Service Teachers' Perspective. The design is more fitting as it allows concurrent access to both the qualitative and quantitative data for generation of information to answer the research questions and testing the hypotheses.

### **2.2 Population and Sampling**

The population of the study comprises all the pre-service science teachers in Emmanuel Alayande College of Education, Oyo, Oyo state, Nigeria. Cluster random sampling technique was adopted to select 250 students from the population of the study. The researchers selected the sample based on the clusters of gender and students' departments.

### **2.3 Instrumentation**

Two research instruments, a researcher-constructed and validated tool, Heightening Pre-service Science Teachers' Attitude towards Learning and Metacognitive Learning through Information and Communication Technology: Pre-service Teachers' Perspectives (HPALMIS) and an unstructured interview were used for data collection. The original HPALMIS consists of 40 items in 4-likert scale format of strongly agree, agree, disagree and strongly disagree with scoring of 4, 3, 2, 1 for positively worded items and the reverse for

the negative items. HPALMIS was given to experts in Test and Measurement for face, content and construct validity. Based on their observations and suggestions, the number of its items was reduced to thirty-three. The valid instrument was trial-tested on 75 similar pre-service teachers outside the study population, their responses were coded and subjected to Cronbach's Alpha reliability that yielded 0.73 index. The unstructured interview questions focused on the research questions to generate qualitative data for the study.

#### **2.4 Procedure for data collection**

The validated HPALMIS was administered on the 250 pre-service teachers by the researchers and the assistants. The unstructured interview was also randomly conducted with some of the respondents based on their time availability. The instruments were retrieved on the spots with hundred percent returns.

#### **2.5 Method of data analysis**

The collated data was subjected to qualitative and quantitative data analyses. The thematic approach was used to analyze the qualitative data to provide answer to the research questions. Simple frequency counts and percentages were used for socio-demographic attributes of the respondents while parametric statistics of t-test single variable as well as the uncorrelated types and Analysis of Variance (ANOVA) were used to test the null hypothesis at 0.05 level of significance.

#### **3.0 Results**

##### **3.1 Answers to the Research questions**

**Research question 1:** What is the perception level of the pre-service science teachers' attitude towards learning and metacognitive learning through information and communication technology?

**Table 1: Perception level of the pre-service science teachers' attitude towards learning and metacognitive learning through information and communication technology**

Items	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Std. Error
ICT can help me to learn science	3.4200	.60420	-.515	.154
ICT can aid my learning science contents	3.2840	.70237	-.811	.154
ICT makes simple the science contents instruction	3.0200	.84288	-.484	.154
I think with ICT i can do advance course in science	3.0520	.81236	-.821	.154
ICT helps me to prepare adequate for science lesson	2.9040	.86822	-.258	.154
ICT enhance my search of science assignments and projects	2.8680	.87041	-.514	.154
ICT enables me to collaborate and work with others in science	2.9480	.75070	-.317	.154
With ICT, I think I will do science in the future	2.9920	.84546	-.507	.154
ICT can effectively assist me in tests and examinations preparations	3.1520	.61515	-.102	.154
ICT cannot aid my learning service	2.6760	.87526	-.188	.154
ICT cannot help me to learn science contents	2.5480	.93980	.109	.154
ICT makes complex and difficult to learn the science contents	2.4440	.92210	.088	.154
I cannot do advance science courses with ICT	2.6280	.94083	.019	.154
ICT cannot be used to prepare me adequately for science learning	2.4760	1.01466	.310	.154
ICT cannot facilitate collaborative or cooperative science learning	2.5440	2.72871	13.191	.154
ICT aids my learning about thinking in science	2.8080	.98336	-.322	.154
ICT aids my knowing how to think	2.7920	.88082	-.363	.154
ICT facilitates thinking processes in science	2.5440	.92275	-.146	.154
ICT cannot aid learning about thinking in science	2.5040	1.46786	4.428	.154
ICT cannot enhance my knowing how to think	2.5920	.93651	.011	.154
ICT cannot facilitate thinking processes in science	2.9400	.86915	-.253	.154
ICT aids my planning of science learning	2.9720	.87537	-.670	.154
ICT enhances my sourcing information in science learning	3.1280	.72229	-.456	.154
ICT helps me to manage effectively my science learning	3.1080	.75539	-.520	.154
ICT helps me to monitor my development in science learning	2.9280	.82798	-.164	.154
ICT enables me to remove errors in science teaching and learning	2.8920	.85043	-.502	.154
I can effectively evaluate and assess my science learning through ICT	2.6920	.76909	-.157	.154
ICT cannot aid efficient planning in science teaching and learning	2.5080	.80780	.066	.154
ICT do not enhance effective obtaining of scientific information	2.6960	.85234	-.235	.154
ICT cannot enable adequate management of learning of science instruction	2.7960	.80310	-.177	.154
ICT do not help me to monitor my development in science teaching and learning	2.5240	.86046	.326	.154
ICT cannot enable me to remove or correct errors in science teaching and learning	2.7520	.82779	.191	.154
ICT cannot facilitate me to evaluate or assess adequately my science learning	2.5520	.96905	.226	.154

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ICT cannot enable me to remove or correct errors in science teaching and learning	2.7520	.82779	.191	.154
ICT cannot facilitate me to evaluate or assess adequately my science learning	2.5520	.96905	.226	.154
Valid N (list wise) 250				
Grand mean= 2.81				

From Table 1, it was revealed that the perception level of the pre-service science teachers' attitude towards learning and metacognitive learning through information and communication technology is above average with mean score of 2.81. This means that the majority of the pre-service NCE science teachers perceived that ICT has the potentiality to improve their learning and thinking about their learning. From the qualitative data collected through the Focus Group Interview it was identified that the pre-service NCE science teachers prefer to learn not online alone but with ICT aided or blended or flipped instructional strategies. Majority of the sampled population perceived that ICT can aid their mastery of the conventional lecture method. They hold high perception that ICT can enhance their thinking about learning science and science processes.

**Research question 2:** Does gender influence the perception level of the pre-

service science teachers' attitude towards learning and metacognitive learning through information and communication technology?

From the qualitative interview, both gender, male and female pre-service NCE science teachers perceived similarly that ICT can aid their learning science and their thinking about their thoughts in science learning. Both gender discontent about total replacement of their onsite learning with only online ICT learning. They both argued that practical demonstration of scientific concepts, theories; laws and principles are best explained with onsite along ICT aided instructions.

### 3.2 Hypotheses Testing

The following hypotheses are tested at 0.05 level of significance:

Ho 1: There is no significant perceived of ICTs on heightening pre-service science teachers' attitude towards learning and metacognitive learning

**Table 2: T-test analysis of the perceived effects of ICTs on heightening pre-service science teachers' attitude towards learning and metacognitive learning**

Variable	Frequency	Mean	SD	Df	t	Sig.	Decision
<b>Attitude towards learning and metacognitive learning</b>	250	92.68	10.86	249	134.91	.000	*S

Table 2 indicates that the perceived effects of ICTs on heightening pre-service science teachers' attitude towards learning and

metacognitive learning is significant (Mean=92.68, SD=10.86, df=249, t=134.91, p<.05). Therefore, the null hypothesis that

says that there is no significant perceived effect of ICTs on heightening pre-service science teachers' attitude towards learning and metacognitive learning is not accepted.

Ho 2: There is no significant difference in the perceived effects of ICTs on heightening pre-service science teachers' attitude towards learning and metacognitive learning based on gender

**Table 3: T-test analysis of gender differences of the perceived effects of ICTs on heightening pre-service science teachers' attitude towards learning and metacognitive learning**

Attitude towards learning and metacognitive learning	Frequency	Mean	SD	Df	t	Sig.	Decision
Male	64	95.13	10.58	248	2.10	.037	*S
Female	186	91.84	10.86				

From Table 3, there is significant difference in the perceived effects of ICTs on heightening pre-service science teachers' attitude towards learning and metacognitive learning based on gender ( $t=2.10$ ,  $df= 248$ ,  $p<.05$ ). Therefore, the null hypothesis that says there is no significant difference in the perceived effects of ICTs on heightening

pre-service science teachers' attitude towards learning and metacognitive learning based on gender is not accepted.

Ho 3: There is no significant difference in the perceived effects of ICTs on heightening pre-service science teachers' attitude towards learning and metacognitive learning based on course combinations

**Table 4: Analysis of Variance of difference in the perceived effects of ICTs on heightening pre-service science teachers' attitude towards learning and metacognitive learning based on course combinations**

Source of variation	Sum of squares	Df	Mean Square	F	Sig.	Decision
Between groups	613.313	5	122.663	1.040	.394	NS
Within groups	28768.723	244	117.905			
Total	28382.036	249				

Table 4 revealed that there is no significant difference in the perceived effects of ICTs on heightening pre-service science teachers' attitude towards learning and metacognitive learning based on course combinations ( $F_{(5,244)}=1.040$ ,  $p>.05$ ). Therefore, the null hypothesis is accepted.

Ho 4: There is no significant difference in the perceived effects of ICTs on heightening pre-service science teachers' attitude towards learning and metacognitive learning based on first time of ICTs use.

**Table 5.0 Analysis of Variance of difference in the perceived effects of ICTs on heightening pre-service science teachers’ attitude towards learning and metacognitive learning based on first time of ICTs use.**

Source of variation	Sum of squares	Df	Mean Square	F	Sig.	Decision
Treatment	4823.871	5	954.774	9.586	.000	*S
Between	24558.165	244	100.648			
Total	29382.038	249				

Table 5.0 revealed that there is significant difference in the perceived effects of ICTs on heightening pre-service science teachers’ attitude towards learning and metacognitive learning based on first time of ICTs use ( $F_{(5,244)}=9.586, p<.05$ ). Therefore, the null

hypothesis is not accepted. To determine the magnitude and the direction of the differences, Scheffe posthoc test was conducted as presented in Table 5.1.

**Table 5.1: Scheffe posthoc test on difference in the perceived effects of ICTs on heightening pre-service science teachers’ attitude towards learning and metacognitive learning based on first time of ICTs use.**

Schools of Affiliation	N	Mean
SS I	40	88.35
SS 2	53	89.49
JSS	36	90.64
200 Level and above	11	92.45
SS 3	68	93.32
100 Level	42	101.62
Sig.		.010

From Table 5.1, the posthoc analysis revealed that difference in the perceived effects of ICTs on heightening pre-service science teachers’ attitude towards learning and metacognitive learning based on first time of ICTs use is significant different with pre-service teachers that had first use of ICTs at 100 level having the highest perception mean score of 101.62, chronologically followed in a descending order of magnitude to those that had their

first contact at SS3, 200 Level and above, JSS, SS2 whole those that had their first use of ICTs at the SS1 had the least perception mean score of 88.35.

**4.0 Discussion**

From the answered research question, it was identified that the pre-service science students have significant perception of heightening their attitude towards learning and metacognitive learning through ICT. They reasoned that ICT can help them to



learn science, can aid their learning science contents, makes simple the science contents instruction, can help them think rationally in science, helps them to prepare adequately for science lesson, enhances their search of science assignments and projects, and enables them to collaborate and work with others in science. In addition, they reasoned that they can do advance course in science using ICT. These findings are in collaboration with the reports of The Education Endowment Foundation's (2018) Teaching and Learning Toolkit that metacognition as it's the second most effective intervention and one of the seven recommendations from the EEF's recent guidance that teachers can help students develop their metacognitive skills by modelling their own thinking in thinking aloud (EEF, 2018) and that the rise of tablet technology (ICT) makes 'think alouds' effective and efficient with several successes in teaching and learning process. Also, the Additionally, the tested hypotheses indicated that gender was a strong factor to differentiate the pre-service teachers' perception of heightening their attitudes towards learning and metacognitive learning with male students having higher perception scores than their female counterparts. This may be explained in the savvy, confidence,

findings of Halamis (2018), Alibali et al (2019), Maras et. al (2019). Akkas and Eker(2021) averred that strategic instructional processes such as aided by ICT can boost the learners' perception of their attitudes towards learning and metacognitive learning.

From the tested hypotheses, it was revealed that there is a significant perceived effect of ICTs on heightening pre-service science teachers' attitude towards learning and metacognitive learning. This is owing to the ubiquitous nature of ICT in day-to-day activities as in education so in commerce and trading, in transportation, agriculture, banking and industry, and many other facets of life. This finding is supported by Nieto-Márquez et al., (2020), Akkas and Eker(2021), Akkas and Eker(2021), Susantini et al., (2021) that digital or ICT interventions were perceived as potent in heightening students' perception of their metacognitive learning.

proficiency and mental prowess of the male gender to mechanical cum digital, ICT tools than the female gender. Likewise, there is significant difference in the perceived effects of ICTs on heightening pre-service science teachers' attitude towards learning and metacognitive learning based on first time of ICTs usage, the pre-service teachers

that had the first use of ICT at 100 level had the best perception of heightening their attitudes towards learning and metacognitive learning through ICT. This might be clarified in the fact that at the inception of the pre-service students while the zeal and enthusiasm of learning was just being ignited such students had higher perception of rational thinking about their learning and metacognitive learning.

### **5.0 Conclusions**

Precisely, pre-service science teachers held a strong and significant perception of heightening their attitude towards learning and metacognitive learning through ICT. They perceived ICT tools as effective and efficient in raising their attitude towards learning and thinking about science learning processes (metacognition). While the pre-service science teachers had strong and significant perception of heightening their attitude towards learning and metacognitive learning through ICT was not beclouded by their course combinations, gender & the first time of ICTs use significantly differentiate the students on their perception of heightening their attitude towards learning and metacognitive learning through ICT.

### **6.0 Recommendations**

From the findings of the study, the following recommendations are put forth:

4. Lecturers of science and science related courses should imbibe the use of ICTs in heightening pre-service teachers' attitude towards learning and metacognitive learning;
5. Workshops, seminars, lectures, symposia and conferences should be organized by government and professional bodies for the Science Education lecturers to intimate them and keep them abreast of the trending ICTs such as computer, mobile phones and many application software for science teaching and learning;
6. Educational curriculum planners should incorporate practical technological training course in curriculum design for pre-service teachers to enhance better perception of ICTs in heightening their attitude towards learning and metacognitive learning;
7. Non-Governmental Organizations (NGOs) to rally round educational industries in the country by supplying both the ICT hardware and instructional software to institutions of higher learning in Nigeria. This will enhance, enable, enrich and empower the science lecturers to effectively integrate ICTs in lecturing and thus heightening pre-service teachers' attitude towards learning and metacognitive learning.

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**Attitude towards Research as Predictor of Postgraduate Students' Achievement in Educational Research**

By

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**ABSTRACT**

The researchers analyzed in this study postgraduate students' Attitude towards Research (ATR), how the components of ATR correlate with and predict their Academic Achievement. The population is 254 postgraduates, a sample of one hundred were selected using the stratified random sampling technique. Measures of ATR were collected using an adapted questionnaire, ATR scale walker (2010). Four research questions were raised, among which two were hypothesized. Data was analyzed using Mean, Standard Deviation, Pearson's Correlation and Linear Regression. Results obtained revealed among others that postgraduate students have positive Attitude towards Research; Attitude towards Research predicted Academic Achievement in Educational Research (ER). It was concluded that postgraduates have a positive attitude towards educational research and their attitude predicted their academic performance. It was recommended that students be given adequate orientation prior to the commencement of Educational Research course to enhance their attitude in terms of the use of research for better Academic Performance in Educational Research.

**Keywords:** Educational Research (ER), Attitude towards Research (ATR), Academic Achievement,

**Introduction**

In Education, scientific research is an indispensable tool for the advancement of knowledge and for contributing of what could be considered worthwhile, to individuals and the society at large. Advances in the world today are majorly from the results of research findings. One of the core responsibilities of Universities the world over and the University of Benin in particular is to carry out research as well as train the needed manpower that can embark

on research for the benefit of the Nation. The postgraduate programme of the institution is a breeding ground, for would-be researchers, both in academics and in the world of works.

Educational Research is one of the compulsory courses that all enrollee into the Postgraduate programme are expected to offer and pass before they can be qualify to be awarded the Masters Degree in Education (M.Ed.). Many students see Educational

Research in bad-light; difficult, complex and sometimes not necessary (Shaukat, Siddiquah, Abiodullah & Akbar, 2014; Sabzwari, Kauser & Khuwaja, 2009). This could be the reason, some find it very difficult to pass and also to write and present a project which is a major requirement for graduation, and this perceived difficulty could be attitudinal. The attitudinal disposition of students towards an academic subject has been found to affect achievement in that subject. Attitude had been found to influence performance (Mahmud, 2009; Papanastasiou, 2005; Reynolds & Walberg, 1992). This study seeks to investigate the attitude of postgraduate students towards Educational Research and how the various components of attitude correlate between and among themselves as well as how the components of attitude and the whole predict students' Academic Achievement in Educational Research.

### **Statement of the Problem**

Research in education is an indispensable tool because the progress of educational sector depends on decisions, innovations and strategies necessitated by research outcomes. There is a general concern by stakeholders in education about the quality of research done by the postgraduate students. Many of the students do not have a

proper understanding of the tenets of research which is most visible during their project writing. It is believed that the academic performance in educational research will mirror their understanding of the research process, but this is hardly the case as many of them do not show that enthusiasm and commitment to research work. Therefore this study investigated their attitude towards educational research and their academic performance in educational research with a view of using the findings to improve research in education.

### **Research Questions**

In addressing this study and issues of concern to the researchers, the following research questions was answered.

1. What is the attitude (Use, Positive and Negative) of students towards Educational Research?
2. What is the academic achievement of postgraduate students in Educational Research?
3. What is the relationship between the components of ATR (Use, Positive and Negative) and Academic Achievement in ER?
4. Do components of ATR (Use, Positive and Negative) predict Academic Achievement in ER?

Research questions one and two were answered directly, while 3 and 4 were hypothesized as hypotheses 1 and 2 respectively.

### **Hypotheses**

Research questions three and four raised were hypothesized and tested at 5% (.05) alpha level of significance.

1. There is no significant relationship between the components (Use, Positive and Negative) of ATR and Academic Achievement in ER
2. The Components (Use, Positive and Negative) of ATR will not significantly predict Academic Achievement in ER

### **Empirical Reviews**

Though the study focuses on ATR and how it correlates with postgraduate students' academic achievement in Educational Research, it would be needful to present some related empirical studies that tries to find out the relationship between Attitude and students' Academic Achievement.

Manuel, Fenton, and Philemon (2013) Investigated university students' attitude towards Quantitative Research, in Zimbabwe, in that study a sample size of 55 was used and instrument for data collection was a semi-structured questionnaire. Findings from that study revealed that students have positive attitude towards

quantitative research and that method of teaching influences the attitude of students toward Quantitative Research Methods.

In a similarly study, Oguan, Bernal, and Pinca, (2014) conducted a study in the Philippines in which 338 undergraduate students from the Colleges of Arts and Sciences were the participants. Data was collected using Attitude toward Research (ATR) Scale developed by Papanastasiou (2005). The scale had five Sub-Scales to measure (usefulness of research in the students' profession; research anxiety; positive attitudes towards research; relevance of research in the students' personal lives; and research difficulty) they studied the relationships between them and academic achievement in research. In that study it was reported that on the average students have overall positive attitude towards research but the difficulty sub-scale showed negative attitude towards research.

In another study, Shaukat, Siddiquah, Abiodullah and Akbar (2014) in Pakistan investigated postgraduate students' attitude towards research. The study was a survey; the sample size was 201 respondents selected from both Public and Private Universities. They found significant difference in attitude towards research by sex, age, different programmes of study, and



University type using the t-test and ANOVA statistical analysis where it applies.

In a study conducted by Li, (2012) she investigated attitude towards statistics and research, as well as other variables to achievement. The study was conducted in the City University of Hong Kong. The sample size for the study was 153 students. Attitude towards Research Scale (ATRS) was adopted; the scale had four sub-scales (Affect, Cognitive Competence, Value and Interest). The Pearsons' Correlation Statistics and the Multiple Regression Statistics were employed for data analysis. The result obtained showed that there was a positive correlation between students' attitude and academic achievement in Research, also Attitude towards Research and Self-efficacy were found to significantly predict Achievement.

Kassim and Abayomi (2016) investigated the predictive nature of attitude with respect to academic achievement of students in Economics. The study was conducted in Ogun State, Nigeria, it was a survey study using a sample size of 300 respondents, questionnaire was employed as instrument for attitude data collection while Economics Achievement Test was given and measure of academic achievement was obtained from it. In that study, the Linear Regression analysis

was employed and they reported that attitude significantly predicted academic achievement in Economics.

### **Method**

The survey research design was adopted in this study; the population is two hundred and fifty four (254) while a sample size is 100 Postgraduate students enrolled in the different programmes in the eight departments in the 2019/2020 academic session in the Faculty of Education, University of Benin. The sampling technique employed in the study was a stratified random sampling technique, this was intended to allow the inclusion of respondents from across the eight departments. An adapted Attitude towards Research (ATR) scale Walker (2010) was used for data collection, the scale is a derivative of Papanastasiou (2005) through a Confirmatory Factor Analysis (CFA), and it has 18-items divided into three sub-scales (Use of Research - 10 items, Positive Attribute of Research - 4 items and Negative Attribute of Research - 4 items). The scale is a 7-points Likert Scale ranging from 1= Strongly Disagree to 7= Strongly Agree. Negative items were reversed so that a high score will represent Positive Attitude. Achievement measure for Education Research (ER) was obtained from

departmental result records. The Mean and Standard Deviation statistical tools were employed in addressing research questions one and two, the Pearson’s correlation statistics for hypothesis one while the Multiple Linear Regression analysis statistic took care of hypothesis two. The hypotheses were tested at 0.05 alpha level of significance.

**Results**

Answers to the research questions raised are presented below:

1. What is the Attitude of Students towards Educational Research?

**Table 1:** Descriptive in Mean and Standard Deviation of Students Attitude toward Educational Research

Components	N	Sum	Empirical Mean	Std.Dev	Theoretical Mean
Use of Research	97	5270	<b>54.33</b>	9.57	<b>40.00</b>
Positive Attitude	97	1946	<b>20.06</b>	5.13	<b>16.00</b>
Negative Attitude	97	1413	<b>*14.57</b>	4.96	<b>16.00</b>
Grand Total	97	8629	<b>88.96</b>	14.79	<b>72.00</b>

\*items were scored in reverse order

Table 1 shows the descriptive data with respect to Attitude of Students toward Educational Research. Total respondents N = 97; considering the components “use of research” the sum of their responses is 5270 and they have a mean of  $54.33 \pm 9.57$ ; as for “Positive Attitude” the sum of their responses is 1946 and they have a mean of

$20.06 \pm 5.13$  and for “Negative Attitude” the sum of their responses is 1413 and they have a mean of  $14.57 \pm 4.96$ . The overall mean value for ATR  $88.96 \pm 14.79$  standard deviation. Comparing the empirical and theoretical means, it could be deduced that the students have an overall positive attitude towards educational research and in all the components of ATR.

2. What is the academic achievement of postgraduate students in Educational Research?

**Table 2:** Descriptive of in Mean and Standard Deviation of Students academic achievement in Education Research

Variable	N	Sum	Maximum score obtained	Minimum score obtained	Average score obtained	Std.Dev	Remarks
Achievement	97	5669	<b>80%</b>	<b>32%</b>	<b>58.44%</b>	10.49	<b>Good</b>

Table 2 shows the descriptive data with respect to Students academic achievement in Educational Research. Total respondents N = 97 the sum of their responses is 5669 and they have an average score of 58.44% ± 10.49 standard deviation. The obtained average is greater than 50%. Hence it would be concluded that the students have a more than average ability and as such, it can be considered as a good performance

**Hypotheses**

The results of the hypothesized research questions (three and four) are presented below as hypotheses one and two:

1. There is no significant relationship between the components of ATR and Academic Achievement in ER

**Table 3:** Correlation Matrix among the Components of ATR and Academic Achievement in ER

		Achievement	Use	Positive	Negative
Achievement	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	97			
Use	Pearson Correlation	<b>.370**</b>	1		
	Sig. (2-tailed)	<b>.000</b>			
	N	<b>97</b>	97		
Positive	Pearson Correlation	<b>.093</b>	<b>.456**</b>	1	
	Sig. (2-tailed)	<b>.366</b>	<b>.000</b>		
	N	97	97	97	
Negative	Pearson Correlation	.146	.179	<b>.286**</b>	1
	Sig. (2-tailed)	.155	.080	<b>.004</b>	
	N	97	97	<b>97</b>	97

α = .05,

Table 3 shows the Pearson’s coefficient of correlation between Attitude towards Research, components of attitude towards research and Education Research. From the table the correlation coefficients (r) of the components and academic achievement in research are: .370, .093 and .146 for “Use of Research”, “Positive Attitude” and “Negative Attitude” respectively. Only the correlation coefficient between “use of research” and achievement is significant,

others are not testing at .05 alpha levels. However, the correlations between “Positive Attitude” and “Use of Research” (0.456) as well as “Negative Attitude” and “Positive Attitude” (0.286) were significant. While “use of research” and “negative attitude has a correlation coefficient of .179 but not significant.

2. Components of ATR will not significantly predict Academic Achievement in ER

**Table 4:** Multiple Linear Regression Components of ATR on Educational Research (ER)

Model	Sum of Squares	df	Mean Square	F	Sig (.p-value)
1 Regression	1636.406	3	545.469	5.689	.001
Residual	8917.533	93	95.887		
Total	10553.938	96			

Table 4 shows the Multiple Regression result of Components of ATR on Academic Achievement in ER. From the table F= 5.689, P-Value = .001. Testing at alpha level of .05 the F-Value is significant (**.001 < .05**). Therefore the null hypothesis that says “Components of ATR will not significantly

predict Academic Achievement in ER” is rejected. This implies that the components of attitude predicted academic achievement.

**Table 5:** Model Summary of Multiple Regressions of components of ATR on Academic Performance

Model	R	R Square	Adjusted R Square	Std. Error
1	.394 <sup>a</sup>	.155	.128	9.79221

Table 5 shows that the components (Use of Research, Positive and Negative Attitude) of ATR jointly accounted for 12.8 % (Adjusted R Square multiply by 100) of changes academic achievement of postgraduates. Though it will be necessary to see the

magnitude of the individual components contribution to the dependent variable (Academic Achievement)

**Table 6:** Multiple Regression Coefficient Values of the Components of ATR

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	35.940	6.173		5.822	.000
Use	.446	.118	.407	3.798	<b>.000</b>
Positive	-.254	.225	-.124	-1.127	.263
Negative	.229	.211	.108	1.087	.280

Table 6 the coefficient values of the independent variables (Use of Research, Positive and Negative Attitude) from these values, it can be observed that only the use of research among them all significantly

predicted academic achievement other components did not.

**Discussion of Findings**

Attitudinal disposition of students towards education research was found in this study as being positive, this finding is in

agreement with that of Manuel, Fenton, & Philemon (2013) and Oguan, Bernal, & Pinca, (2014). Attitude as a psychological construct can be learnt, therefore, Since it has been affirmed by this present research and previous researchers that attitude contributes to achievement in academic subject, postgraduate education students are to be more orientated along this line of thinking and should be encouraged to see more relevance in the use of research in order to further help improve performance both in educational research and in research work. In this study it was also found that there is a statistical significant relationship between attitude towards research (Use) and academic achievement, this finding is in agreement with the findings of Li, (2012) that also reported a significant correlation too. In the same vain the study and that of Kassim & Abayomi (2016) also supported the findings from this in that both reported that attitude predicted achievement. In this study the “Use” component in attitude was found to be a significant predictor of achievement. The implication of this finding is that, the more the student perceived the usefulness of educational research the more they achieve academically in the course “Educational Research” Having found these, attitude towards education research should

be of importance in the postgraduate programme because one of the aims of the programme is to train researchers in the field of education the better their attitude the better will be their academic achievement in the course and as such knowledge gained will most likely translate to better research endeavors for the betterment of the individuals, the education sub-sector and the society at large.

### **Conclusion**

From the results obtained it is concluded that, postgraduate students have a favourable disposition towards educational research. The postgraduates are good in academic achievement in ER. Also one of the components (Use) of ATR significantly relates to or predicted achievement in educational research.

### **Recommendations**

1. Postgraduate students should be admonished at the beginning of course lecture in order to instill in them a more positive attitude (in terms of the use) towards education research, to enhance achievement.
2. Other presumed variables related to achievement in education research should be investigated. As attitude could not provide the entire needed clue, as it accounted for a mere 12.8 % of variations in academic achievement.

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**Civil War and Refugee crisis in Africa: Historicising The Socio-Economic and Political Impact**

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**ABSTRACT**

Since 1950s, many nations in Sub-Saharan Africa have suffered civil wars and ethnic strife. Civil war is undoubtedly the destroyer of economic development in the African continent, as we have seen so tragically in Rwanda, Liberia and Sierra Leone and elsewhere in Sub-Saharan Africa. This paper therefore examines the impact of civil wars and refugee crisis with particular reference to Sub-Saharan Africa with a view to high-lightening its devastating impact on civilians. The historical research design was adopted for this study. Four research questions were raised to guide the study. Findings revealed that lootability of a country's resources make civil war a very lucrative business on the African continent. Also, African Nations are not united enough to be their brothers' keepers in times of war, hence refugees often lack adequate protection and social services thereby undermining the 1951 UN convention resolutions relating to the status of refugees in the world amongst others. Recommendation include the need for donors agencies and national resource managers to invest more in the peace process on the African continent and the domestication of the Kampala convention in all African countries and more importantly peace building and conflict prevention by the African Union (AU) and others. This paper is significant in that it has contributed to the existing body of knowledge on war and refugee crisis, tracing has its root cause on societal inequality and conflict giving room to both internal and external forces to take advantage of the conflict situation to better themselves.

**Keywords:** *Civil wars, development, refugees, Sub-Saharan Africa*

**Introduction**

Africa, the second largest continent in the world covers one fifth of the land area of the globe. It is nearly four time the size of the United States of America. According to

Palmer and Perkins (2007), until the late 1950s most of the African countries were under colonial rule. However, within a remarkably few years, Africa has

experienced a momentous awakening. The continent's geographical position is central and strategic. It is one of the world's most resource abundant region combining huge deposits of coal, oil and gas, uranium, iron ores, phosphates, gold, diamond, copper, zinc and so many more with diverse export commodities including palm products, cocoa, groundnut, cotton, coffee, timber and many other products. Africa is also critical to the world's energy supply, delivering 10.6% of the world's oil market, and with the United States institutionalizing of West African based oil supply strategy centered on the Gulf of Guinea (Gahia, 2008). China is also among those increasingly looking to the continent for access to long-term supplies of these vital African natural resources and products. Ironically, despite these huge potentials, Africa remains one of the poorest and housing the supposedly poverty capital of the world (Nigeria). Sub-Saharan Africa remains underdeveloped with high level of hunger, malnutrition, diseases and illiteracy existing on high scales. No doubt, the reason for this ugly scenario can be traced to the massive primitive accumulation of the peoples' common wealth by her political leaders and those in authority leading to the perennial shortage of capital development and all.

Experts believed that sweeping societal change which make life worse for most people as greater inequality, rising authoritarianism and rampant misinformation take hold in its wake often leads to conflict and civil unrest which eventually leads to civil wars in most countries and sub-Saharan Africa is no exception.

Civil wars in Sub-Saharan Africa destroy economies, social, educational and health services leaving shattered infrastructure in its wake in wartorn areas. Thus, generating massive number of refugees and underdevelopment of a country or state. The human and material destructions of war is often time incalculable. However, given the virtual universality of war can we ever expect violent conflicts between or within states to end? Many would say no, as Nester (2001) opined that war is a means for achieving an end. Being that as it may the negative impact of war and its attendant refugee crises cannot be over-emphasised and in most cases it is better imagined than experienced.

#### **Statement of the Problem**

It is on record that since the 1950s many African and particularly the Sub-Saharan region have suffered civil wars and ethnic strife generating a massive number of



refugees of many different nationality and ethnic groups. In 1999 alone, Africa was plagued by sixteen armed conflicts, seven of which were wars with battle-related deaths. In 2000, the situation continued to deteriorate. Among those include renewed heavy fighting between Eritrea and Ethiopia, the Liberia, Sierra Leone, Burundi, Angola, Uganda and more recently in Cameroon and Sudan. These wars claimed million of lives involving women and children. Experts believe these wars are usually fueled by series of inequality and the pressure of survival under worsening socio-economic and political authoritarianism in a give society. The problem becomes worsened when combined with unstoppable manipulation of public perception, emotion and actions via online disinformation, lies and hate speech deliberately weaponised in order to propagate disruptive biases and fear by “smart systems” within or outside the given society. The problem of this paper therefore is to examine civil wars in Africa, with its attendant effect on the civilian population and its impact on development in Sub-Saharan Africa.

### **Purpose of the Study**

The focus of this paper is to x-ray civil wars in Sub-Saharan Africa with a view to highlighting its attendant refugee crises and

its impact on development of Sub-Saharan Africa.

### **Research Questions**

To carry out this investigation, four research questions were raised. Viz:

- What is the impact of civil war on civilian population in Sub-Saharan Africa in particular?
- What is the effect of civil war on the economies of Sub-Saharan Africa?
- How has war and refugee crises affected socio-political development in Sub-Saharan Africa?
- What are the plausible solutions to conflicts and refugee crises in Africa?

### **Conceptual Clarification**

War can be simply be defined as a state of lack of peace, a situation of armed confrontation between two or more countries or within different groups in a country. War is as ancient as humanity. According to Aja (2006), war is politics of self preservation. However, war destroys and ruin lives beyond number, it makes anything like normal existence impossible, imposes immerse burden on national economies and imperils the freedom of everyone. In a nutshell, war endangers man’s very existence on planet earth. Palmer and Perkin (2007), assert that war is the great curse of international society, the

endemic disease of the nation state system. Nester (2001) asserted that war is the central problem of international relations for as long as humans have existed, they have been murdering each other in well organized large-scale and devastating ways. A war in reality result from a total situation involving ultimately almost everything that has happened to the people up to the time the war begins. An historian Karl VonChusewitz (1780-1831) consider war as merely an extension of diplomacy by other means and rejected any limit to the violence of battle. To him, war is an act of force and the application of that force has no limit. Nester (2001:200) maintaining that wars are perfectly natural and are simply a violent means to resolve conflict argued that:

*War is a means for achieving an end, a weapon which can be used for good or bad purposes. Some of those purpose for which war has been used have been accepted by humanity as worthwhile ends; indeed, war performs functions which are essential in any society. It has been use to settle disputes, to uphold rights, to remedy wrong. One may say that no more stupid, brutal, wasteful or unfair method cover have been imaged for such purposes, but this does not alter the situation.*

We have become accustomed to speaking of cold war, hot war, limited war, total war, conventional war, unconventional war, guerrilla war, preventive war, political warfare, propaganda war, psychological warfare and civil war which is the focus of this study. More commonly, civil wars lead to international wars. Civil war occur when one group class, religion, ethnic, regional and so forth rebels against a brutal, corrupt, exploitive regime dominated by another groups. The rebellion is usually inspired, organized and justified by an ideology, whether in religion, nationalism, Maxis, Leninism, democracy or some other. Rebel and government leaders struggle to win popular support “heart and mind” by presenting themselves as saviours and others as vicious enemies. In 1999, the number of internal wars remained unchanged, however, an international war broke out between Ethiopia and Eritrea. The figures in table 1.1 below inculcate all the civil and uncivil wars in 1998 armed conflicts in which combat deaths exceed one thousand (1, 000).

S/N	Region	Number of countries	of	Number of countries	of	Number of countries with conflicts	
1.	Africa	50		13		13	36%
2.	Asia	42		13		9	36%
3.	Europe	42		1		1	3%

4.	The America	44	2	2	6%
5.	Middle East	14	7	6	19%
6.	World Totals	192	36	31	100%

Source: Project plough shares, Armed Conflict Report 1999 in Nester 2001:29.

### **The Impact of Civil Wars on Civilian Population in Sub-Saharan Africa**

The history of refugees is as old as mankind on earth. People at one point or the other in history have found themselves fleeing their homes as a result of persecution, relocating to escape enemy invasions or to avoid natural disasters and its aftermaths.

According to Brown (2014) since the 1950s, many nations in Africa have suffered civil wars and ethnic strife thus generating massive number of refugees. Nindi (1986) opined that one of the most dramatic events in the world today is the massive migration of people across borders, partly, is in search of better livelihood and partly in response to the political pressure of war.

Aja (2007) on his part maintained that Africa produces the most frightening and destabilizing war outcome scenario in the world. Thus, the plight of refugees which is the immediate outcome of conflicts and war continue to be one of the greatest challenges to the international community in the world today.

During the last few decades from the 1990s sixteens united nations peace keeping missions were sent to African countries such

as in Somalia, Angola, Rwanda, Sierra Leon and Liberia. This period witness internal and inter state violence in a total of thirty sub Saharan states. According to Brown (2014), refugees in Africa cross migrates into neighbouring countries to find haven and that African countries are simultaneously countries of origin for refugees and countries of asylum for other refugees. During the Liberian civil war, the total refugees were estimated to near one million.

### **Impact of civil war on economy in Sub Saharan Africa**

It is a statement of facts that Africa remains one of the worlds most resources abundant continents but ironically it is the host of some of the poorest countries in the world.

The conflicts theory posited by Karl Marx basically point to the fact that inequality of access to material resources by members of a social group is the source of war among them. Evidence abounds to the fact that despite the huge potentials and resources of sub Saharan Africa, there exist high levels of hunger, famine, malnutrition, diseases and illiteracy. Interestingly this said state of affairs continues unabated by the state resulting to persecution, secession, social

upheavals and leading to civil wars of liberation .

Inter group conflicts though not exclusively an African problem is a big challenge to economic development in Sub Saharan Africa and development in the continent as a whole. Garba (2014) describing what constitutes development in any society stated that the questions every country must ask are;

What has been happening to poverty.

What has been happening to unemployment.

What has been happening to inequality.

If all these question are answered on a high positive level then beyond doubt ,it is a period of development for that country. On the other hand where one or two of these central problems are not solved but instead increasing or worsening it would be strange to call the result development even if per capital income doubled.

The cause of civil wars in sub Saharan African is particularly linked to poverty, unemployment and inequality. There are several instances where the failure by government to address national grievances has led to conflict. Civil war is undoubtedly the destroyer of economies in Sub-Saharan Africa. This evidence according to Peter (2015), was tragically experienced in

Rwanda, Liberia and Sierra Leone. The bloody war in the Democratic Republic of Congo (DRC) claimed over four million lives and had people displaced across the Great Lake region. The devastation of war no doubt give room to other international players to plunder the natural resources of the country. According to Isaac (2017), the lootability of a country's resource make civil war a very lucrative business in Africa. Simply put civil war in Africa destroys capital

- leaving shattered infrastructure in its wake
- leave negative shock on economic systems, reduces savings
- brings negative impact on healthcare and other social amenities in the state
- it distorts foreign aid and budgets which are increasingly devoted to emergencies and military expenditures
- it discourages foreign investment and business activities.

The migration drift which is a direct consequence of war led to dire effect on food security because of the additional difficulties to acquire food and other goods for refugees camps in the already civil war on countries in Sub-Saharan Africa. War and conflict reduce the purchasing

power of people in the conflict area. Aja (2001) pointed out that economies measure the wealth and influence of a nation. It is a weapon for extending or receiving economic assistance, foreign aid, external debt and relief, economic sanctions or economic warfare. In addition, civil war and refugee crises places heavy burden on host countries as refugees tend to arrive their host countries without resources thereby placing heavy burden of their maintenance and wellbeing on their host countries. Often times these host countries particularly in Sub-Saharan Africa are poor countries who can barely take care of the socio-economic needs of its own people not to talk of fleeing migrants. Thus, conflicts and wars pose a very huge challenge on the economy and economic development of war-torn Sub-Saharan Africa in recent years.

#### **Impact of War on Socio-Political Development of Sub-Saharan Africa**

In international relations it can be rightly said that whether a country is technologically advanced or disadvantaged is a function of the interplay of politics and economics. A German strategist, Carl von Clausewit on war in 1833 in Aja (2006) argues that war is not merely a political act but also a political instrument by other means. This implies that decision making is

involved and by extension several principles are kept in mind by civilians and by military decision makers. It is however, disheartening to note that Sub-Saharan Africa political stability has deteriorated considerably in recent years with some 20 percent of Sub-Saharan Africa population affected by civil war. A fundamental consequence of civil war is that it has setback on the socio-political stability of the region.

In Sub-Saharan Africa countries like Sierra Leone, civil war not only devastated the lives of civilians, it damaged the environment and wreak havoc on socio-political and services of the people. Another example is Darfur, Sudan, Liberia and Equatorial Guinea where according to Eselebor (2013) the problems of the consequences of civil war abounds. Somalia has no stable government since 1991, thereby paving way for the Horn of Africa to emerge as the den of pirates. Similar challenges manifested in post election crisis in Kenya, Zimbabwe and Cote D' Ivoire North Africa is embroiled in uprising since 2011. There are related unrest going on in South East, Nigeria where secessionists movements crisis is a current challenge in the country. All these crises combined make Sub-Saharan Africa an intractable conflict zone. The security

threats posed by each of the problems are as complex as questions arising from the way they have negative impact on African socio-political development. In Africa, despite the centrality of ideology in politics, it has been observed that most political parties in the continent lack ideological underpinning and the political system is dominated by issues related to identity. According to Elisher (2010) hence parties organized non-ethnically are rare or non-existent in these ethnically segmented societies. According to Paily Independent (2006) politicians that lack coherent ideas on how to revamp the economy, enhance socio-political development and promote nation-building tend to augment their intellectual deficiency by evoking sectional and emotional appeals in the quest to acquire political power which tends to exacerbate pulls in polity. Owutui (2012), asserted that; political decision also influence the quality of life, its security or insecurity, its ugliness or beauty. Hence most studies tend to attribute the cause of poor, undemocratic governance and socio-political underdevelopment on poor leadership.

Failed leadership is a notorious post-independent challenge to African nations. This position has been viewed by

proponents of “Afro-pessimism. David (2017), described the continent as paradox rich but poor, following the effects of civil wars and the insensitivity of the leadership to people – oriented in their policies. The commonwealth has been hijacked by the privilege few, who took over from the colonialist. The masses were promised a reversal of woes; the restoration of equality and increased political participation; fundamental human rights, improved access to social security, among others. The attainment of independence either through the smoking barrel or through constitutional means was heralded with euphoric symphony that indicated the contrary of their promises. So sooner had this feat been achieved than the grim reality of self rule by nationalist turned rulers who were ethno-religious bigots, inertial space to perpetrate self in power, looted public treasury and cavorted with the former colonialists who literary stepped aside to assume the position of neo-colonialists. Frantz (1965) rightly described the relationship between the colonialist and the African nationalist who were mostly western educated armed with western culture and interested in securing political fiefdoms commensurate with their intellectual status.

About six decades after many Sub-Saharan African countries become independent. France continues its stranglehold on them including controlling their purse strings. It is also noted for its half-hearted defence of Sub-Saharan African interest in places like Chad, Cote d'voire, Burkina Faso and its ongoing altercation with Mali in Bamako over the war with terrorist. An endless conflict in Africa and in Sub-Saharan Africa in particular has not only affected development adversely, but compounded a host of sociological challenges such as, health, environmental, economic, financial, educational development and political advancement. The lack of political will to do the needful on the indices of development is one of the main course of conflict and under-development of the continent to this day. Thus, needing urgent attention by its leaders and people.

#### **Impact of Civil War and Refugee Crises on Education in Sub-Saharan Africa**

It is a known fact that education is the key to development, and any state or nation that does not invest in it should forget anything about development. The united Kingdom's Department for International Development Units 2002 Annual Report in Garba (2019:79) states that education is the heart of development.

The countries which made the greatest progress in reducing poverty in recent decades are those which have combined effective and equitable investment in education with sound economic policies. Education enable people use and extend their capabilities, develop skills and improve their livelihood and increase their earning potential.

Scholars are unanimous in their view that displacement is one of the channels through which conflicts impact schooling and education. According to Fransen and Siegel (2018) more than 65 million people were forcibly displaced in 2015 around the globe out of which 21 million were displaced internally. The vast majority of refugees resides in developing countries.

As mentioned earlier in this paper one of the most dramatic events in recent years in the globe is the massive migration of people across the globe. However, statistics paint a frightening picture stating that one in every 200 Africans is a refugee while in Somalia the ratio is 1 in 7 within its borders.

Ironically, refugee experience may have negative or positive impact on educational scholarly outcomes. For example children fleeing do not have access to education. Often before setting down in their new location, children usually end up in a

transitory situation where they may not have access to school. Moreover, children in displacement camps are most likely to become infected with diseases, food shortages and often they rely on coping mechanisms such as early marriage which has negative impact on education (Fransen & Siegel, 2018). Furthermore, displacement also lead to greater lose of property and wealth hence a need for children to get involve in income generating activities which may have negative impact on education especially if these activities are done within schooling hours.

On the other hand, refugee experience could also lead to better schooling outcome when compared to their counterparts who did not flee the conflict zone for one reason or the other. This advantage stems from the fact that refugee children have rights to protection and assistance under the 951 UN refugee convention relating to the status of refugees (United Nation High Commissioner for Refugees, 1951). Among these rights include right to education. Thus, many refugee camps are equipped with primary education facilities often provided for and financed by Non Governmental agencies (NGOs) or other international organisations such as the United Nations Educational, Scientific and Cultural Organisation

(UNESCO). Refugee children are presumed to also have more access to humanitarian assistance compared to their counter parts who remained at home, which often times this conflict affected countries lack the capacity or political will to provide such services.

Another challenge of refugee crises on education in Sub-Saharan Africa is the issue of conscription of young and underage children into the military. According to Blattman and Annan (2010) children of the conflict areas are more likely to be conscripted into fighting groups and they experience higher risk of insecurity. Mrs. Sadako Ogata, the United Nations High Commissioner for refugees in her address to the parliament of the Republic of South Africa in 1997 stated that refugees are mostly victims of internal and external conflict. Human right abuses, poverty and social inequalities, political and economic restructuring and environmental degradation are usually factors that leads to political tension and conflict.

Socio-economic inequality also determines who goes to school and who remain in school or graduate. All these are part of the challenges of conflict, war and refugee crises that has bedeviled educational development of Sub-Saharan Africa in



recent years. There is no doubt that destroying a nation does not require only the use of atomic bombs, the use of long range missiles or guns but insecurity in the form of banditry, herders/farmers clashes, communal clashes, armed robberies and many other vices are some of the fastest means of destruction all of which can be traced to the death of education in a society. Though, Nigeria is not currently at war, she is however, faced with serious refugee crises and migrations as a result of the Boko Haram terrorist attacks in mostly its North Eastern part, farmer/herders and communal clashes in the middle Belt, the secessionists groups in the South Eastern part, banditry in the middle belt, kidnappings in the Southern part and many other vices that have led to mass migrations and setting up internally displaced camps in different parts of Nigeria. This affect a great number of youths and children of school; age thus affecting their schooling, thereby jeopardizing the future of tomorrow's generations.

### **Conclusion**

In conclusion, this paper is in agreement with the conflict theory posited by Karl Marx which states that inequality of access to material resources by members of a social group is a source of war among them.

Today, refugees are mostly victims of internal conflicts than with external as experienced in Sub-Saharan Africa. It is important to state here that vicious conflict and inert group violence resulting in widespread suffering do not preclude reconciliation and living together no matter how rocky, and stormy the road to reconciliation may be.

When refugee problems are linked to conflict over the political and socio-economic make up of society then a political change is indispensable for solving them. The spate of civil wars across the African continent had adversely affected the quest for educational development in Sub-Saharan Africa. For Africa to succeed and develop in all spheres of life and Africa must put Africans first and be their brothers' keeper. There is need for selfless service governance, innovative and proactive leadership, and there is no better place to start this process than with education in its entirety.

### **Recommendations**

Based on the findings in this paper, the following recommendations are preferred:

1. Permanent solution for peace in African continent will requires a series of domestic reforms by African leaders in African countries as well as reduction of

inequality and creation of international institution to regulate inter-state conflict, protection of human rights in Africa.

2. Domestication of Kampala convention in all African countries and its enforcement and deliberation on evidence based policy making against the significant damage to social stability and cohesion via online disinformation..
3. Donors and national resource managers should invest more in education and peace process in African regions.
4. The United Nations should be reinvigorated to play an even more effective role in peace building in Africa.
5. The economic community of West African States (ECOWAS) as well as the African Union (AU) should create an African rapid reaction capacity squared which would have the functions of demobilization and separation of armed elements in refugee camps in times of conflicts or war. This would serve as both international and human security.
6. Facilitating the sharing of experiences in post – conflict peace building with particular emphasis on economic rehabilitation, reconstruction and development.
7. African countries must address and supporting regional and sub-regional dimension of post-conflict rehabilitation, reconstruction and development activities that will also provide an entire point for our bilateral and multilateral partnership whose programmes tend to be country focused, so they can contribute to sub-regional rehabilitation and reconstruction programmes.
8. The United Nations must identify national and regional expertise on the African continent, as well as globally, who could participate in post-conflict peace-building and development activities in a country or sub-region emerging out of civil wars in the African continent.
9. International community should act more decisively and implement rules and regulations that can aid the civil war turn Africa countries with fundamental human right.

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**Developing Framework for Multinational Oil Companies Poverty Alleviation Programmes for Oil Producing Communities in Nigeria**

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**ABSTRACT**

The communities who bore the direct negative impacts of Multinational Oil Companies (MNOCs) activities perceived themselves as helpless victims of circumstances, rather than capable actors in the development process of their communities. This was the foundation of MNOCs poverty alleviation programmes (PAPs) for oil producing communities. The MNOCs provide numerous programmes that align with the Global Memorandum of understanding (GMOU) which is a new approach to Corporate Social Responsibility, (CSR) that aims to prevent conflicts and reduce poverty in communities affected by oil production. However, despite this change of approach, severe poverty still exists in these areas. Thus, this paper attempts to provide a realistic framework for MNOCs poverty alleviation programmes for oil producing communities in Nigeria that will reduce poverty and create significant contributions to the well-being of the community members. A desk review of literature, theories, and concepts was done to develop a framework for the paper. Seven key areas such as; stakeholder involvement, community needs assessment, living standard assessment, programme areas, monitoring and evaluation, outcome evaluation and feedback were identified as necessary for the effective development of PAPs for oil communities in Nigeria. The paper concludes that PAPs have to synchronize with the needs and aspirations of individuals and communities and Stakeholder involvement, transparency, and accountability are required. MNOCs should focus their programmes only on issues that address poverty and the wellbeing of community members.

**Key Words:** *Multinational Oil Companies, Oil Producing Communities, Poverty, Poverty Alleviation programme.*

**Introduction**

Oil producing and bearing communities suffer from persistent poverty in spite of several programmes for poverty alleviation by federal and state governments as well as major multinational oil companies (MNOCs); Shell Petroleum Development Company of Nigeria (SPDC), Chevron Nigeria Ltd, Nigeria Agip Oil Company (NAOC) (Parent company-Eni), Exxon Mobil and Total Energies. The environment of most oil producing communities is not conducive, the areas

could be swampy, constant flooding and difficult to reach as a result of infrastructure decay and bad roads. The situation is compounded by the activities of (MNOCs) that result to extreme environmental degradation and decline in community resources. When there are large oil spills it causes the release of toxic chemical substances into farmlands, waters, forest and surroundings, thereby hampering agricultural output, productivity, and endangering the health of

community members that may affirm that poverty is multidimensional. In Nigeria most oil spill incidents occurred on farmland and rivers, not only that they kill fishes and water resources they destroy farm products and wide life and have degraded most agricultural lands and turned hitherto productive areas into wastelands. The effect of this has been the erosion of people's means of livelihood in the communities resulting in high incidence of poverty (Pegg & Abbey, 2013; Elum et al., 2016). Oil spill has become a major issue of recent due to sabotage, pipeline destruction and theft (National Oil Spill Detection Response Agency, 2022). Getting oil firms to clean up or pay environmental crimes is usually difficult, legal claims for compensation could take years. In addition to the problems caused by oil spills is the Continuous gas flaring, which releases all sorts of organic substances into the atmosphere, this pollutes the air and has created health hazards and destruction of forest resources that has made oil communities among the poorest in terms of living conditions in Nigeria. Although several literatures report that the major MNOCs; Shell Petroleum Development Company of Nigeria (SPDC), Chevron Oil Nigeria Ltd, Nigeria Agip Oil Company (NAOC) (Parent company-Eni), Exxon

Mobile and Total Energies have implemented several programmes in the host communities in Nigeria and has spent huge sums of money on poverty alleviation, yet the rate of unemployment and poverty situation has remained high and continued to increase. Their programmes for oil producing communities have not been successful in achieving poverty reduction but rather there is wide-spread poverty (Orebiyi & Ekong, 2018; Nsirik-Abasi, et al. 2022) These programmes by MNOCs include: training for skills, employment and job creation, community empowerment, basic amenities and rural infrastructure, provision of microcredit, investment in health and education, among others. However, it seems MNOCs are not contributing to the development of education in the communities as concluded by Ekwe & Olehi (2018) that schools in many oil producing communities are in a state of abandonment, The oil producing communities are found in nine states in Nigeria; Akwa Ibom, Delta, Rivers, Bayelsa, Abia, Imo, Edo, Ondo, Cross River (before Bakassi was conceded to Cameroun 2013) and Lagos (from 2016). Any analysis of human development and poverty indicators show a dreary and discomfort picture for most oil producing and bearing communities in

Nigeria. The rate of unemployment among these communities showed that in 2011 Abia state was 11.2% unemployment rate while the other states recorded highly with Imo state 26.1%, Rivers 25.5% transcended by Delta 27.2% and Edo 35.2% topping the list (Eme, 2014). By July 2020 according to National Bureau of Statistics, unemployment rate in Nigeria worsens in the oil producing states in which four of them ranked among the highest in the country. Imo state reported the highest rate of unemployment among oil producing states with 48.7%, followed by Akwa-Ibom 45.2%, Rivers 43.7% and Delta 40.3%. Abia state took the seventh position (NBS, 2020). The living conditions of the people in oil producing communities does not reflect the presence of such rich MNOCs or the enormous natural, materials and human resources in those areas.

Burnell 1995 on Political theory of poverty whereby power and institutions cause policy which causes poverty. He states that majority of the people are poor and in many instances getting poorer, so government's economic policies should pay particular attention to their needs and democracy is a condition of equality. Nwokike and Okafor (2021) study on Shell Petroleum Development Company of Nigeria (SPDC), poverty alleviation

programmes and the restiveness in Bonny Rivers State, Nigeria, observed that the oil exploration of SPDC caused untold hardship to the means of livelihoods of Bonny people including their farming and fishing occupations. This resulted to the poverty state of the people, especially when SPDC never put any contingencies programme to cushion the poverty effects of their oil activities on the people, which led to the restiveness of the youths. He reported that MNOCs should improve on their welfare packages by ensuring the employment of the indigenes, putting in place poverty alleviation initiatives like skill acquisition and other empowerment programmes. Also provide them with social amenities and employment opportunities and put strategies in place in order to tackle poverty and have a peaceful co-existence with their host communities. According to Andabai and Basua (2013), Government should enact policies that would make MNOCs guard their social activities against any inhuman treatment that is detrimental to the environment and health of community residents as well as policies that should be favourable to their well-being in the communities. With the reality on the ground, it can be concluded that MNOCs are far from alleviating poverty in the communities but need to involve their host communities in

determining programmes that will address the issues of poverty and the peoples' well-being.

### **A Framework for MNOC Poverty**

#### **Alleviation Programmes for oil Producing Communities**

The negative impact of oil exploitation on the environment and decades of neglect have placed oil producing communities in a relatively weak economic position. Being dissatisfied with the inequitable distribution of oil wealth and failure of the government to develop the communities, the people expected the oil companies to fill this gap by implementing programmes that will alleviate the poverty situation in the communities.

This paper attempt to develop a framework for MNOCs poverty alleviation programmes for oil producing communities by building on Deng et al. (2022) anti-poverty research which includes political contexts, policies and poverty alleviation outcomes. Featuring Hipsher (2013) private sector role in poverty reduction, the authors emphasised private sector important role in creating the economic growth, employment and purchasing options needed for significant poverty reduction. The authors also built on environmental policy by Dolzer (2021)

who states that environmental policy has gradually evolved since 1960 from issues of pollution of air and water to greenhouse effect and loss of biodiversity and the need for prevention of damage and cost effectiveness of environmental programmes. The authors emphasized targeted poverty alleviation strategy, and the responds of rural households as subjects to the macro political and policy environment, in which poverty is highly correlated with many negative measurable aspects of standard of living, and environmental policy that collaborate factors affecting poverty alleviation outcomes. They also built on Governance at the county and rural household levels. Deng et al. (2022) anti-poverty research was used by the authors in Lankao County, China, and Poverty incidence fell from 10.2% in 2012 to 0.6% by the end of 2019. Based on the aforementioned a framework was developed. The paper identified 7 key areas necessary for MNOCs poverty alleviation for oil communities, as presented in figure 1.

These are; stakeholders, living standard assessment, need assessment, monitoring and evaluation (M&E), programmes, outcome, outcome evaluation and feedback



Fig 1

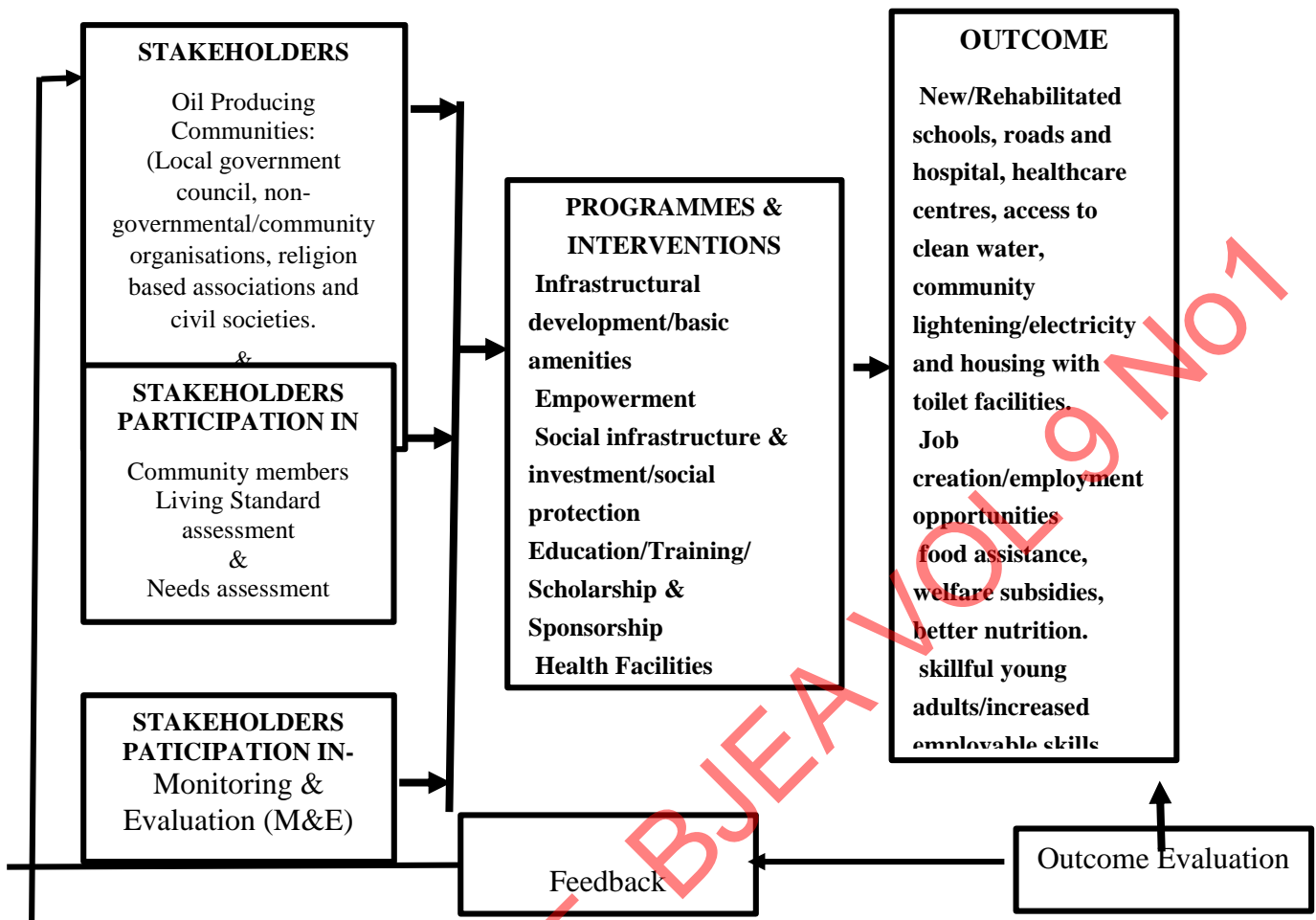


Fig 1. Poverty alleviation delivery framework for Multinational Oil Companies for oil producing communities in Nigeria as developed by the Author 2023

The framework has seven boxes: The first box reflects Stakeholders engagement in community programmes, these are; MNOCs and host communities (Local Government Council, non-

The framework has seven boxes: The first box reflects Stakeholders engagement in community programmes, these are; MNOCs and host communities (Local Government Council, non-governmental organizations, religion-based associations, and civil societies) involvement in

planning, implementation, monitoring and evaluation (M&E) of MNOCs programmes and strategies for poverty alleviation. As relevant stakeholder there is need for oil producing communities to be involved in the development of programmes that will affect their lives. Community stakeholders include Local councils, non governmental/ community organizations, religion-based associations, and civil societies)

The first box shows the involvement of all stakeholders in the planning, implementation, monitoring and evaluation of programmes.

The second box shows that planning of programmes should start with effective assessment of needs and standard of living of community members so that the intervention providers will be equipped with the issues and dimensions of poverty in the communities. This is necessary, to guide selection, design and planning of programmes that will impact the peoples felt needs and alleviate poverty.

The third box shows the need for an established community participatory M&E strategy that involves all stakeholders from the planning stage, to implementation stage, to programme outcome.

The fourth box listed programmes that reflect the dimensions and issues of poverty in the communities. These programmes are based on the felt needs of the people and a holistic approach to poverty alleviation. There are 8 such programmes, these are; 1. infrastructural development/basic amenities, 2. empowerment, 3. social infrastructure and investment/social protection, 4. education/training/ scholarship/sponsorship, 5. health facilities, 6. environmental management, 7. entrepreneurship/livelihood, 8. skill development and financial support. .

With effective planning, implementation and monitoring, each programme will have a positive outcome in the communities that will alleviate poverty and improve the peoples' well-being.

The fifth box reflects expected outcome of each programme. Holistically programmes will alleviate poverty and improve the well-being of community members as each programme will achieve at least one positive outcome in the community. Communities would experience; New/rehabilitated schools, roads and hospital, healthcare centres, access to clean water, community lightening/electricity and housing with toilet facilities. Job creation/employment opportunities. Food assistance, welfare subsidies and better nutrition. Skillful young adults/increased employable skills. Access to primary health care and disease prevention. Prevention of negative impacts on environment/healthy environment. Diversified livelihood, new businesses and skills. Access to credit and community micro-finance. Overall poverty reduction, income capacity growth and well-being of community members.

The sixth box, is outcome evaluation, it is crucial that stakeholders extend their involvement to result based evaluation, that is the actual outcome of the PAPs implemented and measure success from

failure. There is need for an established systems and organisations in the community that provide continuous evaluation and continuous flow of information on how a particular programme has impacted the community members.

The seventh box, feedback, receives information from the outcome evaluation and feedback to the MNOCs that can guide the policy makers towards the planning of programmes and will help gain insight into the performance of respective PAPs of different MNOCs operating in the communities.

### **Stakeholder Involvement**

#### **Who is a Stakeholder?**

Stakeholder is one who can affect a project and can be affected by the project. It does not matter whether the project affects someone negatively or positively, if affected, the person is a stakeholder. In an organization, Boon et al. (2012) defined stakeholder as people or organizations whose attitudes and actions have an impact on the success of a project or company. Stakeholder develop goals and develop plans that help them achieve those goals.(Dwivedi, 2021). Stakeholder in a community can be any individual, group or institution who potentially will be affected by project activities and has something to gain or lose if conditions change or stay,

they may also have a vested interest in the natural resources of the project area. Community members find it hard to trust people from outside their community, especially for communities that have experienced some environmental issues.

Therefore, it is particularly necessary to build trust and confidence as a crucial first step in communicating with communities in their dialect. When they know that the company representative comes from their community, then they often believe that he or she also wants the best outcomes for the community. Stakeholders for MNOCs poverty alleviation programmes in oil producing communities are grouped into two, they are;

- Multinational Oil Companies.
- Communities (Local Government Councils, religion-based associations, non-governmental organisations/community organisations and civil societies).

#### **Stakeholders in Oil Producing Communities in Nigeria**

A stakeholder in the oil producing communities is made up of persons who are acceptable in certain areas of decision making and life of the oil community. Collectively, community could be said to engage in discussions through their representatives and influence final decisions for programmes and projects for poverty alleviation. As a result of this

important position of a community stakeholder in oil producing communities, corrupt persons should not be allowed to represent the community members. There is need for transparency for all stakeholders, all forms of corrupt practices are to be discouraged both by the government and the MNOCs. Omobhude & Shih-Hsin (2019) states that if stakeholders do not do things rightly, the challenges they pose in communities will induce positively with the level of poverty among these oil producing communities. Host community's participation and understanding of the full implications of a project at concept stage will make it possible to address any concerns raised. So that Planning and design processes are more likely to be aligned with community views if they are directly reflected in concept development. Not involving communities in project development can have serious long-term negative impacts on community's economic, environmental and social outcomes. Early engagement can assist in establishing strong relationships that can continue throughout the implementation and operational stages of projects. Community-demand-led and participatory approaches to poverty alleviation addresses the multi-dimensional nature of poverty in the oil producing communities. According to

Madumere (2021), the oil industry is one of the most complex, dynamic, and controversial industrial Sector, which involved activities that generate a whole range of diverse viewpoints. This has resulted to the industry having several stakeholders who can influence and at the same time be impacted upon by the activities associated with the value chain of oil and gas-oriented business. In addition to his views, several authors agree that the most important stakeholder is the community. The view point of the communities where oil and gas operations are carried out should be given high priority due to their significant influence over the industry activities in their region. This is the means Programme effectiveness demands that MNOCs and Stakeholders should have a detailed need assessment of the communities with the concept of bottom-top approach to programme planning.

#### **Living Standard Assessment**

It is often said that in Nigeria, oil industry significantly impacted more on development in non-oil producing areas than in oil producing areas and it is concluded that the fund allocation to the area could have been spent in maintaining peace and security and solving problems of environmental degradation. The interventions by the MNOCs in the oil

producing communities have not created significant impact on the indicators of economic well-being of the beneficiary households as majority of the people remained below the poverty line which is much lower than UN acceptable \$1.90 a day or N30 ,000 average National monthly minimum, wage. There is deficiency of quality education as the few schools they have are in dire need for rehabilitation. Schools are not immune to overcrowded classrooms aggravated by poor sanitation as students must walk in floods to access their classroom whenever it rains, that threaten pupils' health. Generally, the people living in oil communities are multi-dimensionally poor.

The high deprivations are apparent in sanitation as indicated in poor ratings of toilet facilities, housing and pipe born water. Access to educational, healthcare services, lack of primary health centers, the ones they have lacks basic medicine, food security (food/nutrition) were also a major issue of concerns for people living in those communities. Thus, the level of deprivation is not just imagined, it is well pronounced in the communities. Beyond the issue of access to health care services, the standard of living of members of community are also generally poor, with majority of them living below the national minimum wage. The issue of non-

availability of electricity in the communities were also apparent, where available, they are rationed-usually 2 days "on" and a day or 2 days "off"—and highly irregular, with monthly bills that far outweigh the power consumed. There is also deprivation relating to housing and sanitation. A larger proportion of the houses in the community are dilapidated, uninhabitable, and filthy with no roadside gutter to collect rainwater, thus leaving the environment submerged during rain. From the study it was also evident that lack of access to clean portable water is yet another challenge plaguing the community.

It seems that government has completely neglected them and their children do not have adequate school as Akinyetun et al. (2021) concluded that there is multidimensional poverty that goes beyond income, but involves healthcare, education, standard of living and other indicators. Also is the issue of inequality and exclusion in the communities which makes them susceptible to nefarious activities. The community's economic variables are affected by oil exploration and other activities by oil companies and the people do not adequately benefit from job opportunities that are offered by the exploration companies. The presence of MNOCs do not significantly increase trade

volume or increase land prices significantly, rather it has adverse negative effect on the land, environment, health and education (Nanok & Onyango, 2017). The local population relies on subsistence farming for their economic survival but studies show that hydrocarbon contamination in the communities has led to a decline in soil quantity and quality as determined by a reduction of agricultural yields, which is responsible for many of the restiveness experience in most of these communities. There is the tendency that if Corporate Social Responsibility policies and practices are not functioning effectively it could bring about conflict in corporate-community relationship.

#### **Community Needs Assessment**

Pollution caused by the activities of MNOCs in their host communities have deprived the people the right to an adequate health and a healthy environment, standard of living and right to earn a living among others. The issue of low jobs opportunities and livelihood (unemployment), deprivation of the people from employment and restiveness in the area may be as result of oil companies' negligence in their duty and poor corporate social responsibility. Environmental degradation has contributed greatly to unemployment in the area in the sense that those who are self-employed in farming,

fishing and lumbering have been faced to be unemployed because they have no more fertile land to farm, no more fish to catch and no more woods to fetch for building and carpentry due to the depletion of farm lands, destruction of aquatic lives and forestry. Poverty alleviation programmes of MNOCs do not seem to address these issues. Poverty can inhibit realization of basic human rights such as education and health care, which are indispensable for community development. When an enabling environment is created, community members will be engaged in one way or the other. Multinationals oil companies have refused to create the enabling environment for employment. Several authors recommended a diversification of income from farming/fishing livelihood to non-farm livelihood activities. The people will be poor when there is absolute neglect of the communities by government and multinational oil companies in terms of infrastructural development such as electricity, good roads networks, and modern markets, accessibility of business facilities and availability of strong security. These are key determinants of poverty level of oil communities. Power supply can go a long way to create and sustain small business, like salons and mills There is a positive long-run and

short-run relationship between house hold electricity and level of education, poverty rate, per capita income and life expectancy and that house hold electricity impacted positively on standard of living in Nigeria (Ezeh, et al. 2020). Poor community driven poverty alleviation programmes implemented by oil communities has been reported as responsible for non-improvement in the poverty status of the community.

There is need for MNOCs to work with their host communities to carry out effective need assessment and not contract this part out or one person with obvious interest will tell them what the community want but often times it turns out not to be what the community need at that point. For instance, MNOCs should not go into a community and start building school without coming into the community to first work with the people to know what they need, if it is a school or a training center or a microfinance for small businesses that they need at that particular time. These reflect the partnership discussion in the oil producing communities which fails to appreciate these concerns.

#### **Poverty Alleviation Programmes (PAPs)**

MNOCs can enhance their profits, while alleviating poverty on a large scale. A key idea was that the companies can tap into the markets of poor people by selling to

them appropriately designed products and services, creating a win-win situation. Companies can raise their profits, while satisfying needs of people living in poverty. Poverty alleviation programmes should reflect the multidimensional nature of the poverty experienced in the communities by designing programmes that focus on provision and improvement on Infrastructural development/ Basic amenities; Empowerment; Social infrastructure & investments/ social protection; Education/ Training; health; Environmental management; Entrepreneurship/ Livelihood; Skill Development and financial support.

#### **Infrastructural development/Basic amenities**

To demonstrate commitment to poverty alleviation, SPDC in partnership with NNPC said they allocates large sums of money annually to build roads, healthcare, education, water, and other programs. Chevron Nigeria Ltd, Exxon Mobil and Total Energies and the other MNOCs have embraced the use of global memorandum of understanding (GMOUs) to provide development projects in return for a peaceful and secure operating environment. However, the communities still lack these amenities, there is need therefore to provide basic amenities and

rural infrastructure, Electricity impact positively to standard of living, availability of good roads aid accessibility to markets and farms so also are important in the communities. Majority of the community members suffered from chronic food deficiency. Clearly multinational oil companies' role in making significant contribution to the development has remained rhetoric and far from the trumpets they have been making about uplifting the generality of the people. Magombeyi & Odhiambo (2017) declare that MNOCs need to establish Policies that support infrastructure development especially in basic service provision like health and education and policies that focus on short term relief—targeting the poor and the vulnerable through social welfare.

### **Empowerment**

Not only that formal education be provided but adult education programmes that promote capacity building, training for skills, employment and job creation, community empowerment scheme, provision of microcredit etc. should be implemented. Participatory approaches should be developed and used. Product design methodology adopted for the underprivileged for skill training and acquisition, it should also take into account their economic, social and cultural

background so that Programmes specifically tailored to the needs of the community members. Conflict such as cultism, communal clashes as well as restiveness contribute to the high poverty rate in oil rich communities. Although these are founded on injustice because of unemployment, environmental insecurity and infrastructural developmental issues in the region, according to Inyang (2018), when individuals or communities are denied their sources of livelihood, they experience financial and psychological strain. Unfortunately, their restiveness has driven away some companies and businesses that would have employed them thereby compounding the problems.

### **Social Infrastructure & Investments/ Social Protection**

Programmes that support the delivery of services that impact on the wellbeing of community members and ensure people participate in productive social and economic activities for example, adequate care and adequate income. Social protection programmes are essential intervention strategies that provide cash or in-kind benefits to poverty ridden and/or indigent individuals or communities that are unable to support themselves. There is need to implement programmes for social infrastructure as well as social investment in health, cash and food assistance,



subsidies, sponsorships, education assistance, welfare etc. Oluwaniyi (2018) reveals that majority of the social facilities provided are extremely inadequate in terms of quantity and quality to cater for the needs of local/ communities.

### **Education/Training**

Education of community members contribute to poverty reduction, enhances economic growth by increasing the value of efficiency of the labour force. In the Measurement and Causes of Poverty in Nigeria the levels of education with levels of poverty serve as a good measure for the manifestations of poverty. Ability to read and write in English language could determine the 'voicelessness' and 'powerlessness' of the population. Poverty level is usually lowest among those who did attend school and low education also results in limited employment opportunities, that consequently result in low income and poverty trap (Olowa, 2012). By increasing their skills and the knowledge of the poor their professional potential requirement would be improved to earn a living. Magombeyi & Odhiambo (2017) states that the more educated an individual is the more productive he is expected to be both in the labour market and in the household. More education provision can remove groups from absolute poverty in general by raising

income levels. They further said that the objective of education and vocational training is to produce relevant skills in line with dynamic market demands for poverty alleviation programmes to be effective. According to Cremin & Nakabugo (2012), systems of education play a crucial role in equipping citizens with skills and competencies for them to be active in society's economic development. Hence, acquisition of education and literacy skills is increasingly core to development.

### **Health**

Morbidities negatively affect community members income as they experienced work day loss due to lack of health facilities. Diverse literatures reported lack of primary health centers as the major bane of health challenges in the oil producing communities. One may go round a community and do not see any standard health facilities within the community. Several literatures reveal some communities complain that in an entire village one can be 3km away from a health center that serve over 12 communities and same time be grossly in-equipped with only 6 beds, 2 nurses, without any doctor. Some centers lack basic medicine or drugs to treat basic illness such as malaria. They are actually unworthy to be called a health center and there are other oil-rich areas that do not even have clinics. In the latter

case, sick people have had to move to other nearby or mostly, far distant communities where such services exist with bicycle, motorcycle or boat as means of transportation.

### **Environmental**

There is urgent need for the oil companies to be sensitive to the environmental devastation their activities are causing their host communities. There should be programmes on the Management and prevention of negative environmental impacts of oil operations on community livelihood as well as Management of social impacts of oil operations on host communities. The concern in business-society relationships today is also about how a company earns its money and how it interacts with communities not just about making money the way one wants and then giving a portion of it back to the community but how that company is run within the community. The issue of low jobs opportunities and livelihood (unemployment) is caused by environmental degradations which has contributed adversely to unemployment in the area. MNOCs and communities need to work out participatorily the issue of the environment and design enlightenment programmes on environmental preservation and how best the environment can be managed by both parties and not

always at the detriment of the communities.

### **Entrepreneurship/Livelihood**

This is vital for economic growth and there is need for labour, land, capital and entrepreneurship. The livelihood opportunities access of the poor to financial and other resources is weak, with pressing need for immediate consumption, they cannot generally be able to change their living conditions. In the oil producing communities, the professional potential of the poor should be improved by increasing their skills and the knowledge required to earn a living. Since the people's means of livelihood is being affected greatly by the activities of MNOCs, diversification of livelihood with a combination of farm and nonfarm strategy can help tackle the poverty and unemployment situation. Ojikutu (2013) concluded that income from a combination of non-farm and farming activities impacted welfare positively, relative to income from farming activities alone. Programmes that promote diversification of livelihood is the way to go. The basic means of livelihood of oil producing communities is farming, fishing and wildlife yet the people suffer from food insecurity. Olutumise & Abiodu` (2021) states that diversification of livelihood enables rural household to attain a secured food status.

### **Skill Development and Financial Support**

Skill development and financial support will bring about income growth and increased purchasing power, can reduce unemployment and underemployment, increase productivity and improve standard of living. The multinational oil companies' beneficiaries had additional income post intervention period but their income from multinational oil companies' related activities do not seem substantial to make them stand out. Diverse authors said that economic growth is one of the most powerful instruments for reducing poverty and improving the quality of life in developing countries and that economic growth has great impact on poverty reduction. Economic growth is expected to translate into higher income lowering poverty levels. Therefore, MNOCs should find it necessary and initiate programmes that will preserve agricultural communities. Increase in capital expenditure on economic, social and community services will achieve the goals of poverty reduction.

### **Programme Monitoring and Evaluation**

Development practitioners usually confuse monitoring and evaluation (M&E) and treat them as meaning the same thing, therefore use them interchangeably. The two concepts do not mean the same thing

but despite their differences, the information collected from the two processes function in complementation. Kusek and Rist (2004) state that evaluation is a complement to monitoring in that when a monitoring system sends signals that the efforts are going off track then good evaluative information can help clarify the realities and trends notes with the monitoring system.

There is need to set up quality and dedicated support structures at community level for monitoring and evaluation of community projects. Such structure are community development organisations, for example, community/town unions, youth association, occupational technical groups, elders' forum and political development groups, religion-based association, food and agriculture organization/farmers association. civil associations and Local Government Councils. MNOCs themselves should also participate in the monitoring of their programmes in the communities. Izidor (2016) advocate for establishment of village organisations (VOs) that could work directly with multinational institutions working in oil producing areas to ensure quality programmes and programme sustainability. Due to lack of MNOCs' proper monitoring or maintenance of these facilities, they wear out easily without any

form of replacement leaving communities vulnerable. Oluwaniyi (2018) confirmed that when these facilities wear out due to lack of MNOCs' proper monitoring, maintenance or care, it gives the youths the opportunity to siphon or cart away such facilities for their personal gains. Developing robust monitoring mechanisms can ensure better functioning of PAPs in rural areas and also bring about sustainability.

### **Outcome Evaluation and Feedback**

Outcome evaluation is a term that is applied to activities that are designed primarily to measure often supposed effect or result of programmes which may not include the input or process. An implicit judgement is involved when information on outcome is needed and perhaps to take action thereafter. Outcome is related to target and measures achievement. For PAPs outcome evaluation may be observed at varying points during its life, at completion or later time assessment of long-time effect. Generally, programmes are introduced with an understanding that a set of activities to ameliorate a problem will lead to certain outcomes and therefore evaluations remain focused on measurement of intended effects only.

**Feedback:** The power of feedback is frequently mentioned in articles about learning and teaching and it is important in

programme implementation. It is powerful to utilise outcome evaluation and feedback for all poverty alleviation interventions by MNOCs for oil producing communities. This will help to assess the extent each implemented programme was able to impact the communities. Feedback would help to improve the planning and implementation of programmes and result can either be positive or negative. Evidence shows that although feedback is among the major influences, the type and the way it is given can be differentially effective. Either way it can be used to enhance the effectiveness of programmes.

### **Conclusion**

Findings from studies show that MNOCs poverty alleviation programmes have not influenced positively on the communities' poverty index in respect to living standard, education, health, employment status and income in spite of records of poverty alleviation programmes implemented by MNOCs. There is need for these companies to re-organise the whole process of delivery of programmes in terms of planning, implementation, monitoring and evaluation, outcome evaluation and feedback are also important. This paper proposed a framework that can ensure effective and efficient delivery of poverty alleviation programmes and interventions which can be useful for MNOCs and other poverty alleviation

intervention providers/agencies especially in rural communities. A robust poverty alleviation programmes for MNOCs in oil producing communities should embrace key stakeholders' participation which are the MNOCs and the oil producing communities including the government (Local government councils) in all stages of the planning, implementation,

**Recommendations**

There is need for MNOCs to improve or change their strategies of executing poverty alleviation programmes in the communities.

Holistic approach should be applied to the development of programmes which should involve all stakeholders. Programmes implementation should be stages with effective monitoring. It is necessary that outcome evaluation is carried out. It is not enough to implement programmes without conducting outcome evaluation to ascertain the success or failure of such programmes. Lessons generated from output evaluation should feedback to the MNOCs as intervention providers to help improve on the planning of subsequent programmes

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## **Secondary Education as an Instrument for National Security**

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### **ABSTRACT**

In this present era, where insecurity has become an issue in Nigeria every society is striving to provide knowledge, skills and security for useful living and learning to take place. This paper highlights issues concerning the management of secondary education for national security, wherein the objectives of secondary education was enumerated as stated in the National Policy on education. Some challenges that hinder secondary education as an effective instrument for national security are also listed which include: inadequate funding, lack of qualified teachers and poor policy implementation. The paper concludes that huge investment be put in education to benefit the population and assist in stabilizing the nation by promoting national security. It was suggested that our education system should be rejuvenate to produce great thinkers.

*Keywords: Secondary Education, Security, Instrument*

### **Introduction**

In the globalization age, a period that is characterized by access to massive amount of information, the main functions of education are not limited to the teaching of fixed, old knowledge alone. Education is now a dynamic process whose main target is to help mankind cultivate new principles that adapt to the modern world so that mankind can learn to adjust to the rapid changes of their surroundings. This functional adaptation of education will have great impact on national security.

Education will help create a security concept that fits the globalization age. Therefore, education is seen as a veritable instrument for bringing about positive changes in the pattern of life of people. Various authors have defined education in different ways. Maduwesi (2005) defines education as a universal aspiration and also as an instrument of development and social integration. In view of this, the Federal Republic of Nigeria (FRN, 2013) stated that “the federal government of Nigeria has adopted education per



excellence for effecting national development”. Education is essential for maintaining balanced development and promoting national integration. It is also to teach students learning skills so as to adapt to the rapid changing world. Education is conceived as a process where citizens are impacted through the Nigerian school system from the lowest to the highest level. Conceived in this context therefore, education can promote National security and good governance.

According to Paul (2014), education can economically, politically and socially empowers a person or a group of people. A nation with educated people can be said to be a wealthy nation because there is a positive correlation between education and good governance. He went further to stress that education allows for the existence of intellectuals that help and think for the nation regarding the conception and implementation of policies and assist in gathering data on how to realistically promote and enhance on national security. These intellectuals through their education offer the nation pathways out of social conflicts and tensions. All these positively impact on national security. Education ought to stress peaceful co-existence among citizenry through traditional values of patriotism. In order to bring about development, one need to consider the

main national goals of Nigeria which have been accepted as the necessary foundation for the National Policy on education.

- a. A free and democratic society
- b. A just and egalitarian society
- c. A united, strong and self-reliant nation.
- d. A great and dynamic economy
- e. A land full of bright opportunities for all citizens (FRN 2013)

In view of the various experiences, peaceful coexistence, in the present day Nigeria, there is no proof that Nigeria as a nation maintains a healthy environment where people can operate equally, where there are people and a secured environment, where the economy is booming and of course the citizens a reliving good life and youths are gainfully employed. However, this paper focuses on effective management of secondary education as an instrument for national security.

Secondary education is that education acquired at the end of primary school before entering into tertiary institution. The broad goals of secondary education, according to FRN (2013), shall be to prepare the individual for:

1. Useful living within the society
2. To acquire higher education

The National Policy on education clearly stated that secondary education shall:

- a. provide all primary school leavers with the opportunity for education of a higher level irrespective of self-social status, religion or ethnic background;
- b. offer diversified curriculum to cater for the differences in talents, opportunities and future roles;
- c. provide trained man-power in the applied sciences, technology and commerce at sub-professional grades;
- d. develop and promote Nigerian languages, art and culture in the content of world cultural heritage;
- e. inspire students with desire for self-improvement and achievement of excellence;
- f. foster national unity with an emphasis on the common ties that unite us in our diversity;
- g. raise a generation of people who can think for themselves, respect the views and feelings of others, respect the dignity of labour, appreciate those values specified under the broad national goals and live as good citizens; and
- h. provide technical knowledge and vocational skills necessary for agricultural, industrial, commercial and economic development.

### **Concept of National Security**

Iredia (2011) defined National Security (not a proper noun) as the ability of a state to overcome any form of its challenges no

matter what the challenges are. He stressed that national security is wider than military might, defense or law enforcement and pointed out other basic dimensions like job, water and food security. Also, Abubakar (2005) argued that international debates on security have raised the need to set security in a broader sense as "the struggle to secure the most basic necessities of life such as food, fuel, medicine and shelter." However, security from the perspective of human physiology needs is important for the attainment of physical and national security and overall peace and development, as social unrest arising from the absence of such basic human security can indeed lead to security problems and conflicts. There has been a series of manifestations of insecurity in Nigeria ranging from Boko Haram activities, the Niger-Delta militant groups and the Fulani herdsmen and kidnapping. It has been estimated that the activities of each of the groups has wasted over 200,000 lives since 1999 till 2023 Iredia (2011), citing the National Bureau of Statistics, stated that there are about 35 million unemployed youths in the country who are forced to resort to anything that can serve as a means of livelihood.

### **Managing Secondary Education for National Security**

David (2014)) opines that education gives children the capacity to succeed in life and

their combined success ensures prosperity for our nation. The link between secondary education and national security is not often discussed or even considered by those advocate for reforming. Thus, the ability of a nation to protect itself and its interest around the world depends on a nations educational attainment most especially the secondary education where the students are developed and trains, shapes to conform to the norms and values of the society through citizenship education. David (2014) opined that secondary education has contributed to social integration among students where students tend to understand the religious and cultural difference between them and this has encouraged unity which is a source of strength and not a source of strife and conflict especially in a boarding school where students have opportunities to meet their fellow students from different parts of the country. Education is a tool that enhances national unity, as such the curriculum of secondary school should be overhauled to accommodate modern teaching and learning through the use of computers and make learning practical. Entrepreneurship education should also be introduced in the curriculum so that students can be taught to be self-employed. Sharma (2005) opines that teachers' decisions about teaching and learning

strategies determine the real curriculum. He went further to say that the teacher becomes the real designer of curriculum while translating the guidelines into curriculum activities. In addition to this, the curriculum should guarantee ecological literacy reducing alienation from natural world and increasing connection to the natural world through the use of internet. Nebo (2005. 29) view "Curriculum as an orderly arrangement of activities that is intentionally developed to provide educational experience for one or more students.

The Nigerian education system should also develop teachers of high quality in order to take the Nigerian child to a greater height Orikpe (2013). Ololube (2009) opines that in order to be effective in the classroom teachers need to be curious, imaginative, empathetic, interesting, humorous, friendly and hardworking, creating a learning environment that enhances and strengthens learning disposition of students. Quality teaching makes students to reason highly thereby making use of higher cognitive domain to achieve higher goals Ololube, (2009). However, students need to be taught by quality teachers who could apply various innovation that would help the students acquire live skills that will help them be their own masters in a harsh economy, and being security conscious,

self-employed and even employer of labour Orikpe (2013). Ukeje, (2016) see education as social reconstruction and it offers solution to the problems a society is engulfed with today. Teachers are to create social cohesion, national, integration and in turn teach the students the core values of national integration. Secondary education bridges the gap between the primary and tertiary institution this is why it is very important to design functional education that will teach the students how to be self-reliant, conscious about security and to provide the necessary support the society needs in times of insecurity Orikpe (2013).

Every sovereign and independent state must train, sustain and nurture men and women to serve in its security and intelligence outfits and this can be done through introduction of security education in the curriculum which will now broaden the awareness of security matters in the mind of the students. According to Eisemokhai (2005), in Europe and America these men and women are selected from the best and the brightest citizens who are endowed with keen and subtle intellect. Security of students should be guaranteed for effective teaching and learning to take place. It has become the

- iii. Lack of qualified teachers
- v. Inadequate infrastructural facilities

duty of the teachers to guarantee that the lives of the students are in their hand while in school.

Amanchukwu (2012) opines that government at all means should find a lasting solution to the school safety. He went further to state that technology has improved so much that schools in developed world they have begun to employ different technologies to keep their students safe. Some of these include automated emergency notification system, one of the fastest growing safety and communication applications in schools today, the systems make it possible for school administrators to send out an emergency message 10 relevant agencies and stakeholders simultaneously through multiple channels.

### **Challenges that hindered Education as an Effective Instrument for National Security**

The Nigerian educational system is known to be faced with challenges. Okenwa (2013) enumerated some of the challenges that have hindered education as an effective tool for national security.

- i. Intolerance and injustice among citizen which has also affect the mindset of our students.
- ii. Inadequate funding
- iv. Poor policy implementation
- vi. Examination malpractice

**Conclusion**

This paper examined management of secondary education and national security. From the discussion, it is clear that there is correlation between secondary education and national security. The idea of how secondary education can be managed to

**Suggestions**

Our education system should be overhauled to produce great thinkers. Innovation should be brought to classroom by the use of Information Communication Technology (ICT) more entrepreneurship subjects should be included in the curriculum. More funding and investment on education should be encouraged.

promote national security has been given established. As a result, the paper concludes by asserting that if huge investment is being put in education it will benefit population and assist in stabilizing the nation security wise.

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**Impacts of Learning Management System on Academic Achievement and Attitude of Pre-Service Teachers in Ekiti State University, Ekiti, Nigeria**

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**ABSTRACT**

This study determined the impacts of LMS on pre-service teachers' affective and cognitive learning outcomes in H&PS in Ekiti State University, Ado-Ekiti affiliated with Emmanuel Alayande College of Education, Oyo. 214 (71 LMS alone; 70 Blended (LMS & Conventional); 73 Conventional alone) randomly assigned to treatments. Adopted a mixed methods research in pretest, posttest control group quazi experimental design with gender and technology self-efficacy as moderator variables in 3\*2\*2 factorial matrix. Seven validated instruments were used for data collection, two research questions and seven null hypotheses guided the research. Frequency counts and percentages, thematic analysis and ANCOVA were used for data analysis. The pre-service teachers have average affective and cognitive levels in H&PS, majority of them prefer LMS in blended form to the conventional strategy. There are significant impacts of the treatment on the pre-service teachers' affective ( $F_{(2,202)} = 27.043$ ;  $p < .05$ ;  $\eta^2 = .268$ ) and cognitive ( $F_{(2,202)} = 13.036$ ;  $p < .05$ ;  $\eta^2 = .129$ ) learning outcomes in H&PS. Also, technology self-efficacy had significant main impacts on the pre-service teachers' affective ( $F_{(1,202)} = 13.820$ ;  $p < .05$ ;  $\eta^2 = .068$ ) and cognitive ( $F_{(1,202)} = 8.290$ ;  $p < .05$ ;  $\eta^2 = .041$ ) learning outcomes. Lecturers should therefore adapt LMS in blended mode to facilitate effective teaching and learning of H&PS, university management should organize seminars, workshops and symposia for the lecturers on the effective and efficient modalities to integrate LMS in lectures.

**Keywords:** COVID-19, Learning Management Systems (LMSs), Pre-service teachers' affective learning outcomes, Pre-service teachers' cognitive learning outcomes, Gender, Technology self-efficacy

**Introduction**

Corona Virus Disease 2019 (COVID-19) ravaged almost the whole universe and its impacts on the institutional lockdown in

2020 are enormous and inherent in the socio-economic, physio-chemical and the biological components of the environment.

Really, COVID-19 as a pandemic touches the nook and cranny of the whole world, however, the impacts of the scourge on each nation of the world in the social, economic, physical and all other dimensions of life was dependent on the individual nation's technological savvy. The scourge effects on education was total in many countries of the world especially, the developing nations where the use of technology integrated instructional strategies were alien to the

*“The COVID-19 pandemic has brought education systems across the world, especially in low-income countries, to a standstill. Millions of students across the world, particularly those from poorer and marginalised backgrounds, are at risk of even further educational exclusion unless urgent action is taken to curb the impact of COVID-19. So, as we mark the International Day of Education, it is clear now more than ever that urgent action needs to be taken by governments and policymakers to respond to the current crisis and support its recovery by building more equitable and resilient education systems to ensure sustained learning for all continues, whether online, in person or hybrid.”*

The effects of the pandemic were equally observed on an undergraduates course, History and Philosophy of Science with students low learning outcomes in the affective and cognitive domains. History and Philosophy of science is a highly expedient and compulsory course for the undergraduate students in Nigeria. The course which is a two-unit credit status exposes the students to the conceptual understanding of science, technology and society, the traditional and modern science and technology, the historical development

system. Nevertheless, the institutions that were accustomed to educational cybernetics, using machines in human learning came to the rescue of the educational industries. Really, the pandemic has had devastating impacts on teaching and learning (Meinck, et al.,2022; Kuhfeld, et al., 2022).

Amina Osman, Education Adviser at the Commonwealth Secretariat and one of the authors of the report in Commonwealth (2022) said:

of science, scientific method, origin of man, the issues in technology development, man and his cosmic environment, environmental resources, environmental pollution and hazards and environmental sustainability. The course would intimate the learners to the sources of knowledge, the rationality behind true knowledge, the steps in knowledge generation. Students exposed to this course would be able to fathom their position in the socio-economical, physio-chemical and the biological components of the environment. The course, GST 118 will

equally avail the students the conception of pollution, hazards, global warming, climate change and strategies to mitigate the environmental issues.

However, the disposition and attitudes of the students to the course, GST 118, History and Philosophy of Science has not been favourable to effect optimum cognitive and affective achievement in the course. Students of the course perceived the course as boring, historical, philosophical, less-empirical, less pragmatic and less hands-on-mind-on. Thus, non-art oriented students in sciences, vocational and technical education and faculty of education always have issues of negative attitude to the course which invariably mar their academic achievement in the course. While the course sounds historical and philosophical to the extent of triggering negative attitude in the learners, the conventional strategy of handling the course is another crucial issue. The conventional strategy has been criticized for causing negative and aversive attitude of students towards science. Olagunju and Adesina (2017), Adesina (2019), Adebisi (2019), Obanya (2021), Okebukola (2021), Gambari (2021) described conventional lecture strategy as too didactic, non-heuristic, non-interest stimulating, non-enthusing, non-attention grabbing, non-

interest sustaining especially in the 21<sup>st</sup> century where technology is paramount for information and communication.

Averting negative disposition and attitudes to learning science and science related courses, there is need to incorporate Information and Communication Technologies (ICTs) in teaching and learning science (Adebisi, 2019; Adesina, 2019; Gambari, 2021; Okebukola, 2021; Nguyen, 2022; Venugopal et al., 2023). ICTs integration in science education was identified as being enthusing, captivating, interest-sustaining, affective, cognitive and psychomotor enhancement, collaborative, interactive, engaging and laden with Immediate Knowledge of Results (IKOR). A proven and tested such ICTs tool is Learning Management System (LMS). LMS is an application technological software that allows the succinct instructional packaging adopting workable Instructional System Design (ISD) to present instructions or learning materials to students with high level of interactivity and engagement that breeds optimum learning outcomes in the learners (Gambari, 2021, Adesina, 2022, Venugopal et al., 2023).

LMS can facilitate team chats, discussions, file sharing, challenge submission, quizzes,

grading, learning analytics and path opinions (Bove & Conklin, 2020). Moreover, LMS has a doable attribute to serve college students with numerous backgrounds inclusive of culture, age or gender. In an instructional context, e-learning structures are additionally recognized as Learning Management Systems (LMS) which are “internet based, software program permitting instructors to control information distribution, assignments, communications and different factors of directions for their guides (Nguyen, 2021; Gambari, 2021; Kant et al., 2021). The LMS contains in-built aspects such as forums, chats, quizzes, assignments, blogs, emails, and wikis which are expected to enhance, enable and empower the newcomers in a lively position at some stage in mastering through positive preparation and energetic engagement (Sezer & Yilmaz, 2019).

Research shows that LMS features have been discovered to be advantageous in activating SRL (Self-Regulatory Learning) strategies which are precursors to students’ enhanced and optimum learning achievement (Adesina, 2022). Neverdal (2023) conjectured that LMS have completely changed the approach to education and training through its benefits like flexibility and accessibility of course

materials, efficiency and productivity, personalization and customization, cost effectiveness, data-driven insight and heightening of students’ learning outcomes.

Theoretically, use of Learning Management Systems (LMSs) to enhance teaching and learning of History and Philosophy of Science among the undergraduates is premised on the constructivists’ and the behaviourists’ learning theories. To the constructivists like Glaserfeld, Vygotsky, Dewey, Gagne in hierarchical and systematic instruction that stimulate effective learning (Ehinder, 2014). Learning in constructivism philosophy entails constructing ideas and knowledge from constructs or filters posed in problems or questions to build experiences and knowledge. The constructivists conceived lecturers or teachers as instructional facilitators and learners as co-constructors of knowledge in teaching-learning environment. The system shifts from teacher-centerdness, didactic instruction, passive, knowledge accumulation, cramming and regurgitation of scientific facts, concepts, hypotheses, theories, laws and principles to learner-centredness, heuristic instructions, active, hands-on-mind-on knowledge construction mode as in Learning Management Systems (LMSs)

(Olagunju&Adesina, 2017; Adesina, 2022; Sanky& Marshall (2023). The behaviourists conceived teaching and learning as Stimulus-Organism- Response which associate the unconditional stimulus with the conditional stimulus to engender conditional response which is improved students learning outcomes. Just like dog would not salivate ordinarily to jingling of bell but can if associated with meat, so also, students detest learning however blending the teaching-learning with LMSs can do the magic of achievement, attitudes and skills salivation in the learners (Daar et al., 2023).

Empirically, Al-Assaf, Almarabeh and Nasir-Eddin (2015) determined the impact of moodle on students by some teaching members of the Faculty of King Abdullah II School for Information Technology at the University of Jordan. The results reveal that the faculties of students and number of previously E-learning courses have an influence on perceive ease of use and perceived usefulness while the level of the academic year and GPA have no significant influence on perceived ease of use. Mehmet (2016) studied the effects of LMS learning behaviors on academic achievement in a learning analytic perspective findings revealed that the students used LMSs as a support to face-to-face education more

intensively on course days (at the beginning of the related lessons and at nights on course days) and that they activated the content elements the most. Lastly, almost all the students agreed that LMSs helped increase their academic achievement only when LMSs included such features as effectiveness, interaction, reinforcement, attractive design, social media support, and accessibility. Akay and Gumusoglu (2020) determined the impact of learning management systems on students' achievement in language exams, results revealed that the use of LMS had a much greater impact on midterm exams than the proficiency exam.

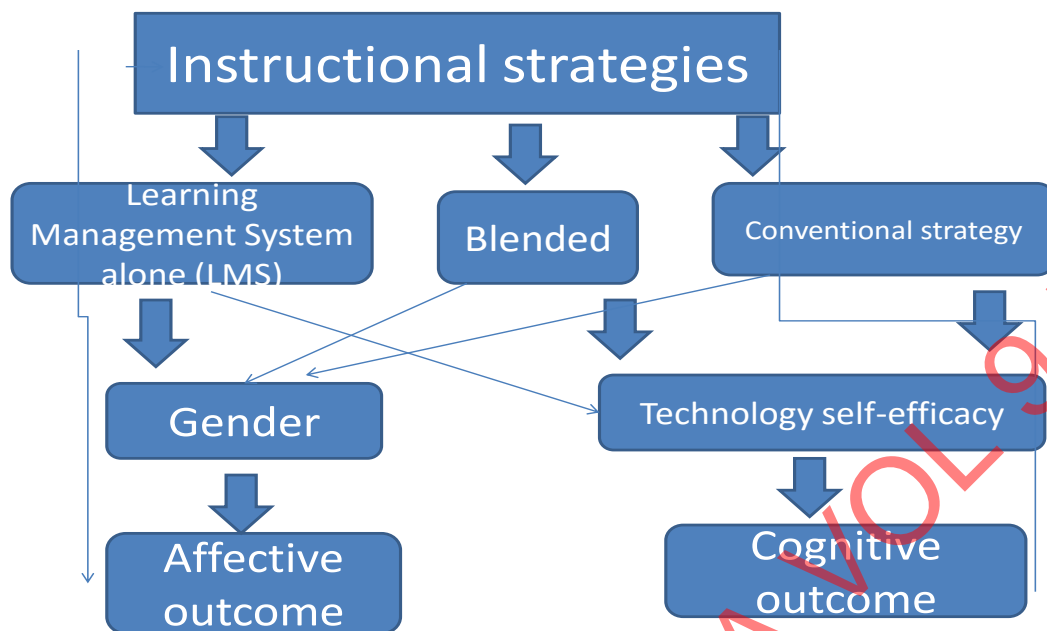
Mohammed(2021) investigated the effect of using learning Management System on academic Performance of Students in financial Accounting in Secondary School in Bauchi State, adopted was quasi-experimental design found that there was a significant difference in the achievement of the students of SSS II taught FA using LMS tool compared to those taught using Conventional method. Oguguo, et al. (2021) determined the effect of Learning Management system (LMS) on students' performance in educational measurement and evaluation course using a non-equivalent group quasi experimental

research design The findings revealed that students taught using LMS (Moodle) performed better than those exposed to the CAI4ME Package. It was equally revealed that female students performed better than the males in both the two approaches although the male students recorded a higher gain score.

Elfeky and Elbaly (2023) examined the effects of virtual classroom use inside learning management systems on enhancing students' satisfaction among the masters' students found that both gender, male and female were adequately satisfied with the use of virtual classrooms within the blackboard LMS. Daar et al., (2023) studied students' perception of the use of learning management system in learning English for specific purpose during the pandemic as evidence from rural area in Indonesia found that students had a positive perception of LMS use and that LMS features like collaboration, quizzes, games, assignment etc. encourage students' interaction with fellow students and the instructional facilitator which enhance their learning outcomes. Venugopale et al., (2023) studied the integration of m-learning in learning management system found that m-learning

in LMS increase students' awareness, focus, interest and excitement in learning which invariably enhance teaching-learning outcomes in schools.

The impacts created by technological tools like learning management Systems (LMSs) on students' cognitive and affective learning outcomes can be moderated by the students' gender and technology self-efficacy. While Raimi, Bolaji and Adesina (2013), Adigun et al. (2015), Ajayi and Ogbela (2017), Ani et al. (2021) found no significant effects of gender on students' performance in science, Akala (2015), Godpower-Echie and Ihenko (2017), Semerzier (2021) found gender difference in students' performance in science. Technology self-efficacy can which is one's judgement of one potential to use technology. Students with high levels of self-efficacy about technology use more and easily accept technological tools and application software and experience less technology related anxiety. technology self-efficacy acts as blueprints for the enhanced learning outcomes (Aesaert et al, 2013). Thus, gender and technology self-efficacy since their effects are inconclusive, they are co-factored into the study.



**Fig. 1: Conceptual framework of LMSs, Gender, Technology self-efficacy and Students' Learning outcomes.**

**Source: The Author (2022).**

Figure 1 depicts the conceptual framework of LMSs, gender, technology self-efficacy and students' learning outcomes in History and Philosophy of Science. The framework links the main effects and the interaction effects of the independent variable (instructional strategies) and the moderator variables (gender and technology self-efficacy) to the dependent variables (undergraduates affective and cognitive learning outcomes).

**Statement of the Problem**

Pre-service teachers have negative and aversive attitude towards History and

Philosophy of Science (GST 118) in Oyo Town, Nigeria. This has adversely affected their academic achievement in the course. The use of conventional didactic instructional strategies has been identified as one of the engendering factor for the low learning outcome in the course. Research findings have persistently pointed to the potentials and efficacy of technology, especially the learning management system on student's learning outcomes in humanity, education and other fields of study, however, none of the available reports has documented the impacts of LMSs on pre-

service teachers' learning outcome in History and Philosophy of Science. Therefore, this study determines the impacts of learning management system as a post-COVID instructional strategy in History and Philosophy of Science in Oyo town, Nigeria, gender and technology self-efficiency as moderator variables.

### **Objectives of the Study**

The main thrust of the study is to determine the effects of LMS on pre-service teachers' affective and cognitive learning outcomes in History and Philosophy of Science. Other specific objectives of the study are; to:

- i. determine the main impacts of gender on pre-service teachers' affective and cognitive learning outcomes on History and Philosophy of Science
- ii. examine the main impacts of technology self-efficacy on pre-service teachers' affective and cognitive learning outcomes on History and Philosophy of Science;
- iii. determine the interaction impacts of the instructional strategies, gender and technology self-efficacy on pre-service teachers' affective and cognitive learning outcomes on History and Philosophy of Science.

### **Research Questions**

The following research questions are answered in the study;

- 1) What are the affective and cognitive levels of pre-service teachers' in History and Philosophy of Science?
- 2) Do the pre-service teachers prefer LMS to conventional strategy of teaching and learning History and Philosophy of Science?

### **Hypotheses**

The following null hypotheses were tested as 0.05 level of significance:

Ho1: There is no significant main impacts of treatment on pre-service teachers'

- a Affective outcome
- b Cognitive outcome in History and Philosophy of Science

Ho2: There is no significant main impacts of gender on pre-service teachers'

- a affective outcome,
- b cognitive outcome in History and Philosophy of Science

Ho3: There is no significant main impacts of technology self-efficacy on pre-service teachers'

- a affective outcome,
- b cognitive outcome in History and Philosophy of Science



Ho4: There is no significant integrate impacts of treatment and gender on pre-service teachers'

- a affective outcome,
- b cognitive outcome in History and Philosophy of Science.

Ho5: There is no significant integrate impacts of treatment and teaching self-efficiency on pre-service teachers'

- a affective outcome,
- b cognitive outcome in History and Philosophy of Science

Ho6: There is no significant integrate effects of gender and teaching self-efficiency on pre-service teachers'

- a affective outcome,
- b cognitive outcome in history and philosophy of service.

Ho7: There is no significant integrate effects of treatment gender and technology self-efficiency on pre-service teachers'

- a affective outcome,
- b cognitive outcome in History and Philosophy of Science

### **Methodology**

This study adopted a mixed method type of research which is both qualitative and quantitative in approach. Quantitatively, a pretest, posttest, control group, quasi-experimental design was adopted. Qualitatively, a structured interview was

thematically analysed. The target population for the study consisted of all 100-level Pre-service teachers in Ekiti State University (EKSU) affiliated with Emmanuel Alayande College of Education, Oyo. Intact groups of Science and Arts and Social Sciences and Education Schools were randomly assigned to the treatments groups consisting of two experimental and a control.

Eight research instruments were used for data collection, three response scales and four stimulus ones. The instruments are: Pre-service Teachers' History and Philosophy of Science Cognitive Test (PTHSCT); Pre-service Teachers' History and Philosophy of Science Affective Scale (PTHSAS); Pre-service Teachers' Technology Self-Efficacy Scale (PTTSES); Pre-service Teachers' Instructional Mode Preference Interview (PTIMPI). The Instructional Guides: Learning Management Systems Instructional Mode Guide (LMSIMG), Blended Instructional Mode Guide (BIMG), and the Conventional Lecture Mode Instructional Guide (CLMIG). Validation sheets for LMS Instructional Mode Validation Sheet (LIMVS); Blended Instructional Mode Validation Sheet (BIMVS) and Conventional Lecture Mode Validation Sheet (CLMVS).

Pre-service Teachers' History and Philosophy of Science Cognitive Test (PTHSCT) was researcher constructed instrument using the test blueprint for GST 118, History and Philosophy of Science. The original 50-item test was validated to 40 items after the instrument difficulty and discrimination indices were determined. The 40 item test was trial-tested and the reliability ascertained using Kuder-Richardson-21 which yielded a value of 0.83. Pre-service Teachers' History and Philosophy of Science Affective Scale (PTHSAS) was 4-Likert scale of Strongly agree, Agree, Disagree and Strongly Disagree adapted from the 37-item Affective scale of Villardon and Yaniz (2014). 20 items were selected for PTHSAS and was re-validated by experts in test and measurement. PTHSAS was subjected to Cronbach's Alpha reliability which yielded a value of 0.79. Pre-service Teachers' Technology Self-Efficacy Scale (PTTSES) was a 20-item scale adapted from Amin et al. (2021). The scale was subjected to Cronbach' reliability test which yielded 0.71. Pre-service Teachers' Instructional Mode Preference Interview (PTIMPI) was a 10- item researcher constructed instrument on the instructional modes of lecturing GST 118, History and Philosophy of Science. The

ten items tool was validated for construct and face validity; the critiques were incorporated into the final draft of the instrument. The PTIMPI was given to two psychometricians for rating; the coded scores were subjected to Inter-Rater reliability of Fleiss Kappa which yielded an index of 0.62.

The 100 Level pre-service teachers of EKSU, Oyo were randomly assigned to treatments (experimental and control). For one week, all the participants, the intact class (pre-service teachers) in the experimental and control groups were given the pre-test on the response instruments. The treatment covers eight weeks. At the end of the treatment period, the posttest was administered on all the groups (i.e. the experimental group and the control group) using the three response instruments. The data were analyzed using frequency counts and percentages for the socio-demographic variables of the respondents, thematic analysis for the research questions and Analysis of Covariance (ANCOVA) with the pre-test scores as covariates to test the hypotheses. Analysis of covariance was used to single out the initial group differences. Also, the Estimated Marginal Mean (EMM) of the ANCOVA was used to detect the magnitude and direction of differences.

**Results**

**Table 1: Socio-demographic variable of the respondents**

Variables	Frequency	Percentage
<b>Gender</b>		
Male	86	40.19
Female	128	59.81
<b>Total</b>	<b>214</b>	<b>100.00</b>
<b>Age Group</b>		
15 - 19 yrs	73	34.11
20 – 24 yrs	78	34.45
25 – 19 yrs	59	27.57
30 yrs& above	04	1.87
<b>Total</b>	<b>214</b>	<b>100.00</b>
<b>Technology self-efficacy</b>		
Low	85	39.72
High	129	60.28
<b>Total</b>	<b>214</b>	<b>100.00</b>

From Table 1, there are 86 (40.19%) male, 128 (59.81%) female, 73 (34.11%) 15-19 years, 78 (34.45%) 20-24 years, 59 (27.57%) 25-29 years, 4 (1.87%) 30 years and above pre-service teachers in the distribution. Also, there are 85 (39.72%) and 129 (60.28%) low and high technology self-efficacy pre-

service teachers respectively in the distribution.

**Answers to Research Questions**

- 1) What are the affective and cognitive levels of pre-service teachers' in History and Philosophy of Science?

**Table 2: Pre-service teachers' affective and cognitive levels in History and Philosophy of Science**

Pre-service Teachers	Affective Level			Cognitive Level		
	Exp I	Exp. II	Control	Exp I	Exp. II	Control
<b>Posttest</b>	61.06	66.49	51.36	29.60	33.46	24.72
<b>Pretest</b>	42.70	38.52	41.77	17.59	19.22	18.05
<b>Mean Gain</b>	18.36	27.97	9.59	12.01	15.24	6.67

Table 2 revealed that the 42.70, 38.52 and 41.77 are the pretest affective level for the pre-service teachers in History and Philosophy of Science while 61.06, 66.49 and 51.36 are the posttest affective levels

and mean gain affective scores of 18.36, 27.97 and 9.59 for the experimental I (LMS alone), experimental II (Blended) and the control (Conventional group) respectively. For cognitive level, experimental I has mean gain of 12.01, 15.24 for experimental II

while the control group has the least cognitive mean gain of 6.67.

2.) Do the pre-service teachers prefer LMS to conventional strategy of teaching and learning History and Philosophy of Science?

From the thematic analysis of the responses to the interview conducted with the participants in the experimental I and II, they appreciate and prefer the use of Learning Management Systems to conventional lecture mode. Majority of the experimental group like and intend to be using the LMS for all their lectures in the undergraduate program. Majority reported

dislike for the conventional lecture method posited that it did not allow for interaction and Immediate Knowledge of Results (IKOR) as in LMS. Majority of the experimental group appreciate the forum group discussion, hangout, games, embedded videos, assignment and quizzes attached to the LMS and knowledge enhancers and stimulators to learning.

**Hypotheses Testing**

Ho1a: “There is no significant main impacts of treatment on pre-service teachers’ affective outcome in History and Philosophy of Science”

**Table 3.0: Analysis of Covariance (ANCOVA) of Post Affective Scores by Treatment, Gender and Technology self-efficacy**

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	10150.432 <sup>a</sup>	12	845.869	56.003	.000*	3.327
Intercept	6105.550	2	3052.775	205.117	.000*	.2001
Preinnovativeness	1096.279	2	548.139	36.291	.000*	.0357
<u>Main effects</u>						
Treatment	816.915	2	408.457	27.043	0.004	0.268
Gender	25.707	1	25.707	1.702	*	0.008
Technology self-efficacy	208.737	1	208.737	13.820	0.025	0.068
<u>2-way interaction</u>						
Treatment * Gender	13.937	2	13.937	1.977	0.452	0.005
Treatment * Technology self-efficacy	63.074	2	31.537	2.068	1.007	0.021
Gender* Technology self-efficacy	14.062	1	14.062	0.931	0.926	0.005
<u>3-way interaction</u>						
Treatment * Gender* Technology self-efficacy	51.958	2	25.979	1.720	0.083	0.017
Error	3,051.008	202	15.104			
Total	16932.402	214				
Corrected total	18492.004	213				

a. R Squared = .757 (Adjusted R Squared = .573)

\*Significant at P<.05

Table 3.0 shows that there was a significant main effect of treatment on pre-service teachers' post-affective scores of History and Philosophy of Science ( $F_{(2,202)}= 27.043$ ;  $p<.05$ ;  $\eta p^2 = .268$ ). The effect size was 26.8%. Thus, hypothesis 1a was not

accepted. In order to determine the magnitude of the significant main effect across treatment groups, the estimated marginal means of the treatment groups is presented in Table 3.1

**Table 3.1: Estimated Marginal Means of Post affective scores by Treatment Groups.**

Treatment	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
LMS alone	61.06	.029	66.392	71.407
Blended strategy	66.49	.021	64.491	73.992
Conventional group	51.36	.307	50.825	54.071

Table 3.1 reveals that the students exposed to the LMS and conventional strategy (blended) had the highest adjusted post-affective mean score ( $\bar{X}=66.49$ ), followed by the experimental I (LMS alone) with mean score of 61.06 while the students in the conventional strategy had the least adjusted post-affective mean score ( $\bar{X}=51.36$ ).

Ho2a: “There is no significant main impacts of gender on pre-service teachers’ affective outcome in History and Philosophy of Science”

From Table 3.0, there is no significant main effect of gender on pre-service teachers’ post-affective scores of History and Philosophy of Science ( $F_{(1,202)}= 1.702$ ;  $p>.05$ ;

$\eta p^2 = .008$ ). The effect size was 0.8%. Thus, hypothesis 2a was accepted

Ho3a: “There is no significant main impacts of technology self-efficacy on pre-service teachers’ affective outcome in History and Philosophy of Science”

From Table 3.0, there is a significant main effect of technology self-efficacy on pre-service teachers’ post-affective scores of History and Philosophy of Science ( $F_{(1,202)}= 13.820$ ;  $p<.05$ ;  $\eta p^2 = .068$ ). The effect size was 6.8%. Thus, hypothesis 2a was not accepted In order to determine the magnitude of the significant main effect across treatment groups, the estimated marginal means of the treatment groups is presented in Table 3.2

**Table 3.2: Estimated Marginal Means of Post affective scores by technology self-efficacy Groups.**

Technology self-efficacy Groups.	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	57.05	.051	56.028	61.741
High	71,37	.008	65.023	70.826

From Table 3.2, the students with high technology self-efficacy had the higher adjusted post- affective mean score ( $\bar{X}=71,37$ ) than those with low technology self-efficacy ( $\bar{X}=57.05$ ).

From Table 3.0, all the two ways and the three-way interaction impacts of treatment and the moderator variables were not significant. Thus, Ho4a, Ho5a, Ho6a and Ho7a were accepted.

Ho1b: “There is no significant main impacts of treatment on pre-service teachers’ cognitive outcome in History and Philosophy of Science”

**Table 4.0: Analysis of Covariance (ANCOVA) of Post-Cognitive Scores by Treatment, Gender and Technology self-efficacy**

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	11280.471 <sup>a</sup>	12	940.039	49.037	.000*	.2913
Intercept	4671.422	2	2335.711	121,842	.000*	.1258
Preinnovativeness	742.339	2	371.170	19.362	.000*	.0192
<u>Main effects</u>						
Treatment	499.800	2	249.900	13.036	0.002	0.129
Gender	39.701	1	39.701	2.071	*	0.010
Technology self-efficacy	158.919	1	158.919	8.290	0.031	0.041
<u>2-way interaction</u>						
Treatment * Gender	78.520	2	39.260	2.048	0.591	0.005
Treatment * Technology self-efficacy	66.137	2	33.068	1.725	0,793	0.020
Gender* Technology self-efficacy	22.697	1	22.697	1.184	0.621	0.006
<u>3-way interaction</u>						
Treatment * Gender* Technology self-efficacy	79.402	2	39.701	2.051	0.060	0.021
Error	3,872.340	202	19.170			
Total	17 0.62.085	214				
Corrected total	204.174.004	213				

a. R Squared = .791 (Adjusted R Squared = .626)

\*Significant at P<.05

Table 4.0 shows that there was a significant main effect of treatment on pre-service teachers' post-cognitive scores of History and Philosophy of Science ( $F_{(2,202)}= 13.036$ ;  $p<.05$ ;  $\eta^2 =.129$ ). The effect size was 12.9%. Thus, hypothesis 1b was not

accepted. In order to determine the magnitude of the significant main effect across treatment groups, the estimated marginal means of the treatment groups is presented in Table 4.1

**Table 4.1: Estimated Marginal Means of Post cognitive scores by Treatment Groups.**

Treatment	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
LMS alone	29.60	.005	24.007	32.925
Blended strategy	33.46	.002	29.614	38.028
Conventional group	24.72	.052	23.770	26.914

Table 4.1 reveals that the students exposed to the LMS and conventional strategy (blended) had the highest adjusted post-cognitive mean score ( $\bar{X}=33.46$ ), followed by the experimental I (LMS alone) with mean score of 29.60 while the students in the conventional strategy had the least adjusted post-cognitive mean score ( $\bar{X}=24.72$ ).

Ho2b: “There is no significant main impacts of gender on pre-service teachers’ cognitive outcome in History and Philosophy of Science”

From Table 4.0, there is no significant main effect of gender on pre-service teachers’ post-cognitive scores of History and Philosophy of Science ( $F_{(1,202)}= 2..071$ ;

$p>.05$ ;  $\eta^2 =.010$ ). The effect size was 1.0%. Thus, hypothesis 2b was accepted

Ho3b: “There is no significant main impacts of technology self-efficacy on pre-service teachers’ cognitive outcome in History and Philosophy of Science”

From Table 4.0, there is a significant main effect of technology self-efficacy on pre-service teachers’ post-cognitive scores of History and Philosophy of Science ( $F_{(1,202)}= 8.290$ ;  $p<.05$ ;  $\eta^2 =.041$ ). The effect size was 4.1%. Thus, hypothesis 3b was not accepted In order to determine the magnitude of the significant main effect across treatment groups, the estimated marginal means of the treatment groups is presented in Table 4.2

**Table 4.2: Estimated Marginal Means of Post cognitive scores by technology self-efficacy Groups.**

Technology self-efficacy	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Low	22.74	.071	20.53	24.05
High	34.85	.003	29.40	43,79

From Table 4.2, the students with high technology self-efficacy had the higher adjusted post- cognitive mean score ( $\bar{X}$ =34.85) than those with low technology self-efficacy ( $\bar{X}$ =22.74). From Table 4.0, all the two ways and the three-way interaction impacts of treatment and the moderator variables were not significant. Thus, Ho4b, Ho5b, Ho6b and Ho7b were accepted.

**Discussion**

From the analysed and presented results, it was identified that the pre-service teachers had average affective and cognitive learning outcomes in History and Philosophy of Science (H&PS). Also, the experimental group II with blended instructional strategy of Learning Management Systems (LMS) had the best mean gain in affective and cognitive learning outcomes followed by the LMS alone and the conventional strategy had the least gain in both affective and cognitive learning outcomes. These findings corroborate reports of Ngumen (2021), Gambari (2021) that LMS in blended form has high propensity of raising students' learning outcomes. The results equally find

supports in Olagunju and Adesina (2017), Adebisi (2019) that technology integrated with the conventional strategy improve both the affective and the cognitive domains of learning. From the tested hypotheses, it was discussed that there are significant impacts of the treatments on the pre-service teachers' affective and cognitive learning outcomes. The LMS experimental groups have the features of instructional modules, forum discussion, hangout, synchronous and asynchronous teleconferencing, assignment, quizzes, instructional analytics laden with Immediate Knowledge of Results (IKOR), all these heighten the pre-service teachers' affective and cognitive learning outcomes than the conventional group. These findings have supports in Ngumen (2021), Gambari (2021) that LMS when integrated in teaching and learning boost students' attitudes and knowledge in learning. Additionally, the results revealed significant impacts of technology self-efficacy on pre-service teachers' affective and cognitive learning outcomes. The high technology self-efficacy students outperformed the low



technology self-efficacy counterparts. This finding corroborate Etuola (2018), Adegoroye (2020) that technology self-efficacy significantly impacts students' learning outcomes. Gender, both the main and the interaction impacts were not significant on the pre-service teachers' learning outcome in H&PS. This signal that the impacts of gender as a social construct has waned on students' learning outcomes in sciences. These findings support Raimi, Bolaji and Adesina (2013), Bamidele (2018) that gender did not have significant impacts on students' performance in science. All the interactions impacts (the two ways and the three way) of the treatment, gender and technology self-efficacy have no significant impacts on the pre-service teachers' affective and cognitive learning outcomes. This signals that the treatment is so potent and compelling to have effectively neutralized the main impacts of technology self-efficacy on the pre-service teachers' learning outcomes in H&PS.

### **Conclusion**

Precisely, the study determined the impacts of Learning Management System (LMS) on pre-service teachers' affective and cognitive learning outcomes in H&PS, the moderator variables impacts of gender and technology self-efficacy in Oyo town. Three treatment groups

(two experimental and one control) in 3x2x2 factorial matrix were randomly assigned to treatments for eight weeks after being pretested and later posttested, the analysed data revealed that:

- i. Blended LMS outperformed the unblended LMS and the conventional group (control) in both the affective and the cognitive learning outcomes;
- ii. Technology self-efficacy significantly moderated pre-service teachers' affective and cognitive learning outcomes in favour of the high technology self-efficacy students;
- iii. Gender did not significantly impact both the pre-service teachers' affective and cognitive learning outcomes in H&PS;
- iv. Treatment (LMS) was so strong to neutralize the interaction impacts of technology self-efficacy on both the pre-service teachers' affective and cognitive learning outcomes.

### **Recommendations**

- i. Lecturers of History and Philosophy of Science (H&PS) should adopt Learning Management System (LMS) in blended mode to improve the pre-service teachers' learning outcomes in H&PS;
- ii. College and university management should organize seminars, workshops, symposia for lecturers and pre-service teachers on effective and efficient mode to integrate LMS in lectures.

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**Resource Management Practices and Employee Retention in Private Secondary Schools in Rivers State**

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**ABSTRACT**

The study investigated resource management practices and employee retention in Private Secondary Schools in Rivers State. Two research questions and hypotheses were formulated to guide the study. The research design adopted was a correlational design. The population of this study was 2056 teachers in 56 private secondary schools in Rivers State. The sample size of this study was 335 teachers from 56 private secondary schools in Rivers State. The instrument used was a questionnaire titled “Resource Management Practices and Employee Retention Questionnaire. The validity of the instrument was determined by expert’s judgment, a test of internal consistency was carried out using Cronbach Alpha to determine the reliability of the instrument. The research questions were analyzed using Pearson Product Moment Correlation Coefficient while the hypotheses were tested at 0.05 level of significance. This was further tested by transforming the coefficient of correlation ( $r$ ) to  $t$  in order to establish the significance or otherwise of the  $r$  – value. The findings of the study revealed that there is a high and positive relationship between principal/staff relationship, promotion and teachers’ retention in Private Secondary Schools in Rivers State. The result of the study further showed that principal/staff relationship and promotion are dimensions of resource management practices when taken together significantly predicted teachers’ retention in private secondary schools. Based on the findings of the study, it was recommended among others that adequate promotion as at when due should be encouraged.

**Keywords:** *Resource Management Practices, Employee Retention, Rivers State, Nigeria*

**Introduction**

Private secondary schools in Rivers state are facing many challenges and one of the most important challenge is to retain its most talented teachers in a competitive volatile business environment. Effective Resource Management Practices of an organization plays a significant role in gaining a competitive advantage by retaining valuable employees (Hong, Hao, Kumar, Ramandrars

and Kadiresan 2012). Resource management is a process of effective planning, scheduling, and allocating different types of resources such as people, money, time, and technology (Johnstone and Quinlan, 2016). In the present knowledge-driven society caused by the advent of new technologies that have influenced all facets of human endeavours including the education sector,

secondary education needs dynamic and committed teachers who are willing to remain in the teaching profession. This is because teachers are the backbone of any nation's educational system and are central to the success of the schools. Therefore, teachers' retention is crucial in keeping the secondary educational system on track.

According to Parn (2017), Employee retention in any work organization refers to the steps or practices put in place to motivate the staff by the organization, to encourage its workers to stay in the organization in order to prevent its competent and valuable workers from leaving their job at the slightest opportunity. It involves taking appropriate measures to encourage employees to remain in a work organisation for a maximum period (Hang, et al, 2012). This means that recruiting teachers to teach in private secondary schools is important but retention is equally as important as hiring. Teacher retention aims at addressing the needs of teachers to enhance their job satisfaction and reduce turnover. If teachers are not well remunerated and their promotions are not regular, this is expected to have an adverse effect on their retention in the teaching job. A good reward plan for teachers would motivate them to perform their job better

and this would enhance their retention. Teacher retention is therefore a function of the "motivational factors they enjoy" (Ahiauzu, Dieprey & Onwuchekwa, 2011).

Therefore, retaining the desirable teaching force in the private secondary school system in Rivers state is imperative because it encourages better services and enhances high productivity and continuity of the school system. In recent times private school teachers' attrition rate in Rivers State has been on the increase. Many teachers in Rivers State private secondary schools quit the teaching job out of frustration, poor motivation, poor salary, and slow career progression evident in delay in the promotion or no promotion at all. Private Secondary school teachers are not well remunerated and their promotions are not regular and these affect their retention in the teaching job. This was also evident in government schools when the Rivers State Secondary Education Board (RSSEB, 2020) reported that in 2020, the state lost 10.90% of teachers as a result of attrition. This suggests that all is not well with the secondary school system in the state in terms of teachers' retention. So the problem of teachers' retention in private secondary schools could be worst and can be

influenced by resource management practices.

Resource management is a process of effective planning, scheduling, and allocating different and available resources such as people for the right work and at the right time to achieve optimal organisational goals. Also, money, time, and technology are part of the resources in question. The trick is to utilize these limited resources in the most productive way so that project schedules and budgets are aligned with the project plan (Akaninwor, 2016). The ultimate goal of resource management is to ensure that the company is operating at its full capacity with no one sitting on the bench idle, and vice versa, having too many tasks their schedules can't fit in. Resource management ensures resource managers have on-demand, real-time visibility into people and other resources so they can have greater control over delivery. When you execute resource management properly, you can help your organization reduce costs, improve efficiencies, and boost productivity. Organizations have used resource management practices to improve their performance, and productivity, especially in terms of retention. A well-structured resource management practices assist to keep the employee in the organization and

also lower the turnover rate. In the school system when employees are satisfied with the regular incentive and recognition package provided by the organization, they are more certain to choose to stay in the job and enhance extra-role performance. Performance appraisal has a strong connection to the intention to stay (Kirk & Olinger 2013). Therefore, it means that lack of performance appraisal has a negative impact on employee motivation and contributes to employee turnover intentions. However, principal/staff relationship and Promotion are important part of resource management practices that might influence employee retention.

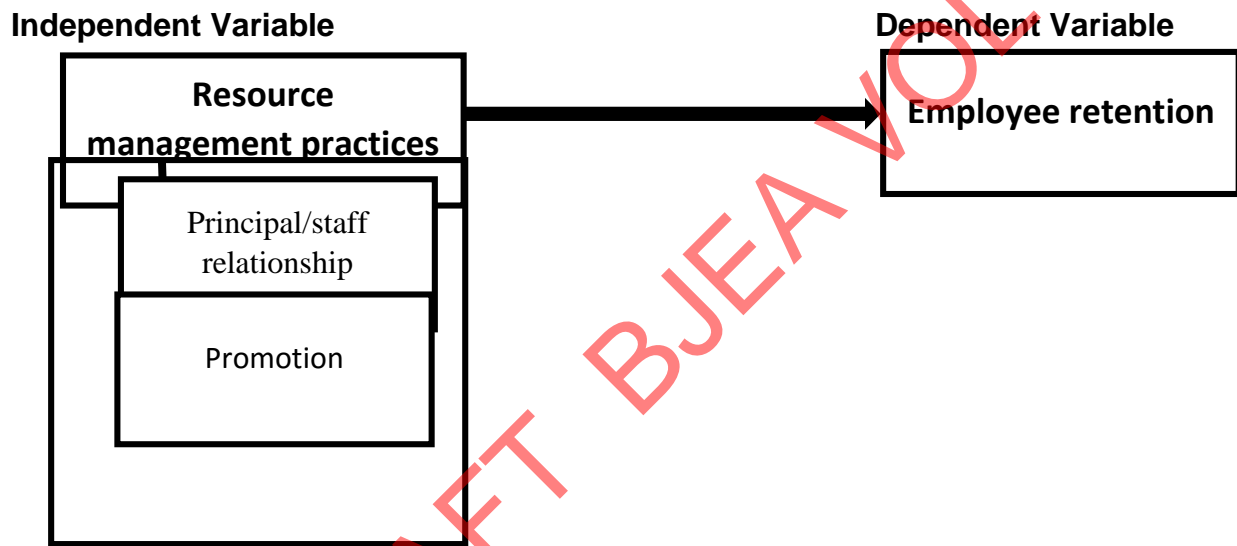
### **Concept of Employee Retention**

Employee retention in any work organisation refers to the steps or practices put in place to motivate the staff by the organization, to encourage its workers to stay in the organization in order to prevent its competent and valuable workers from leaving their job. It involves taking appropriate measures to encourage employees to remain in a work organisation for a maximum period (Hang, Hao, Kumar, Ramendran & Kadiresan, 2012). This means that recruiting teachers to teach in secondary schools is important but retention is equally

as important as hiring. Teacher retention aims at addressing the needs of teachers to enhance their job satisfaction and reduce turnover. If teachers are not well remunerated and their promotions are not regular, this is expected to have an adverse effect on their retention in the teaching job.

A good reward plan for teachers would motivate them to perform their job better and this would enhance their retention. Teacher retention is therefore a function of the “motivational factors they enjoy” (Ahiauzu, Dieprey & Onwuchekwa, 2011).

**Fig 1: Conceptual framework**



**Source: Conceptualization by the Researcher, 2022.**

**Employee Participation (Principal/Staff Relationship) and Teacher’s Retention in Secondary Schools**

Several researchers had made useful findings on the principal/staff relationship as it relates to retention in schools. By giving workers more autonomy, their sense of powerlessness to humanized regimentation might be reduced, and, taking part in managerial functions might give their work more meaning. These changes would reduce the worker's sense of isolation from himself,

his fellow workers, and from nature. Ingersol and Smith (2013) carried out a study on the relationship between principals’ interpersonal behaviour with teachers and the school environment. The researchers presented findings of a study that investigated associations between the learning environments of schools and the principal’s interpersonal behavior as

perceived by teachers. It also described the development and validation of an instrument to measure principals' interpersonal behaviour with their teaching staff. The questionnaire was completed by 50 principals and 850 teachers at 56 secondary schools from all states and non-government schools in Australia. Findings indicated that a positive relationship existed between the principal's leadership behaviour and the teacher's perceptions of the school as being innovative and empowering them in working environments. In the assessment of their environment, teachers were least affected by their principal's leadership behaviour and whether they were granted independence to carry out their tasks. Principals with critical admonishing or uncertain interactive styles negatively affected teachers. Huling-Austin (2015) investigated employee commitment and control in social organizations like tertiary institutions and identified a set of initiatives that promoted cordial administration and labour (staff) relations in his findings. These initiatives were explained under five categories- increased information down the organization; increased information up the organization; changes in job design; financial participation, and changes in leadership/ supervisory style towards a more

participative mode. By implication, these initiatives were likely to produce committed workers who were willing to work hard and to stay with the organization. Such workers might also be expected to collaborate in change and by identifying with the administration's goal of us, be less enthusiastic about trade unionism and militant action (Kirk & Olinger 2013). Johnstone and Quinlan (2016) studied 47 respondents to describe a person they frequently and willingly followed at work. The respondents represented a diverse mix of workers in school and industrial organizations. Their job levels ranged from senior organizational managers, teachers, and school inspectors to first-line supervisors. Their job type represented ten different schools and industries. Respondents provided 539 comments on why they followed their designated leader. Of this list, the majority of the comments (289 or 53.6%) indicated they followed because of the quality of exchange or how the leader treated the followers. The study showed that expected a leader to treat them in a particular way and to pay attention to them in a certain manner



**Promotion  
(Compensation/Incentive/Increment) and  
Teachers' Retention in Secondary Schools**

Promotion is a way of recognizing and developing the abilities of employees within the organization instead of filling skilled and responsible positions from outside. It is often a reward to an employee for work contributions. The most important policy in promotion is the relative significance of seniority and competence. It is also the advancement of an employee to a higher job better in terms of greater responsibilities, more prestige or status, greater skill, and especially, increased rate of pay (wages and salaries) (Inyang & Akpama, 2012). Recognizing the importance of promotion in an educational establishment, the 1969 National Curriculum Conference suggested that the teaching profession be not designed and administered as a dead end for prospective teachers. It is recommended that teachers should be encouraged with prospects of being promoted within the level of their training and experience to reduce their turnover rate. Promotion is not to be based on merit and not on other special considerations nor should it be, according to this document, politically motivated. Reiterating its stance on the issue of promotion in the teaching profession, the

Federal Government of Nigeria states in its policy that promotion opportunities shall continue to be created for professional growth at all levels. (FRN, 2013). Promotion involves the re-assignment of an employee to a position of higher rank; the new level makes more demands on the employee. Pigors and Myers (1965) in Jamnean Joungrakul (2011) explain that on-the-job advancement can as well mean higher wages and all the things that an increased income can purchase. The promotion also means an enhanced status and prestige both within the organization and in the large community. Edem (2017) carried out a study on private school teachers in Akpabuyo, Cross River State, to demonstrate how teachers' promotion contributes to students' academic performance. The sample was made up of 140 secondary school teachers (80 males and 60 females). Pearson's Product Moment Correlation Analysis was used for data analysis. Interviews were conducted with teachers to see how well they are competent in teaching under improved welfare packages. Teachers were also assessed side by side with their students through the inspection of continuous assessment records. The results indicated that a significant relationship existed between teachers' promotion and their students' performance.

The findings also indicated that the morale of teachers was likely to fall if there were noticeable disparities between their promotion, salary, in-service training, working environment, social status, and those of other workers. It was concluded that employers' performance is an important predictor of teachers' classroom exhibition competence.

Oden (2019) investigated Personnel Management Practices and Teachers' Retention in Public Secondary Schools in Akwa Ibom State, Nigeria. To achieve this aim, three research questions and hypotheses were formulated to guide the study. The correlation research design was adopted for the study. The population of the study consisted of 5210 Public Secondary School Teachers. Stratified and simple random sampling techniques were adopted to select 521 teachers for the study. The personnel management practices and teachers' retention questionnaire (PMPTRQ) was used to elicit information for the study. The reliability coefficient of the instrument ranged from 0.71 to 0.91 using Cronbach Alpha Reliability Method. Pearson's Product Moment Correlation and Multiple Regression statistical tools were used for data analysis. The results of the study revealed that principal/staff relationships

and promotion were related to teachers' retention in Public Secondary Schools in Akwa Ibom State. The result of the study further showed that principal/staff relationship and promotion a dimension of personnel management practices when taken together significantly predicted teachers' retention in public secondary schools. Based on the findings of the study, it was recommended among others that adequate promotion of teachers' should be encouraged. Also, there should be cordial work relationships among teachers in the study area. Iyaji and Aduma (2019) investigated human resource management practices and the quality of teaching in private secondary schools in cross river state, Nigeria.

To achieve the purpose of this study, three null hypotheses were generated to direct the study. A survey research design was adopted for the study. A sample of five hundred and fifty-one (551) teachers was selected for the study from the total population of 1872 teachers. The selection was done through the stratified proportionate random sampling technique. The Human Resources Management Practices and Quality of Teaching Questionnaire (HRMPQTQ) was the main instrument used for data collection. The instrument was face-validated by the

supervisors and experts in measurement and evaluation at the University of Calabar. The reliability estimate of the instrument was established through the split-half method with a reliability coefficient ranging from 0.88-0.94 which is high enough. One-way analysis of variance (ANOVA) was the statistical analysis technique adopted to test the hypotheses and was subjected to testing at a .05 level of significance with a relative degree of freedom. The result of the study revealed that motivation of teachers, selection procedure, and staff development, significantly influenced the quality of teaching in private secondary schools in Cross River State. Based on the findings of the study, it was recommended, among others, that staff should be adequately motivated through development and promotion to enhance the quality of teaching in terms of personal growth.

### **Resource-Based View (RBV) Theory (Barney's, 1991)**

This study adopted Resource-Based View (RBV) theory. This theory was proposed originally by Birger Wernerfelt (1984) and was later developed and redesigned by J. B. Barney in 1991. RBV is of the view that it is easier for an organisation to exploit market opportunities or beat competitor by using

existing resource wisely. It further claims that a company must have valuable, rare, inimitable, and non-substitutable resources to have a sustainable competitive advantage and that these resources include everything internal to the firm. Barney (1991) listed all of the assets, capabilities, organizational processes, firm attributes, information, knowledge, and so on, as resources. First, they must give value to the company's production processes – meaning, the level of individual performance must be significant. Second, the skills that the company looks for must be rare. According to them, all human resources should meet these two criteria, since they are evenly distributed. Third, the combined human capital investments of a company's employees cannot be easily imitated. Some argue that other types of resources in a company, such as technology and natural resources, are available to anyone and easy to copy nowadays. On the other hand, human resources particularly HR systems represent a complex social system and are regarded as invisible assets. Finally, a company's human resources which in this study refers to the teachers must not be substituted or replaced by technological alternatives; however, the high levels of automation in many industries and the continuing shift towards a service economy

have made substitution less likely. Overall, the resource-based theory provides a useful basis for understanding the value that resource management practices placed on the retention and performance of the teachers. The application of this theory to Human Resource Management (HRM) illustrates the role that people play in building a company's competitive advantage. To explain how this theory can be applied to HRM, Wright and McMahan (1992) referred to the following four features that people, as resources, must-have for the company to be competitive.

### **Statement of the Problem**

Effective and result-oriented personnel management for teachers' retention in Rivers State secondary school system is what many teachers and other stakeholders in education would want. Unfortunately, the teachers' attrition rate in Rivers State keeps on increasing every year. A large number of teachers leaving the teaching profession in search of white-collar jobs outside the education sub-sector. Some stakeholders attribute this to ineffective personnel management practices. There is an inadequate continuous training programme for teachers and the results of performance appraisal are not properly utilized for

promotion and further training of teachers which would have served as a bond to keep the teachers in the school system. The compensation system is not properly managed particularly the incentives which are not adequate to motivate teachers to remain on the job. Teachers' promotions, salary payments, and other entitlements are unduly delayed. In some secondary schools, there is poor management of decision-making, and teachers are not involved in the process of decision-making. The relationships between the institutional administrators and teachers appear to be unhealthy, sometimes resulting in conflicts. Similarly, the health programmes for teachers are not properly implemented and managed in the state. Premised on these problems the job security of teachers is threatened. These problems make the teachers lose interest in their teaching job and are inclined to lack adequate and timely promotion and poor employee/employers relationship. At this juncture, it is pertinent to investigate the effect of resource management practices on employees' retention in private secondary schools in Rivers State.

### **Purpose of the Study**

The main purpose of this study was to examine the relationship between resource

management practices and employee's retention in private secondary schools in Rivers State. Specifically, the objectives of the study are to:

1. Ascertain the relationship between principal/staff relationship and teachers' retention in private secondary schools in Rivers State.
2. Find out the relationship between promotion and teachers' retention in private secondary schools in Rivers State.

### **Research Questions**

The study seeks to provide answers to following research questions:

1. What is the relationship between principal/staff and teachers' retention in private secondary schools in Rivers State?
2. What is the relationship between promotion and teachers' retention in private secondary schools in Rivers State?

### **Research Hypotheses**

The following research hypotheses were formulated to guide the study:-

1. There is no significant relationship between principal/staff relationship and teachers' retention in private secondary schools.

2. There is no significant relationship between promotion and teachers' retention in private secondary schools.

### **Methodology**

The research design adopted for the study is correlational design. Pritha (2021) asserted that correlational research design investigates the relationship between variables. It reflects the strength, magnitude and/or direction of the relationship that exist between or among two or more variables. The direction of the correlation can be either positive or negative. The population of this study consists of all 2056 teachers in 56 private secondary schools in Rivers State. The sample size of this study was 335 teachers from 56 private secondary schools in Rivers State. The sample size was determined using Taro Yamane formular. The Taro Yamane gave a minimum sample size of 335. This represents over 15% of the population. This is in line with the proposition of Goodwin (2005) who claimed that 5% and above sample size may be drawn from any population that runs in thousands. Furthermore, the proportionate stratified sampling technique was adopted in selecting 15% of the population of each school as the sample. The Taro Yamane calculation of the sample size is presented in the appendix. The instrument for data

collection in this study was a questionnaire designed by the researchers. The questionnaire was titled “Resource Management Practices on Employees Retention Questionnaire (RMPERQ). The questionnaire consist of two sections (I and II). Section I collected demographic data of respondents while section II be contained 12 items questions. The questionnaire were structured on summated four point rating scale, weighted as Strongly Agree, (SA= 4 Points), Agree (A= 3 Points), Disagree (D= 2 Points), Strongly Disagree (SD -1 point). The face and content validity of the instrument was established by expert’s judgment, their comments, corrections and suggestions were taken into consideration in preparing the final survey instrument for the study. A test of internal consistency was carried out using Cronbach Alpha to determine the reliability of the instrument. The instrument was administered to 20 teachers in Yenagoa, Bayelsa State which is outside the study area. The responses of the respondents were analyzed using Cronbach Alpha statistics. Reliability coefficients of 0.78, 0.81, 0.92, 0.77, 0.87, 0.88, 0.91 and 0.89 were obtained for the various clusters of the instrument which showed the instrument was reliable. Copies of the questionnaire were administered to the

respondents with the help of two other researchers. The researchers spent time with the respondents to clarify questions on any issue related to the filling of the questionnaire. 335 copies of questionnaire were administered to the teachers and were retrieved and valid for use in the study. This represents 100% retrieval rate. The data collected for the study were analyzed using Pearson Product Moment Correlation Coefficient (PPMCC) formula. Research questions were answered based on the value and direction of the correlation coefficient, (positive and high, positive but low, or negative and high or negative but low or moderate). Hypotheses were tested for significance of relationship at 0.05 level of significance. This was further tested by transforming the coefficient of correlation (r) to t in order to establish the significance or otherwise of the r – value.

### **Data Analyses and Presentation**

This section was concerned with a presentation of data collected from the field and analyses of these data.

#### **1.1 Analyses of Data and Results**

##### **Research Question 1**

What is the relationship between employee relationship and teachers retention in private secondary schools in Rivers State?

**Table 1.1: Relationship between Employee Relationship and Teachers Employee Retention in Private Secondary Schools in Rivers State.**

Variable	N	$\sum X$	$\sum Y$	$\sum X^2$	$\sum Y^2$	$\sum XY$	r <sub>cal</sub>	R <sub>crit</sub>	Remarks
Employee relationship (X)	335	767.13	2307.33						
Employee retention (Y)	335	1108.04	3228.06			2753.07	0.83	0.195	High positive

\*\* . Correlation is significant at the 0.05 level (2-tailed)

The analyses from Table 1.1 reveals a correlation value of  $r = 0.83$ . This value is high and positive, thus indicating that there is high and positive relationship between employee relationship and teachers' retention in Private Secondary Schools in

Rivers State. The relationship here being positive indicates a proportional increase of both employee relationship and teachers' retention.

**Research Question 2**

What is the relationship between promotion and teachers retention in private secondary schools in Rivers State?

**Table 1.2: Relationship between Promotion and Teachers Retention in Private Secondary Schools in Rivers State?**

Variable	N	$\sum X$	$\sum Y$	$\sum X^2$	$\sum Y^2$	$\sum XY$	r <sub>cal</sub>	R <sub>crit</sub>	Remarks
Promotion (X)	335	836.04	2741.08						
Teachers Retention (Y)	335	1108.04	3228.06			2907.07	0.80	0.195	High positive

\*\* . Correlation is significant at the 0.05 level (2-tailed)

The analyses from Table 1.2 reveals a correlation value of  $r = 0.80$ . This value is high and positive, thus indicating that there is high and positive relationship between promotion and teachers' retention in private secondary schools in Rivers State. The relationship here being positive indicates a proportional increase of both promotion and teachers' retention.

**Test of Hypotheses**

The following null hypotheses were formulated and tested at 0.05 level of significance.

**Hypothesis 1**

There is no significant relationship between employee relationship and teachers retention in private secondary schools in Rivers State?

**Table 1.3: Pearson Correlation Summary Analysis between Employee Relationship and Teachers Retention in Private Secondary Schools in Rivers State.**

Variable	N	$\sum X \sum Y$	$\sum X^2 \sum Y^2$	$\sum X \sum Y$	Df	A	r <sub>cal</sub>	r <sub>crit</sub>	t <sub>cal</sub>	t <sub>crit</sub>	RMK
Employee Relationship (X)	335	767.13	2307.33								
				2753.07	333	0.05	0.83	0.195	30.13	1.96	Sig. Rejec (H <sub>0</sub> )
Teachers Retention (Y)	335	1108.04	3228.06								

Source: *Researcher's Field Result, 2021*

Table 1.3 shows Pearson correlation summary between employee relationship and teachers retention in private secondary schools in Rivers State. Result from Table 4.3 revealed that the sum and sum of squares for employee relationship used in private secondary schools in Rivers State are 767.13 and 2307.33 while that of teachers retention are 1108.04 and 3228.06 respectively. The sum of product of scores on the two variables (employee relationship and teachers retention) is 2753.07. The correlation coefficient is 0.83 which is greater than the critical value of r (0.195) at

333 degrees of freedom under 0.05 level of significance. Therefore, the null hypothesis of no significant relationship between employee relationship and teachers retention in private secondary schools in Rivers State is rejected. This implies that there is a positive relationship between employee relationship and teachers retention in private secondary schools in Rivers State.

**Hypothesis 2**

There is no significant relationship between promotion and teachers retention in private secondary schools in Rivers State

**Table 1.4: Pearson Correlation Summary Analysis between Promotion and Teachers Retention in Private Secondary Schools in Rivers State.**

Variable	N	$\sum X \sum Y$	$\sum X^2 \sum Y^2$	$\sum X \sum Y$	Df	A	r <sub>cal</sub>	r <sub>crit</sub>	t <sub>cal</sub>	t <sub>crit</sub>	RMKS
Promotion (X)	335	836.04	2741.08								
				2907.07	333	0.05	0.80	0.19	23.51	1.96	Sig. Rejec (H <sub>0</sub> )
Teachers Retention (Y)	335	1108.04	3228.06								

Source: *Researcher's Field Result, 2021*



Table 4.4 shows Pearson correlation summary between promotion and teachers retention in private secondary schools in rivers state. Result from Table 4.4 revealed that the sum and sum of squares for promotion used in private secondary schools in Rivers State are 836.04 and 2741.08 while that of teachers retention are 1108.04 and 3228.06 respectively. The sum of product of scores on the two variables (promotion and teachers retention) is

### **Summary of Findings**

The following were findings from the study.

3. That there is a high and positive relationship between employee relationship and employee retention in Private Secondary Schools in Rivers State. The corresponding hypothesis one also revealed that there is a significant relationship between employee relationship and teachers retention in private secondary schools in Rivers State.
4. That there is a high and positive relationship between promotion and employee retention in private secondary schools in Rivers State. The relationship here being positive indicates a proportional increase of both promotion and employee retention. The corresponding hypothesis two also

2907.07. The correlation coefficient is 0.80 which is greater than the critical value of  $r$  (0.195) at 333 degrees of freedom under 0.05 level of significance. Therefore, the null hypothesis of no significant relationship between promotion and teachers retention in private secondary schools in rivers state is rejected. This implies that there is a positive relationship between promotion and teachers retention in private secondary schools in Rivers State.

revealed that there is a significant relationship between promotion and teacher's retention in private secondary schools in Rivers State.

### **Discussion of findings**

The finding of the study for research question one revealed that there is high and positive relationship between employee relationship and teachers retention in private secondary schools in Rivers State. A proportional positive increase of both employee relationship and teachers retention was observed. The corresponding hypothesis one revealed that that there is a positive relationship between employee relationship and teachers retention in private secondary schools in Rivers State. The analysis in table 1.3 for hypothesis one revealed a correlation coefficient of 0.83 which is greater than the critical table value of  $r$  (0.195) at 333

degrees of freedom under 0.05 level of significance. This finding can be attributed to the fact that whenever the school principal relates well with teachers, it brings more understanding and creates a conducive atmosphere in the system. This is because the extent of the relationship shown by the employer or how he/she regards, treats, and behaves toward his teachers will determine the behaviour of his teachers towards their job in that school. The principal/staff relationship goes a long way to bringing peace, and harmony between the two working bodies, but when on the contrary, that is, when the principal is so erratic teacher, it brings disharmony and conflict. A good principal/staff relationship enables the principal and teachers to stay together and work together as a team towards achieving organizational goals. The finding agrees with the research findings of Johnstone and Quinlan (2016) which showed that the workers expected a leader to treat them in a particular way and to pay attention to them in a certain manner. The findings of the study for research question two revealed that there is a high and positive relationship between promotion and teachers retention in private secondary schools in Rivers State. The corresponding hypothesis two also revealed that there is a significant

relationship between promotion and teachers retention in private secondary schools in Rivers State. Table 4.4 for hypothesis two showed a correlation coefficient of 0.80 which is greater than the critical value of  $r$  (0.195) at 333 degrees of freedom under 0.05 level of significance. Therefore, the null hypothesis of no significant relationship between promotion and teachers retention in private secondary schools in Rivers State is rejected. . The positive nature of the correlation showed that the more teachers are promoted, the higher the teachers' retention in private secondary schools in Rivers State. The possible explanation for these findings is that teachers, like every civil servant, are happier when they are regularly promoted. Delay in teachers' promotion or failure to promote teachers engenders a decline in the productivity of teachers who would want to be promoted from one rank to another like their counterparts in other sectors or public schools. Promotion brings not only, financial benefit but also happiness and recognition of an individual's performance. This serves as a source of motivation for teachers. The findings agreed with that of Edem (2017) whose results indicated that a significant relationship existed between teachers' promotion and their students'

performance. The findings also indicated that the morale of teachers is likely to fall if there were noticeable disparities between their promotion, salary, in-service training, working environment, social status, and

### **Conclusion**

Based on the findings, it was concluded that there is a positive relationship between employee relationship and teachers retention in private secondary schools in Rivers State. This is evident in private secondary schools in Rivers State. The study revealed that employees will stay in the current working organisation for a long time when they perceive and enjoyed positive organisational resource management practices. Resource management practices become the primary causes of employees' motivation, satisfaction, and also retention. Retention reduces the extra business costs and increases profitability. The employers and managers of Private secondary schools in

### **Recommendations**

Based on the findings of the study, the following recommendations were made:

1. Principals of private secondary schools in Rivers State should ensure harmonious relationships with their teachers to

those of other workers. It was concluded that employers' performance is an important predictor of teachers' classroom exhibition competence.

Rivers state need to emphasis implementing effective resource management practices to achieve retention. Based on the major findings of this study, it was concluded that resource management practices relate to teachers' retention in private secondary schools in Rivers State. This emphasizes the need to give principal /staff relationships and promotion of staff adequate attention by the state secondary education board and school administrators both in Private and Public schools in Rivers State. This implies that the more effective Resource management is, the higher the level of teachers' retention in private secondary schools in Rivers State.

encourage them to retain their job in the teaching profession.

2. Proprietors and Principals of private secondary schools should ensure the regular promotion and handsome remuneration of teachers to encourage teacher retention.

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