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Preservation of Electronic Information Resources in University Libraries

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ABSTRACT

The main objective of the present study is to assess the procedures in place for the preservation of Electronic Information Resources (EIRs) in the Bayero University, Kano Library. The study provided answers to three research questions bordering on the media, strategies and challenges associated the preservation of EIRs. The descriptive survey design using total enumerative sampling was used to study a sampled population of 18 academic staff of the library. Self-designed questionnaire titled: Instrument for the Assessment of Preservation Strategies Academic Library (IAPSAL), validated content wise, was used in gathering data for the study. Data was collected and analysed using frequency tables and statistics. The findings of the study revealed that the CDs/DVDs where the most use media for the storage of EIR, refreshing and emulation were the strategies adopted for the preservation while, lack of policy and standards, inadequate funding and inadequate ICT resources and infrastructure where identified as the major challenges associated with the preservation of EIRs. The study therefore recommends the need to have in place policy that will define a uniform media, recommend the use of several strategies, and ensure the full implementation of Library Development Fund on the University management in order to cushion the effect of inadequate funding.

Keywords: Academic libraries, electronic information resources, preservation of EIR, preservation medium, preservation strategies

Introduction

The challenges of access to, utilization and subsequent preservation of print information resources have necessitated the need for libraries to fully embark on a mission of moving from analogue to an electronic platform that involves the use of electronic information resources and services to meet the ever dynamic information need of users. Ever since, libraries have become committed to preserving and to ensuring permanent access to collections in these format. Electronic Information Resources (EIR) refer to those categories of information resources in which creation, access and use is dependent on the availability of an electronic device usually a computer, phone etc. This view is in line with the definition of Electronic Resources given by the International Federation of Library Associations and Institutions (IFLA) (2012), an “Electronic resources” refer to those materials that require computer access, whether through a personal computer, mainframe, or handheld mobile device. They may either be accessed remotely via the Internet or locally. ‘E-resource’ is a broad term that includes a variety of publishing models, including OPAC, online databases, e-journals, e-books, internet resources, print-on-demand (POD), email publishing, wireless publishing, electronic link and web

publishing, etc. In this context, the term is primarily denotes, any electronic product that delivers collection of data be it in text, numerical, graphical or time based, as a commercially available resource.

The emergence of electronic resources has drastically revamped the status of all the libraries and information centres across the world. There has been a rapid urge of the user community to get more and more information online. The development of the ICT devices, the rapid rise of electronic databases and modern e-book technologies have altogether changed the entire scenario of informatics.

The users’ attitude to information is gradually shifting from the printed documents to electronic resources and thus, it has been their prerogative to know the details of the availability and organization of e-resources. These significance have been made possible by the flexibility that comes with the preservation of electronic information resources (digital preservation) over its print counterpart. Digital preservation refers to the series of managed activities deliberately put in place to ensure continued access to electronic information resources for as long as necessary; ‘this does not imply exclusively about the permanent preservation of electronic information resources, but rather about their long-term preservation.

Preservation, according to IFLA principles for the care and handling of library materials (2010) had been described to include all managerial and financial considerations including storage, accommodation provisions, staffing levels, policies, techniques, methods involved in preserving library and archival materials and the information contained in them. Preservation of EIR becomes imperative if libraries want to ensure continuous access to their information, Jimada (2015) point out that preservation of resources in the library is to allow continued access, use and easy retrieval of information resources for present, future use and to protect them against threats for as long as possible. This goes to show that without an effective digital preservation of information resources in libraries, access via digital devices will produce little or no resources to support research, teaching and learning. In a different submission, Gbaje (2011) defined digital preservation as “the series of actions and interventions required to ensure continued and reliable access to authenticate digital information resources for as long as they are deemed to be of value”. Similarly, Arora (2009) asserts that digital preservation referred to series of managed activities designed to ensure continuing access to all kinds of resources in digital

formats for as long as possible and to protect them from media failure, physical loss and obsolescence.

Statement of Problem

Preservation of EIRs aims at ensuring that digital content remains accessible to user communities for a long period of time and for future generations. The increasing application of digital technologies in the world has undoubtedly raised various opportunities in the practice of librarianship. One instance of the library’s sacred role is to provide a sense of immortality and that the library will remain stable and dependable even in an ever-changing external environment.

This dream however has been challenged by the sudden change in the digital world which have raised serious and pressing issues on how to organise, access and preserve digital resources, created by academic institutions, into perpetuity. In addition, the long-term access to digital materials is questioned and this uncertainty is a major hurdle that prevents libraries from moving fully from an analogue to a digital environment. These concerns motivated the need to investigate in the preservation of electronic information resources available in the Bayero University Library

Research Questions

1. What are the available media for the preservation of EIRs in the Bayero University Library?
2. What are the strategies used for the preservation of EIRs in the Bayero University Library?
3. What are the challenges associated with the preservation of EIRs in the Bayero University Library?

Review of Related Literature

Media for the Preservation of Electronic Information Resources in Libraries

Libraries in a bid to ensure preservation are done in line with international best practices, have in place specific policy for the preservation of their information resources. This policy as a matter of fact, are expected to define the medium for the storage and strategies to be adopted for the in the subsequent preservation of the EIR in the possession of the library. Jimada (2015) in her study on the preservation of digital information resources, the findings revealed that the storage media popularly used are the external hard drive, CD ROM/DVD and computer hard disk. Similarly, Temboge and Abubakar (2021) in their study which sought to investigate the preservation and organization of E-resources for effective service delivery in FCE libraries in northern Nigeria. The findings revealed that the

libraries used external hard drive, drop box/cloud and institutional repository for preserving electronic resources. This as they pointed out could be attributed to the fact that an external hard drive enables users to store EIRs separately as a backup from a computer main or primary storage and memory at a relatively low cost. It increases storage capacity without having to open up a system. It can serve as primary storage connected to servers through Ethernet or Fibre Channel switches, or as secondary storage for backup and archiving purposes.

In addition to the above submission, the findings by Adamu (2016) in a qualitative study of how records are managed in the 7 universities in the North Western states of Nigeria, the narrative research design was employed to identify the records management practices of the universities studied, the findings of the study from the narrations of the records managers revealed that most of the institutions studied employed the use of CDs/DVDs and external hard drives for the preservation of their e-records. In a related study by Olajide and Oludeyi (2019) which sought to investigate into contemporary issues in media resources and ICT use, the findings were not so different from that what of Adamu narrated above, it was revealed by Olajide and Oludeyi that the

media for the storage of EIRs include magnetic disks and tapes, optical disks and other various forms of storage media.

From the above submission, it can be concluded that libraries in their bid to ensure continuous access to their EIRs adopt the use of certain media such as the CDs/DVDs, external hard drive, magnetic and optical device media as well as cloud services for the storage need.

Strategies for Preservation of Electronic Information Resources in Libraries

The need to have in practice certain strategies for the preservation of electronic resources in university libraries have been necessitated by the need to ensure the continuous access to information of resources of value despite changing times and technology. A host of research such as those of Adamu (2016), Musa (2016), Temboge and Abubakar (2021), Adetunla and Agbetuyi (2018) have revealed the existence of certain strategies for preservation of electronic information resources such as the following:

- a. **Refreshing Data:** Refreshing is the process of copying data from one medium to another of the same type. During the process of refreshing, the hope is that the bits of data do not change. The purpose of refreshing is to replace data in one medium with a copy that is sufficiently the same in order that the data

can continue to be accessed without difficulty. For example, refreshing may consist of copying membership lists from an old floppy disk onto a CD-ROM disk so that the data can be accessed using the same database management software. The periodic need to refresh electronic records onto new media is inevitable given the continuous changes in the type of computer storage media. However, selecting the best media available can reduce the frequency for refreshing data, since high-quality and stable storage media should remain usable for a longer period. Records professionals are advised not to ‘jump on the bandwagon’ of new media technologies too quickly, since the media chosen may not in fact be sustainable in the long term.

- b. **Replicating Data:** While replication is a similar process to refreshment, there however exist a difference - the location where the record is stored will likely be different when a file is replicated. Again, the goal of replication is to ensure the bits of data do not change. Data that exist in only one location are highly vulnerable to damage or loss. The software or hardware could fail; someone could alter or delete the files accidentally or intentionally; or the data could be lost in a fire, flood or other environmental disaster. Replication helps

ensure the survival of information, by storing the files in several different locations. Replication is different from refreshing data, since the new copy of the electronic record is stored in a different place. Replication is also different from the process of backing up data, since replication may involve copying specific electronic records, whereas backup processes usually involve copying entire systems, with software and data together. Accessing replicated files requires knowing what software and hardware were used to create the records in the first place, which makes the preservation of metadata so important.

There is believe that the existence of replicated electronic records can cause more difficulties than it can solve. This is because, if too many copies of data exist, it is much more difficult to monitor processes such as version control, migration and access. Detailed information needs to be kept about what has been replicated and where it is stored, and the organization needs to decide how often it will replace copies with more up-to-date copies, so that it does not end up with multiple copies of information, some of it superseded, stored in various locations inside and outside of the office environment.

c. **Migration:** Migration is the process of translating data or digital objects from one

computer format to another format in order to ensure users can access the data or digital objects using new or changed computing technologies. Migration-based preservation strategies are similar to refreshment, in that both approaches involve converting the digital object, rather than the technology used to create it, to a form that can be accessed in a contemporary environment. The concept of converting an object from one format to another is widely understood by anyone who uses, for example, word processing software such as Microsoft Word. The ‘Save as...’ option in software tools such as MS Word provides most users with their primary experience of migration: the option allows users to save a digital object – such as a word processed document – in a format other than the one in which it was created. The following are the types of migration commonly adopted:

i. **Migration by Normalization:** Normalization involves migrating a digital object from the original software into an open source, standards-based format so that it can be used without having to rely on the original, possibly proprietary, software system used to create it.

ii. **Migration at Obsolescence:** this approach advocates that objects be migrated only as and when dictated by technological

obsolescence: that is, when they are about to become inaccessible.

- iii. **Migration on Demand:** The strategy of migration on demand lies between these two extremes of normalization and migration at obsolescence. Migration on demand involves storing digital objects in their original formats and only migrating them to current formats ‘on demand,’ such as when a user needs access to particular objects.
- d. **Emulation:** this is the process of using one computer device or software programme to imitate the behaviours of another device or programme, thereby obtaining the same results when accessing or using digital objects. Emulation strategies use software or hardware—called the emulator – to recreate the functionality of obsolete technical environments on modern computer platforms. During emulation the bits of data are replicated and are not exactly as they originally were; the loss of information is a distinct possibility. However, emulation does allow access to the original object as though it were still housed in its original computer environment. For example, special software can be used on a present-day personal computer to produce exactly the appearance and behavior of a document, such as a presentation, that was created on an older computer using software that is no

longer in use. In other words, one piece of technology is allowing the computer to act as though it were another piece of technology.

- e. **Technology preservation:** Like emulation, this approach focuses on the technological environment rather than on the digital object. Instead of mimicking the original environment, it involves preserving the digital object together with all the actual hardware and software required to maintain access to the object; this includes operating systems, original application software and media drives. It could be argued that maintaining the original technology is the most effective and obvious means of preserving the look and feel of a digital environment and there is certainly merit in keeping samples of old computer systems as a resource for researchers in the future; however, while it might offer a short-term solution, this is not a viable strategy for long-term digital preservation (Sharma, 2018 cited in Temboge, 2021). From the above, libraries now have the choice of identifying which strategy conveniently suit their preservation needs in order to ensure continuous access is granted to their information resource. These statement have been amplified in the study by Benny (2015) on “selection and acquisition of e-resources

in academic libraries: challenges, Mumbai University”, the findings revealed that the majority of the college librarians adopts the replication as their preservation strategy. This method they stated is economical compared to other preservation methods. The findings from the study by Adamu (2016) revealed a similar scenario to the above, it was revealed that the majority of the 7 universities studied although were not definite about the preservation strategy they adopt, they however stated that as far as they are concerned, they are not aware of the availability of a particular preservation strategy, but from time to time they usually copy records contents from computers onto CDs while others are transferred to their server for long-term preservation. There is a clear description of the replication strategy used in the preservation of electronic information resources. The findings from Temboge and Abubakar (2021) revealed a situation where most of the libraries seem to have embraced a combination of the use of several strategies in meeting their preservation needs. They revealed that the libraries studied used one or more preservation strategies to preserve their e-resources, because all preservation strategies have some shortcomings, they can be used to complement one another.

Challenges Associated with Preservation of Electronic Information Resources in Libraries

While electronic information resources are increasingly generated, there are challenges that should be overcome if these resources are to be utilised for good educational development and as evidence of library operation. In support of this statement, Masenya (2018) observed that despite making efforts to promote digital preservation, there are still many challenges that need to be addressed to ensure long-term preservation of digital resources in academic libraries in South Africa. Key in the responses gathered from several studies revealed the likes of challenges bordering on policy standard issues, management support, staff and proper funding, the need for skills and training among others.

With a purpose of investigating “Digital preservation practices in academic libraries in South Africa in the wake of the digital revolution” in order to suggest good solution for effective digital preservation, Masenya and Ngulube (2019) used survey method to gather data from 27 academic institution in South Africa, data were analysed SPSS and the findings revealed that inadequacy of the knowledge in university leadership and lack of collaboration and partnerships with other

institutions, with the same score of 13 (59.1%); inadequate resources (human and financial resources) and lack of management support, both with the same score of 11 (50.0%); followed by slowness in the implementation of the preservation policy, with a score of 10 (45.4%), recording a percentage score within the 50%–60% range. With these figures, they concluded that academic libraries experienced difficulties in preserving and sustaining their digital resources because of the absence of established standards, policies and procedures, inadequate resources, as well as a lack of skills and training. They also had difficulties with limited funding and collaboration efforts, and the threat of technological obsolescence because of the constantly changing software and hardware, poor technology infrastructure and legal issues. In a similar study, Sigauke and Nengomasha (2011) reported, that some of the challenges that hindered the National Archives of Zimbabwe's efforts to preserve their historical records in the long term included that staff required further training and exposure to modern digitisation technologies, an absence of a digitisation policy programme, inadequate funding and

a lack of collaboration efforts. These challenges can pose threats and destabilise the implementation of digital preservation initiatives in an institution if management does not take immediate action. The report of the study by Mommoh and Saka (2019) however, identified other important areas requiring attention for effective preservation of resources in digital form, findings from their study reported that the digital preservation of requires reasonable number of ICT facilities such as computers, scanners, servers, printers and other facets of auxiliary storage media. Most libraries in Nigeria are experiencing acute shortage of these ICT facilities. Hence the paces of digitization processes in most University libraries are being stunted.

Methodology

The present study adopts the descriptive survey design using total enumerative sampling to study a sampled population of 18 academic staff of the library. Self-designed questionnaire titled: Instrument for the Assessment of Preservation Strategies in Academic Library (IAPSAL) was content validated and was used in gathering data for the study. Data collected was analysed using frequency tables and statistics.

Data Presentation and Analysis

Table 1: Response Rate

S/No	Sections	No of Respondents
1.	Administrative Office	1
2.	Circulation Section	1
3.	Automation Section	2
4.	Reference Section	1
5.	Serial Section	1
6.	Multimedia and Digitization Section	2
7.	Collection Development	1
8.	Old campus Library	1
9.	Science Library AKTH	2
10.	School for Continuing Education Library	2
11.	Law Library	1
12.	Faculty of Education Library	1
13.	Faculty of Social and Management Science Library	1
14.	Faculty of Engineering Library	1
	Total	18

Table 1 above present an array of all the sections that participated in providing response in the cause of gathering data for the research. Information above revealed 2 members each from the automation section,

multimedia and digitization section, Science Library in AKTH and the School for Continuing Education. While the remaining other sections provided 1 member each for the conduct of the study

Table 2: Media for Preservation of Electronic Information Resources in Libraries

S/No	Media for Preservation	A	U	D
1.	CD/DVD	15 (83.3%)	2 (11.1%)	1 (5.6%)
2.	External Hard Drive	7 (38.9%)	4 (22.2%)	5 (27.8%)
3.	Internal Computer Memory	15 (83.3%)	2 (11.1%)	1 (5.6%)
4.	Flash Drive	6 (33.3%)	3 (16.7%)	9 (50%)
5.	Institutional Repository	2 (11.1%)	14 (77.8%)	2 (11.1%)
6.	Cloud Services	3 (16.7%)	12 (66.7%)	3 (16.7%)
7.	Offline storage system	2 (11.1%)	14 (77.8%)	4 (22.2%)

Table 2 consist of the responses of members to the first objective of the study that sought to identify the media for the preservation of the electronic information resources in the

library studied. The data revealed that CDs/DVDs and Internal Computer Memory came top with 83.9% each, and was closely followed by External Hard Drive and Flash

drive which had 38.9% and 33.3% respectively. The use of institutional repository, cloud services and Offline storage

system was rarely used for the process for the preservation of electronic information resources in the library studied.

Table 3: Strategies for the Preservation of EIRs in Libraries

S/No	Strategies for Preservation	A	U	D
1.	Refreshing	12 (66.7%)	5 (27.8%)	1 (5.6%)
2.	Replication	14 (77.8%)	3 (16.7%)	1 (5.6%)
3.	Emulation	2 (11.1%)	14 (77.8%)	2 (11.1%)
4.	Migration	4 (22.2%)	10 (55.6%)	4 (22.2%)
5.	Technology Preservation	2 (11.1%)	14 (77.8%)	2 (11.1%)
6.	Others	-	11 (61.1%)	7 (38.9%)

Table 3 above represent the responses of the respondents in respect of the objective which sought to identify the preservation strategies used by the librarians for the preservation of their electronic records. The librarians had a list of five different strategies that have identified from the review of related literature. The replication and refreshing strategy were the most use having 77.8% and 66.7% respectively. Review of literature revealed that both strategies are closely

related in the processes involved and they fall among the easiest strategies with lesser cost implication for the preservation of electronic information resources – these statement could account for the reason why the librarian saw convenience in the application of these most used strategies over others the strategies of emulation, migration and technology preservation with 11,1%, 22.2% and 11.1% respectively were rarely used by the librarians in the university studied.

Table 4: Challenges Associated with the Preservation of EIRs in Libraries

S/No	Challenges	A	U	D
1.	Lack of Preservation Policy and Standards	15 (83.3%)	2 (11.1%)	1 (5.6%)
2.	Inadequate funding	10 (55.6%)	3 (16.7%)	5 (27.8%)
3.	Inadequate skills and Training	9 (50%)	5 (27.8%)	4 (22.2%)
4.	Inadequate ICT resources and infrastructure	11 (61.1%)	3 (16.7%)	4 (22.2%)
5.	Poor management support	7 (38.9%)	6 (33.3%)	6 (33.3%)

Table 4 above presents the challenges associated to the preservation of electronic information responses and the responses of the librarian. The librarians in their responses

identified the lack of preservation and standards 83.3%, inadequate funding 55.6% and inadequate ICT resources and infrastructures 61.1% as the major challenges

associated with the preservation of electronic information resources. Others were inadequate skills and training and poor management support which had 50% and 38.9% respectively.

Summary and Discussion of Findings

The findings from the study in respect of the media for the preservation of electronic information resources in the library studied revealed that CDs/DVDs and external hard drives were the most used media for the storage of electronic information by the librarians. CDs/DVDs as well as external hard drives are relatively cheaper than other storage device or facilities available for use, hence, the librarians in their quest to achieve their preservation objectives conveniently adopt this options over others. The relative need to have a good internet network before accessing data stored on a cloud system and institutional repository could be a reason for their rare use among the librarians.

The findings of the present study conforms to the findings from the study of Jimada (2015), where it was discovered that CDs/DVDs and external drives were popularly used for the preservation of digital information resources by 7 universities in North Western states of Nigeria. Adamu (2016) in related study into the management of electronic information resources in the federal universities in North

Western Nigeria also revealed a similar to related findings that of the present study, where he related that the universities studied uses CDs/DVDs and external hard drives for the preservation of their electronic records.

The second objective which sought to answer the research question on the strategies used by the librarians of the university studied, for the preservation of electronic information resources. The finding revealed that Refreshing and Replication were the most used strategies by the librarians. This is very much similar to the findings by Temboge and Abubakar in their study which investigated into the preservation and organization of electronic information resources for effective service delivery by Federal college of education libraries in Northern Nigeria, the findings can be interpreted that the librarians in the universities studied adopted the use of replication in the preservation of their electronic information resources. Adetunla and Agbetuyi (2018) in their survey into the preservation and conservation of electronic information resources in private universities in South-West Nigeria were a total of 83 library staff were selected for the study reported that most of the techniques adopted by these private university libraries were refreshing, emulation and technology preservation. Adamu (2016) as well reported

a similar situation to the findings of the present study, where it was revealed that the actions of the staff of the university studied can be likened to the use of replication and refreshing for the preservation of electronic records.

In respect of the challenges associated with the preservation of electronic information resources, the finding of the present study revealed the lack of preservation and standards, inadequate funding and inadequate ICT resources and infrastructures, as the major challenges associated with the preservation of electronic information resources. Preservation policy and standards form the very foundation upon which effective preservation stands and thrives, the lack of it negates the very principle upon which successful preservation can be achieved. In respect of policy and standards for the preservation of electronic records, Adetunla and Agbetuyi (2018) expressed how disheartening it is to note that many academic libraries cannot manage and sustain continued use of these resources. Some libraries do not have working policy on preservation and conservation of electronic information resources. To buttress the point, the absence of a preservation policy as can be attributed to the absence of a National Information Policy which makes the

formulation of a preservation policy in library and information centres difficult (Oluwaniyi, 2015). The study by Adetunla and Agbetuyi (2018) in their survey into the preservation and conservation of electronic information resources in private universities in South-West Nigeria were a total of 83 library staff were selected for the study. The findings revealed that the lack of legislation, policy and strategy were the greatest challenge facing the preservation and conservation of electronic information resources followed by inadequate funding and then lack of ICT personnel and lastly, inadequate ICT infrastructure.

Conclusion

The preservation of electronic information resources involves a number of distinctive requirements. In particular, all such documents possess a unique collection of core digital attributes that must be retained. These attributes include their ability to be copied perfectly, to be accessed without geographic constraint, to be disseminated at virtually no incremental cost (given the existence of appropriate digital infrastructure), and to be machine-readable so that they can be accessed, searched, and processed by automated mechanisms that can modify them, reformat them, and perform

arbitrary computations on their contents in all phases of their creation and distribution.

The role of preservation in achieving the effective management of electronic information resources in libraries must not be taken for granted if the objective of the library in the provision of access to information resources in electronic format must be achieved. It can be concluded that the libraries studied have not taken the right direction towards ensuring the successful preservation of their electronic information resources.

Recommendation

For the effective preservation of electronic information resources, the Bayero University Library is expected to ensure the following:

1. Set in place the mechanism for the immediate formulation of a policy for the preservation of electronic information resource policy, one that will define a uniform media for the preservation of all the electronic information resources created and received by the library. Libraries should also be made to preserve their electronic information resources using more reliable ICT tools like cloud services or institutional repository with adequate backup means.
2. The library should be as a matter of urgency introduce different preservation

practices, including developing a preservation policy, preparing a risk assessment, establishing security and access controls, ensuring the integrity of the E-resources, managing metadata in order to ensure the preservation objective of the library are fully achieved

3. Towards addressing the challenges associated with the preservation of electronic information resources, libraries should seek to boost their means of funding through ensuring the full implementation of the Library Development Fund (LDF). Libraries must also set in place arrangements for their staff to be trained on the international best practices for the preservation of electronic information resources. In the absence of enough fund, library can choose to sponsor few persons who will in turn come back to train others in the library.

REFERENCES

- Adamu (2016) Management of Electronic Records in Federal Universities in North western States of Nigeria. Unpublished thesis
- Adetunla, B. O. G. and Agbetuyi, P. A. (2018) Preservation and Conservation of Electronic Information Resources in Private University Libraries of South-West, Nigeria. *International Research: Journal of Library & Information Science* 8 (2)
- Arora, J.(2009) Digital Preservation and Management: an Overview, in PLANNER2006:Digital Preservation Management and Access to Information in Twenty First Century, AhMeddabad
- Benny, L. (2015). Selection and acquisition of e-resources in academic libraries: Challenges. *International Journal of Digital Library Service*, 5(2), 1-14. Retrieved from www.ijodls.in on 6/5/2016.
- Gbaje, E. S. (2013). Electronic documents management in Nigerian Academic Libraries. *Journal of the Nigerian Library Association*, 40(1), 1-14.
- IFLA/UNESCO 2012, 'IFLA/UNESCO Manifesto for Digital Libraries', viewed 18 September 2018, from <https://www.ifla.org/publications/iflaunesco-manifesto-for-digital-libraries>
- Jimada, A. (2015) Preservation of Digital Information Resources in the Federal University Libraries in the North Western States of Nigeria. Unpublished Thesis submitted to the school of post graduate studies, ABU Zaria
- Masanya (2018) A framework for preservation of digital resources in academic libraries in South Africa', PhD thesis, University of South Africa, Pretoria.
- Masanya, T. M. & Ngulube, P., 2019, 'Digital preservation practices in academic libraries in South Africa in the wake of the digital revolution', *South African Journal of Information Management* 21(1), a1011. <https://doi.org/10.4102/sajim.v21.1011>
- Mommoh, R. L & Saka, K.A (2019).Digitization of library materials in special libraries in Abuja, Nigeria. *Information Impact: Journal of Information and Knowledge Management*, 10(1). Also Available online at <https://dx.doi.org/10.4314/ijikm.v10i1.2>
- Musa, Z. A. (2016), Preservation of electronic information resources in university libraries (a case study of buk library). Unpublished Thesis
- Olajide and Oludeyi (2019) Olajide, O. E D & Oludeyi, O.S (2019). Facilitating learners' access to and use of library resources in Nigeria: The option of M-Libraries. In W.M Olatokun, A.O, Aremu, A. & Adetimirin, A (Eds). *Research on contemporary issues in media resources and ICT use. A Festschrift in Honour of Prof. I. M Mabawonku. University of Ibadan: Library, Archival and Information Studies*, 249-260
- Oluwaniyi, S. A. (2015). Preservation of information resources in selected School Libraries in Ibadan North Local Government Area of Oyo State, Nigeria. *Digital Commons @ University of Nebraska Lincoln, Library Philosophy and (ejournal)*, 1-32
- Sigauke and Nengomasha (2011) 'Challenges and prospects facing the digitization of historical records for their preservation with national archives of Zimbabwe', 2nd International conference in African Digital Libraries and Archives, viewed 14 June 2012, from <http://wiredspace.wits.ac.za/handle/10539/11533>
- Temboje and Abubakar (2021) Preservation and Organization of Electronic Resources for Effective Service Delivery in Federal College of Education Libraries in Northern Nigeria. *Kashere Journal of Education*. 2 (2)

Assessing Employability Skills of Education Management Graduates through Internal Quality Assurance Strategies in Nigeria Universities: A Proposed Conceptual Quality Framework

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ABSTRACT

The mandate of Educational Management undergraduate degree programme is to prepare graduates for a broad range of job skills demanded in both public and private education sectors. However, employers have often complained that graduates of this programme do not have the adequate skills needed in the workplace. This paper proposed four strategies (curriculum validation and evaluation, teaching and learning assessment, graduate skill assessment, and labour market assessment) of assessing employability skills of graduates of Educational Management academic degree programme through a conceptualised framework of internal quality assurance practices in Nigerian public universities. The conceptual framework proposed in this article is multi-stakeholder approach in nature and was based on field experience of the authors. In an attempt to understand this framework, the concepts of quality assurance, structure and practices as well as employability were reviewed. This paper concludes that employability skills of Educational Management students need to be constantly assessed for labour market relevance before graduation, and this can be done through an institutional-based structure of internal quality assurance strategies as specified in the conceptual framework.

Keywords: *Employability Skills, Educational Management, Graduates, Internal Quality Assurance Strategies, Conceptual Framework*

Introduction

Education management in Nigeria is handled by professionals who are versed in the field of educational management. These professionals are mostly identified as school leaders and administrators whose position of authority qualify them as school managers, head teachers, principals,

rectors, provost or vice-chancellors. They oversee the general administration of their respective levels of educational institutions. Educational Management is one of the academic programmes offered by most public universities in Nigeria for the training of teachers to acquire relevant

pedagogical skills in their respective discipline of teaching as well as proficiency in administration of education at all levels. Hence, the Educational Management program aims at equipping educational management students with relevant knowledge and skills that will enable them exhibit and adequately teach the act of getting educational objectives accomplished through other people (Tai Solarin University of Education, 2017).

The mandate of Educational Management undergraduate degree programme is to prepare graduates for a broad range of job skills demanded in both public and private education sectors. It is expected that fresh graduates of Education Management find career as either school administrators or classroom teachers immediately after completion of their academic programme. The target employers of these graduates are mostly found in the primary and secondary levels of education. However, there have been conflicting reports as to why education management graduates are trained in the first place. Employers have often complained that graduates of this programme do not have the adequate skills needed in the workplace, and that demonstration and documentation of graduates' actual skills and abilities are lacking. Therefore, this paper discusses on how employability skills of graduates of Educational Management can be assessed

through the concepts of internal quality assurance practices.

Literature Review

Concept of Quality Assurance

The main driving force behind educational reforms has been the desire for quality. According to the British Standard Institute (BSI, 2004), quality is described as the totality of traits and characteristics of a product or services that bear on its capacity to satisfy expressed or implied needs. According to Urah (2005), quality is the degree of worth in a good or level of achievement, a yardstick by which to measure others. Quality assurance according to Seniwoliba (2014), is a planned and systematic review of an institution or programme to determine whether or not acceptable standards of education, scholarship, and infrastructure are met, maintained, and enhanced. The International Institute for Educational Planning (IIEP, 2016) considers quality in education from a variety of perspectives. The first is based on system internal criteria such as profile expiration, while the second is based on external criteria such as the fitness and relevance of such an education to its environment.

Quality assurance is related to quality control, but it operates more proactively, whereas quality control serves a series of operational techniques and activities used to ensure that requirements are met. While

quality assurance goes beyond that, it shifts the emphasis from outcomes or outputs to the processes that produce them. Ajayi and Adegbesan (2007) argued that accountability is related to quality assurance because both are concerned with maximizing the effectiveness and efficiency of educational systems and services concerning their contexts, missions, and stated objectives. According to Ehindero's (2004) definition, quality assurance concentrated on: the entry requirements for teachers, pedagogical values, professional readiness, topic expertise, philosophical orientation, and other factors; learners, their entry-level behaviours, traits, and qualities including certain demographic elements that may influence or support their learning; the curriculum and learning environment, as well as the teaching and learning process; and outcomes with varied levels of knowledge, skills, and attitudes as well as suitable and pertinent instruments to measure these goals. The notion of quality assurance in education was finally summarized by Fadokun (2005) as a programme, an institution, or an entire education system. In this situation, quality assurance refers to all those attitudes, goals, methods, and practices that, when present and used in conjunction with quality control procedures, ensure that each programme's

academic standards are upheld and improved.

Internal Quality Assurance Practices

The "heart" of providing excellent services at higher education institutions is the quality assurance practice. The following terms are also used in the implementation of quality assurance practices in universities: Quality Assurance (QA), which is a guarantee provided by an educational institution that it is confident and certain that the standards and quality in its educational programmes are maintained and improved. An institution's programmes and systems are evaluated externally as part of the quality assessment practices. Establishing high-level internal institutional quality assessment mechanisms within an institution is known as "quality culture." Quality audit is the process of looking at institutional practices for ensuring quality and standard, and doing so in a necessary manner to meet programme objectives (Musa, 2017). Njui (2018) claimed that quality assurance practices are the means through which a faculty verifies that the circumstances are right for students to meet the institution's requirements. Quality assurance practice is a continuous evaluation process that assesses, monitors, ensures, upholds, and enhances the standard of a higher education system, institution, or programme. It is a

method of identifying and securing effective learning through student support that aids in describing and ensuring the degree of achievement indicated by higher education credentials. It also involves sharing goals and strategies for accomplishing them. According to Harman (2000), quality assurance practices work to give sufficient evidence to support claims of quality so that important stakeholders can feel confident in the management of quality and the calibre of results obtained. For instance, quality assurance practice in universities may focus primarily on management, teaching and learning, research, and community service, efficacy and efficiency. The skills, readiness, and capacity of graduates to generate and meet the needs of the labour market and society can also be used to assess their quality. The effectiveness of teachers, the quality and accessibility of the resources and facilities required for effective teaching and learning, and the preparedness and readiness of graduates to meet the difficulties in their discipline are all assessed by quality assurance practice.

Internal quality assurance practice is defined by the European Association for Quality Assurance in Higher Education (ENQA, 2005) as the techniques and policies that higher education institutions use to not only monitor but also continuously improve the quality of their

programmes and awards. On the other side, external quality assurance practice refers to a review procedure done regarding the HEI by a governmental body or other external entity (Martin, 2018).

Structure for IQA Practices

Maintaining an optimal quality of academic standards can be attained by having good internal quality assurance processes and structures. Internal quality assurance structure refers to the procedures and policies that each university uses to make sure that it is achieving both its own goals and the standards that are relevant to higher education in general or to the profession or subject in particular. Universities should have a clearly defined organisational structure that identifies who leads each department and lists their responsibilities. Universities should have a clearly defined organisational structure that identifies who leads each department and lists their responsibilities. The structure should also display the Vice Chancellor of the institution, who oversees the university action plan and make sure that funds are accessible. The organisational chart should also clearly outline the roles of the academic governing councils, academic committees, the registrar and his duties, and the programme coordinators (Deans and Heads of Departments) (AlHamad & Aladwan, 2016). Any reputable university should have an assisted or regulated student

administration in addition to other pertinent departments. The organogram in Figure 1 depicts the line of authority and responsibilities of the various educational leaders. Procedures for creating new programmes should be specified for by the internal quality assurance structure. Universities should be interested in the management of academic programmes within the various university faculties, departments, and divisions as a means of internal quality assurance. In some public universities, programme coordinators keep track of academic standards and inform students of the resources or facilities that are available. The structure should also enable a formal or informal student complaint policy or procedure as part of the process for managing

programmes. The management of programmes should include monitoring of the outcomes by the students, particularly for continual assessments. On established structure, there should be an evaluation of the programme by both the lecturers and the students. Annual course and programme evaluations should be conducted as a means of internal quality control to determine whether the programmes have succeeded in achieving their objectives (Henard & Roseveare, 2012). In addition, universities must establish their internal quality assurance structures and mechanisms in the context of their vision and mission while also aligning them with external (regional and international) quality assurance standards.

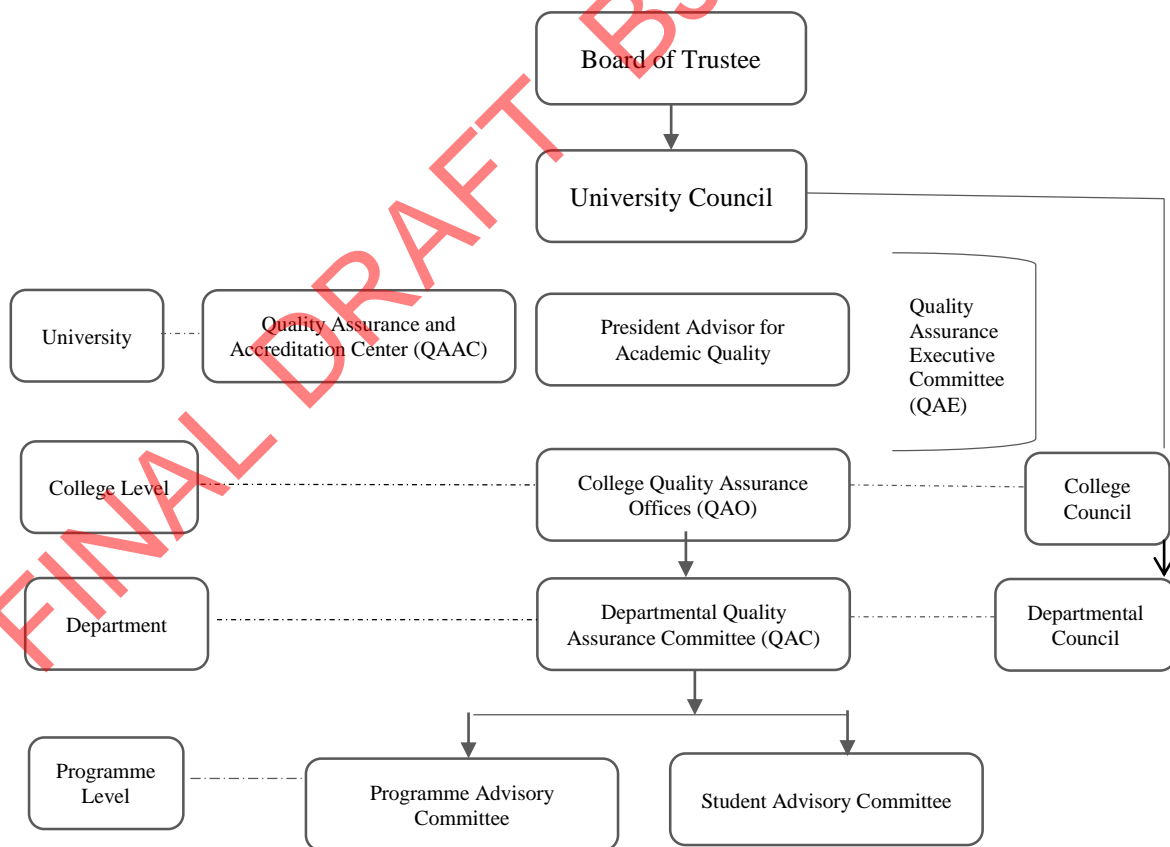


Figure 1: Typical Structure of a University Quality Assurance System
(Source: AlHamad & Aladwan, 2016)

Concept of Employability

Employability has been defined as the ability to enter and navigate the labour market independently, to realize potential through long-term employment (Alison, Harvey & Nixon, 2002). Higher education curricular determines the products of a programme such like technical education and where to fit into the society. If the curricular put to consideration the need for technical education, it will produce more graduates with the necessary skills to enhance the development of any nation's technology. What our higher educational institution should be working towards is to produce graduates with appropriate life-long learning skills necessary for their careers. Employers seek workers who can use their skills and competencies to advance the firm, according to Harvey (2003). They want graduates who can foresee change and take the reins when it comes to transforming their organisations. Employees will be able to survive and even prosper during periods of significant economic change by acquiring the skills and information necessary to become career independent through technical education.

While employability does not have a single definition, a survey of the literature indicates that it has to do with work and the capacity to find employment; that is:

- a) The capacity to get their first job, therefore there is desire in making sure that "essential skills," caregiver advice, and knowledge of the working world are included into the educational system.
- b) The capacity to continue working while moving between roles within the same organisation to fulfill new job needs; and
- c) The capacity to find new employment as necessary, which entails being independent in the job market and being able to handle their own career transitions across and within organisations (Hillage & Pollard, 1998).

Employability is all about developing a range of attributes and abilities that the individual involved may be able to cope with the job, skills and the need to transform the organisation in the face of economic change. Employability is more than merely acquiring skills, knowledge, or experience that will help a student land a job or advance in their existing employment. It is about learning, and the emphasis is more on talent than employment. In essence, the goal is to empower and improve the learner by emphasizing the development of critical and reflective skills. A by-product of this enabling process is employment (Harvey, 2003; Lees, 2002; Knight & Yorke, 2002).

Employability Skills

Employability skills are the “Transferable Skills” that a person has to develop in order to become “employable.” Employers prefer a set of skills in a candidate over good technical understanding and subject knowledge because these skills enable the employee to carry out their responsibilities successfully. The “soft skills” (non-technical talents) and knowledge needed for effective performance at work are known as employability skills. These abilities include teamwork, self-management, problem-solving, and effective communication. They are the key competencies or enabling talents. Additionally, these traits help workers solve problems, make important decisions, and become competent, all of which have an impact on how well they perform. These are a group of generic transferable talents that apply to many job sectors and are not particular to one career path (Ramisetty & Desai, 2017).

Recruiters, business executives, educators, and policy makers have recognized four categories of talents based on studies: Basic academic skills like listening and speaking; higher order thinking abilities like reasoning, problem-solving, creativity, and the capacity to learn; interpersonal and teamwork abilities like conflict resolution, negotiation, and leadership; and personal characteristics and attitudes like self-worth,

drive, and acceptance of responsibility for one’s own actions and results.

The employment (or unemployment) of recent graduates is a persistent problem that needs to be impartially and collectively addressed or alleviated. There are additional relevant issues alongside this one that need equal attention and resolution (Nejam, Chong, Ahmed & Al-Masri, 2017). These consist of:

1. Students enrolling in courses that are not a good fit for their interests.
2. Educational programmes that produce graduates that do not meet industry requirements (e.g., too many Educational Management graduates that wish to serve as school managers when the school needs more graduate classroom teachers).
3. Graduates who have jobs that do not fit their qualifications (e.g., a Educational Management graduate holding a company customer care unit post).
4. Graduates working in roles that are beneath their level of training (e.g. an Educational Management graduate holding a school hostel master/mistress post).

Since they may be used for many different occupations and opportunities, employability skills have become much more valuable in recent years. Due to the growing need for skills on the job and the discontent of employers, this increased as a

result of collaborative efforts between industry and academia. Core skills and generic skills are two crucial components of employability skills. Transferable skills include the generic skills while core skills are based on one's career. Cottrell (2003) argued that employers look for generic employability skills, attitudes, and behaviour in new management students when hiring them. Core skills are not enough to secure a job or meet corporate standards in the face of highly competitive business environment, instead generic skills are essential for improving one's prospects in the workplace (Cox & King, 2006).

Employability skills are not just qualities that organisations look for in a specific applicant; many corporations seek them in every candidate who applies for a job. Today's educational institutions need prospective school administrators that can handle a variety of tasks, perform in multiple job roles and work independently with adaptability. As a result of this, generic skills of educational management students need to be constantly assessed for labour market relevance before graduation. These can be done through an institutional-based structure of four-stage assessments of internal quality assurance strategies as specified below.

Proposed Internal Quality Assurance Strategies for Assessing Employability Skills

The four strategies of internal quality assurance identified for assessing employability skills of graduates of Educational Management are outlined and discussed below.

- I. Curriculum Validation and Evaluation
- II. Teaching and Learning Assessments
- III. Graduate Skills Assessment
- IV. Labour Market Assessments

Curriculum Validation and Evaluation

The first step proposed for the assessment of employability skills of students of Educational Management undergraduate degree programme is identified as curriculum validation and evaluation strategy. This strategy is expected to be spearheaded by the Head of Department, faculty members (both academic and non-teaching), students and external stakeholders. According to DiFlorio, Duncan, Martin and Middlemiss (1989), curriculum validation and evaluation is an essential phase of curriculum development. Through evaluation, a faculty discovers whether a curriculum is fulfilling its purpose and whether students are actually learning. In normal circumstance, a department or faculty of a university who wishes to have its academic programme validated must submit an application to the National Universities Commission (NUC)

either for a standalone programme or through a programme or university accreditation application. The applicant faculty or department will need to use a template of the Commission's BMAS (Benchmark Minimum Academic Standards) to aid quality assurance and quality improvements. A clear application means that a short report is generated by the Commission and sent to external reviewers for ratification.

In addressing the concern of employability during this process, the department may decide to update or renew an aspect or aspects of the curriculum by involving management professional from industries, alumni of the department, government and private employers and/or private school leaders. Their involvements are to suggest an up-to-date skills needs or fresh academic courses to offer to students that can incorporate in-demand skills needed by employers of labour to the faculty/department. In the same vein, the process will be all-encompassing when students are thoroughly engaged in the curriculum evaluation process. According to Hayden and Goode (2022), there are three curriculum evaluation types: formative, summative and diagnostic. Formative evaluation occurs during curriculum creation and allows developers to correct flaws. Summative evaluation is the evaluation of the final curriculum after

it has been fully developed, and diagnostic evaluation involves determining the cause of a deficit after using the curriculum. Any of these types of evaluation must involve the students of the department as active participants in the conduct of the curriculum evaluation process. Depending on the university's financial resource, the department may invite private school leaders during curriculum evaluation exercise to rate the proficiency of management skills acquired by Educational Management students before graduation. The department may also invite officials from the State and Federal Ministries of Education during curriculum evaluation exercise to rate the proficiency of teaching skills acquired by their students before graduation. These assessment steps are expected to address skills gaps found in recent literature (Ajayi & Olaniyi, 2015; Adeyanju & Olaniyi, 2016; Olaniyi, 2017).

Teaching and Learning Assessments

Teaching and learning assessments is the second step identified in the internal quality assurance strategies. It involves an overarching assessments of all the teaching and learning processes by academic staff and students of the department. Student assessment enables instructors to measure the effectiveness of their teaching by linking student performance to specific learning objectives. As a result, academic staff are able to institutionalize effective

teaching choices and revise ineffective ones in their pedagogy. Whether teaching at the undergraduate or postgraduate level, it is important for lecturers to strategically evaluate the efficacy of their teaching by measuring the extent to which students in the classroom are learning the course material (Fisher, 2023). Some of the useful assessment tools here are students' course assessment, students' programme satisfaction survey, workload assessment, student progression studies, programme evaluation, students' monitoring by external examiners, evaluation of academic staff by students, mentoring arrangements, and assessments of availability of learning resources (Figure 2).

In the past three decades, a number of academics have investigated the connection between successful teaching and student learning support. A pedagogical foundation for comprehending how students learn has been offered by several of these researchers who have examined instructional communication (Frymier & Thompson, 1992; Thweatt & McCroskey, 1998). These scholars have also written on learning theories. According to Keese (2011), in order to ensure that students are learning as effectively as possible, a combination of the three learning theories as well as maybe other ones should be taken into account and included into the instructional design process. At universities, teaching should be

backed by professionals recruited from business, banking, and administration, together with seasoned academic staff members. Theory and practice are supposed to be combined in the courses offered, giving students marketable skills and allowing for manageable student populations in open classrooms. Additionally, a calm and supportive environment aided students in undertaking rigorous academic work. Also, the university's strategic placement ought to provide freedom from the surrounding commotion. Also included should be flexible study alternatives like day or evening undergraduate programmes and evening and weekend modules. Students need a flexible payment schedule, help with immigration, and other services for overseas students in order to obtain a trouble-free educational experience.

The Registry should communicate with both students and faculty to provide services in areas such as the student online information system (OSIS), academic calendars, admissions and semester course registrations, orientation and enforcement of academic policies, course auditing, faculty and staff support, graduation planning and certification, integrity, access, and security of academic records. The Registry serves as the custodian for student records and academic information at the university. Every accredited university has

a policy requiring all final-year students (graduate and undergraduate alike) to complete project work worth six course credits. Students are paired with supervisors who help them prepare and present their project work to a panel of internal and external examiners by offering assistance, coaching, and mentorship. Peer and collaborative learning, in which exceptional students are partnered with less-than-stellar students so that students can engage in peer and collaborative learning is another area where help is offered to support teaching and learning in universities. To promote student learning, students have full access to cutting-edge instructional resources, including cutting-edge libraries and computing facilities (Boateng, Eghan & Adu, 2015).

Graduate Skills Assessment

Graduate skills assessments is the third step identified in the internal quality assurance strategies. This can be initiated to internally assess and evaluate students' employability skills at any point in time prior to graduation year. All assessment procedures given to students between their matriculation and before their final year examination are referred to as 'graduate skills assessment.' According to Australian Council for Educational Research (ACER, 2023), the graduate skills assessment was first developed under the Higher Education Innovation Program to assess generic skills

of students when they begin at university and just before they graduate. The four areas included in the test are: critical thinking, problem solving, interpersonal understandings, and written communication (ACER, 2023). Many universities have identified these skills as important and they are included in their graduate attributes or capabilities statements. Universities may wish to use the test to compare differences in student profiles between fields of study and are likely to be interested in changes between entry and exit points for students in different courses.

At entry level, the department may use the test diagnostically to identify, for example, those who write poorly or have trouble dealing with text-based critical thinking items or quantitative problem solving items. Such students may be followed up and offered assistance. At exit level, results of the test may be used as an additional criterion for entry into post-graduate courses or as an indication of generic skills to future employers. Some forms of skills assessment tests are hard skills assessment test, soft skills assessment tests, work sample or job knowledge tests, cognitive ability tests, personality tests, psychometric tests, integrity assessments, situational judgement tests, and interviews. These assessment tests can be organised in the form of pre-employment examination, jobs

and career fair, simulation interviews, or micro-teaching.

Pre-employment testing, often known as the mock employment test, was developed as a response to the university's continuous improvement tools. The goal is to acquaint graduating students with the types of tests used in the job-search and employment processes. The Primary Mental Ability Test and Personality Factor Questionnaire of the Mock Employment Test are often administered by the counseling and testing department. English Ability, General Information and Natural Science, Mathematics Ability, Logical Reasoning, Abstract Reasoning, Filing, Coding, and Speed and Accuracy are all topics that the department might create a Made Test to cover. Potential graduates will take the tests after they have been developed and subjected to content validation (Yabut, 2009). Career fairs are important occasions to increase graduates' employability. They give students and companies the chance to build networks and become aware of job opportunities, according to Hanover Research (2012). A university's placement center, public relations department, and student representative council can work together to provide yearly workshops on job searching and careers fairs. For Educational Management programme, the department can initiate a form of collaboration between the University/

Department and government/private school administrators to assess the level of management skills and teaching skills of all students before graduation.

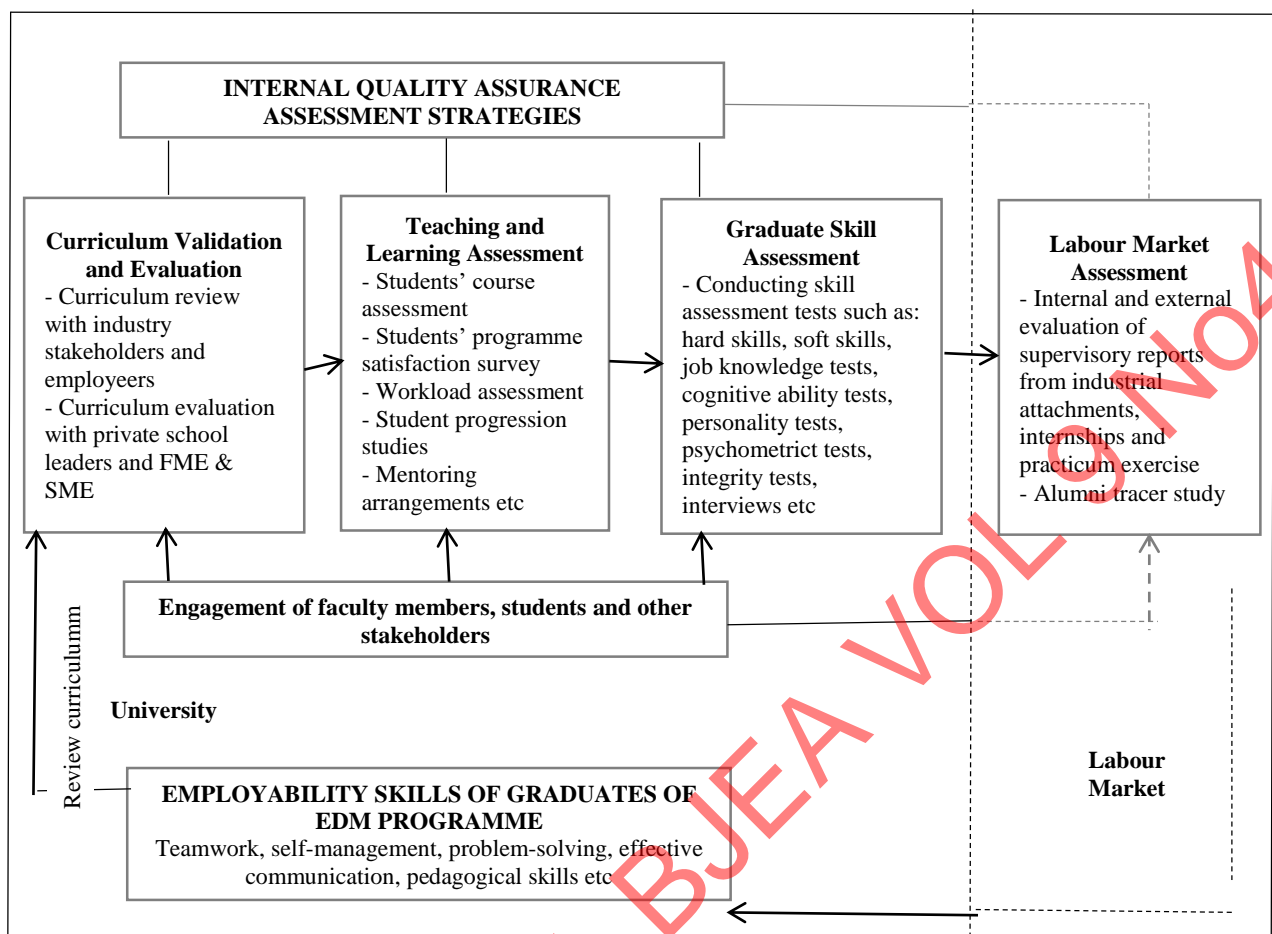


Figure 2: The proposed conceptual quality framework for assessing employability skills of Educational Management graduates

Source: Authors

Labour Market Assessment

Labour market assessment is the fourth step identified in the internal quality assurance strategies for enhancing graduate employability skills. Here, quality assessment focuses on evaluating employability skills of students at workplace of their first employers during on-field university course work such as industrial attachments, internships and practicum exercise. According to Arroyo (2010), the extent to which attachments, practicums, or internships programmes

were implemented in the hotel industry had a significant impact on the graduates' level of work performance. The degree of job performance of the graduates likewise improved with the length of the programme's implementation term. Students have the chance to put some of the material they have learned in class to use in the real world while working under the supervision of professionals throughout the attachment, internship, and practicum experience. The student successfully completing the attachment experience is the

goal of the field mentor, faculty supervisor, faculty advisor, and internship, practicum, or attachment coordinator. One of the most significant career-enhancing decisions that students make is the attachment experience. By carefully selecting an employer for the attachment, field mentor, and special project, students have the chance to creatively construct their résumé and develop a professional portfolio. The attachment experience may inspire a student to pursue a certain professional route or aid in the growth of specialised knowledge. It may provide access to a unique opportunity within a specific organisation. Additionally, it might present a chance to collaborate closely with a subject-matter authority (Boateng et al. 2015). To obtain a reliable outcome from a labour market assessment, it is important for a department to evaluate employability skills of students' using a combination of internal and external supervisory reports (Figure 2). Internal reports can be produced by workplace mentor or industry-based supervisor while external reports can be produced by departmental/faculty supervisor, advisor, and/or internship, practicum, or attachment coordinator. In the same vein, teaching skills of Educational Management students can also be monitored by internal and external supervisors. In rare circumstance, faculty may also obtain useful data from alumni

tracer study. The alumni tracer study is frequently used by the various schools and colleges within a university to gather feedback on the courses that are thought to be in the highest demand on the job market, as well as the academic experiences and lessons learned in college that graduates find to be extremely useful in the workplace. The university's operations strategy includes a tracer study to locate the graduates using the instrument it developed. The findings can assist the school in making more strategic decisions regarding programme offerings, staffing patterns, and faculty development in addition to helping them build their curricula. The sort of graduates who are most employable, academic experiences (competencies obtained in college) that the graduates find highly valuable in the workplace, and the individual academic backgrounds of graduates that can determine employability are other discoveries that the tracer study may yield (Yabut, 2009).

Conclusion

The main contribution of this article is the development of a conceptual quality framework for addressing employability skills of graduates of Educational Management in public universities. This paper concludes that employability skills of Educational Management students need to be constantly assessed for labour market

relevance before graduation, and this can be done through an institutional-based structure of internal quality assurance strategies as specified in the conceptual framework. The conceptual quality framework will help the department (in specialised and conventional) in public universities to understand their roles in the internal quality assurance process of their universities. The roles perform by members of the faculty towards the realization of employable graduates is important for a successful university internal quality assurance practice. A conceptual framework as depicted in Figure 2 is essential as it may help to increase the understanding of the roles to be played by the various stakeholders in enhancing employability. This framework will also help to identify possible skill gap early enough in students before graduation from the university. It could take the position of quality measurement tools for self-evaluation for continuous quality improvement in public universities. Importantly, it is likely that the proposed framework could form the basis for future researchers to understand the inter-relationships among the constructs of internal quality assurance strategies and employability skills of graduates. These constructs may form variables to measure in future empirical studies. The proposed conceptual quality framework also signaled

that the stages of enhancing graduate employability is not static but a continuous process. The four-strategy cyclical path can be repeated when the desired outcome (employability skills) are not satisfactory. In addition, it should be noted that this proposed quality assessment cycle can be limited by institutional resource capacity. Public universities with enormous funding and human resource can take full implementation of this proposed framework while those with deficient resources can decide to implement in part.

Recommendations

Based on the proposed framework, the authors recommends the following:

1. University managements should develop quality guidelines and framework for implementation of employability skill assessments plan of Educational Management graduates using the four quality-practice indicators. This should be institutionalize into the University policy manuals and other quality related documents to enhance employability.
2. Educational researchers in the field of educational supervision and quality assurance should empirically investigate in future studies the relationship between the identified internal quality assessment strategies and employability skills of university graduates of Educational Management.

REFERENCES

- Adeyanju, H. I., & Olaniyi, O. S. (2016). Quality assurance in higher education institutions and graduate employability in Nigeria. *Journal of Higher Education Quality*, 12(3), 1-13.
- Ajayi, E. O. A., & Olaniyi, O. S. (2015). University-industry linkages and graduate employability. *International Journal of Scientific and Educational Studies (IJSES)*, 1(2), 45 – 55.
- Ajayi, T., & Adegbesan, S. O. (2007). *Quality assurance in the teaching profession*. Papers Presented at a Forum on Emerging Issues in Teaching Professionalism in Nigeria, Akure, Ondo State.
- AlHamad, B. & Aladwan, R. (2016). *QAAC quality manual*. Bahrain: University of Bahrain.
- Alison, J., Harvey, C., & Nixon, I. (2002). *Enhancing employability: A long term strategic challenge*. University of Newcastle. Available online at <http://www.itsn.ac.uk/application.asp>. Accessed on February 20, 2018.
- Arroyo, R.A. (2010). Practicum performance in Singapore and the Philippines of hospitality students in a state university. *Asian Journal of Business Governance, Business Education Section*, 1(1), 145-166.
- Australian Council for Educational Research (2023). *Graduate skills assessment: Overview*. ACER, Australia. Available online at <https://www.acer.org/au/gsa>
- Boateng, J. K., Eghan, A., & Adu, M. O. (2015). Enhancing graduate attribute and employability through standards aligned curriculum delivery. *International Journal of Economics, Commerce and Management*, 3(1), 1-17.
- British Standard Institute (2004). *Quality assurance in higher education: An introduction*. National Assessment and Accreditation Council, Bangalore, India: NAAC in collaboration with Commonwealth of Learning, Vancouver, Canada.
- Cottrell, S. (2003). *Skills for success: The personal development planning handbook*. London: Palgrave Macmillan.
- Cox, S., & King, D. (2006). Skill sets: An approach to embed employability in course design. *Education Training*, 48(4), 262-74.
- DiFlorio, I., Duncan, P., Martin, B., & Middlemiss, M.A. (1989). Curriculum evaluation. *Nurse Education Today*, 9(6), 402-407. doi:10.1016/0260-6917(89)90095-6. PMID:2601681.
- Ehindero, S. (2004). *Accountability and quality assurance in Nigeria education*. Paper Presented at the International Conference of the Institute of Education, Olabisi Onabanjo University, Ago-Iwoye.
- European Association for Quality Assurance in Higher Education, ENQA (2005). *Standards and Guidelines for Quality Assurance in European Higher Education Area*. Brussels: ENQA.
- Fadokun, J.B. (2005). *Educational assessment and quality assurance: Implication for principal instructional leadership roles*. Paper Presented at the 3rd Annual Conference of International Association for Education Assessment, Abuja.
- Fisher, M.R. (2023). *Student assessment in teaching and learning*. Center for Teaching, Vanderbilt University.
- Frymier, A. B., & Thompson, C. (1992). Perceived teacher affinity-seeking in relation to perceived teacher credibility. *Communication Education*, 41(1), 388-399.
- Hanover Research (2012). *Best practices in career services for graduating*

- students. Available online at <http://www.hanoverresearch.com/wp-content/uploads/2012/04/Best-Practices-in-Career-Services-for-Graduating-Students-Membership.pdf>. Accessed on September 17, 2018.
- Harman, G. (2000). Centre for higher education management and policy university of New England, Armidale, Australia. In International Conference on Quality Assurance in Higher Education. *Proceedings of the international conference on quality assurance in higher education: Standards, mechanisms and mutual recognition*. Bangkok, Thailand. 8-10 November 2000.
- Harvey, L. (2003). *Transitions from higher education to work*. A briefing paper enhancing student employability co-ordination team (ESECT). <http://www.ltsn.ac.uk>. Accessed on February 20, 2018.
- Hayden, S. & Goode, K. (2022). *An analysis of the types of curriculum evaluation*. Available online at <https://www.study.com/learn/lesson/curriculum-evaluation-process-models.html>
- Henard, F., & Roseyare, D. (2012). *Fostering teaching in higher education institutions: An IMHE guide for higher education institutions*. Available online at <http://www.oecd.org/edu/imhe/QT%20policies%20and%20practices.pdf>. Accessed on September 9, 2018.
- Hillage, J., & Pollard, E. (1998). *Employability: Developing a framework for policy analysis*. London: Department for Education and Employment.
- International Institute for Educational Planning (2016). *Exploring innovative and effective methods for IQA*. Vancouver: IIEP Research Project.
- Keesee, G. (2011). *Learning theories*. Available online at <http://teachinglearningresources.pbworks.com/w/page/19919565/Learning%20Theories>. Accessed on Sept 17, 2018.
- Knight, P.T. & Yorke, M. (2002). Employability through the curriculum. *Tertiary Education and Management*, 8 (4), 261–276.
- Lees, D. (2002). *Graduate employability*. Available online at <http://www.ltsn.ac.uk/application>. Accessed on February 20, 2018.
- Martin, M. (2018). Development, drivers, and obstacles in IQA: Findings of an international survey. In M. Martins (Ed.). *Internal quality assurance: Enhancing higher education quality and graduate employability*, 39-42. Paris: UNESCO International Institute for Educational Planning.
- Musa, M. (2017). The state of internal quality assurance systems in Ugandan universities: Issues, opportunities and challenges. *European Journal of Education Studies*, 3(8), 703-728.
- Nejam, A. A., Chong, A. T., Ahmed, M. S., & Al-Masri, O. (2017). A conceptual framework for mitigating graduate employment problems. *Journal of ICT in Education*, 4(1), 81-87.
- Njui, H. W. (2018). Evaluation of the IQA structures and mechanisms employed by universities in Kenya. *European Journal of Education Studies*, 4(5), 351-367.
- Olaniyi, O. S. (2017). *University-industry partnership and graduate employability in Lagos and Ogun states, Nigeria*. Ph.D thesis accepted by Olabisi Onabanjo University, Ago-Iwoye, Nigeria.
- Ramisetty, J. & Desai, K. (2017). Measurement of employability

- skills and job readiness perception of postgraduate management students: Results from a pilot study. *International Journal in Management and Social Science*, 5 (8), 82-94.
- Seniwoliba, A.J. (2014). Academic quality assurance practices in Ghanaian public universities: Experience from university for development studies. *Global Educational Research Journal*, 2(9), 152-166.
- Tai Solarin University of Education (2017). *Department of educational management handbook (2017-2022): Under graduate programme*. TASUED Press.
- Thweatt, K. S., & McCroskey, J. C. (1998). The impact of teacher immediacy and misbehaviours on teacher credibility. *Communication Education*, 47(1), 348-358.
- Urah, I. I. (2005). The quality assurance process in the Nigeria university system. In J. Murzahi (Ed). *Perspective and reflections on Nigeria higher education*, pp 89-157. Ibadan: Spectrum Books Limited.
- Yabut, E. V. (2009). Enhancing employability through quality assurance: The Centro Escolar University experience. *Sub-Theme A*, 1(10), 132-139.

FINAL DRAFT BJEAVOL9

Records Management Practices among Estate and Property Managers in Samaru Community and its Environment in Sabon-Gari Local Government Area of Kaduna State, Nigeria

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ABSTRACT

The study investigated the records management practice by the estate and property managers in Samaru community and its environments in Sabon –Gari Local Government Area of Kaduna State. The research was guided by the objectives on types of records generated by estate and property managers, how records are generated and the types of facilities use for records storage by the estate and property managers. Research method adopted is quantitative with survey research design approach; while the population is eighty nine (89). Enumerative sampling was used by selecting all the population in the study. Questionnaire was used for data collection; the data collected were quantified and analyzed using frequency counts, percentages and discussion. Some of the findings from the analysis revealed that the types of records generated by the estate and property managers include; receipts and invoices, records of property inventory, records of tenants' profiles etc., records are generated in the process of issuing receipts, documenting of tenants' profiles, inventory of properties etc., and the facilities used for records storage include; files cabinets, cupboards, and boxes etc. Some of the recommendations proffered include; that the Association of the Estate Surveyors and Valuers make it a policy for each of its members to adapt to the use of information and communication technology and the estate and property should make the provision of training of their staff on records management.

Keywords: *Records Management, Estate, Property Management, Management, Practice*

Introduction

Records are manage in order to be protected against operational risks that will deter and destabilized the ability of the organization to meet up with it operational goals and objectives. Failure to manage record, it will

vigorously affect the organization status, reliability, reputation and image loss of the enterprise. Effective management of records by organizations warrants and guarantees the reduction of all impact of risks by ensuring

evidence that would prove actions, confirms operational and financial decisions, demonstrate accountability, transparency and protect the employees and property (assets) from harm. Mordecai and Gambo (2022) submits that for any company, enterprise or business to survive, progress, and continue to exist, the records of previous issue, events, stories and so on must be kept and maintained. It is worth noting that all programmes and activities of the organization relied on records management for its success towards the achievement of the organizational aims and objectives.

International Standard Organization (ISO 2011) defines record as information created, received and maintained as evidence and information by organizations or person in pursuance of legal obligations or in the transaction of business. Similarly, Ladan (2014) notes that records are generally considered as accounts of facts, events and issues created and stored (preserved) in any physical form as authentic evidences for reference. Record management practice on the other hand involves record creation, generation and maintenance. According to Idhiarhi (2016) record management is concerned with life cycle of a record which is created or generated for use and to be disposed by destruction or by transfer to an

archival institution. Records being information and data are used to support numerous activities in an organization. Records could be perceived as instrument or tools that organizations and individuals used to are used to organize activities, plan, entitle, verify, explain, enable, track, notify, protect, recommend, mandate, authorize, guide authenticate, empower, terminate, comply, communicate and control. Dennis (2013) submits that estate and property management is an art of directing and supervision of one's interest in land or landed property in order to achieve some optimum returns which may not only be financial but political, social statute and other returns. In addition estate management involves the use of common sense, ideas and knowledge in tackling issues in the field. It requires one's experience, technical background and decision making skills which doesn't require any mathematical or scientific experiments in doing so. Supporting the above definition Tunde (2010) notes that property management is an all-encompassing activity which require the application of skills and knowledge towards exploiting the "latent values" of property, its surrounding, and amenities in developing a sound relationship between a landlord and a tenant and between tenants, so that the property may give its

fullest value to both the landlord and the tenants.

In a different description of property records Hudgson (2010) refer to it as an activity which involves planning, managing, training, organizing, directing and other managerial activities in the pursuance of the organizational activities. And for the success of property records management, records generation, maintenance, usage and disposition must be addressed through adequate and proper documentation of the organizational policies and transaction for practical and cost – effective out of the operational tasks of the organization. In the field of Estate Management property management is beyond merely just rent collection

Statement of the Problem

Estate and property management is an activity that embraces so many functions and activities to care for the investment of an individual household or corporate body building, with the to ensure a maximum return. The estate and property managers are responsible for looking for tenant, rent collection, property maintenance, dealing with the tenants complaints, paying necessary bills, ensuring value for money, security etc. The estate and property management is a process of keeping property

in good state of healthy maintains the value of the property for yielding optimum return of investment. In a nutshell, estate and property management is the physical administrative, financial management of land and landed property.

Conspicuously, the activities and operations within the profession of estate and property managers are enormous, and obviously there is the need for them to effectively manage their activities effectively which proper records keeping is inclusive for the progress and success, towards achieving their sets aims and objectives. Managing of all records of activities and inventory of properties alike must be done effectively and efficiently to avoid loss of resources, accountability, transparency, trust and loss of reputation which are tantamount to litigation and subsequent collapsed of the business.

Unfortunately, based on the researchers' personal observation, it discovered that a lot cases of dispute between the estate and property managers, the landlords and the tenants on issues that are related to improper records of transactions, which subsequently end in Police stations and Courts of Justice. It is in view of this research sought to investigate how estate and property managers in Samaru and its environment manages their records of operations,

transactions and property from creation to disposal.

Objective of the Study

1. To find out the types of records generated by estate and property managers in Samaru Community and its environment.
2. To identify how estate and property managers generates records in the cause of their operations in Samaru Community and its environment.
3. To identify the types of facilities use for records storage by the estate and property managers in Samaru Community and its environment.

Methodology

The research method adopted for the study was quantitative because is more concern with systematic empirical investigation of social observable phenomenon via statistical, mathematical or computational techniques. Survey research design is used in the process of understanding the records management practices of the estate and property managers in Samaru community and its environments of Sabon Gari Local Government Area of Kaduna State. The choice of survey research design is informed as a method that involves a systematic and comprehensive collection of information about the opinions, attitudes, feelings, beliefs and behavior of people (Sambo, 2005).The universe of this study is

represented by all estate and property managers in Samaru community. According to the data generated from the branch office of the Real-Estate Surveyors and Values of Nigeria in Sabon –Gari Local Government Headquarters (2023) there are eighty nine (89) registered estate and property managers across the community. For the purpose of this study total enumerative sampling was used by selecting all the population in the study. The data collected for this was analyzed using descriptive statistics and presented tabular form and expressed in frequency and percentages.

Literature Review

Record and Record Management in Organizations

Record is any type information that is made, received or maintained by a person, institution or organization, independent of its physical form or features. Pearce and Baty (2023) viewed record as an extension of human memory, with the purpose of recording information, documenting transactions, and providing explanation, justification etc. Every business maintain records of its properties and transactions that transpired in the process of its day- to day operations, which is critical to its decision making – making and legal aspects, and protection of the business. Iliyasu, Abubakar and Abdullahi (2019) record is indispensable

asset for the effective and efficient functioning, survival, management and development of any organization, Thus, a record is generally regarded as something that stand for an evidence of reality and that it can be used to verify state of existence regardless of medium generated or characteristic.

Records management from creation to disposal is great to the success of every business. Aramide, et al (2020) described records management as a systematic control of all records in an organization throughout their life cycle, in order to meet their operational business needs, statutory, fiscal requirements and community expectation. In a nutshell, records management is that an activity designed to control the life cycle of a record from its creation to disposal. In their contribution Abayomi and Adegoke (2016) lament that despite the importance of record keeping, some Nigerian some business owners are still unaware of the significance and benefits of proper record keeping. They further observed, in some capitals in the country many businesses are involved in records management of their business activities, as they keep track of their property information and their operational tasks.

The existence of records and its availability is critical in the process of achieving any

organizational objectives. Records must be given due recognition by organization and manage appropriately for maximum value and posterity. Mordecai and Gambo (2022) records must be stored to be accessible and protected from environmental damage to ensure their safety and longevity. A typical paper document in an office may be kept in a filing cabinet. On other hand, some businesses utilize climate controlled file rooms with temperature and humidity control. However, Weber (2011) submits that record keeping is in two basic categories – manual and electronic records. The electronic records management is the use of information and communication technologies, versatile and powerful technologies, with the capability of facilitating, replacing and enhancing the tasks that previously not possible to handle by both individual and organizations. Oberg and Borglund (2012) posited that, the importance of maintaining and managing records in organizations is to ensure that the organizations meet with the following criteria: authenticity, reliability, integrity and usability activities

Types of Records Generated and Received by Organizations

Organizational record refers to any document or other materials that is received or maintained by the organization in connection with business processing. All organizations

create records to support and provide evidence of their transactions in the course of tasks operations towards achieving their sets aims and objectives. Records regardless of their formats are important sources of information and knowledge. Kalusopa (2011) observes that, for organizations to participate meaningfully in the national development process, they must develop the capacity to manage records and information of their activities and properties. Organizations will not survive without keeping and managing it information through records keeping records, will serves as a reference tool in helping the organization to fulfill its obligations and for effective management of problems. However, records irrespective of its type in an organization constitute an essential instrument of administration without which the operational processes and functions of programmes and activities cannot be executed. According to Kisongwo (2016) the types of records created or received in the organization are:

1. Administrative Records

These are type of records which pertain to the origin, development, activities and accomplishments of the organization. Generally, these types of records are subdivided into two: Policy Records and Operational Records.

Policy Records

The policy records are those records that relate to the organizational plans, methods, techniques or rules which the organization adopted in carrying out its responsibilities and functions. And the policy records could be divided into three categories:

- **Organizational documents:** This category consist budgets and budget planning records, fiscal records, organizational and functional charts.
- **Governing Documents:** This category consist of manuals, direction orders, and interpretations issued from top authority levels, correspondence files, regulations, circulars, instructions, memoranda etc.
- **Reporting Documents:** This category consist annual reports, periodic progress or summary reports, special reports, minutes of meetings and conferences, workshops, seminars etc.

2. Operational Records

These are records kept by organization for the implementation of necessary administrative policies, procedures and operations. Examples of these records include mandate, procedural records, or records that give direction.

1. Legal Records

The legal records are those records that have legal value, with the evidence of legally

enforce able rights or obligations. They include:

- Records relating to property rights, land, probate, contracts, agreement leases licenses etc.
- Records relating to citizenship rights, vital statistics, such as birth, death, marriage, some legal proceedings and criminal cases.
- Records relating to employment veteran's records involving legal right attached to employment, basic state personnel records, and payroll. Records.

3. Fiscal Records

These are records that have fiscal value elated to the organizational financial transactions. They include, budget records, payrolls, vouchers, and accounting records.

Types of Records Storage Facilities in Organization

Records storage facilities refer to the equipment and systems used to file records otherwise keeping records during their useful lifetime in an organization. In the process of records management a conscious effort must be made to determine which record to retain and for how long. The records set aside for storage a systematic records storage system and or facility should be developed so that records can be safely stored and maintained. Nwaomah (2017) submitted that a good

records management programme is analyzing the needs of organization to determine which storage medium or combination of media and or facilities are the best. This is obvious, as each and every medium has a particular advantage and disadvantages. Fasasi (2010) states that furniture and equipment are essential part of records storage facilities in organizations and institutions. These include cabinets, drawers, shelves, cupboards, etc.

In the process of understanding the types of records storage facilities in organizations, Rogodon (2017) posited that the equipment for electronic records include computers with databases and document management software. The networking of personal computers with other computers in the organization also stored and allows retrieval and use of records electronically. In their contribution Ginn and Reid (2018) pointed out that the facilities and equipment used to stored records; include Vertical File Cabinets, Lateral File Cabinets, Shelf Files and mobile shelves.

Data Presentation and Discussion

A total of eighty nine (89) copies of questionnaire were distributed to the respondents and a total of eighty five (85) copies of questionnaire were dully filled and returned, which gave 95% of the total population of the study.

Types of Records Generated by Estate and Property Managers in Samaru Community and Its Environment.

In this section, the study is with the objective of knowing the types of records generated by the estate and property managers in samara community.

Table 1: Types of Records Generated by Estate and Property Managers in Samaru Community and its Environment

S/N	Processes of Record Generation	Frequency	Percentage %
1.	Receipts and invoices	26	31
2.	Records of tenants	25	30
3.	Records of leasing	12	14
4.	Minutes of meetings	7	8
5.	Property inventory records	15	17
	Total	85	100

Source: 2023 field Survey

Table 1 provides different types of records generated by the estate and property managers in the course of their business operations. The first findings on the types of records generated by the estate and property managers is on receipts and invoices, the reason behind this high number is that both receipts and invoices are essential documents that serve as proof for establishment of business contract or supply of good and services without which the contract or sales are not yet established. This can be seen from the number of respondents of 26(31%), then closely followed by records of tenants information 25(30%), followed by property inventory records with 15(17%), then the records of leasing of properties with 12(14%) and lastly records of minutes of meetings

having 7 (17%). This shows that records are vital documents that support numerous activities in an organization and serves as essential tools for verification of facts and sources of reference. This finding is in agreement with Mulauzi (2019) findings which described these range of records as administrative instruments and sources of evidence that help an organization to meet its objectives, fulfill legal and other obligations.

Records Generation by Estate and Property Managers in Samaru Community and its Environments

In this section, the study is with the objective of knowing how estate and property managers in Samaru community are generating from their operation and transactions.

Table 2: How Records are generated by Estate and Property Managers in Samaru Community

S/N	Processes of Record Generation	Frequency	Percentage %
1.	Meetings	13	15
2.	Issuing receipt of payment	24	28
3.	Leasing agreements	9	11
4.	Tenants profiles	23	26
5.	Correspondences	5	6
6.	Taking inventory of property	11	14
	Total	85	100

Source: 2023 field Survey

Table 2 provides different process from which the estate and property managers are generating records in the process of conducting their different tasks and operations in their businesses. The first finding is issuing of receipts of payment, this is a process which confirm the establishment of a business, for either contract of supply of goods and services others. This can be seen from the respondents rate of 24(26%), then closely followed by tenants profiles with 23(26%, followed by meetings with 13(15%), then taking of properties inventory goes with 11(14%). Leasing agreements is having 9(11%), while the last is correspondences with 5(6%). The implication of this finding is that the estate

and property managers are generating records of their business as evidence of transactions. This finding is in line with study conducted by Malauzi, Wamundila and Hamooya (2013) that documenting and recording of business activities and operations by an organization, is for the provision of the ultimate proof of activities undertaken.

Types of Records storage facilities used records storage by Estate and Property Managers in Samaru Community and Its Environments.

In this section, the study is with objective of finding the types of records storage facilities used by estate and property managers in Samaru and its environments. Table 3 below presented the response of the respondents on the objective of the study.

Table 3: Types of Records Storage Facilities used by the by the estate and property managers in Samaru community

S/N	Types Records Storage Facilities	Frequency	Percentage %
1.	File Cabinets	33	39
2.	Cupboards	24	28.2
3.	Boxes	15	17.6
4.	Cartoons	0	0
5.	Table Drawers	1	15.2
	Total	85	100

Source: 2023 field survey

Table 3 provides different types of records storage facilities used by the estate and property managers in the process of their records management activities. The first findings on the types of records storage facilities is file cabinets, the reason behind this is the importance attached to file cabinets keeping records for safety and protection. This can be seen from the number of respondents 33(39%), the followed by cupboard with 24(28.2%), followed by boxes with 15(17%), while the last is table drawer with 1(15.2%). This finding shows that the estate and property managers are using different types of records storage facilities as protection of their records which are made out of or are in form of furniture. This finding is in line with findings of Fasasi (2010) who states that furniture are essential part of records storage facilities in schools and offices in organizations.

Conclusion

From the analysis and discussion on the findings of this study, it is concluded that the estate and property managers in Samaru community and its environments are engaged in business activities. But, the only problem

observed is that the estate and property managers are not exploiting the opportunities of the modern technologies for efficient and effective records management. This can affect their effort on records management and development of their business.

Recommendations

- 1.** It is recommended that the Association of the Estate Surveyors and Valuers to make it a policy for each and every of its member to adopt to the use of information and communication technology as in this modern era any form activity cannot be possible without information and communication technologies.
- 2.** The estate and property managers should make it a policy that their staff should undertake trainings on records keeping and records management for appropriately management of their information resources.
- 3.** The estate and property managers should try to convert their paper base record into electronic format as a means of effective and efficient means of storage which will provide safety and protections to their records.

REFERENCES

- Abayomi, K.S & Adegoke, A.J. (2016). The imperatives of Accounting and Financial Records in the Development of Small Scale Enterprises in Nigeria. *Research Journal of Finance and Accounting*, 7(14), 43-52
- Arimade, O.K, Ajibola, R.E., Olatunji, O.S & Oduye, P. (2020). Improving Records Management and Security for Successful Business Performance: Role of New Media. *Library Philosophy and Practice e-journal* <https://digitalcommons.unl.edu.libphilprac/3734>
- Denis, N. (2013). Introducing Estate Management. The Basics of Estate Management Blog. Retrieved 21 August, 2023
- Fasaki, O. (2010) School record and effective administration, *Educational Journal*, 2(3) Pp3-11
- Ginn, M.L. & Read J. (2007). Records Management. U.S.A: U.S.A Cenage Learning.
- Hudgson, J. (2010). Grazing Management Science into Practice. London: Longman Group United Kingdom Limited.
- Idhiarih, S.E (2016). Improving Record Management and Security of Exhibits: Role of the Judicial Administrators. A paper delivered in a workshop at the National Judicial Institute, Jabi, Abuja. 6th September,
- Iiyasu, S.S., B.M. & Abdullahi, Y. (2019). Staff Records Management in Federal Universities of North West-ern States of Nigeria. <https://www.researchgate.net/publication/396>. Retrieved 14/1/2023
- Kisongwo, M.S. (2016). Management of Court Records in Support of Administration of Justice: The Case of Eldoret Chief Magistrate's Court. Eldoret: Unpublished MSC Thesis. Department of Library, Records Management and Information Studies. Moi University, Eldoret.
- Kalusopa, T. (2011). Developing an e-records Framework for labour Organizations in Botswana. Pretoria: Unpublished PhD thesis University of South Africa
- Ladan, A. (2014). Management and Utilization of Judicial Records in Federal High Court in North West States of Nigeria. *Procardia-Social and Behavioral Sciences* 147:32-38
- Mordedcai, P.S & Gambo, Y.L. (2022). Property Records Management among Estate Surveying and Valuation Firms in Kaduna, Nigeria. *African Scholar Journal of Built Environment and Geological Research (JBEGR-4)* 26(4), 27 – 38
- Mulauzi, F. (2019). Application of Information and Communication Technologies (ICTs). *Library and Information Association of Zambia Journal (LIAZJ)*, 5 (1-2), 41-54
- Mulauzi, F., Wamundila, S & Hamooya, C. (2013). The Millennium Development Goals (MDGs) in Zambia: The role of Records and Archives in their attainment. *Zambia Journal of Library and Information Science (ZAJLIS)*, 1(1), 55-71
- Nwaomah, A. E (2017). Record Information Management Practices: A study on Faith Based University, *International Education Research Foundation and Publishers*, 5(11), 87-102
- Oberg, L.M & Borglund, E. (2012). What are the characteristics of Records? *International Journal of Public Information System*, 2(1), 12-18
- Pearce, M.R. & Baty, L.A (2023). A Glossary of Archival and Records Terminology. Chicago: Society of American Archivists
- Rogodon, C.S. (2017). Records Management Practices in the Polytechnic, University of Philippines: Basis for proposed Records Management Guidelines. *Asia Journal of Multidisciplinary Research Conference Proceedings* 1(2), 14-20

Influence of In-Service Training and Seminar on Productivity of Academic Staff in Public Colleges of Education in Ogun State

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ABSTRACT

This study investigated the influence of in-service training and seminar on academic staff productivity in public Colleges of Education in Ogun State, Nigeria. The objectives of the study were to: examine the influence of in-service training and seminar as forms of human capital development in public colleges of education in Ogun state. Two hypotheses were tested in line with the purposes of the study. The descriptive research design of the survey type was adopted for this study. The population of this study comprised 480 academic of the federal and state Colleges of Education in Ogun State. A sample of 200 academic staff and 30 Heads of Departments were selected using proportionate stratified random sampling technique. Two researcher-developed and designed instruments titled: In-service training and Seminar Questionnaire (ITSQ) and Academic Staff Productivity Rating Scale (ASPRS) with reliability coefficients of 0.82 and 0.84 respectively were used for data collection. Findings revealed that there was significant relationship between in-service training and academic staff productivity ($r= 0.385$, $p < 0.05$) and there was significant relationship between conference and academic staff productivity in public colleges of education in Ogun State ($r= 0.364$, $p < 0.05$). Based on the findings, it was recommended that Management of colleges of education should organize in-service training, frequent workshops, regular conferences and seminars, and also encourage academic staff in these colleges to participate in order to enhance their productivity. And that the management of colleges of education should endeavor to reward academic staff (lecturers) for their achievements and afford them the opportunity to advance.

Keywords: *In-service Training, Seminar, Academic Staff Productivity.*

Introduction

There has been a major concern by different stakeholders in the education sector on perceived decline in the quality of Colleges

of Education in Nigeria. It appeared that Colleges of Education which is not only an instrument of change but also an important

tool for economic growth and national development has not been given enough attention by the government of the Federal Republic of Nigeria. According to the National Policy on Education 2013 edition, the idea of teacher education was conceived among others to provide teachers with the intellectual and professional background adequate for their assignment and to make them adaptable to changing situations, produce highly motivated, conscientious and efficient classroom teachers for all level of the educational system and help teachers fit into the social life of the community and the society at large and to enhance their commitment to national goals .

Academic staff productivity could be ascertained in terms of teaching, research and community services including supervision of students' projects which seem to be declining in public colleges of education in Nigeria (Oyewole, 2021). Adunola (2011) and Ganyaupfu (2013) viewed teaching as a collaborative process which encompassed interaction by learners and the lecturers. Some lecturers in public Colleges of Education are fond of writing notes that are too difficult for students to comprehend instead of writing down key concepts and examples that could make their lectures fascinating, thereby endangering

productivity. This was corroborated by Odunlami (2019) who concluded that some lecturers in tertiary institutions are not teaching as expected of them.

As researches and publications form a part of the determinants of productivity of lecturers, community service which is a job performed by one person or a group of people for the benefit of the community or its institutions also constitutes a component of lecturers' productivity. It appeared that lecturers' services to their community have been undervalued in comparison to research and teaching. Community engagement which is perceived as additional activities undertaken by academics to contribute positively to the community wellbeing seems to be lacking in Colleges of Education in Nigeria. Just like research and teaching activities that Colleges of Education academics are involved, community engagement in the institutions is often likely to increase lecturers' productivity. Experience has shown that lecturers' participation in community service is very low. Some often complain that, community service does not attract monetary gain (Odunlami, 2017).

Moreover, supervision of project is another factor to be considered in productivity of lecturers in government-owned colleges of education. Some lecturers in government-

owned colleges of education may not give adequate attention to supervision of students' projects. As a supervisor, a lecturer ought to mentor and guide the supervisees on how to do what is right. It is sad to note that, not many of these lecturers are doing what is required of them to ensure that the objective of establishing college education is achieved (Oladele 2015).

The need for human capital development of employees in higher education institution is gaining more attention in recent time. Ajisafe, Orifa and Balogun (2015) defined human capital as the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being. Also, Udu and Ewans (2016) defined human capital as a collection of resources that consist of experience, intelligence, skills and knowledge among others that are possessed by individual. These skills and knowledge among others could emanate from natural endowment, experience, formal education or training. Investing on human capital development provides sustainable framework that allow for greater operational dexterity and efficient necessary for improved job performance (Udu&Ewans, 2016). However, there are many human capital development practices variables such

as in-service training, workshop, conference, seminar, performance appraisal, mentoring etc. But as for this study, the researcher focused on in-service training and workshop as human capital development practiced in public colleges of education in Ogun State. In-service training offers one of the most promising roads to the improvement of instruction. It includes goal and content, the training process and the context. According to Ong (2013), In-service training is the totality of educational and personal experiences that contribute toward an individual being more competent and satisfied in an assigned professional role. The primary purpose of in-service training is to enable teachers to acquire new understanding and instructional skills. It focuses on creating learning environments which enable teachers to develop their effectiveness in the classroom. In the aspect of in-service training for teachers it is the driving force behind much change that has occurred in the area of teaching and learning. In-service training is so vital that teachers need to keep up to date on current concepts, thinking and research in their field and also promote professional growth in order to foster excellence among themselves, their environment and their students.

A seminar is a form of academic instruction, offered by a commercial or professional organization. It has function of bringing together small groups for recurring meetings, focusing each time on some particular subjects in which everyone present is requested to actively participate. This is often accomplished through a leader or instructor, or through a more formal presentation of research. Seminar is an effective way to allow teachers to explore in detail specific areas of interest to them. It is against this background that this study examined the influence of in-service training and seminar on academic staff productivity in public colleges of education in Ogun State

Statement of the Problem

There have been several insinuations concerning academic staff in Colleges of Education on complaints of their productivity in terms of classroom teaching, number of publications, quality of publications, research/creative activity/conferences, supervision of research projects, student counseling, campus committee work, activity in professional society, community service, consultation. Apart from this, in-service training, workshops, seminars and conferences are not frequently provided and organized for academic staff of Colleges of Education to improve their productivity.

Sometimes, when they are been organized, academic staff do not attend such programmes which can improve them with various skills to perform their job and in the long run improve their productivity. However, if these irregularities are not well addressed, it is likely that this may result to poor academic performance of Colleges of Education thereby leading to production of half baked graduates. This study therefore investigated the influence of in-service training and workshop on academic staff productivity in public Colleges of Education in Ogun State.

Objective of the study

The objective of this study was to:

- i. Determine the influence of in-service on productivity of academic staff in public Colleges of Education in Ogun State.
- ii. Determine the influence of seminar on productivity of academic staff in public Colleges of Education in Ogun State.

Research Hypotheses

H₀₁: There is no significant relationship between in-service training and academic staff productivity in public colleges of education in Ogun state.

H₀₃: There is no significant relationship between seminar and academic staff productivity in public colleges of education in Ogun state.

Human Capital Development

Human Capital is a measure of the skills, education, capacity and attributes of labour which influence their productive capacity and earning potential. Human capital could be structural capital or relational capital and when learning organisations can achieve synergy through their human capital, it becomes a dynamic capability (Tidd&Bessant, 2014). By training their employees, organizations attempt to modify their employees' knowledge, skill and behaviour with the intention of improving their performance, thereby assisting the organisation to achieve its goals (Morris *et al.*, 2016). The tasks of the employee usually dictate the training received. Education includes learning activities and, in the workplace, this could be formal or informal conditions under which an employee acquires knowledge. It entails, in part, remembering facts and understanding concepts (Erasmus &Joubert, 2016). The onset of globalisation brought about a renewed drive to develop human capital as a source of sustainable competitive advantage (SCA) through training and development (Roberts & Deloitte, 2017)

In-service Training

In-service training is an attempt to improve staff competence through continuing

education courses, meetings and study groups, lectures and personnel reform to enhance staff professional growth. According to Nakpodia (2011), in-service training programmes are a process for continuous updating of teachers' knowledge, skills and interests in chosen field. It is a means for continues professional growth, which encourages the extension of technical assistance by teachers educators. In-service training is an integral part of staff development programmes which is organized for teachers while in service. Aitken (2014) defines in-service training as the ongoing training of practicing teachers, which is typically arranged by school boards that employ them. In-service training can affect all practicing teachers, and can thus have a wider and more immediate impact on the effectiveness of the teaching workforce as a whole. There is always a need for training when the performance of a worker is noticeably poor and cannot be improved through maturation and simplifying the work procedure

Seminar

A seminar is a form of academic instruction, offered by a commercial or professional organization. It has function of bringing together small groups for recurring meetings, focusing each time on some particular

subjects in which everyone present is requested to actively participate. This is often accomplished through a leader or instructor, or through a more formal presentation of research. Seminar is an effective way to allow teachers to explore in detail specific areas of interest to them. Seminar is a topic oriented event designed to educate and inform an audience about subject of interest, (Al-Talib in Helen 2016). The idea is to familiarize teachers more extensively with the methodology of their chosen subject and allow them to interact with examples of the practical problems that always occur during research work. It involves assigning readings and discussion, questions can be raised, and debate can be conducted. The goal of seminars is to make participants gain mastery of a subject. It is based on the lecture and demonstration format such that the instructor or presenter prepares the concepts and techniques to presents and discuss it through a combination of visual materials interactive tools or equipment and demonstrations. Emphasis is on discussion and questions from all the participants for effective interaction and enhancing staff performance in teaching methods.

Lecturers' Productivity

Lecturers' productivity can be seen as the relationship between that total output of the

lecturer and the total resources input utilized in the production process (Ndu & Edith, 2017). In this context, a teacher can be said to be productive if such an individual is sufficiently motivated, devoted and committed to his or her duties, and demonstrates willingness to stay in the lecturing profession despite inducements to leave. Such productive lecturer can be seen to produce maximum output with a given quantity of input or produce a given quality of output with the minimum quantity of inputs. For a highly productive lecturer there is an optimal relationship between his or her output and input. A highly productive lecturer makes optimal use of the time to see that the students acquire necessary skills, knowledge, attitudes and as specified in the school's curricular and co curricular activities. Such a teacher demonstrates sufficient interest in the operation of the school in spite of adverse external influences (Kukuru, 2016).

Methodology

This study adopted descriptive research design of survey type. The population of this study comprised all the 480 academic staff (lecturers) of the federal and state Colleges of Education in Ogun State Nigeria as at February, 2022. A total of 200 academic staff were selected as samples for this study.

Proportionate stratified random sampling technique was used to select 60 percent of academic staff in federal College of Education Abeokuta and 40 percent of academic staff in Oba Sikiru Adetona College of Education, Science and Technology. This ensured that 6 academic staff was selected as respondents from each of the 20 selected departments in FCE and 8 academic staff was also selected as respondents from each of the ten selected

departments in OSACEST. Two instruments were used for this study. They were “Human Capital Development Practices and Productivity Questionnaire (HCDPPQ)” and “Academic Staff Productivity Rating Scale (ASPRS)”.

Testing of Hypotheses

Hypothesis One: There is no significant relationship between in-service training and academic staff productivity in public Colleges of Education in Ogun state.

Table 4.4: Pearson’s correlation coefficient showing the relationship between in-service training and academic staff productivity in public Colleges of Education

Variables	N	Mean	Std Deviation	Df	R	Sig.	Remark
In-service training	200	21.24	1.626	198	.385**	.000	Ho ₁ Rejected
Academic staff productivity	200	37.49	5.763				

Note. **. Correlation is significant at the 0.01 level (2-tailed).

Table 4.4 showed the Pearson Product Moment Correlation (PPMC) coefficient of the relationship between in-service training and academic staff productivity in public colleges of education in Ogun state. The result indicated that there was significant positive relationship between in-service training and academic staff productivity ($r=0.385$, $df=198$, $p < 0.05$). Therefore, the null hypothesis one which stated that, there is no significant relationship between in-service

training and academic staff productivity in public Colleges of Education in Ogun state was rejected. The result implied that academic staff productivity was significantly related to human capital development practice of in-service training.

Hypothesis Two: There is no significant relationship between seminar and academic staff productivity in public Colleges of Education in Ogun state.

Table 4.6: Pearson’s correlation coefficient showing the relationship between seminar and academic staff productivity in public Colleges of Education

Variables	N	Mean	Std Deviation	Df	R	Sig.	Remark
Seminar	200	21.17	1.845	198	.364**	.000	Ho ₃ Rejected
Academic staff productivity	200	37.49	5.763				

Note. **. Correlation is significant at the 0.01 level (2-tailed).

Table 4.6 showed the Pearson Product Moment Correlation (PPMC) coefficient of the relationship between seminar practice for human capital development and academic staff productivity in public colleges of education in Ogun state. The result indicated that there was significant positive relationship between seminar practice and academic staff productivity ($r= 0.364$, $df= 198$, $p < 0.05$). Therefore, the null hypothesis three which stated that, there is no significant relationship between seminar and academic staff productivity in public Colleges of Education in Ogun state was rejected. The result implied that academic staff productivity was significantly related to seminar practice for human capital development in public Colleges of Education.

Discussion of findings

Hypothesis two which stated that there is no significant relationship between in-service and academic staff productivity in public colleges of education in Ogun State was contradicted. The results of findings revealed

that in-service training was significantly and positively related to academic staff productivity in public colleges of education in Ogun State. However, the result showed that in-service training had a high relationship with academic staff productivity. Therefore, the null hypothesis one was not retained. The result also indicated that in-service training had moderate relationship with academic staff productivity. The implication of this finding is that as Colleges of Education frequently organised in-service training for academic staff so will their productivity increased moderately.

The above result was uncovered because in-service training allows for lecturers in Colleges of Education to obtain higher academic and professional qualifications in order to improve their positions in the educational system. Since, higher academic qualification like Doctor of Philosophy degree comes with higher job titles, roles and responsibilities, the productivity of academic staff will also increase. Another problem reason for the positive relationship between

in-service training and academic staff productivity is that academic staff who partake in in-service training are more likely to acquire more conceptual and technical knowledge, skills and competences in their course lectures, preparing material for teaching their courses, updating materials for courses already taught before and grading students and exams to improve their efficiency in classroom instruction. These activities portray a high level of job productivity in Colleges of Education.

The above finding corroborated the findings of Johnson and Dairo (2021) who investigated the relationship among in-service training, performance appraisal and the productivity of secondary school teachers in Osun state, Nigeria. The study revealed no significant difference in the perception of secondary school administrators (principals) and teachers on the contributions of the use of performance appraisal for teachers' promotion (productivity) in Osun West Senatorial District, Osun State, Nigeria. Moreover, it was revealed that in-service training significantly influenced secondary school teachers' productivity in Osun West Senatorial District, Osun State, Nigeria. Also, it was also found that performance appraisal significantly influenced secondary school teachers' productivity in Osun West

Senatorial District, Osun State, Nigeria. In addition, in-service training and performance appraisal jointly influenced secondary school teachers' productivity in Osun West Senatorial District, Osun State, Nigeria.

There are many reasons why academic staff in Colleges of Education should partake in seminars. Among these reasons are: to deepen academic staff knowledge of the course taught; to sharpen academic staff skills in the lecture room; to keep up with the development in the individual fields and education generally; to generate and contribute new knowledge among others.

However, the positive relationship between seminar and academic staff productivity found in this study might be due to the fact that academic staff can improve their teaching skills/techniques deficiencies by attending seminars. Since a number of the program seminars and workshops are routinely allocated to address teaching and learning problems.

The finding of hypothesis two agreed with the findings of (Abutalib, 1993) who affirmed that seminar being a topic-oriented event designed to educate and inform an audience about a subject of interest. Seminar involves assigned readings and discussion, questions can be raised, and debates can be conducted. It is informal when compared to

the lecture, system of academic instruction. As such, teachers are groomed in making effective communication through discussions with colleagues under diligent scrutiny, this gives the teacher opportunity to determine loopholes and contribute their ideas for effective teaching and learning.

Summary of findings

Based on results from the data analysis, the following summary of the findings were generated:

- 1) In-service training, workshop, seminar and conferences were the main human capital development practiced in public colleges of education in Ogun state.
- 2) Regular conduct of in-service training and seminars had impacted positively on the productivity of academic staff in public colleges of education in Ogun state.

Conclusion

The study showed the influence of human capital development practices (In-service training and seminar) and academic staff productivity in Ogun state public colleges of education. From the results of the analysed data, the study concludes that there was positive relationship between the variation of human capital development practices and academic staff productivity in public colleges of education, it is concluded that human

capital development practices which influence the productivity of academic staff are in-service training, workshop, conferences and seminar. Since productivity of academic staff is a very important aspect of education, it is essential that concerned personnel are aware of these factors that influence the productivity of academic staff. Frequently organized human capital development practices appeared to play a key role in keeping lecturers in the field. This study therefore concluded that human capital development practices (in-service training and seminars) which include which influence positive productivity among staff in Colleges of Education should be prioritized.

Recommendations

On the basis of findings of this study, it was recommended that:

1. The management should implement academic support services for continuous professional development of academic employees. This will assist the colleges of education in having competent people, with good experience, while still employed within the system. The image and brand of the system will therefore, be enhanced, as well as contributing to competitiveness in the education sector, on national and international levels.

2. It is also recommended that management of colleges of education should endeavour to reward academic staff (lecturers) for their achievements and afford them the opportunity to advance both locally and internationally.
3. Academic staff of Colleges of Education should also ensure that they partake in

human capital development practices including in-service training, workshops, seminars and conferences when they are been organized and they should also make use of this opportunity to learn which would also reflect in their performance and productivity.

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REFERENCES

- Adunola, O. (2011). *The impact of teachers' teaching methods on the academic performance of primary school pupils in Ijebu-Ode*. Ego Booster Books.
- Akinyele, S.T. (2007). The impact of Nigerian training programmes on employees' performance. *Research Journal of Business Management*, 1(1), 11-19.
- Aitken, J. (2014). In-service training for teachers in New Zealand schools, what's new publications. *North American Association of Educational Negotiators (NEAN)*, 15(1), 3-5.
- Ajisafe, O., Orifa, R., & Balogun, J. (2015). Effect of human capital development in organizational performance in manufacturing industries in South-east Nigeria. *International Journal of Academic Resource Development and Management*, 7(3), 60-78.
- Alsaaty, F. M., & Morris, A. (2011). High school leadership: The challenge of managing resources and competencies. *Journal of Case Studies in Education*, 3(8), 1-12
- Danjuma, K., & Akinpelu, A. (2016). Human Capital Efficiency and Corporate Productivity: Nigerian Perspective. *The International Journal of Business & Management*, 1(4) 1-9.
- Erasmus, B.J., & Joubert, J.P.R. (2016). Information and communication technology skills in higher education; the case of a distance learning institution. *Journal of Contemporary Management*, 14(1), 1010-1034.
- Federal Government of Nigeria (2013). *National policy on education*. Federal Government Press: Abuja.
- Ganyaupfu, E. (2013). Factors influencing academic achievement in quantitative courses among business students of private higher education institution. *Journal of Education and Practice*, 4(15), 57-65.
- Hamby, J. (2012). *Official guide to seminars and workshops*. Retrieved from www.selfgrowth.com.
- Kukuru, J.D. (2016). Expression of classroom management principles by secondary school teachers. *International Journal of Educational Administration and Policy Studies*, 3(11), 179-90.
- Morris, S., Snell, S., & Bjorkman, I. (2016). An architectural framework for global talent management. *Journal of International Business Studies*, 47 (6), 723-747.
- Nakpodia, E.D. (2011). Training and utilization of staff and job performance in post primary education board in North Senatorial District of Delta State. *Journal of Economics and International Finance*, 3(5), 279-28.
- Ndu, O., & Edith, O. (2017). A study of volatility of exchange rate fluctuation on the Nigerian economic growth. *International Journal Economics and Financial Management*, 2(3) 2545-5966.
- Odunlami, J. O. (2017). Impact of principal leadership style and teacher quality on teacher's productivity. *Asian Journal of Multidisciplinary Studies*, 5 (10), 2321-8819.
- Ogunkoya, A., Enyi, F., & Aremu, S. (2020). Assessment of polytechnic academic staff input into Nigeria's national development. *Kampala International University Journal of Humanities*, 5(2), 75-83.
- Oladele, A. (2015). Sectoral inflow of foreign direct investment and economic growth in Nigeria. *Journal of*

- Economics and Sustainable Development*, 6(17), 166-172.
- Ong, A. C. (2013). Teacher improvement through self-development: Problems and issues. Presiding Seminar National ke-3.
- Orobor, M.E. (2008). *Theory and practice of adult education*. Port Harcourt: RokinEnt.
- Oyewole, T.A. (2021). Funding, manpower development, job security and lecturer productivity in government owned polytechnics in southwestern Nigeria. Unpublished PhD thesis, department of educational management, university of Ibadan, Ibadan.
- Roberts M., & Deloitte L. (2017). The role of higher education institutions in reskilling the workforce. *Issues in Information Systems*, 21(1), 49-54.
- Schultz, H. B. (2004). *Workforce planning and recruitment*. Cape Town: Oxford University Press.
- Schultz, T.W. (1961). *Investment in human capital*. New York, Free Press.
- Smith, A. (1776). *An inquiry into the nature and causes of the wealth of nations*. Edwin Cannan (Ed.). Chicago: University of Chicago Press.
- Tidd, J., & Bessant, J. (2014). Innovation management practices: cross-sectorial adoption, variation, and effectiveness. *Journal of Business Research*, 46(33), 1024-104.
- Udu, A.A. (2014). In-System human capital development in Nigerian universities: The Case of National Universities Commission on Doctoral Degree. *EBSU Journal of Contemporary Management*, 2(1) 67-73.
- Udu, G., & Ewans, C. (2016). Human capital development and employee job productivity: A study of double diamond plastic manufacturing firm, Aba, Abia State, Nigeria. *International Journal of Research in Business Management*, 4 (6), 41-50.
- Udu, A.A. (2014). In-System human capital development in Nigerian universities: The Case of *Research in Business Management*, 4 (6), 41-50.
- Udu, G., & Ewans, C. (2016). Human capital development and employee job productivity: A study of workforce. *Issues in Information Systems*, 21(1), 49-54.

Panic Disorder Therapy as Predicts Post Basic School Students Academic Achievement in Mathematics in Adamawa State Nigeria

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ABSTRACT

This study investigated Panic Disorder therapy, predicts Post Basic School Students Academic Achievement in Mathematics in Adamawa State, Nigeria. One research question and one hypothesis were formulated for the study. Correlation research design (predictive) was adopted. The population comprised of 3,314 SS II mathematics students using. Multi-stage sampling was used to select 336 students. Mathematics Students' Panic Disorder Questionnaire (PDQ)" and a student's pro-forma result were used for data collection. The PDQ was validated by three experts. Cronbach's alpha method was used to determine the reliability of the instrument and a reliability coefficient of 0.66 was obtained. Descriptive statistics of mean and standard deviation were used to answer the research question while, the hypothesis was tested at 0.05 level of significance using linear regression analysis. The findings of the study showed average score of 3.92, which indicated that, these students were more when it comes to Panic Disorder, hypothetically, Panic Disorder predicts Post Basic schools students' academic achievement in Mathematics ($r = 0.79$ R-square = 0.62, $\beta = -0.79$; $t = -25.23$, $p < 0.05$). In conclusion, this study demonstrates that Panic disorder serves as a significant predictor of academic achievement in mathematics among students in Post Basic Schools within Adamawa State, Nigeria. Therefore, it was recommended that, Test anxiety can be a significant challenge for individuals with panic disorder. Developing coping strategies, such as deep breathing or visualization techniques, can help reduce anxiety and improve performance on tests.

Keywords: *Panic disorder*, Panic disorder therapy, Mathematics, post basic school student, academic achievement

Introduction

Society values mathematics as a crucial building block for scientific and technological knowledge worldwide, and it

serves as a tool for various developments in politics, socio-economics, science, and technology. This is why primary and

secondary schools require mathematics as a mandatory subject, and universities equal use it as a criterion to select students for degree programs. It's widely known that, mathematics plays a crucial role in our daily lives. However, concerning is that students' academic performance in math hasn't seen much improvement. The chief examiner's report from the West African Examinations Council (WAEC) in Nigeria reveals that, the overall achievement in mathematics across the country has remained low. Between 2011 and 2020, the percentage of students who passed their general math exams (i.e. p7 - A1) for 2011, 2012, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019 and 2020 respectively. On the other hand, the percentage of the students who failed was 40.01%, 41.08%, 48.8%, 47.3%, 48.9%, 51.1%, 55.3%, 56.2%, and 58.4% respectively. In the last years, the percentage of failures was higher than the percentage of passes and the report shows a significant increase in the percentage of failures in 2020, which is quite alarming. According to Byrnes and Wasik (2009) poor academic achievement in Mathematics can be defined as consistency of anxiety in mathematic which could lead to lower grades, test scores, and limited educational and career opportunities.

Anxiety attacks, also known as panic attacks, are episodes of intense panic or fear. Anxiety attacks usually occur suddenly and without warning (Chiu, 2020). Sometimes there's an obvious trigger but in some cases, the attacks come out of the blue. Anxiety attacks usually peak within 10 minutes, and they rarely last more than 30 minutes. But during that short time, LeBeau, Bogels, Moller and Craske (2015) stated that, the terror can be so severe that the individual feel as if he/she is about to die or totally lose control. The physical symptoms of anxiety attacks are themselves so frightening that many people believe they're having a heart attack. In addition to what initially instigates anxiety, once anxiety is aroused it becomes a secondary factor that can exacerbate problems (Chiu, 2020). For example, individuals who have anxiety attacks are fearful about when and where the next attack will occur. Panic attacks are defined as sudden increase in anxiety and fear, while panic disorder describes recurrent panic attacks (Cabral & Nardi, 2012). Panic attacks are diagnosed if there is a period in which there is a sudden onset of intense apprehension, fearfulness or terror commonly associated with feelings of impending doom (Repetti, Saxbe, & Wang, 2013). It is important to remember that a panic attack does not necessarily constitute a

panic disorder and appropriate treatment of a panic attack may limit the development of panic disorder. With symptoms such as shortness of breath, palpitations, chest pain or discomfort, smothering or choking sensations along with fear of losing control are experienced during these attacks (Hashempour & Mehrad, 2014).

According to Locke, Kirst and Shultz (2015), panic disorder is characterized by episodic, unexpected panic attacks that occur without a clear trigger; Panic attacks are defined by the rapid onset of intense fear (typically peaking within about 10 minutes) with at least four of the following physical and psychological symptoms, such as: palpitations, pounding heart, or accelerated heart rate; sweating; trembling or shaking; sensations of shortness of breath or smothering; feelings of choking; chest pain or discomfort; nausea or abdominal distress; and feeling dizzy, unsteady, light-headed, or faint. With symptoms such repeated occurrence of these symptoms leads to significant distress and impairment, as the fear of future panic attacks causes many adolescents with panic disorder to avoid everyday settings. Such as restaurants, schools, crowds or malls; and may lead to debilitating anxiety over being left alone or traveling without a companion (Pincus, Elkins & Hardway, 2014).

The Student Counselling and Career Centre Unit of the University of Iceland (2018) stated that, an individual may be suffering from panic disorder if the individual; experience frequent, unexpected panic attacks that aren't tied to a specific situation; worry a lot about having another panic attack; or behave differently because of the panic attacks, such as avoiding places where you've previously panicked. The debate within the field of psychology remains contentious. Some psychologists assert that panic attacks are linked to biological abnormalities, citing the hereditary nature of these disorders, which often appear in families. On the other hand, opposing viewpoints are also advocated that, panic attack like many other emotional states comes from an interaction of mind and body (Kambuga, 2016). Panic disorders are sometimes associated with agoraphobia - anxiety about, or the avoidance of, places or situations from which escape might be difficult or embarrassing, or in which help may not be available in the event of a panic attack or panic-like symptoms (Hess, 2014). According to Hess (2014); Kambuga (2016); Student Counselling and Career Centre (2018) and ADAA (2020), the essential feature of the panic attack is a discrete period of intense fear or discomfort that among

students is usually accompanied by at least 4 of the following physical symptoms, such as: palpitations, increased heart rate or pounding heart; sweating; trembling or shaking; sensations of shortness of breath or smothering; feeling of choking; chest pain or discomfort; nausea or abdominal distress; dizziness, unsteadiness, light headedness or fainting; de-realization or de-personalization; fear of losing control or going crazy; fear of dying; paraesthesia (numbness or tingling sensation); chills or hot flashes; feeling of imminent danger or doom; the need to escape; and rapid heartbeat.

Panic attacks are sometimes accompanied by avoidance of certain places or situations. These are often situations that would be difficult to escape from or in which help might not be available. Examples might include crowded shopping malls, public transportation, restaurants, or driving (Center for Integrated Healthcare, 2013). At school, Gluck (2015) opined that, panic disorder can contribute to attention and concentration problems and produce avoidance behaviour, including reluctance to interact with others and aversion to school and school staff. In severe cases, the individual may develop agoraphobia. Panic disorder according to LeBeau, et al. (2015) is the worst and most severe form of anxiety; total disruption of

perceptual field is present. It is also characterized by loss of ability to communicate, loss of rational thought and total loss of conscious thinking. All this contributes to poor peer relationships, poor school performance, and other problems.

There is empirical evidence indicating that panic disorder may predict lower academic achievement in mathematics. A study by Hofmann, Curtiss, and McNally (2006) found that individuals with panic disorder were significantly more likely to report difficulties with mathematics and other academic subjects compared to individuals without panic disorder. Another study by Williams, Chambless, and Steketee (1996) found that individuals with panic disorder were more likely to report lower academic achievement in mathematics and other academic subjects than individuals without panic disorder. A study by Smith, Reardon, and Peterson (1990) found that college students with panic disorder reported significantly lower grades in mathematics compared to college students without panic disorder. A study by Zengin, Özcan and Gürkan (2020) found that panic disorder was significantly associated with poorer academic performance, including mathematics, among Turkish medical students. Hasan and Kaur (2019) found that,

university students with panic disorder had significantly lower scores on an academic achievement test, which included mathematics, compared to students without panic disorder. A study by Matsunaga, Isowa, Yamakawa, Tsuboi, Kawanishi, Kaneko and Ohira (2010) found that individuals with panic disorder were more likely to have difficulty with mathematics and other cognitive tasks that require mental flexibility and speed of processing. According to the research, panic disorder can adversely affect academic performance in various areas and emphasizes the importance of implementing measures to support the psychological well-being of students who have panic disorder.

Purpose of the Study

The purpose of this study was to investigate whether panic disorder predicts post basic school students academic achievement in mathematics in Adamawa state, Nigeria.

Research Questions

The research question was stated to answer the study;

What is the level of panic disorder is of post basic schools students' Academic Achievement in mathematic in Adamawa State, Nigeria?

Hypothesis

The Null hypothesis was formulated to guide the conducted study

Ho: Panic disorder does not significantly predict Post Basic Schools students' Academic Achievement in mathematic in Adamawa State, Nigeria.

Methodology

The research study utilized a correlational research design, which aims to identify the relationship between variables using correlation coefficient. This involves collecting data to determine the extent to which two or more variables are related. The design allows for the collection of data from the same group on multiple variables, and correlation coefficients are calculated to assess the degree of relationship between each variable. The study aimed to determine whether a relationship exists between Panic Disorder and Post Basic Students' academic achievement in Mathematics.

The study selected a sample of 360 Post-Basic School students who are studying Mathematics in Adamawa State, this sample size represents 10% of the entire population, which is in accordance with the recommendation of Gall, Gall and Borg (2007). The authors suggest that when the population size is up to 10,000, a 5% sample should be used, while a 10% sample should be used when the population size is between 2000 and 5000. When dealing with

population sizes between 1000 and 2000, a 20% sample should be used and a 50% sample should be selected when the population size is in the hundreds. If the population size is in tenths, the whole population may be used. However, for this study, a multi-stage procedure was employed.

To collect information based on the study variable. An instrument referred to as the "Panic Disorder Questionnaire (PDQ)" was modified for use in this study. The PDQ comprises two distinct sections, with Section A providing instructions on how to answer the items, and Section B containing different sets of items designed to address the research question related to Panic Disorder for Mathematics students. The questionnaire has a total of 10 items and uses a five-point likert scale.

Content validity was employed to establish the validity of the instrument used in the study, and Cronbach's alpha was used to determine the internal consistency of the instrument. The reliability coefficient was

0.66, indicating that the instrument was reliable. The data were analyzed using mean and standard deviation to answer the research questions. Linear regression was used for testing hypothesis at 0.05 level of significance. The Statistical Product and Service Solutions (SPSS) version 23 was used for data analysis

In determining the level of PDQ symptoms and academic achievement, a set of real limit values ranging from 0 to 5 were used as the decision rule for the research questions. The null hypothesis were decided based on a p-value of ≤ 0.05 , indicating that hypothesis would be rejected if the p-value was less than or equal to 0.05 and accepted if the p-value was greater than or equal to 0.05 will be rejected. A positive or negative relationship was shown by a correlation coefficient of +1 or -1, respectively.

Results

What is the level of panic disorder of Post Basic Schools students' Academic Achievement in mathematic in Adamawa State, Nigeria?

Table 1: Mean and Standard Deviation of Panic Disorder

S/N	n = 360	Mean	St.D	Remark
1.	Constant trembling in class	3.58	0.33	HL
2.	Feeling of choking during class activities	4.00	1.01	HL
3.	Constantly having shortness of breath during school activities	4.10	0.74	HL
4.	Feel detached from people	3.88	0.63	HL
5.	Constantly having an increased heart beat during business studies' lesson	3.67	0.24	HL
6.	Abdominal distress in class	3.90	0.98	HL
7.	Fear of losing control in business studies' lesson	3.74	0.87	HL
8.	Fear of dying	4.00	0.68	HL
9.	Having constant paraesthesia (numbness or tingling sensations) in class	4.21	0.97	HL
10.	Constantly having feelings of unreality	4.11	1.00	HL
	Average Mean	3.92	0.75	HL

Table 1 show that Post Basic school students who were surveyed for panic disorder in mathematics academic achievement experienced high levels of panic disorder for items 1-10. The overall average score of 3.92 suggests that these students were highly prone to panic disorder.

Hypothesis

Ho1: Panic disorder does not significantly predict Post Basic Schools students' Academic Achievement in mathematic in Adamawa State, Nigeria

Table 2a: Model Summary of Regression Analysis between Panic and Students' Academic Achievement in Mathematics

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.79	0.62	0.62	5.48

Model summary of prediction between Panic disorder and students' academic achievement in Mathematics is presented in Table 2a. The data shows R, R² and adjusted R² values of 0.79, 0.62 and 0.62 respectively. The R² value 0.62 indicated that, 62% of the total variation in students' academic achievement in Mathematics can

be accounted for by Panic disorder. The remaining 48% could be attributed to other variables not factored in the model. This results shows that the Panic disorder predict students' academic achievement in Mathematics. Table 2b shows the significance of the regression model.

Table 2b: Summary of ANOVA of Regression between Panic Disorder and Students' Academic Achievement in Mathematics

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	19108.77	1	19108.77	636.51	0.00
	Residual	11738.29	358	30.02		
	Total	30847.06	359			

*Significant; $p < 0.05$.

Table 2b shows that Panic disorder significantly predicted students' academic achievement in Mathematics ($F(1, 358) = 636.51, p = 0.000 < 0.05$). This result

established that students' academic achievement is strong negatively predicated on panic disorder.

Table 2c: Summary of Regression Coefficients of Prediction between Panic Disorder and Students' Academic Achievement in Mathematics

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.34	2.12		1.58	0.12
	Panic Disorder	-0.87	0.03	-0.79	-25.23	0.00

The result of the analysis in Table 9c suggests that the panic disorder predict students' academic achievement in Mathematics. The Beta weight, t and sig. values which are -0.79 (79%), -25.23 and $p = 0.000 < 0.05$ respectively points to the fact that panic significantly predicted students' academic achievement in Mathematics. Here, Panic disorder does not significantly predict Post Basic Schools students' Academic Achievement in mathematic in Adamawa State, Nigeria is hereby rejected. The result showed that there was an significant prediction of panic disorder on students' Post

Basic Schools Academic Achievement in mathematic ($r = 0.79$ R-square = 0.62, $\beta = -0.79$; $t = -25.23, p < 0.05$). This implies that increases in the high level of panic disorder will decreases the academic achievement of students in Mathematics

Discussions

The study found that Post Basic Schools students with Panic Disorder had significantly lower academic achievement in mathematics, as evidenced by an average score of 3.92. This finding is consistent with previous research, including Hofmann, Curtiss and McNally (2006), Williams,

Chambless, and Steketee (1996), Smith, Reardon, and Peterson (1990), Zengin et, al. (2020), Hasan and Kaur (2019), Matsunaga et, al. (2010), and Beesdo-Baum et, al. (2012) observed individuals with panic disorder tend to have more difficulties with mathematics and other academic subjects, which may be related to their struggles with cognitive tasks that require mental flexibility and speed of processing. A study by Acharya et al. (2014) found that college students with panic disorder had significantly lower academic performance compared to their peers without panic disorder. The study also found that students with panic disorder had higher levels of academic stress, which was significantly associated with poorer academic performance. It is important to note that the studies mentioned above have limitations, such as small sample sizes or cross-sectional designs.

Conclusion

This study's results emphasize the noteworthy role Panic disorder plays in predicting the academic achievement of students in mathematics at Post Basic Schools in Adamawa State, Nigeria. These findings shed light on the necessity of recognizing and addressing mental health challenges among students to foster better educational outcomes. Future research and

targeted interventions should be considered to provide appropriate support to students grappling with Panic disorder, ultimately enhancing their academic performance and overall well-being.

Recommendations

Based on the findings of the study, the following recommendations are made:

1. Offer training to teachers and school staff to recognize signs of mental health distress in students, including Panic disorder. Teachers can play a crucial role in identifying struggling students and referring them to appropriate resources.
2. Review and revise the academic curriculum to reduce unnecessary academic pressure and stress. Encourage a balanced approach to education that takes into account the mental well-being of students.
3. As panic disorder can significantly impact academic achievement in mathematics, seeking treatment from a mental health practitioner is crucial. Treatment may include medication, psychotherapy, or a combination of both.
4. Mathematics builds upon prior knowledge, so it's important for individuals with panic disorder to ensure that they have a solid foundation in the

subject. This may require seeking additional help, such as tutoring or online resources, to review fundamental concepts.

5. Mathematics can often involve complex problems that may be overwhelming for individuals with panic disorder. Breaking down problems into smaller, more

manageable components can help reduce anxiety and increase confidence.

6. Test anxiety can be a significant challenge for individuals with panic disorder. Developing coping strategies, such as deep breathing or visualization techniques, can help reduce anxiety and improve performance on tests.

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REFERENCES

- Anxiety Disorders Association of America, ADAA (2020). *Anxiety disorders in children*. Georgia: Anxiety Disorders Association Publication. Retrieved on the 12th of February, 2020 from www.adaa.org.
- Byrnes, J. P., & Wasik, B. A. (2009). *Factors predictive of mathematics achievement in early childhood, middle childhood, and adolescence: An overview*. In Handbook of research on mathematics teaching and learning (pp. 165-190).
- Cabral, R. & Nardi, A. E. (2012). Anxiety and inhibition of panic attacks within translational and prospective research contexts. *Trends Psychiatry Psychotherapy*, 34(2), 62–72.
- Center for Integrated Healthcare (2013). *Panic Attacks*. US: Center for Integrated Healthcare Publication.
- Chiu, L. (2020). *About anxiety attacks*. National Centre for Mental Health in Schools Information Resource. Retrieved on the 17th of February, 2020 from <http://smhp.psych.ucla.edu>
- Gluck, S. (2015). *What is an anxiety attack? Anxiety attack symptoms*. Retrieved on the 13th of April, 2020 from <http://www.healthplace.com/anxiety-panic/anxiety-information/what-is-an-anxiety-attack-anxiety-attack-symptoms/>
- Hasan, N., & Kaur, P. (2019). Panic disorder and academic performance of college students: a comparative study. *Industrial Psychiatry Journal*, 28(1), 121-126. doi: 10.4103/ipj.ipj_63_18
- Hashempour, S. & Mehrad, A. (2014). The effect of anxiety and emotional intelligence on students' learning process. *Journal of Education & Social Policy*, 1(2), 115–122.
- Hess, J. (2014). *Anxiety prevalence among high school students*. Master's Thesis: State University of New York, USA.
- Hofmann, S. G., Curtiss, J., & McNally, R. J. (2006). A comparison of Hofmann et al.'s (2004) and McNally's (2004) models of anxiety disorders: Symptom severity and diagnostic efficiency. *Psychological Assessment*, 18(3), 255–260. <https://doi.org/10.1037/1040-3590.18.3.255>
- Kambuga, Y. (2016). Anxiety and academic performance among secondary school students in Tanzania. *International Journal of Innovative Psychology & Social Development*, 4(2), 1–8.
- LeBeau, R. T., Bogels, S., Moller, E. & Craske, M. G. (2015). Integrating dimensional assessment and categorical diagnosis in DSM-5: The benefits and challenges of the paradigm shift for the anxiety disorders. *Psychopathology Review*, 3, 83–99.
- Locke, A. B., Kirst, N. & Shultz, C. G. (2015). Diagnosis and management of generalized anxiety disorder and panic disorder in adults. *American Family Physician*, 91(9), 617–624.
- Matsunaga, M., Isowa, T., Yamakawa, K., Tsuboi, H., Kawanishi, Y., Kaneko, H., & Ohira, H. (2010). Association between panic disorder and impaired cognitive function in Japanese patients: A preliminary study. *Psychiatry and Clinical Neurosciences*, 64(6), 603–610. <https://doi.org/10.1111/j.1440-1819.2010.02134.x>
- Pincus, D. B., Elkins, R. M. & Hardway, C. L. (2014). Intensive treatments for adolescents with panic disorder and agoraphobia: Helping youth move

- beyond avoidance. *Psychopathology Review*, 1(1), 189–194.
- Repetti, R. L., Saxbe, D.E., & Wang, S. (2013). *Stress*. In E. Ochs & T. Kremer-Sadlik (Eds.), *Fast-Forward Family*. Berkeley, CA: University of California Press.
- Smith, D. A., Reardon, M. L., & Peterson, R. A. (1990). Anxiety and academic performance: An empirical study. *Journal of Counseling Psychology*, 37(3), 269–272. <https://doi.org/10.1037/0022-0167.37.3.269>
- The students Counselling and Career Centre Unit of the University of Iceland (2018). Panic disorder. Retrieved from <https://english.hi.is/panicdisorder>.
- The National Mathematics Advisory Panel. (2008). *Foundations for success: The final report of the National Mathematics Advisory Panel*. U.S. Department of Education.
- Williams, J. B., Chambless, D. L., & Steketee, G. (1996). Specific phobia and generalized anxiety disorder: Correlates of academic achievement. *Journal of Anxiety Disorders*, 10(3), 239–251. [https://doi.org/10.1016/0887-6185\(95\)00042-4](https://doi.org/10.1016/0887-6185(95)00042-4)
- Zengin, S., Özcan, T., & Gürkan, F. (2020). The relationship between panic disorder and academic performance among medical students. *Perspectives in Psychiatric Care*, 56(2), 323-328. doi: 10.1111/ppc.12408

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Community Development as a Panacea for Rural Transformation in North-Central, Nigeria

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ABSTRACT

The thrust of community development as panacea for rural transformation in the north-central Nigeria, emphasized on the role of self-help as one of several distinguishing factors of rural community development theory and practice. It is believed that solution to the community problems is sought first within the community and its resources. The paper discuss rural transformation, the objective of community development and rural transformation, the concept of community, development, community development and the characteristics of rural problems in north-central, Nigeria. While the conclusive part suggests that government at all levels should encourage communities to partake fully in all issues concerning their development both morally, financially and otherwise, and that policy makers must realize that even with Nigeria oil wealth, rural transformation is still key to country's growth and development. And community development had significantly transformed the rural communities in north central, Nigeria. This study recommends that the community development programme should be replicated in more communities and the strategy of community driven development be adopted by local governments, states and federal government so that the people to whom the development is meant for will be at the driver's seat.

Keywords: Community, Development, Community Development Tools, Rural Transformation.

Introduction

Nigeria is one of the developing countries in the world located within the tropical region. It has few urban sprang which most of them come as a result of colonial administration

whereas others were created by indigenous administrations. Eleberi (2012) remarked that, urban communities are privileged to modern infrastructural facilities such as pipe-

borne water, good road network, electricity, information and communication networks, and modern health-care services among others. It is worthy to note that majority of Nigerians are dwelling in rural communities where there is dearth of facilities that give minimum comfort for living. This is the true picture of most Nigeria communities, which North Central is not an exception. The rural communities are characterized with peasant agricultural activities, high level illiteracy, poverty, ignorance and superstitious belief system that retard and rejects modern development. There is the need to articulate programmes that will give them a lease of life. This will enhance their socio-economic well-being and reduce the tendency of rural-urban drift. Hence, adult education and community development programmes need to be organized in an integrated manner to change rural life for better.

The concept, “community development” consist of two significant words, community and development that are key to the understanding of the concept community development, as such, Community as a scholarly word also have several definitions as a concept. Eleberi (2012) remarked that, most scholars define community in terms of specific geographic locality while others define it as a psychological construct. Giving

its definition from geographical point of view, Anyanwu (1981) sees it as social group occupying a more or less defined geographical area and based on the feeling that people have for one another. Similarly, Oyebamiji and Adekola (2008) describe it as a localized population which is interdependent and which develops and nature’s specialized institution that provide on a day-to-day basis a full range of goods and services necessary to meet the common goals and perpetuate it existence on the surface of the earth. Based on the above definitions, community could be seen as a geographical area occupied by group of people who share common socio-cultural ties and possess a common means of ensuring their continued existence This explains that community development programmes as a tool of development gives opportunity for acquisition of new skills and knowledge which are indispensable for socio-economic transformation of human society. In the view of Gana, J. (1996), adult education is a process by which men and women (alone, in groups of institutional settings) seek to improve themselves or their society by increasing their skill, their knowledge or their sensitiveness; any process by which individuals, groups or institutions try to help men and women improve in these ways. .

According to the Adeyemo (2003), community is an organized political or social body. It further explains that it is any group having work, interest etc. in common. Inferably, the two divergent schools of thought notwithstanding, be it community as geographical construct, there is an element which is central, the human beings who are the custodians of all the characteristics of a community irrespective of its definition. While development as a concept is like an octopus with its tentacles spread widely to all spheres of life, be it economic, social, political and cultural. Adeyemo (2003) describes development as: “The process of economic and social transformation within countries. He further states that the concept of development was conceived as almost exclusively in terms of growth targets, with little regard to the beneficiaries of growth or to the composition of output. Development at the level of individual implies increase skill and capacity, greater freedom, creativity, self-discipline, responsibility and material well-being. At the level of group, development implies an increasing capacity to regulate both internal and external relationship”. In the foregoing, there is emphasis on the role of human beings in engendering development. Through increased skills and capacity, man produces

goods and services which serve the basic needs of life. Oni and Bello (1987) in Enwo-Irem (2013), sees development as qualitative and quantitative change in factors of production by a society, and increase in the quality of goods and services that every individual is opportune to possess. Development therefore, could be seen as an impressive positive change in the capacity of individuals and groups to enhance their socio-economic well-being through increased production of goods and services to satisfy their daily needs. It is therefore justifiable to look at “community development” not just as the combination of community and development, but also as an integrated concept. Different scholars have defined community development in several ways. It is viewed as an educational method, a process of social action and a movement. UNESCO cited in Onyeozu (2007) defines community development as an educational method by which the efforts of the people themselves are united with those of government authorities to improve the economic, social and cultural condition of communities, to integrate these communities into the life of the nation, to enable them to contribute fully to national progress. In this definition, there is emphasis on what the people can do. It recognizes that government

requires alleviating the suffering of the people rather, but there should be concerted effort on the part of the people to identify their felt-need, mobilize necessary human and material resources to satisfy it.

Similarly, Mezirow in Oduaran (1994) defines: Community development as planned and organized effort to assist individuals to acquire attitudes skills and concept required for their democratic participation in the effective solution as wide as possible. A range of community problems in an order of priority determined by their increasing level of competence. Considering the two given above, certain variable is common in both. Consequently, community development is a process which culminates from people's effort to change their living conditions through organized and planed programmes within the limits of their resources or external assistance. Objectives of Community Development. Community development aims at enhancing a sustainable socio-economic development with effort of the people as a fulcrum. Anyanwa (1981) summed up its **objectives as follows:**

- To educate and motivate the people for self-help
- To develop responsible local leadership

- To inculcate among the members of a community a sense of citizenship and spirit of civic 9 consciousness.

- To introduce and strengthen democracy at the grassroots level, through the creation and revitalizations of institutions designed to serve as instrument for local participation

- To initiate a self-generative, self-sustaining, and enduring process of growth.

- To enable people to establish and maintain co-operative and harmonious relationship.

- To bring about gradual and self-chosen changes in the life of a community with a minimum stress and disruption.

The Concept of Rural Transformation

Rural transformation involves more than directing capital investments into agricultural sector. It rather should emphasis the mobilization approach to rural development which involves the creation of self-sustained local communities, which, by virtue of their effective organisation and the strength of their own internal momentum, are capable of solving their production and general development problems. This implies that, rural development should essentially mean a fundamental transformation of our mode of production, using our expertise, our skills, our talent, our creative abilities, our raw materials, our indigenously developed tools,

equipments, machinery and processes. (Catherine, Asor & Ojong, 2021).

Essentially, this approach views rural transformation as an integrated process designed to raise the quality of life in the rural population of a self-sustained basis through an imaginative transformation of the rural mode of production.

Rural transformation is seen as the foundation of national, regional, state and local government development. It encompasses a range of approaches and activities that is aimed at improving the welfare and livelihoods of rural populace. These approaches pay attention to social issues, particularly community mobilization and organisation and not just public works such as rural roads and electrification and technology as tools and techniques for improving agricultural production.

Rural transformation in Nigeria often depends on government interventions. Unfortunately, such interventions have been grossly inadequate, leaving many rural communities bereft of basic infrastructure like good roads, portable water, electricity, health facilities, telecommunication facilities and so on (Catherine, Asor & Ojong, 2021).

Rural community transformations are important in developing countries like Nigeria and North-Central, where a large part

of the population are engaged in farming. Consequently, a range of community development methods are created and used by organisations involved in international development. Most of these efforts to promote rural community transformations are led by "expert" from outside the country such as government officials, staffs of non-governmental organisation and foreign advisers. This has generated a long debate about the issues of community participation/mobilisation sustainability of these efforts and the extent to which rural area are-or-are not being empowered to make decisions for themselves.

The Characteristics of Rural Problems in North-Central Nigeria

Generally, rural areas of the world, especially third world countries are identified by their low level of development compared to the urban areas. It is considered rural when it lacks basic social infrastructures, such as pipe-borne water, electric power supply, good roads, good schools, healthcare institutions, and telecommunications Ojong, A.A., Catherine, T.N. & Martins, R.E. (2019). Other features observed in a typical rural community. In Nigeria includes over-dependence on primary economic activities, e.g. hunting, farming, pastoralism, exposure to the raw forces of nature, e.g. harsh

weather, undomesticated plants and animals, wild insects, pests and parasites, undeveloped socio-cultural environment, high degree of homogeneity in the sense that community members are almost the same ancestral past, the same languages and social traits, high degree of illiteracy, i.e. inability to read and write in the general medium of communication, high susceptibility to diseases, malnutrition, and other serious medical problems. Majority of the rural dwellers in the North-Central of Nigeria live in substandard houses, poor environment and unplanned rural community, most residents are usually farmers or fishermen but with some others engaged in craft, mining, trading and rural services.

Furthermore, rural residents are mostly poor, uneducated but with some skills in different fields such as hunting, carpentry, wood carving, blacksmithing etc. They usually support urban areas in respect of food and serves as the permanent home of some urban residents after retirement. Perhaps, the most striking feature is that infrastructural facilities such as hospitals, schools, pipe-borne water, electricity, industries and good roads and recreational facilities are generally lacking in most rural communities in the North-Central State's of Nigeria.

According to (Catherine, Asor & Ojong, 2021), the characteristic of rural community/ environments in the North-Central in particular and Nigeria in general includes:

1. Remoteness from urban influence
2. Large-scale unemployment
3. Absence of well-equipped schools and medical institutions
4. Dependence on subsistence farming
5. Lack of storage facilities for agricultural produce
6. Desertion of the village environment by able-bodied persons who have migrated to urban centres in search of paid jobs
7. The relegation of women to the background by engaging them in menial job's rather than job's involving entrepreneurship pursuit
8. Insufficient infrastructure to aid and sustain the establishment of small-scale industries utilizing the local raw materials and indigenous technology

Many studies have also revealed that the most important feature of Nigeria rural area is perhaps that of near total neglect, especially in term of supply and distribution or social and infrastructural facilities as earlier listed. Reaction to rural neglect and undisputed rural poverty are mostly commonly manifested in rural-urban migration, especially of able-bodied ruralites who consider the living

condition in rural areas unattractive and strenuous and therefore move with haste to urban centers in search of better living conditions.

Human activities as a result of the search for quality standards of living through science and technology have brought problems on the environment. Such issues include over population, greater population, the death and destruction caused by toxins, spill's and dump's, flood and the massive deforestation of the world forest for commercial purposes, harm caused by environmental degradation the destruction of wildlife habitats for human development amongst others (Ojong, Catherine & Martins, 2019). A study carried out in the North-West Nigeria by Sanders (2008) shows that 65 percent of the people who leave the village do so because of lack of water, electricity, educational and health facilities.

Rural Transformation. Scholars have used the concept of rural transformation as a process, which engenders improved socio-economic wellbeing of people living in rural communities. According to Coker and Obo (2012), rural transformation is design to improve the economic and socio conditions of rural inhabitants, which must involve strategies for extending the benefits of the development of the rural majority. They

further state that the objectives of rural transformation efforts include the elimination of poverty, creation of rural employment, opportunities, elimination of major inequalities and ensuring adequate participation of the rural populace in the transformation process. Describing transformation at the national level, World Bank in Enwo-Irem (2013), notes that, it is a holistic overhaul of segment of the national life. That is political, economic and social life. It emphasizes attitudinal change along the path of patriotic zeal and commitment. It involves determination of government citizens to systematically upgrade their national development index. In the view of Enwo-Irem (2013).

Transformation is the participation of all in the process that enhances the general wellbeing of all by improving the economic, political, and social environment. Deducing foregoing, the foregoing, rural transformation connotes a change in total life of the rural dwellers, which result from participation in change-oriented programmes.

Eny, (2010), remarks that: The theme of social commitment is prominent in concepts, community development, with emphasis on the development of personal abilities and the encouragement of social, moral and

intellectual responsibility in relation to local, national and world citizenship. He stressed the complementary roles of community development in effecting social change by bringing community development to bear on social issues. More so, issue of leadership is so cardinal to the discipline for a given community or a group of people to achieve any fit in development process, there should be purposeful leadership endowed with requisite qualities and readily disposed to acquire useful knowledge remarking on the mobilization role of adult education and community development. Ezima (2004) posits that: community development makes their multivalent tools for development. its common objective is the mobilization of people for change. Therefore, people and change are the recurrent themes in their activities. In our rural communities, the need to mobilize the people for change is not to over-emphasize. It is not enough to acknowledge the fact that there should be change, there has to be element of action on the side of the people. In self-help projects where the success of a project redounds on the utilization of available human and material resources, except when there is active mobilization of the people, the project may be hampered. community development also concerned with integrated approach in

development programmes. There are multifaceted issues that need to be attended to in rural areas and includes education, health-care, roads and markets. Through integrated development approach, different programmes meant to solve different problems are planned simultaneously to achieve a far-reaching impact on the lives of the people. Community Development Programmes for Rural Transformation Several programmes are organized by change agents in adult education and community development which are useful for the socio-economic transformation of our rural communities. These programmes includes: Agricultural extension education, Community education, Literacy education, Co-operatives, Rural industries and Health programmes • Agricultural Extension Education. Nigeria, though an oil and gas driven economy, has the potential for agriculture. The rural dwellers are subsistence farmers who hardly produce enough for family consumption. The need to provide agricultural extension services which will help to increase their production capacity is necessary.

According to Ezimah (2004), agricultural extension provides a sound base for rural development. He furthered that extension is conceived as the development of the

individual, village leaders and the rural society as whole and as a continuous education process. The programme is meant to bring attitudinal change in the rural dwellers towards agriculture. When there is innovation in farming techniques for instance, introduction of improved seedling. The farmer will be able to produce for domestic consumption as well as surplus for sales at the market. This leads to better socio-economic well-being.

- Community Education. This programme is hinged on the premises that the consciousness of the people themselves plays a vital role in effecting change. Change in attitude skills in line with contemporary demand and knowledge. Community education to Ezimah (2004) is an educational process that encourages the utilization of all learning resources within the community for the purposes of mobilizing the community for its own developments. It is evident that every human society has potentials to evolve social economic transformation which will enhance their standard of living. Education takes a centre stage in this process. Community education is usually planned for and utilized by adult citizens. People are mobilized through campaigns and enlightenment programmes.
- Co-operative societies. Cooperatives are important tool for real transformation. They

assist members to pull their resources together hence ensures sustenance of business co-operators through this medium. Embark on self- help projects which are of direct bearing on the lives of these rural communities. Omolewa (1991) in Dokubo (2012) posits that, it is very essential that co-operators work with other like-minded people in groups to make a meaningful achievement not only satisfying the basic human needs but also raise the condition of living of the rural people to acceptable standards. Similarly, Dokubo (2012) remarks that, the main thrust of cooperative society is that co-operators should help themselves by providing for member's needs through group work or combined efforts and resources. This is the approach with which co-operators in Nigeria embark on self-help development projects, such as construction of roads, markets, health centers, maternity homes, schools, bridges, town halls, civic centers, rural electricity and water supply. The impression that government should provide all that is needed for the development of rural communities is no longer feasible, though it is its responsibility, but has to be corroborated by co-operative societies for sustainability. Co-operators identify socio-economic needs and consequently plan and mobilized available resources to satisfy them.

• Literacy Education. Literacy has been identified as an essential tool for development. It is therefore logical to say that the low standard of living prevailing in the rural communities has illiteracy as one of the causative factors. The ability to acquire the skills of reading, writing and computation is transformation of an individual from illiteracy to literacy, especially basic literacy. Ihejirika (2012), adult basic literacy to rudimentary or fundamental for it enables its recipient to understand higher concepts in education. It involves the skills of reading, writing and computing figures (i.e numeracy). A person is literate when he has acquired the essential knowledge and skills which enables him to engage in all those activities in which literacy is required for effective functioning in his group or community. The rural dwellers do not need only basic literacy skills, they also need functional literacy. According to Imhabekhai (2009), the desire and ability to read, write and compute materials in vocation will motivate the learners for better participation, and that, the utility of the skills bring about functionality and progress in the vocation or occupation and thereby fosters permanent literacy. Literacy, all over the world is a pivot on which multiple human activities revolves. Be it political, social, economic or cultural

activities, skills of literacy are required for it to be done to acceptable standards. With it, our rural communities will assume some urban characteristics. • Rural Industries. Rural communities can be transformed through rural industries. These include small and medium-scale enterprises (SME) like potter, metal work, tailoring, soap making and weaving among others. Barikor (1983) commenting on the role of industries in rural transformation notes that, this could help to promote self-employment, rural based job opportunities and investment, intensify community development and dent the rural-urban migration syndrome. The economy of the rural dwellers is very poor. It in-turn affect their investment capacity in their various business. Some of them are illiterates hence, ignorant of strategies available for them to change require programmes that will give the rural industrialists enlightenment and soft loans will play significant role in changing their business and by extension their standard of living. • Health Programmes. The issue of health is also very vital. The success of all other programmes meant for rural transformation hinge on good health of the people. A healthy labour force and entrepreneurs are needed to propel or implement change programmes.

The scourge of HIV/AIDS is ravaging in Nigeria as a country which North Central is not an exception. There is still the practice of female genital mutilation going on in some rural communities of North Central. Conclusion Rural communities especially North Central in Nigeria are associated with dearth of necessary infrastructural facilities and low human capacity building coordination. The global efforts towards eradication of poverty, ignorance and illiteracy among other things as reflected in the millennium development goals cannot be achieved when relevant programmes centred on the adult population that are the pivot of dynamic and sustainable development are not organized. It is on these bases that community development programmes are indispensable tools for the transformation of rural communities in Nigeria. The provision of high-rise buildings and other infrastructures alone in communities without human capacity building will not kick start the needed transformation. Therefore, as the slogan "train a man, build the community" can only be achieved through community development programmes and activities that will bring about change and transformation in the people, their self-perception to enable them stimulate their potentials to face the reality of their developmental needs. This

will erase the "lazy man" attitude of "there is God" for them to subdue and conquer the environment for their advantage. Inferably, communities, government agencies, non-governmental agencies, well spirited individuals, and community-based organizations are all stakeholders in this march to change the rural communities.

Conclusion

The study has clearly portrayed the relevance of community development programmes as a panacea for transformation of rural communities in north central, Nigeria. It suggests that government at all levels should encourage communities to partake fully in all issues concerning their development both morally, financially and otherwise, and that policy makers must realize that even with Nigeria oil wealth, rural transformation is still key to country's growth and development,

Recommendations:

1. This study recommends that the community development programme should be replicated in more communities and the strategy of community driven development should be adopted by local governments, states and federal government so that the people to whom the development is meant for will be at the driver's seat.

2. Policy makers must realize that even with the Nigeria oil wealth, rural transformation is still key to country's growth and development.

3. Communities that are embarking on self-help projects should be encouraged by ways of financial and technical assistance from the government.

4. The rural areas should be accorded more recognition in terms of budgetary provisions and provision of social and economic amenities.

5 Governments should provide feeder roads are urgently needed to effectively link and integrate peasants scattered all over the country with the urban centres to enable them to evacuate their products from the farms.

6. Government should provide the inability environment to foster rural and community development in Nigeria. Facilities such as education, health services, electricity supply, improving literacy, health and general quality of life are acutely inadequate in the rural areas.

7. There is also need to adequately train the farmers in the use of new techniques of farming and for them to be provided with farming equipment like tractors, fertilizers and pest control chemicals at subsidized prices that those peasants can afford.

8. Finally, for any meaningful rural development and transformation to be achieved, there is the need for our policy makers to have an adequate understanding of the community problems.

REFERENCES

- Adeyema, A. M. (2003). Development and development in comparative perspectives. Port Harcourt: Amethyst and Colleague Press. African Journal of Political Science and International Relations Vol. 5 (4) pp. 208-217.
- Anyanwu, C. N. (1981). Principle and practice of adult education and community development. Ibadan: Abi Print Publishing Company Ltd.
- Barikor, V.P. (1996) "Rural Development in Nigeria. Role of fiscal policy" in Rural Development in Nigeria: Proceedings of 1972 Annual conference of the Nigerian Economic Society, Ibadan, Ibadan University Press.
- Catherine, T.N, Asor, L.J, Ojong, A.A & Ojuah, U.M (2021). Provision of infrastructure by community-based organization influences rural development in Cross River State. European Journal of School Sciences, 61(2) 146-151.
- Coker, M. A. and Obo, U. B. (2012). Problems and prospects of implementing rural transformation programs. American International Journal of Contemporary Research, Vol 2 No 6: pp. 244-258. World Publishing Company Ltd.
- Dokubo, C. (2012). Adult education and cooperative management. Port Harcourt: Chronett Press.
- Eleberi, G. (2012). Adult education and community redevelopment. In Amadike, N.N.F.& Ubong, B. (eds). Issues in Adult education. International Journal of Humanities and Social Sciences. Vol 3 No 4 pp. 285-291. Port Harcourt: Harey Publications.
- Eny, J.E. (2010) "Local Government and Rural Development in Nigeria: A case study of Local Government in Benue State, 1999-2007" An Unpublished Ph.D. Thesis Presented to the post-graduate school, BSU Makurdi in partial fulfillment of the requirements for the Award of the Doctor of Philosophy (Ph.D) in Political Science. Federal Republic of Nigeria (1970-74). Second National Development Plan, 1970-74, Lagos, Federal Ministry of Information.
- Enwo-Irem, I. N. (2013). Conceptualizing transformation in context of sustainable national development. Nigerian Journal of General Studies, Vol. 4 (1), 58-65.
- Ezima, M. A. O. (2004). Knowing adult education: its natures, scope and process. Nigeria: Springfield Publishers Ltd. Federal Republic of Nigeria, (2004). National Policy on Education. Lagos: NERDC Press.
- Gana, J. (1996) "A strategy for Integrated Rural Development in Nigeria", being a paper presented at a National Seminar Organized by the Directorate of Foods, roads and Rural Infrastructures, Lagos.
- Ihejirika, J.(2012). Anatomy of adult Education. PortHarcourt: Uniport Press.
- Imhabekhai, C. I. (2009). Management of community development programs and projects. Benin: Uniben Press.
- Oduaran, A.B. (1994). An introduction to community development. Benin: Uniben Press.
- Ojong, A.A., Catherine, T.N. & Martins, R.E. (2019). Environmental education: A veritable tool in the management of forest & wildlife resources in Nigeria. Journal of Environmental and Tourism Education (JETE). 1(2)30-36.
- Oyebamiji, M. A. and Adekola, G. (2008). Fundamentals of community development in Nigeria. Port Harcourt: Uniport Press.
- Onyeozu, A. M. (2007). Understanding community development: An Albatross to National Peace, Security and Sustainable Development in Nigeria. Journal of Sustainable Development in Africa Vol 14. No. 1, Pp 32-4 Port Harcourt: Davidstones Publishers Ltd.

Effect of Educational Qualifications on the Possession of Knowledge of Test Administration among Secondary School Teachers in Dawakin Kudu Educational Zone Kano State, Nigeria

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ABSTRACT

This study assesses the level of teachers' knowledge of test administration among senior secondary schools of Dawakin Kudu Educational Zone in Kano state, Nigeria. Ex post facto research design was employed to conduct the study. Two objective one research question and one hypothesis were formulated to guide the study. The population consists of all senior secondary school teachers of the zone, with a total number of 1061 teachers out of which a sample 278 respondents were randomly selected as the sample for the study. The instrument used in collecting data is self-made test. The instrument is face validated and had a reliability coefficient of $r= 0.78$. Data collected were analyzed using simple frequency count and simple percentages and t-test. The findings of the study revealed that almost 85% of the secondary school teachers of Dawakin Kudu Educational zone possess the knowledge of test administration. The findings also revealed that educational qualification has no effect on the possession of knowledge of test administration among secondary school teachers in dawakin kudu educational zone. Based on these findings, it is recommended that school administrators as well as Kano state senior secondary schools management board should organize refresher courses such as seminars, workshops and conference or even in-house seminar from time to time for retaining and enhancing the knowledge.

Keywords: *knowledge, test administration, Educational qualification, secondary school teachers*

Introduction

Everyone needs and deserves to have education that should focus on the development of the whole personality. It can

be said that education is experienced by all people. Education is a necessary process through which people are equipped to lead

productive lives according to their talents and interests. Through education, learners are not only taught, trained, and adequately, guided to acquire relevant skills and knowledge, but also, how to adapt to acceptable public life. According to the Longman Dictionary of Contemporary English (5th ed.), Education is a process of teaching and learning. Education is defined as the all-round development of a person, physically morally spiritually and intellectually. It is the process of imparting knowledge, developing the powers of reasoning and judgment, and preparing oneself or others intellectually for mature life. Education is the process of learning to live as a useful and acceptable member of the community to which the person belongs. Education is the harmonious development of the physical, the mental and the spiritual power.. Being the hub of any educational system, teachers play vital roles in the development of new generation. The success or otherwise of the system rest on them. Therefore, it needs no description that teaching and learning process is something that needs to be put in the appropriate hands. That is the hands of those people who are, professionally, trained to be teachers, those people who have acquired the appropriate knowledge, values, and skills needed to become effective teachers. One of the most

important roles of teachers is educational assessment. Educational assessment is the process of gathering information to monitor progress and make educational decisions if necessary (Kizlik, 2012). According to Adikwu, et al, (2014) at the secondary school level, the child acquires most of his skills and attitudes which are identified by assessment. This shows that assessment plays a very vital role in the process of educating a child particularly at the secondary school level. An assessment may include a test, but also includes methods such as observations, interviews, behavior monitoring. (Kizlik, 2012). A test is a method employed to determine a student's ability to complete certain tasks or demonstrate mastery of a skill or knowledge of content. Some types would be multiple-choice tests, or a weekly spelling test (Angelo and Cross, 1993). Classroom-based achievement tests have been extensively used in Nigerian secondary schools especially after the introduction of continuous assessment in 1985. These achievement tests have been criticized over the years for lack of proper psychometric properties of a test. These views bother on teachers' possession or non-possession of competencies in test construction skills. (Agu, et al. 2013). Linn and Gronlund (2005) assert that the teacher-made tests are more

frequently used in educational settings than any other type of test. One is then tempted to wonder if the rampant and regular use of teacher-made tests automatically implies that they are of high quality. Kudzai. et al (2011) were of the view that teacher-made classroom tests remain invaluable assessment devices for generating vital information, which will ultimately be used to enhance educational practices. The researchers however asserted that variety of factors, some concerning the individual taking the test, others inherent in design and content of the test itself, administration and test conditions have been noted to affect the validity, reliability and quality of test scores.

Test Administration

According Okonkwo, and Osuji (2006) Test Administration refers to the procedure of actually presenting the learning task that the examinees are required to perform in order to ascertain the degree of learning that has taken place during the teaching-learning process. This procedure is as important as the process of preparing the test. This is because the validity and reliability of test scores can be greatly reduced when test is poorly administered. Test Administration is the actual test taking process. Test Administration is the combination of activities that start prior to the actual test

taking process and extend beyond the immediate testing environment.

Types of Test Administration

Test administration can be divided in to administration of standardized test and administration of non-standardized test. According to Umar (2013) standardized tests have standard procedures for administration and scoring which are specified (usually in manual book). Whereas non-standardized or teacher made test, according to Umar (2013) has no uniform procedures for administering and scoring, and the tests are administered under informal atmosphere. However, according The British Psychological Society (2007) test administration can be divided in to open administration, controlled administration, supervised administration and managed administration. Openly administered tests are ones that are available for completion by anyone on demand. Examples include the books of tests you might buy in a bookshop, or tests that you can access on a career site on the Internet. These are available to you without anyone having to supervise their administration. In the case of paper-based open tests of maximum performance, the answers are also in the public domain. Such tests can be useful for developing self-knowledge and for exploring your interests. Controlled administration is

where you are provided with restricted access to the test session, but the administration is carried out without someone being present to supervise it. This mode is commonly used for typical performance tests administered over the Internet. When the software has been well designed, the software should cover all the questions and issues that are normally dealt with by a test administrator. Supervised administration is the 'traditional' mode for test administration and provides the level of control needed for maximum performance testing – especially where it is necessary for someone to ensure that test takers do not make copies of the questions or take information away with them. It is also the means by which the tester can ensure that the person who is doing the test is who they say they are and that they have completed the test without assistance from others.

Managed administration is like supervised administration, but with added control over the test-taking environment. There is an increasing use being made of well designed 'test centers' where the quality of equipment and availability of skilled trained staff can be assured. Such centers are used for high-stakes tests where there is a high level of need for security (such as licensing and professional certification examinations).

Qualities of Effective Test Administration:

To ensure that assessment results accurately reflect what students know and can do, Okonkwo and Osuji (2006) were of the opinion that Effective Test Administration should:

- Give students fair chances to demonstrate their achievement of the instructional objectives being measured.
- Provide a physical and psychological environment conducive to the students' best effort and makes testing session systematic, organized orderly and hitch-free.
- Guide against the effects of irrelevant variables that are detrimental to the valid and reliable measurement.

Guidelines for Effective Test Administration:

The following are guidelines and steps involved in test administration aimed at ensuring quality in test administration.

- Collection of the question papers in time from custodian to be able to start the test at the appropriate time stipulated.
- Ensure compliance with the stipulated sitting arrangements in the test to prevent collision between or among the testees.
- Ensure orderly and proper distribution of questions papers to the testees.

- Do not talk unnecessarily before the test. Testees' time should not be wasted at the beginning of the test with unnecessary remarks, instructions or threat that may develop test anxiety.
- It is necessary to remind the testees of the need to avoid malpractices before they start and make it clear that cheating will be penalized.
- Stick to the instructions regarding the conduct of the test and avoid giving hints to testees who ask about particular items. However, make corrections or clarifications to the testees whenever necessary.
- Keep interruptions during the test to a minimum. (Okonko and osuji, 2006)
- Reduce test anxiety. Teachers can embed phrases like "Take a deep breath" within tests and prompt students to stay focused, calm, and motivated. Giving students choices is also helpful to building engagement and reducing stress. (Salend, 2011)
- Test administrators must keep to the specified time frames.
- Any posters, displays or teaching materials that might help students to answer questions should be covered, reversed or removed from the room while the students are doing the test.

The test administrator must NOT provide the following assistance:

- give hints or examples
- explain, paraphrase or interpret questions
- indicate to students whether answers are correct or incorrect
- remind students about related work completed in class
- provide extra time. (N.A.P.L.A.N. 2009)

Variables to the Effective Test Administration:

•Testing Environment:

In the view of the tests expert Anita, (2006) the testing environment is a variable associated with the validity of teacher-made tests. If the testing environment is distracting or noisy or the test-taker is unhealthy, he or she will have a difficult time remaining consistent throughout the testing process. Even though actions ought to be taken to ensure that the testing environment is comfortable, adequately lit with limited interruptions, these factor and the former one are largely aspects of test administrative procedures that are external to the test itself. This is because even in contexts where the characteristics of the test taker and the environment are well taken care of, it emerges that individual difference in performance will still be recorded. (Afr Educ, 2014)

According to the National Center for Education Statistics (2013) Tests should be administered in controlled and secure environments that limit access to curricular materials, resources, and other visuals that could aid students. Any resources that students could use as cues or triggers should not be present during test administration. Although such a practice would appear to be intuitive, Beardsley cited a survey in which many teachers responded that “they thought it was not fair to make the environment artificial,” and that “students should have access to those resources” because they are available in the students’ day-to-day environment.

•Test Takers as Variables:

Bichi (2004) asserted that another source of invalidity of test interpretation resides in the pupil’s responses, personal factors of pupils such as emotional disturbances, fear of the testing situation, and lack of sufficient motivation invalidate test results. Afr Educ, (2014) asserts that It has been noted that the characteristic of the test-taker can affect the validity and reliability of the tests. Cassel, (2003) claimed that a test is only as reliable as the test taker. Cassel has developed a testing method to determine the consistency and reliability of the test taker, a statistical measurement called a confluence score. This

score looks at paired items in a test to show that the test taker is consistent in answering questions. Confluence scores can be used as a way to determine test-taker reliability. Using confluence scores, the teacher would have to design the test so that a percentage of the questions would be asked seeking the same information in an opposite form. The student responses to these questions should be consistent. A student who gets one of these questions right and the other wrong is not a reliable test taker and should not be used to assess the validity of the test itself.

•Test as a Variable:

Okonkwo, and Osuji (2006). Anita, M.P. (2006) Asserted that, another variable affecting reliability and validity of teacher-made tests is the quality of tests themselves. The length of tests, use of Bloom’s taxonomy in test item construction and prior training of teachers on test construction to enable the teachers to design items that address various cognitive levels of thinking as per the Bloom’s taxonomy across the curriculum will all affect the validity and reliability of a given test.

Newell (2002) provides a possible reason for an observed divergence between grade point average and test scores. Newell asserts that teacher-made tests usually measure only a limited part of a subject area, they do not

cover a broad range of abilities and they rely too heavily on memorized facts and procedures. This means that teacher-made tests often fail to emphasize thinking and the application of knowledge. This can be addressed by creating larger chapter and unit tests. Classroom tests are often hindered by time allotted for the class, and tests that stretch longer than one class period have been shown to be ineffective. In addition, tests have to take into account the attention span of the student being tested. For example, long tests in early elementary school would be unproductive. In general, however, the longer the test the more valid and reliable the test will be (Notar et al. 2004). Long tests do three things to help maintain validity. First, they increase the amount of content that the student must address, ensuring a more accurate picture of student knowledge. Second, long tests counteract the effects of faulty items by providing a greater number of better items. Third, long tests reduce the impact of student guessing (Anita, 2006). Overall, there is greater benefit from longer tests, but test length should not be assessed by the number of questions; rather, it should take into account the difficulty of each item.

• **Teacher-Related Variables:**

Kudzai, Moses and Emily, (2011) asserted that some of the teacher or test giver variables

that compromised the quality of teacher-made tests include the teacher's physical appearance, demeanor and the professionalism the teacher brings to the situation. Pupils who were interviewed purport that some teachers are kind, warm and helpful thus creating a conducive testing environment while some teachers are rude, too strict and unapproachable. A student from one of the secondary schools studied helplessly says, *"Our teacher is so rude and fierce that it is difficult for us as pupils to solicit any educational assistance from him. He scolds us so much that we even fear to ask him questions"*. This study has yielded significant differences in test performance because of a warm versus a cold interpersonal relationship between teachers and pupils. . At times, the laxity on the part of the teacher is due to general professional incompetence, which manifests itself in various domains including test construction. Teachers have ethical obligations that must be fulfilled even before the pupils are exposed to the test, for example, the test must be stored in a way that reasonably ensures that its specific contents will be made known from the students in advance leaving open the possibility of irregularities. Anastasi and Urbina, (2010) assert that in test administration rapport refers to examiner's efforts to arouse the test

takers interest in the test, elicit their cooperation and encourage them to respond in a manner appropriate to the objective of test

- **Test Administration Procedure as Variable:**

It was established in the secondary schools studies that because of shortages of resources, teacher-made tests were written on chalkboards, only end of term and mid-year tests were sometimes typed. Pupils admitted that they piped through windows to see the contents of the tests before they were administered and made thorough preparations before they sat for the test. "Tests are invigilated by prefects from other classes who give answers to their friends". Given the above scenario, the researchers concluded that the use of teacher-made tests in secondary schools is a mere formality, quality is compromised and therefore the obtained test scores of different pupils will therefore not always reflect their true ability. Almost all teachers interviewed in the three secondary schools agreed that because of lack of resources, they administered the tests without sufficient supply of test protocols and other supplies, a stop watch, mathematical tables if necessary and so forth, thus impairing the reliability and validity of the test scores. Bichi (2004) maintained that the manner in which a test is administered and scored may affect test validity.

Problems of the study

Assessment of students is very critical, because effective teaching decisions are based on the ability of teachers to understand their students and to match actions with accurate assessments (McMillan, 2008). When giving an assessment instrument it is important that everything possible be done to obtain valid and reliable results. Cheating, poor testing conditions, and test anxiety, as well as errors in test administration procedures contribute to invalid test results. Many of these factors may be controlled by practicing good test administration procedures. Practicing these procedures will prove to be less troublesome than dealing with problems resulting from poor test administration procedures. Most teachers in Nigerian secondary schools construct and administer their own tests when assessing the learning progress of their students. This assessment is only successful when the teachers possess and practice the appropriate knowledge of test administration. Experience showed the researcher that teachers administer the test items to their students in the way that the tests could not be judged as valid and reliable in assessing the students' progress.

Objectives of the Study:

The objectives of the study are:

1. To determine the level of knowledge of test administration of senior secondary schools teachers of Dawakin Kudu Educational Zone.
2. To find out whether, senior secondary school teachers differ in the possession of the knowledge of test administration by educational qualification.

Research Question:

The study will answer the following question:

What is the level of knowledge of test administration of senior secondary schools teachers of Dawakin Kudu Educational Zone?

Research Hypothesis:

There is no significant difference among teachers in possession of knowledge of test administration by educational qualification.

Methodology:

The population of the study comprises senior secondary school teachers in Dawakin Kudu Educational Zone Kano State. Dawakin Kudu Educational Zone consists of three Local Governments, which are Dawakin Kudu, Kumbotso and Warawa local government areas respectively. According to Dawakin Kudu Educational Zone, Kano State Senior Secondary Schools management board, Department of Planning, there are a total number of forty seven (47) Senior Secondary Schools in the Educational Zone.

In addition, the number of teaching staff is one thousand and sixty one (1061). The characteristics of the human participants in the study cannot be manipulated, therefore the study employs ex post facto research design to examine the knowledge of test administration among teachers in Secondary Schools of Dawakin Kudu Educational Zone of Kano State. According to Simon and Goes, (2013) Ex post facto research is ideal for social research when it is not possible or acceptable to manipulate the characteristics of human participants. A sample size of 278 was randomly selected and used in the study. A researcher made Test was used to elicit responses from the sampled subjects in the areas of the knowledge of tests administration. The researcher made test had face validity from experts of tests and measurement and was found to have 0.72 reliability. Simple percentage was used to answer the research question and t-test for independent sampling was used for testing the hypothesis

Result:

Research Question: What is the level of knowledge of test administration of senior secondary schools teachers of Dawakin Kudu Educational Zone?

Table 1: Classification of Teachers' knowledge of Test Administration

Scores	Classification	Frequency	Percentage
70-100	Excellent	76	27.3%
60-69	Very Good	118	42.5%
50-59	Good	45	16%
45-49	Fair	19	7%
40-44	Poor	11	4%
0-39	Fail	09	3.2%
Total		278	100%

Table 1 above shows the scores, classification, frequencies as well as percentage of Test Administration Scale for Teachers administered during the data collection exercise. As the table shows seventy six (76) of the respondents, representing 27.3% scored 70-100, thus they were ranked as having an excellent knowledge of Test Administration. One hundred and eighteen (118) who represent 42.5% scored 60-69 and were ranked as having a very good knowledge of Test Administration. Forty-five (45) respondents, representing 16% scored 50-59 and were ranked as having a good knowledge of Test Administration. Nineteen (19) respondents, representing 7% scored 45-49 and were

ranked as been fair in their knowledge of Test Administration. Eleven respondents (11), representing 4% scored 40-44 and were ranked as having a poor knowledge of Test Administration. However, nine respondents (9), representing 3.2% of the total respondents scored less than 40 and were ranked as not having the knowledge of Test Administration. Thus the finding of the study shows that almost 85% of the secondary school teachers of Dawakin Kudu Educational zone possess the knowledge of test administration.

Research hypothesis: There is no significant difference among teachers in the possession of the knowledge of test administration by educational qualification.

Table 2: Descriptive Statistics on Teachers' Knowledge of Test Administration by qualification

Qualification	N	Mean	Std. Deviation	Std. Error
DIPLOMA	31	58.19	16.061	2.885
NCE	105	61.94	13.128	1.281
BA.ED/BA/BSC	131	64.43	12.166	1.063
M.ED/MSc/PhD	11	66.55	10.319	3.111

Table 3: shows the description of mean scores of teachers Knowledge of Test

Administration by Educational Qualification. The mean scores indicate that respondents

who had M.ED/MSc/PhD had the mean scores of 66.55. Respondents with BA.ED/BA/BSC had the mean scores of

64.43. Respondents with NCE had the mean scores of 61.94. Respondents with Diploma had the least mean scores of 58.19

Table 4.4.3: Analysis of Variance of Teachers’ Knowledge of Test Administration by Educational Qualification.

Result	Sum of Squares	Df	Mean Square	F-cal	Sig.
Between Groups	1234.558	3	411.519	2.453	.064
Within Groups	45967.284	274	167.764		
Total	47201.842	277			

Table 4.4.3 shows Analysis of Variance of teachers’ knowledge of Test Administration by Educational Qualification. From the table the p-value of .064 is greater than α level of .05 level of significance with degree of freedom 3. Thus, the null hypothesis, which stated that there is no significant difference among teachers in the possession of the

knowledge of test administration skills by Educational Qualification is, therefore, accepted, meaning that there was no significant difference observed among teachers in the possession of the knowledge of test administration by Educational Qualification

Figure 1: Mean plot of teachers knowledge of test Administration by Working Experience

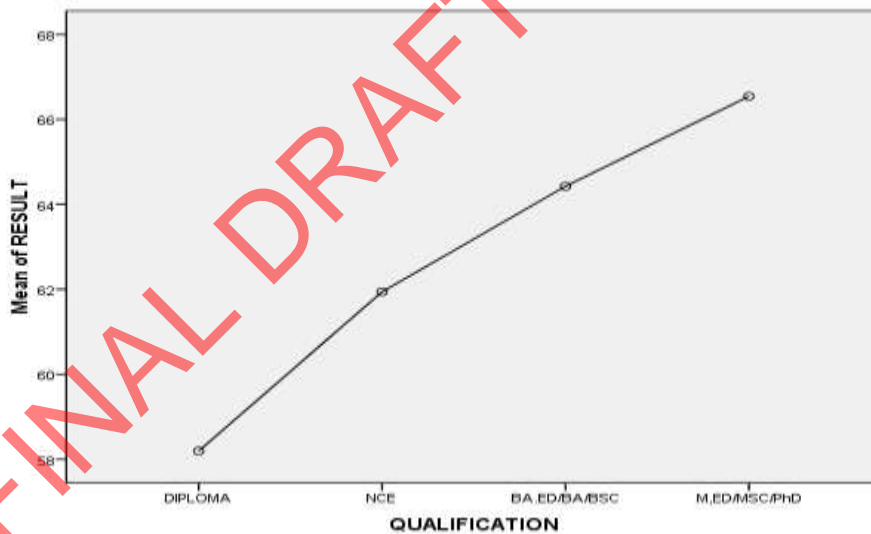


Figure 1 above shows the plotting of Mean of teachers’ knowledge of test Administration by Working Experience. From the mean plot,

it is clear that teachers with MED/MSc/PhD, we at the top end with the mean scores of 66.55. Followed by teachers with

BA.ED/BA/BSC with the mean scores of 64.43. Followed by teachers with NCE with the mean scores of 61.94. With the mean scores of 64.60. Followed by teachers with Respondents with DIPLOMA had the least mean scores of 58.19

Summary of the Findings

The following are the summary of findings:

- 1- 85% of senior secondary school teachers in Dawakin Kudu education zone possessed the knowledge of test administration.
- 2- educational qualification has no effect on the possession of the knowledge of test administration among secondary school teachers in dawakin kudu educational zone

Discussions

The study assessed the Knowledge of Test Administration among senior secondary school teachers of Dawakin Kudu Educational Zone, 27.3% of the sampled teachers scored 70-100, thus they were ranked as having an excellent knowledge of Test Administration. 42.5% scored 60-69 and were ranked as having a very good knowledge of Test Administration. 16% scored 50-59 and were ranked as having a good knowledge of Test Administration. 7% scored 45-59 and were ranked as been fair in their knowledge of Test Administration. 4% scored 40-44 and were ranked as having a

poor knowledge of Test Administration. However, 3.2% of the total respondents scored less than 40 and were ranked as not having the knowledge of Test Administration. The study revealed that 85% of senior secondary school teachers possess the knowledge of test administration.

The study disagrees with that of Morayo, (2014) who conducted a research titled as Teacher –Made Language Test Planning, Construction, Administration and Scoring In Secondary Schools In Ekiti State, because The population for the study was restricted to only language teachers of English language, Yoruba language, French language and Arabic language in all the secondary schools in Ekiti State.

The finding has clearly indicated that teachers with different educational qualification had no difference in the possession of the knowledge of test administration.

Conclusion:

The study concluded that senior secondary school teachers in Dawakin Kudu education zone possessed the knowledge of test administration. It can also be concluded that Educational qualifications have no effect on the possession of the knowledge of test administration among the senior secondary school teachers in Dawakin Kudu education

zone. This may be attributed to the fact that the teachers with different educational qualifications had already attended programs, seminars, workshop or conferences where they acquired the knowledge of test administration.

Recommendations from the Study

The followings are recommendations for practice, which emerged from the study.

1- Since majority of senior secondary school teachers were knowledgeable on test administration, there is a need for stakeholders in Kano State to devise means of retaining and enhancing the knowledge through organizing workshops, seminars and conferences.

2- Stake holders in educational sector should be encouraged to keep organizing an in-house workshops for teachers, in order to

acquaint those teachers with deficiency in the knowledge of test administration.

3- Principals should also be encouraged to keep organizing in-house workshops for teachers, in order to acquaint those teachers with deficiency in the knowledge of test administration.

4- Government should give an in-service training to teachers on the knowledge of test administration, in liaison with universities and other examination bodies WAEC, NECO etc.

5- Tertiary institution are recommend to introduce courses on test administration to make education students acquire the knowledge well.

6- A similar study to cover the entire Kano State educational zones is highly recommended.

REFERENCES

- Adikwu, O. A., Obinne, D.E. & Amali A. O.,m *Challenging Factors in Educational Assessment in Nigerian Secondary Schools* Department of Educational Foundation and General Studies, University of Agriculture, Makurdi
- Agu, N.N., Onyekuba,C. & Anyichie, A.C.(2013). *Measuring teachers' competencies in constructing classroom-based tests in Nigerian secondary schools: Need for a test construction skill inventory*, Department of Educational Foundations Nnamdi Azikiwe University, Awka, Nigeria.
- Afr Educ Res J (2014) *Validity and reliability of teacher-made tests: Case study of year 11 physics in Nyahururu District of Kenya*
- Anastasi, A. & Urbina, S. (2010). *Psychological testing (7th Ed)* New Delhi: PHI Learning Private Ltd.
- Anita, M. P. (2006) *Teacher Made Test Reliability: A Comparison of Test Scores and Student Study Habits From Friday to Monday In A High School Biology Class in Monroe County Ohio*. Dissertation for Masters Graduate School of Marietta College.
- Bichi M. Y. (2004) *Measurement and Evaluation in Education*. Devis co press and publishing company limited 53 new court road kano.
- Linn, R.L. and Miller M.D. (2005) *Measurement and Assessment in Teaching*. Pearson Merrill Hall Upper Saddle River, New Jersey Columbus, Ohio. Longman Dictionary of Contemporary English (5th ed.),
- British Psychological Society (2007) *A Test Taker's Guide* the British Psychological society. Psychological Testing centre St Andrews House, 48 Princess Road East, Leicester LE1 7DR. Telephone 0116 252 9530 Facsimile 0116 227 1314 E-mail enquiry@psychtesting.org.uk Website www.psychtesting.org.uk PTC02/09.12
- Cassell, R. (2003). Confluence is a primary measure of test validity and it includes the creditability of test taker. *College Student Journal*. 37, 348-353.
- Kizlik,B. (2012) *Measurement, Assessment, and Evaluation in Education* Available at: <http://www.adprima.com/measurement.htm>
- Kudzai,C. Moses,K. & Emily,G. (2011), Quality or Mere Formality? Food For Thought in the Use of Teacher-Made Tests in Masvingo Rural Secondary Schools in Zimbabwe, *Journal of Emerging Trends in Educational Research and Policy Studies (JETERAPS)* 2 (6): 418-425 © Scholarlink Research Institute Journals, 2011 (ISSN: 2141-6990). jeteraps.scholarlinkresearch.org Great Zimbabwe University
- McMillan, J. M. (2008). *Assessment essentials for student-based education (2nded.) rates of assessment knowledge among Elementary pre-service teachers*, Dissertation for the Doctor of Philosophy degree in Teaching and Learning. University of Iowa
- Morayo, D. E. & Ohia, I.N. (2014) *Teacher – Made Language Test Planning, Construction, Administration and Scoring In Secondary Schools In Ekiti State*. institute of education faculty of education, Ekiti state university, Ado-Ekiti Ekiti state
- N.A.P.L.A.N.(2009). *National Assessment Program Literacy and Numeracy* (2009) year 3-5 Test Administration Guidelines National Center for Education Statistics, (2013) *Issues and Recommendation for Best Practice*. Testing Integrity Symposium.U.S.

Department of Education Institute of
Education Sciences 2013
*Temple University Japan Working
Papers in Applied Linguistics*, Vol. 19, Nov.
2001pp.188-206. National Assessment
Program Literacy and Numeracy (2009)
year 3-5 Test Administration Guidelines
Newell, R. J. (2002). A different look at
accountability: EdVisions approach. *Phi
Delta Kappan*. 84, 208-211.
Okonkwo & C.A. Osuji (2006). *Measure
ment and Evaluation*. National Open
University of Nigeria.

Salend, S. (2011) Creating Student-Friendly
Tests, *Educational Leadership*, (Vol.
69, #3, p. 52-58), <http://www.ascd.org>; Salend is at salends@newpaltz.edu.

Simon, M.K. and Goes, J. (2013) Ex post
Facto Research available at www.dissertationrecipes.com

Thorndike, R.M. (1997) measurement and
evaluation in psychology and education.
prentice hall

Umar I, (2013) *An Introduction to
Educational measurement and
evaluation* (unpublished)

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Policy, Legislation and Financing of Adult Learning and Education in Nigeria

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ABSTRACT

Education laws are the codes of instruction that regulate education policies and programmes. This paper examines the trend analysis of policies and legislation of adult education in Nigeria. From the missionaries' era to the takeover of schools by colonial masters then the Nigerian government. The Nigerian education system may be compartmentalized into two broad eras: namely the colonial era introduced education era, 1842- 1960 and the national education development policy era: - 1996 – present. Although there is a wide range of activities and practices which fall within the rubrics of Adult Education, the National Policy on Education identified mass literacy, remedial, continuing, vocational, aesthetic, cultural and civic education as the key components of adult education in Nigeria. For improvement of education, the national education development policy era saw the emergence of edicts, acts, and laws to accelerate educational development. With regards to this, Policy provisions for adult education in Nigeria are inadequate, with inadequate funding and poor implementation. The paper recommends that indicators should be developed, which provide useful information for national policy makers, which are important tool in order to assess benchmarks and to monitor the educational system. There is need to invest in the quality of adult learning provision, innovations in adult education should among other things that will improve all the aspect of adult education.

Keywords: Policy, Legislation, Financing of Adult Learning and Education

Introduction

In recent times, there has been an increasing realization of the critical importance of adult education. The determination and political

will of our political leaders to promote it, has been inadequate when compared to the immense enormous demand of the enterprise.

Despite the commendable work done by educational bodies, government and non-governmental organizations in Nigeria to bring education closer to its citizen, there are still troubling inefficiencies and problems in financing, planning and implementation of policies (Gbadamosi, 2013). Nnazor (2015), Nigeria's inadequate commitment over the years to pursue the development of adult education as a strategic objective, as well as an instrument of national development has been one of the major drawbacks of the country's efforts to pull itself out of poverty.

In 1977, Nigerian education system, adopted the Nigerian National Policy on Education (modified in 1981, 1984, 2004 and 2013 respectively). Adult and non-formal education occupies a place of pride in the National Policy of Education. The policy provides for equal access to education, including continuing and further education and commits to the eradication of illiteracy and promotion of lifelong learning. According to UNESCO (2023) Nigeria has an adult literacy rate of 62.02% while the male literacy rate is 71.26% for female is 52.66% and compared to other countries is number 137 in the ranking of literacy rate. Most recent data of UNESCO institute for statistics showing that more than 86% of the world's population know how to read and

write, but despite this 763 million adults worldwide cannot read and write, two third of them women, and 250 million children are failing to acquire basic literacy skills (UNESCO, 2023).

However, many governments sponsored adult education activities have been chronically anemic due to inadequate funding and poor implementation owing largely to a historical lack of passion and vision for adult education as both a strategic goal and an instrument for national development. The role of adult education in national development is multi-dimensional. Indeed, as are of the building blocks of human development, and not just a basic right, education, including adult education, is a foundation for progress in areas such as human capital, health, nutrition and the development of institutions and democracy. Therefore, the role of adult education in development can be apprehended through the complex relationships existing between all its forms and the economic, political, social and cultural determinant factors of Nigerian development. (Jamilu & Makama, 2018)

The development of practices leads to outcomes involving a variety of projects and activities, a broad range of participants including both adult learners and educators, bringing together formal, non-formal and

informal activities and projects, aims, kinds of initiatives implemented, organizations implementing programs, etc. As a result of this diversity, fragmentation arises when considering values, education approaches, pedagogical methods and evaluation, as well as the settings where such practices take place.

This paper presents the legislative and policy framework as well as the financing of Adult Learning and Education in Nigeria. It highlights the extent to which State Agencies for Adult & Non-Formal Education (SAME) have established Edict and Laws which govern their existence. It identifies the goals of Adult Learning and Education in Nigeria, the ownership of the State Agencies, the challenges and suggest some ways forward.

Conceptual Clarifications

Adult Education

Adult and Non-Formal Education is defined as consisting of functional literacy, remedial, continuing, vocational, aesthetic and civic education for youths and adults outside the formal school system (NPE, 2004). The Hamburg Declaration 1997 in Mwangi (2021) gives the definition of adult education as

‘the entire body of ongoing learning process, formal or otherwise, whereby people regarded as adults by the society to which they belong develop their abilities, enrich their knowledge, and

improve their technical or professional qualifications or turn them in a new direction to meet their own needs and those of their society’.

Merriam and Brockett (2017) define adult education as ‘activities intentionally designed for the purpose of bringing about learning among those whose age, social roles, or self perception define them as adults. On their part, Nafukho, Amutabi and Otunga (2015) emphasize that adult education should be conceptualized as being ‘an integral part of lifelong education and learning’ and add that adult education is critical if Africa is ‘to survive in the twenty-first century and beyond. Adult education encompasses diverse educational programmes to accommodate the diverse interest of the diverse clientele. The need-meeting nature of the programmes demands that adult education enterprise should be viewed from different perspectives.

Adult Learning

Rogers (2013) view of literacy as a process arguing that adult education should be learning-conscious; learning which is assessed from the perspective of the learner rather than the more traditional task-conscious learning which is evaluated test based task completion and is suitable for young learners. That it is a continuous process, a lifelong process. This anchors the

concept of adult literacy to the wider concept of lifelong adult learning.

Adult learning usually refers to any form of learning undertaken by or provided for mature men and women outside the formal school system. The main targets are specifically defined as youth (girls and boys over 15 years of age) as well as women and men, generally poor or socially disadvantaged. Although literacy continues to be at its heart, adult education also includes “numeracy”, problem-solving and life skills, and other knowledge. The notion of adult education is often used interchangeably with other notions such as literacy, adult basic education, lifelong learning, continuing, adult basic and non-formal education, and so on. (Seya, 2018)

Adult learning has been characterized by an increasing diversity. Such diversity may be observed when analyzing both the national and regional policies of different countries, or taking the policy role of international (governmental and non-governmental) organizations, aims established, and programs launched into consideration. In fact, adult education policies have been marked by different perspectives. This diversity is also mirrored in the discussion of practices, policy, roles, legislation and financing. There is a deep rooted belief that

adult learning has the potential to create personal, economic and social value (Motschilnig, 2019)

Adult Education and Development

The fourth goal in the Sustainable Development Goals (SDGs) is to ‘ensure inclusive and equitable, quality education and promote lifelong learning opportunities for all. To anchor this goal the United Nation notes that ‘Education drives development be it at individual, community or national level. Through education, people acquire knowledge, skills and attitudes that shape their participation in development activities (NMEC, 2008).

According to UNESCO (2014) ‘Education is a powerful driver of development and is one of the strongest instruments for reducing poverty and improving health, gender equality, peace, and stability.’ Education contributes to development by transforming individuals. Through education, people become empowered and their capacities for innovation and productivity are enhanced for their participation in the social, economic and social aspects of society. This means that an educated person is not a recipient of development programmes but a critical and dynamic participant in the development of society.

Jinna and Maikano (2016) note that the potential benefits of adult education are multidimensional adding that the contribution of adult education to development to society happens at the intersection of the social, economic, political and cultural determinants of progress in any society.

Concept of Legislation in Education

Legislation refers to the preparation and enactment of laws by a legislative body through its lawmaking process. The legislative process includes evaluating, amending, and voting on proposed laws and is concerned with the words used in the bill to communicate the values, judgments, and purposes of the proposal. The Legislative powers may include passing laws, establishing the government's budget, confirming executive appointments, ratifying treaties, investigating the executive branch, impeaching and removing from office members of the executive and judiciary, and redressing constituents' grievances (Arop, 2011). Education Law is the portion of the law in a state, country or city that specifically governs educational bodies such as public and private schools and universities. Various education laws cover every aspect of education and system (Okeke (2017) (2017), 2017).

Education legislation is the term used to designate all the legal provisions that relate to the educational system as a whole. Specifically here, these include regulations on school system organization (structure and division), on school supervision and administration. There are two types of legislature; unicameral legislature and bicameral. Nigeria operates a Bi-cameral legislature; made up of two Independent Chambers; the Senate and the House of Representatives. The most abundant source of law affecting schools in Nigeria is legislative enactments (Okoroma, 2015).

Concept of Policy

According to Okeke (2017) policies are written or unwritten statements that guide present and future thinking, initiatives, actions and decision of managers. They are referred to as written policies when there are written documents somewhere for referencing and are unwritten when in form of pronouncements, that is policy statements by people in power or position of authority. Rayon and Van Zantan (2017) defined educational policies as programmes developed by public authorities, informed by values and implemented by administrators and education professionals. Educational policies cover wide range of issues that is Educational policies are initiatives mostly by

governments that determine the direction of an educational system (Okoroma, 2015).

Awokoya (2016), 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.

National Policy on Education

The 1969 National Curriculum Conference in Ibadan led to the 1973 National Conference on Education which sought to draft the first post-independence policy on education in Nigeria. The draft policy went through several filters and approval processes before it was finally printed and made public in 1977. Thus, it took Nigeria 17 years after independence to formulate and enforce a new national policy on education. The new policy which was revised in 1981, 1998 and 2004 has always devoted a section to the provision of Adult and Non-formal Education in Nigeria as the case in Section 6 of the 2004 policy shows.

Although there is a wide range of activities and practices which fall within the rubrics of Adult Education, the National Policy on Education identified mass literacy, remedial, continuing, vocational, aesthetic, cultural and

civic education as the key components of adult and non-formal education in Nigeria. Mass literacy is given prominence perhaps due to the nation's high percentage of illiteracy. There is no doubt that Section six of the current edition of the National Policy captioned Mass Literacy, Adult and Non-Formal Education was anchored on the need to provide adult basic education for millions of Nigerian adults and youths in line with EFA, MDGs and UBE goals. (NMEC, 2008)

The National Policy on Education continues to guide the provision of adult and non-formal education in Nigeria at all levels of government, such as Provision of functional literacy and continuing education for adults and youths who have not had the advantage of formal education or who did not complete their primary education. Similarly, states and local governments can and do also formulate adult education policies which are consistent with the national one but which may be peculiar to local conditions. This is in line with the principle of federalism in Nigeria.

The Federal Republic of Nigeria has outlined the goals of mass literacy, and adult and non-formal education as that which shall:

- i. Provide functional literacy and continuing education for adults and youths who have not had the advantage of formal education or who did not complete

- their primary education. This may include nomads, migrant families, the disabled and other categories or groups, particularly young girls and women;
- ii. Provide functional and remedial education for those young people who did not complete secondary education;
 - iii. Provide education for different categories of graduates of the formal education system in order to improve their basic knowledge and skills;
 - iv. Provide in-service on-the-job, vocational and professional training for different categories of workers and professionals in order to improve their skills; and
 - v. Give the adult citizens of the country the necessary aesthetic, cultural and civic education for public enlightenment (FRN, 2004; UNICEF, 2016).

National Commission and State Agencies for Mass Education

Although policies and programmes concerning adult and non – formal education in Nigeria had been made during colonial rule and after independence, the setting-up of autonomous adult education outfits outside the ministerial structure is a recent development. The Nigerian National Council for Adult Education (NNCAE), an association of mainly academics in the practice of Adult Education, has since inception in 1971 advocated for the

establishment of a national adult education agency for the country. This led to the setting-up of the adult education unit in the Federal Ministry of Education in 1974. The National Commission for Mass Literacy, Adult and Non-Formal Education however came into being and took off in 1991.

Prior to the establishment of the National Mass Education Commission (NMEC) in 1991, the PRP-led Government in Kano State had in 1980 established the State Agency for Mass Education. This was a historic landmark for it was the first post-independence government to go out of its way to set up an autonomous parastatal responsible for adult and non-formal education. The Kano State Agency, no doubt made tremendous progress especially in adult literacy, so much so, that by 1983, it won a UNESCO award for literacy.

During the 1980s, many state governments set up their own adult education agencies with a view to changing the adult literacy condition of their citizens for the better. At the Federal level, some agencies such as Directorate of Food, Roads and Rural Infrastructure (DFRRI) and the Directorate for Social Mobilization (MAMSER) all sought to address the adult education needs of Nigerians. The National Adult Education Centre, Kano was also set up in 1986 under

the Federal Ministry of Education with a view to developing adult education materials and the training of adult education personnel throughout the country. The Centre had some modest achievements before it was taken over by the newly established National Commission for Mass Education (NMEC) in 1991. In terms of legislation, Education in Nigeria, including ALE, is on the concurrent legislative list of the Constitution. This means that all tiers of government, private organizations and individuals have the powers to partake in the provision of adult and non-formal education in the country.

Financing Adult Education

Financing education programmes presupposes that there are benefits that can be obtained either by the individual or by the community. Thus, financing adult education programmes is based on certain consideration, as identified by Obanewa (2015) and stressed by Hassan (2019). These include:

- i) Whether the money spent on educational programme is producing the results needed by the individuals and organizations.
- ii) What improvements can be made to the training/educational procedures in order to reduce the costs and improve efficiency?

- iii) Whether the type of training given or educational programme provided is necessary to improve individual and organizational effectiveness, whether the money, if spent on another activity, will lead to the attainment of individual and organizational goals. Mechanisms for comparing costs of a function or programme with its outcomes have been described by a variety of terms, such as cost-benefit analysis, cost utility analysis, operation research, operation analysis, cost quality analysis and cost effectiveness analysis (Hassan, 2019).

The availability of financial resources is a determinant of success in implementation of educational programmes. Ideally, financial resources should be adequate, sustainable and their disbursement regular. Aitchison & Alidou (2009) report that African countries allocate ALE minimal figures in their national budgets which result in under funding that leads to poor pay for teachers in ALE programmes and thus low motivation. Because of the low pay, these programmes are unable to attract young and energetic teachers and in most cases have to rely on retired teachers. Another worrying aspect in the financial framework is the over dependence on donor funding from World Bank, local communities and NGOs.

Between 2016 to date, the percentage allocation of funds to Adult Learning and Education ranged between 7.9% (2018), 6.13% (2019), 7.14% (2020), 7.9% (2021) while is lower in 5.39% (2022) of the total allocation of funds available to education. This result shows that less than 10% of the total amount of money available to the education sector goes into adult education in Nigeria (Aitchison & Alidou, 2019).

This was followed by the contributions from other Ministries and CBOs. It is important to note that the contributions from the LGAs are very substantial to literacy activities. UNICEF made the largest financial allocation to adult and non-formal education in Nigeria in the States. This was followed by the UNDP and the World Bank. UNESCO came fourth followed by the DFID (Purity, Nthiga, Kiguru & Mwangi, 2019).

In practical terms, financing adult education in Nigeria takes into account the following cost categories:

- The personnel costs incurred at different levels.
- The instructors/ facilitators' costs.
- Course fees (tuition, examination, instructional materials, etc).
- Equipment and materials.
- Building and facilities used for classes.

- Administration, especially fuel, subsistence and other transport costs.
- Learners cost (opportunity costs /earning forgone).

Problems of Financing Adult Education
A number of problems or difficulties were involved in having access to information on financing of adult education in Nigeria. One of the difficulties is on having access to adult education programmes which may be due to the complexity of activities that constitute adult education (Hasan, 2019).

Okech (2014) identifies a number of problems or difficulties involved in having access to information on financing of adult education in Uganda. The diversity of provision, without focus or co-ordination, complicated the effort to identify the budgets or expenditure dedicated to adult education. In many cases, budgets that serve adult education are not in budget line explicitly designed as adult education. What Okech (2014) reported in Uganda is similar to the difficulty being encountered in Nigeria in terms of lack of co-ordination which complicated the effort to identify the budgets or expenditure dedicated to adult education. It is in recent years, for example, that local government councils in Nigeria now have votes for community development programmes; this makes department of

community development become functional in the local government administration.

Furthermore, the Federal and States Ministries of Agriculture, Health, Commerce, Industry and Cooperative carry out adult and non-formal education activities. The budget in these Ministries is not clearly dedicated to adult education. Even some civil society organizations involved in adult education often have adult education as part of other activities and may not necessarily have a distinct budget for it. When these organizations do have distinct budget for adult education, it is often more specifically for adult literacy. Other difficulty is that both government and nongovernmental organizations are usually reluctant to reveal information on their finances. The consequence of this problem is that there may be the lack of researched information on the economics and financing of adult education and related activities. Some other difficulties pointed out by Oyedeji (2007), Bown and Okedara (2009) Woodhall (2009) and DFID (2010) include:

i. The responsibility for administering adult education programmes frequently falls on individuals such as trade union official, for whom adult education is only a peripheral of their work.

- ii. The problems of double counting arise when public agencies give grants to nongovernmental education agencies, and both donors and recipients include these in their total expenditure figures.
- iii. The information on the payments by individuals for books or other direct expenditures and indirect cost such as earning forgone or travel expense may not be available.

Recommendations
Financing education programmes presupposes that there are benefits that can be obtained either by the individual or by the community. Therefore legislation as well as financing adult education programmes should be based on certain considerations:

1. Indicators should be developed, which provide useful information for national policy makers, which will serve as an important tool in order to assess, benchmarks and to monitor all aspect of adult education.
2. There is need to invest in the quality of adult learning provision. Policy makers and the planners of adult education programmes in Nigeria, need to incorporate into adult education those innovations which have made the 21st century unique, which is the knowledge

and practice of information and communication technology.

3. Challenge of poor public perception of adult education should also eliminate. Low patronage as a discipline in Nigerians Universities contributes to inadequate policies. NUC, NCCE and other stake holders should make it clear to general public, the role of adult education which will enhance patronizing and investing that leads to formulation of the policy.
4. Government should as well provide adequate funds and resources in the course of financing adult education and learning.

Conclusion

In conclusion, with regards to the topic of discussion, Policy provisions for adult education in Nigeria are inadequate, inadequate funding, poor implementation of adult education programmes. Poorly specified goals for adult education in Nigeria, unplanned scheme of work affects the adult education programme in the States. Lack of learning materials make many learners to withdraw from literacy classes. Also, lack of motivation prevents learners from participating in adult education programmes. The benefits derivable from financing adult and non-formal education are enormous. This type of education should be vigorously pursued and supported with adequate policies, and finance.

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REFERENCES

- Aitchison J. & Alidou H (2019) *The state and development of adult learning and education in sub-Saharan Africa.: regional synthesis report*. Hamburg, Germany: UNESCO Institute for Lifelong Learning.
- Akilaiya O (2019) *A Handbook on Adult Education*, Ifaki-Ekiti: Ballon Promotions Nig
- Arop, F. O. (2011). *Evaluation of Human Rights Violations in Student Personnel Administration in Secondary Schools in Cross Rivers State*. *Journal of Education and Practice*, 3(16), 48 – 52.
- Awokoya, S.O (2016) "The Parameters of Educational Planning", in Adesina, S. (ed.), *Introduction to Educational Planning*. Ile Ife: University of Ife Press.
- Bown L, Okedara J.T (2009) *Introduction to the study of Adult Education* (eds), Ibadan: University Press Ltd.
- DFID (2010) *IMFUNDO: Partnership for IT in Education Inception Report UK*. Department for International Development.
- Federal Republic of Nigeria (FRN) (2004) *National Policy on Education 4th Edition*
- Gbadomosi, A. M. (2018). *Adult and Non-formal Education*. In Donald Abidemi Odeleye (ed). *Administration and Education for Sustainable Development: Book of Readings in Honour of Professor Lekan Oyedeji*. Lead City University, Ibadan,
- Hassan, M. A. (2019) *Financing adult and non-formal education in Nigeria. Educational Research and Review*, 4 (4), 195-203.
- Jamilu, G. J. & Makama, N (2018) *contributions of Adult Education in National Development. Journal of Education and Practice* 3 (5) 20-32
- Jinna Y.J & Maikano P.N (2014), "The Role of Adult Education in National Development", *International Letters of Social and Humanistic Sciences*, Vol. 32, pp. 35-42, 2014: DOI 10.18052/www.scipress.com/ILSHS.32.35 College Press, Jericho GRA, Ibadan. Pg 20-28
- Mwagi, O. E (2021) *Gerontology and its Implications for Adult Education. European Scientific Journal*.12 (13) 321-328.
- Merriam, S.B. and Brockett, R.G. (1997) *the profession and practice of adult education: an introduction*. San Francisco: Jossey-bass. Retrieved from [http://www.scirp.org/S\(351jmbntvnsjt1aadkposzje](http://www.scirp.org/S(351jmbntvnsjt1aadkposzje)
- Motschilnig R. (2019). *Wider Benefits of Adult Education – An Inventory of Existing Studies and Research journal* 3 (9) 34- 52.
- Nafukho. F; Amutabi M and Otunga. R (2015). *Foundations of adult education in Africa*.
- National Bureau of Statistics (NBS) (2006) *Core Welfare Indicator Questionnaire Survey, 2006*. Abuja: National Bureau of Statistics.
- NMEC (2008). *Non-formal Education in Nigeria: Policy Issues and Practice*. Abuja. NMEC/UNICEF.
- Nnazor (2015) *Adult education in Nigeria: The consequence of neglect and agenda for action*. <http://iej.cjb.net>
- Obanawa, J.A (2015) *financing adult education: how adequate are current sources in facilitating access and participation in centres in Muranga South Subcounty, Muranga County Kenya? Journal of Education Practice* 7 (12) 44- 56.

- Okech A (2014) (ed) *Adult Education in Uganda: Growth, development, Prospects and Challenges* Kampala: Fountain Publishers.
- Okeke, B. S. (2017). *Politics of Education: The Nigeria Experience*, Akwa: Done Printing and Publishing
- Okoroma, N.S. (2015). Educational policies and problems of implementing in Nigeria. *Australian Journal of Adult Learning* 46 (2) 243-263.
- Oyedeji L (2007) "Economics of adult literacy in Nigeria", *Adult Education in Nigeria*, the journal of the Nigerian National council for Adult Education.
- Purity M. N., Gatitu E. K. & Phyllis W. M. (2019) *Adult Education and Development: Lessons from Somaliland* Msingi Journal of education (1) 1
- Rayon and Van Zantan (2017) what can governments do to implement education policies effectively? In *Teaching Excellence through professional learning and policy reform: lessons from around the world* OECD publishing, Paris.
- Roger, D.H. (2013). *Educational policy: analysis, structure and justification*, New York: David McKay Company.
- Seya P. T. (2018). *Adult Education and African Development in the Context of Globalization*. <http://www.dvv-international.de/index.article>
- UNICEF (2016). *Study of Childhood stage of development* Washington D.C.: The World Bank.
- United Nations Educational, Scientific and Cultural Organization UNESCO (2014) *Educational for All: The Leap to Equality*. Paris: IPE.
- United Nations Educational, Scientific and Cultural Organization (2023) *Education Montreal: Institute for Statistics* UNESCO Institute of Education.
- Woodhall M (2019) *Financing Adult Education for Employment in Titmus* C.J. (ed.) *Lifelong Education for Adults: An international Handbook* Oxford: Pergamon Press

Comparative Effects of Collaborative and Individualized Concept-Mapping on Academic Performance in Denudation Concepts among Secondary School Students in Gwarzo Education Zone, Kano, Nigeria

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ABSTRACT

This study examined Comparative Effects of Collaborative and Individualized Concept-Mapping on Academic Performance in Denudation Concepts among Secondary School Students in Gwarzo Education Zone, Kano, Nigeria. The study was guided by two objectives and corresponding research questions and hypotheses. Quasi-experimental research design involving pre-test and post-test non-randomized group was used. The population of the study was made up of 1,335 senior secondary II Geography students from 28 schools in the zone. Six intact classes with a total sample size of 266 students were selected for the study through cluster and stratified sampling techniques. Data was collected by using an instrument titled Geography Performance Test (GPT). The instrument was validated by two senior lecturers in the Department of Geography, Ahmadu Bello University, Zaria and a Geography classroom teacher with more than 10 years teaching experience. Reliability index of the instrument was established at 0.823. The research questions were answered by using mean and standard deviation while the null hypotheses were tested by using One-way and Two-way Analysis of Variance (ANOVA), and Scheffe's's post hoc test at 0.05 level of significance. Findings of the study revealed that the students taught denudation concepts through collaborative concept-mapping (CCM) had significantly higher academic performance score than those taught through individualized concept-mapping (ICM) and conventional lecture method (CLM). Similarly, the students taught denudation concepts through individualized concept-mapping (ICM) instructional strategy had significantly higher academic performance score than those taught through conventional lecture method (CLM). Both CCM and ICM instructional strategies were found to be gender friendly. It was recommended that to improve students' academic performance and reduce gender disparity, Geography teachers at secondary schools should prioritize the use of collaborative concept-mapping over individualized concept-mapping and conventional lecture method in teaching.

Keywords: Collaborative Concept-Mapping, Individualized Concept-Mapping, Concept-Mapping, Academic Performance, Geography.

1. Introduction

Learning occupies a very important place in human mind. It is the basis of development, progress and survival of human beings. The knowledge of Geography which is the study of the relationships between human activity

and natural systems and asks where and why things are located on the earth's surface, how places differ from one another and how people interact with the environment plays very important roles in environmental

protection and socio-economic development of human beings. The knowledge of Geography enables understanding of the earth from a spatial viewpoint and offers a systematic framework for enquiry into questions about the surrounding environments. Despite its relevance and importance, the teaching and learning of Geography in Nigeria is becoming problematic. It was further reported by Ababio (2013), Alkis (2015), Turan (2015), Abdullahi (2018) maintained that secondary school students' academic performance and retention ability in Geography was poor and discouraging. In view of these, the role of Geography in protecting the environment and promoting socio-economic development of the country can seriously be affected. Buttressing the above point, King'aru (2014) and Akpur (2015) asserted that the problems associated with students' low level of academic performance in Geography and other science subjects were attributed to a number of factors prominent among which is the use of passive and traditional methods in teaching the subject. Therefore, this study was conducted with a view to find a pedagogical approach that could enhance students' academic achievement in geographical concepts. To establish the interactive effect of gender in relation to the

quest for effective method of teaching Geography, gender was considered as moderating variable in the study. This is because some studies such as that of Ullah and Ullah (2019) and Wrigley-Asante, Ackah and Frimpong (2023) have reported that the overall academic performance of male students in science, technology and mathematics was rated higher than that of female students especially in secondary schools.

Although some studies have established the effectiveness of concept-mapping in promoting students' active participation in learning and improving academic performance in science and Geography in particular. This study was however focused on investigating comparative effects of collaborative and individualized concept-mapping on academic performance in denudation concepts among secondary school Geography students in Gwarzo Education Zone, Kano State, Nigeria.

The study adopted Vygotsky (1978) theory of social constructivism and Ausubel's (1963) assimilation theory of meaningful learning. Social constructivism is the philosophical and scientific position which maintain that knowledge arises through a process of active construction where learners learn best when they collaboratively interact with each other,

construct and share meanings and understandings (Wang, 2013; Mascolo & Fischer, 2005). This underlined the basic principles of collaborative concept-mapping through assimilation of new knowledge from interactive engagements. Ausubel's (1963) assimilation theory of meaningful learning. Ausubel's (1963) indicated that meaningful learning takes place through assimilation of new concepts and propositions into existing concepts and propositional frameworks held by the learner. Therefore, collaborative-concept map and individual-concept mapping helps represent ideas in a way that models an individual's cognitive structure.

Research Objectives

The objectives of the study are.

- i. To find out the effect of collaborative and individualized concept-mapping instructional strategies on students' academic performance in denudation concepts.
- ii. To investigate the mean difference in academic performance scores of male and female students taught denudation concepts using collaborative and individualized concept-mapping instructional strategies.

Research Questions

The following research questions were raised to guide the study.

- i. What is the difference between the mean academic performance scores of students exposed to denudation concepts using collaborative and individualized concept-mapping instructional strategies, and those taught the same concepts using conventional lecture method?
- ii. What is the difference between the mean academic performance scores of male and female students taught denudation concepts using collaborative and individualized concept-mapping instructional strategies?

Null Hypotheses

Based on the research questions, the following null hypotheses were formulated tested at 0.05 level of significance.

H₀₁: There is no significant difference between the mean academic performance scores of the students exposed to denudation concepts using collaborative and individualized concept-mapping instructional strategies, and those taught the same concepts using conventional lecture method.

H₀₂: There is no significant difference between the mean academic performance scores of male and female students exposed to denudation concepts using collaborative and individualized concept-mapping instructional strategies.

Literature Review

Collaborative concept mapping (CCM) and individualized concept mapping (ICM) are similar but different concept-mapping instructional mode in which students learn through construction of concept maps collaboratively or individually. According to Walker and Tyler (2014) concept mapping is a diagrammatic way of creating concept maps that organize, represent and create knowledge. The concept maps can be created individually or in a small groups of students, while the former is being referred to as individualized concept-mapping, the latter is typically referred to as collaborative concept mapping (Novak, 2010). Therefore, CCM is a composite instructional strategy in which two or more students learn collaboratively by construction of concept maps under the guidance and supervision of a teacher. Tifi and Lombardi (2010) viewed collaborative concept mapping as an extension of teacher-facilitated learning assisted by creation of concept maps, in a socio-constructivist perspective, where students construct concept maps in a small groups by questioning, discussing, sharing or alternating their contributions and by peer reviewing, under the supervision of the

teacher(s), in order to integrate multiple views and create shared understanding. Therefore, CCM differs with ICM in which individual students construct concept maps in a non-collaborative approach. Concept – mapping be it collaborative or individualized has been found to improve students motivation, self-regulation, self-efficacy, attitude, interest and academic performance in science and Geography, as identified by Gouveia and Valadares (2004), Akuzinwanna (2012), Cheema and Mirza (2013).

Academic performance as defined by Narad and Abdullah (2016) refers to the knowledge, values and skills attained by a student or group of students and is measure by marks using tests, continues assessment or oral examinations for a specific period of learning. It represents performance outcomes that indicate the extent to which a person has accomplished specific goals or objectives that were the focus of activities in instructional environments; school, college, and university in different domains of learning (Steinmayr, Meibner, Weidinger & Wirthwein, 2015). Therefore, academic performance designates the level of accomplishment of preset goals and objectives, and is measured against preset known standards of accuracy and

completeness. Secondary school students' academic performance in Geography in Kano State was reported to be low due to use of passive method of instruction and other factors (King'aru, 2014 and Akpur, 2015). Moreover, studies have indicated that gender is one of the variable that affect students' academic performances in Science and Technology subjects (Ullah and Ullah, 2019; Wrigley-Asante, Ackah and Frimpong, 2023). Gender is the range of characteristics that indicate and differentiate between masculinity and femininity among human individuals. World Health Organisation (WHO, 2017) sees gender as "the socially constructed roles, behaviours, activities, and attributes that a given society considers appropriate for men and women". Gender in common usage in Nigeria is defined by the combination of biological differences of sex, roles, behaviours, attributes and activities, where males are regarded as masculine and females as feminine. The underrepresentation of women in Geography and other science and technology subjects in Nigeria seems to be fueled by the cultural provisions and practices. Akanbi (2004) stated that it is so pervasive that from birth, the society and cultural provisions apportion gender roles where males are train and assign to tasks requiring high intellectual and computational

challenges such as construction, molding, football, palm-wine tapping, climbing, agriculture, fishing and host of others. Females on the other hand, are sentenced to the kitchen and related domestic chores, including child-rearing. Therefore, female students in secondary schools and higher institutions of learning tend to opt for subjects like Home Economics and at most Biology. Moreover, Obadaki and Omowumi (2013) buttress that subjects like Geography, mathematics, engineering, drawing, physics, and the like are believed to be for boys and not for girls. To this, Zembar and Blume (2009) stated that gender differences in science achievements, self-efficacy and attitudes have serious implications for girls' future careers and have been a source of concern for educators everywhere. Generally, researches on the influence of gender on academic performance have reported mixed results, and Obeka (2009) in this regard has asserted that there has not been any generally agreed pattern of influence of sex on academic performance. Zembar and Blume (2009) stressed that most studies show that, on average, girls do better in school than boys. According to National Center for Education Statistics (NCES, 2003) standardized achievement tests conducted in 25 countries also show that females are better

at spelling and perform better on tests of literacy, writing, and general knowledge. However, Voyer, Voyer and Bryden (as cited in Zembar & Blume, 2009) reported that males outperform females on spatial skills tasks such as mental rotation, spatial perception, and spatial visualization. Moreover, male students were reported to have outperformed their female counterpart in some studies in Geography (Obeka, 2013). Meanwhile, Maikano (2007), and Usman (2010) reported no gender disparity.

The use of CCM among many other methods in this study was as a result of the social and collaborative interaction in the strategy which fosters individual and group learning, increases motivation, aid deeper and meaningful understanding of concepts (Wachanga, Githae and Keraro, 2015). Similarly, ICM was selected being a twin strategy that fosters meaningful learning through mapping the relationships between concepts. Although a handful of empirical research like that of Kwon and Cifuentes (2007), Wachanga, Githae and Keraro (2015), Githae, Keraro and Wachanga (2015), Sharma and Singh (2016) have examined effects of CCM and ICM on motivation, academic performance and other learning outcome, most of these studies were conducted out-side Nigeria and on different

subjects. Majority of the related studies conducted in Nigeria were on individualized concept-mapping alone. These justified the need for conducting a similar but different study.

Methodology

The framework on which this study was conducted is quasi-experimental involving pre-test and post-test non-randomised group design. The population of the study was made up of 28 single-sex senior secondary schools with 1,335 (945 males and 390 females) senior secondary two (SS II) students that offer Geography in Gwarzo Education Zone, Kano State, Nigeria. Specifically, the study covered Gwarzo, Shanono, Rimin Gado and Kabo local government areas of the State. Six intact classes with 266 students (135 males and 131 females) participated in the study. The students were selected through cluster and stratified sampling techniques in order to cater for the differences in location and gender. The classes were randomly assigned to two experimental and one control groups. The experimental group one (EG1) was made up of two intact classes with 46 male and 45 female students (91 participants) respectively. The group was taught denudation concepts through collaborative concept-mapping (CCM) using roundtable technique and mixed-ability grouping. The experimental

group two (EG2) also comprised of two intact classes with 45 male and 43 female students (88 participants) respectively. The group was taught denudation concepts through individualized concept-mapping (ICM). The control group (CG) contained two intact classes with 44 male and 43 female students (87 participants) respectively. The group was taught denudation concepts through conventional lecture method (CLM). All the three groups were pretested and posttested on academic performance in denudation concepts which involved weathering, erosion and mass wasting. The intervention lasted for a period of six weeks. An instrument titled Geography Performance Test (GPT) was used for data collection. The instrument contains fifty (50) items, four-option multiple-choice test adapted from West African Senior School Certificate Examination (WASSCE, 2014-2019) based on the topics and item specification. Each item was scored 1 mark for correct option and zero (0) for wrong option with a total score ranging from '0' to 50 marks. Content and face validity of the instrument were established by two senior lecturers in the Department of Geography, Ahmadu Bello University, Zaria and a Geography classroom teacher with more than 10 years teaching experience. The reliability index (coefficient

of stability) of the instrument was calculated at 0.823. The coefficient was established through test-retest techniques and computed using Pearson Product-Moment Correlation Coefficient. This technique was used because the instrument is dichotomous, having two options (one correct and three wrong options) and the researcher was interested on stability of the test items. The data collected were analyzed using descriptive and inferential statistics. Specifically, the research questions were answered by using mean and standard deviation. Hypothesis one was tested One-Way Analysis of Variance (ANOVA) and Scheffe's post hoc test while hypothesis two was tested using Two-Way Analysis of Variance (ANOVA) at 0.05 level of significance. The rationale for using these statistics is that the data collected was measured on scale continuum, the hypothesis one is made up of more than two groups and interaction effects was tested for the hypothesis two. Moreover, the pretest score was subjected to One-Way ANOVA and the result shows no significant difference on the participants academic performance in the denudation concepts.

Results and Discussions

Results

Research Question One: What is the difference between the mean academic

performance scores of students exposed to denudation concepts using collaborative and individualized concept-mapping instructional

strategies, and those taught the same concepts using conventional lecture method?

Table 1: Post-test Mean Academic Performance Scores of Experimental and Control Groups

Group	N	Mean	Standard Dev.	Mean Difference
Experimental Group 1	91	41.35	7.05	9.52
Control Group	87	31.83	7.12	
Experimental Group 2	88	35.23	7.36	3.40
Control Group	87	31.83	7.12	
Experimental Group 1	91	41.35	7.05	6.12
Experimental Group 2	88	35.23	7.36	
Total	266			

Results in Table 1 shows that there are differences in the posttest mean academic performance scores among experimental group 1, experimental group 2 and control group. The experimental groups 1 and 2 taught through CCM and ICM have mean performance scores of 41.35 and 35.23 with standard deviation of 7.05 and 7.36 respectively. The control group that was taught through CLM has a mean performance score of 31.83 and 7.12 standard deviation. A mean difference of 9.52 was found between experimental group 1 and control group. The difference is in favour of the experimental group 1. Similarly, a mean difference of 3.40 was found between experimental group 2 and control group, and the difference is in favour of the experimental group 2. Comparing experimental group 1 and 2, a mean difference of 6.12 was found between the

groups and the difference was in favour of the experimental group 1. These indicate that the lowest mean academic performance difference (3.40) was between the students taught denudation concepts through ICM and CLM. The highest mean difference (9.52) was between the students taught the same concepts through CCM and CLM. Therefore, the students taught through CCM have the highest mean academic performance scores followed by those taught through ICM and lastly CLM. The standard deviations in all the three groups are almost equal and are moderately far from each of the group's mean.

Hypothesis One: There is no significant difference between the mean academic performance scores of the students exposed to denudation concepts using collaborative and individualized concept-mapping

instructional strategies, and those taught the same concepts using conventional lecture method.

Table 2: Results of One-Way Analysis of Variance on Post-test Academic Performance Scores of Experimental and Control Groups

	Sum of Squares	Df	Mean Square	F	P-value	Decision
Between Groups	4161.60	2	2080.80	40.39	.001	Significant
Within Groups	13548.62	263	51.52			

Significant at $P \leq 0.05$ Level

Table 4.2 contains result of One-way Analysis of Variance in which $F(2, 263) = 40.39$ and $P\text{-value} = .001$. The result indicates that the $P\text{-value} (.001)$ is less than the level of significance (0.05). In view of this, the null hypothesis is rejected and alternate hypothesis upheld. Therefore, there is statistically significant difference in the mean

academic performance scores of the students exposed to denudation concepts through CCM, ICM and those taught through CLM. To determine which of the groups differ, multiple comparisons were conducted using Scheffe's post hoc tests and the result was presented in Table 3.

Table 3: Results of Scheffe's Post Hoc Tests on Post-test Academic Performance Scores of Experimental and Control Groups

Group	Mean	Mean Difference	Std. Error	P-value	Decision
Experimental Group 1	41.35				
Control Group	31.83	9.52*	1.07622	.001	Sig.
Experimental Group 2	35.23				
Control Group	31.83	3.40*	1.08514	.008	Sig.
Experimental Group 1	41.35				
Experimental Group 2	35.23	6.12*	1.07308	.001	Sig.

*The mean difference is significant at $P \leq 0.05$

Results of multiple comparisons in Table 3 show that there is statistically significant difference in the mean academic performance scores of experimental group 1 and control group. This is because the $P\text{-value} (.001)$ for

the groups is less than the level of significance (0.05). The difference is in favour of the experimental group. The result also indicates statistically significant difference in the mean academic performance

scores of experimental group 2 and control group. This is because the P-value (.008) for the groups is less than the level of significance (0.05). The difference is in favour of the experimental group. Similarly, statistically significant difference in the mean academic performance scores of experimental group 1 and experimental group 2 was found. This is because the P-value (.001) for the groups is less than the level of significance (0.05). The difference is in favour of the experimental group 1. Therefore, the students in experimental group 1 that were taught denudation concepts through CCM performed significantly higher

(41.35 ± 7.05) than the students in experimental group 2 (35.23 ± 7.36) and control group (31.83 ± 7.12) who were taught through ICM and CLM respectively. Likewise, the students in experimental group 2 who were taught through ICM performed significantly higher (35.23 ± 7.36) than the students in control group (31.83 ± 7.12) who were taught through CLM.

Research Question Two: What is the difference between the mean academic performance scores of male and female students taught denudation concepts using collaborative and individualized concept-mapping instructional strategies?

Table 4: Post-test Mean Academic Performance Scores of Male and Female Students in Experimental Groups

Group	Gender	N	Mean	Standard Dev.	Mean Difference
Experimental Group 1	Male	46	42.52	6.09	2.36
	Female	45	40.16	7.81	
Experimental Group 2	Male	45	36.47	6.25	2.54
	Female	43	33.93	8.24	
Total		179			

Result in Table 4 shows that there are mean differences in the posttest mean academic performance scores of male and female students in experimental group 1 and 2. The male and female students in experimental groups 1 who were taught through CCM had a mean academic performance scores of 42.52 and 40.16 with standard deviation of

6.09 and 7.81 respectively. The mean difference is 2.36 and was in favour of the male students in the group. The standard deviations are closer to one another and moderately far from the means. Similarly, the male and female students in experimental groups 2 who were taught through ICM had a mean academic performance scores of

36.47 and 33.93 with standard deviation of 6.25 and 8.24 respectively. The mean difference is 2.54 and was also in favour of the male students in the group. The standard deviations were also closer to each other and moderately far from the means. Therefore, the male students in each of the groups performed academically higher than their female counterpart. An inter-group comparison of a lower mean academic performance score in CCM group (female students' mean = 40.16) and a higher mean

academic performance score in ICM group (male students' mean = 36.47) shows a mean difference of 3.69 in favour of the female students in the CCM group. This further indicates the advantage of CCM over ICM in understanding the concepts being taught.

Hypothesis Two: There is no significant difference between the mean academic performance scores of male and female students exposed to denudation concepts using collaborative and individualized concept-mapping instructional strategies.

Table 5: Results of Two-Way ANOVA on Post-test Academic Performance Scores of Male and Female Students in Experimental Groups

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Decision
Corrected Model	1946.832 ^a	3	648.944	12.727	.000	
Intercept	261984.224	1	261984.224	5137.878	.000	
Methods	1686.149	1	1686.149	33.068	.000	Sig.
Gender	268.737	1	268.737	5.270	.023	Sig.
Methods * Gender	.324	1	.324	.006	.937	Not Sig.
Error	8923.380	175	50.991			
Total	274003.000	179				
Corrected Total	10870.212	178				

Significant at $P \leq 0.05$ Level

Table 4.5 contains results of two-way ANOVA where $F(1, 175) = .006$ and p -value = .937 for the interaction effects of methods (collaborative and individualized concept-mapping) and gender (male and female) on the students' academic performance. The results revealed that, there is no significant interaction between the effects of the methods (collaborative and individualized concept-mapping) and the student's gender

on academic performance in denudation concept. This is because the p -value (.937) is greater than the level of significance (0.05). Therefore, the null hypothesis was retained and concluded that there is no significant difference between the mean academic performance scores of male and female students exposed to denudation concepts using collaborative concept-mapping and individualized concept-mapping. In view of

these, both CCM and ICM instructional approaches are gender friendly in enhancing students' academic performance in denudation concepts. However, a significant main effects on the methods (collaborative and individualized concept-mapping) was found at $F(1, 175) = 33.068$ and $p\text{-value} = .001$. This has been reported under hypothesis one.

Summary of Findings.

The students taught denudation concepts through collaborative concept-mapping performed significantly higher than those taught through individualized concept mapping and conventional lecture method. Moreover, the students taught using individualized concept mapping performed significantly higher than those taught through conventional lecture method.

1. The academic performance of male and female students taught through collaborative concept mapping and individualized concept mapping does not differ significantly. This makes the two strategies gender friendly.

Discussions

The first finding of the study indicated that students taught denudation concepts through collaborative concept mapping (CCM) performed significantly higher than those taught through individualized concept

mapping (ICM) and conventional lecture method (CLM). This finding agrees with that of Githae, Keraro and Wachanga (2015), Sharma and Singh (2016), Kyado, Abah and Samba (2019) and Chang et al. (2017) who found out that, students taught through collaborative concept-mapping achieved significantly higher than those taught through conventional lecture method. Furthermore, the result is also consistent with the findings of Ajayi, Achor and Agogo (2017), and Gaitonde, Tembe and Kamble (2017) who conducted a study and found out that the students taught redox reactions and engineering education through collaborative concept-mapping had significantly higher mean achievement scores than those taught using individualized concept-mapping instructional strategy. Nevertheless, this result differs with finding of Kwon and Cifuentes (2007) who examined effects of using computers to individually-generate versus collaboratively-generate concept maps, the authors found no significant difference between the groups of students who individually and collaboratively generated concept maps. This contrasting result can be associated with the difference in the strategy where computer was used in the study. Similarly, another finding by Chang et al. (2017) contradicts this result of the study.

The authors revealed no significant difference in academic performance between the students taught through CBCCM and those taught by using ICBCM. This difference can also be linked to the use of computer in the construction of concept map at both collaborative and individual stage in the study.

The efficacy of CCM over ICM and CLM in enhancing students' academic performance can be linked to the structure of the strategy. CCM is an activity-based instructional strategy that emphasized active participation of the students in the process of instruction through mixed-ability collaboration and construction of concept map. On this grounds Gao, Shen, Losh and Turner (2007) and Wachanga, Githae and Keraro (2015) stated that social and collaborative interaction inherent in CCM fosters individual and group learning, increases motivation, aid deeper and meaningful understanding, and helps in the building of common ground among learners.

The finding also revealed that the students taught using individualized concept mapping performed significantly higher than those taught through conventional lecture method. This finding is similar to that of Kwon and Cifuentes (2007) who revealed that students who individually generated concept maps

scored higher than the control group who do not construct any concept map. Similarly, the result is similar to that of Chang et al. (2017) who found that students taught geographic science performance through individual computer-based concept mapping (ICBCM) outperformed those taught without concept mapping assistance. This result is also in conformity with the finding of Meheux (2017) and Onyejekwe, Uchendu and Tochi (2018) who reported that students taught physics and genetics with concept mapping teaching method performed significantly better than those taught with expository and lecture method respectively. However, this finding disagrees with finding of Ibitomola (2015) who revealed no significant difference in academic performance of students taught biology through CM and those taught through CLM. Ibitomola's finding differs with many studies on concept mapping and this can be as a result of the way the treatment was designed and implemented. The concept map was used as an instructional package and the students were not actively involved in the instruction.

The importance of ICM over CLM in promoting students' academic performance in denudation concepts can be associated with nature of the strategy where students have to relate the concepts being taught with

previously learn concept diagrammatically. This encourages active participation of students in the process of instruction. It was believed that construction of concept maps promotes deeper and meaningful learning (Ausubel, 1963).

The second result of the study indicated that, the academic performance of male and female students taught through collaborative concept mapping (CCM) and individualized concept mapping (ICM) does not differ significantly. This makes the two strategies gender. Part of this finding which indicates no significant difference in academic performance of male and female students taught through CCM is consistent with that of Orora, Wachanga and Keraro (2005), and Wambugu, Changeiywo and Ndiritu (2013) who conducted studies on effect of cooperative concept mapping and experiential cooperative concept mapping in biology and physics respectively. The studies revealed no significant gender difference in academic achievement scores of the students. The result also supports the finding of Githae, Keraro and Wachanga (2015), and Kyado, Abah, and Samba (2019) who found no statistically significant difference in academic achievement between male and female students taught biology through collaborative concept mapping. The absence

of significant difference in the mean academic performance scores of male and female students taught denudation concepts through collaborative concept mapping can be attributed to the mixed-ability collaborative interactions and construction of concept maps. It was believed that collaborative interactions foster individual and group learning, increases motivation, aid deeper and meaningful understanding of concepts (Wachanga, Githae & Keraro, 2015). In this process, high ability students support low ability counterparts in the course of learning. Construction of concept maps equally assists learners in mapping the relationship that exists between concepts thereby aiding meaningful and deeper learning, and reduces gender disparity.

The other part of the result which indicates no significant difference in academic performance scores of male and female students taught through ICM matched the findings of Nwoke, Iwu and Uzoma (2015), Ogonnaya, Okafor, Abonyi and Ugama (2016), Shamsuddin, Aminu, Shamsiyya and Adamu (2017), Doris (2018) and Okoronka (2018) who reported no significant difference in the mean achievement scores of male and female students taught mathematics, basic science, chemistry and physics respectively through concept mapping instructional

approach. However, the finding contradicts the finding of Cheema and Mirza (2013), and Lawal, Aminu and Gambo (2017) who found that male students taught general and agricultural science through concept mapping performed significantly better than the female students taught through the same instructional approach. Result of this kind is rare and can be attributed to the design used in the study. Moreover, the studies were conducted in general and agricultural science concepts compared with the present study conducted in Geography. Lack of significant gender difference in academic performance when the students were exposed to denudation concepts through individualized concept mapping can be linked to the students' active participation in the instructional process and meaningful learning activities that help in mapping the relationship that exist between concepts. These enhance deeper and broader understanding of the concepts being taught irrespective of gender. Although both CCM and ICM are gender friendly in terms of academic performance, analysis has indicated that CCM is more gender friendly than ICM and this can be attributed to collaboration in the strategy.

Conclusion

Based on the findings of this study it was concluded that CCM is an effective and gender friendly instructional strategy that improves Geography students' academic performance in denudation concepts significantly better than ICM and CLM. Similarly, ICM is moderately an effective and gender friendly instructional strategy that also improves Geography students' academic performance in denudation concepts significantly better than CLM.

Recommendations

Based on the findings of this study, the following recommendations were made.

1. Teachers in colleges of education and universities especially those teaching Geography methods course should educate student-teachers on the use of collaborative concept-mapping instructional strategy in teaching Geography and its effects in promoting learning.
2. To improve students' academic performance and reduce gender disparity, Geography teachers at secondary schools should prioritize the use of collaborative concept-mapping over individualized concept-mapping and conventional lecture method in teaching.

REFERENCES

- Ababio, B. T. (2013). Motivation and classroom teaching in Geography. *International Journal for Innovation Education and Research*, 1(3), 26-36.
- Abdullahi, A. K. (2018). *Appraisal of Geography students' level of motivation, attitude and retention of learned concepts in `senior secondary schools of Kano-North senatorial districts, Kano State, Nigeria* (Unpublished dissertation). Usmanu Danfodio University, Nigeria.
- Ajayi, V. O., Achor, E. E., & Agogo, P. O. (2017). Comparative effects of collaborative concept-mapping and concept mapping instructional strategies on students' achievement and retention in redox reactions. *Journal of Education*, 17(3), 67-74
- Akanbi, A. A. (2004). *Gender sensitivity in classroom teaching and learning*. A Paper presented at the ETF/NCCE Train – the Trainers Workshop on September, 2004. Federal College of Education Katsina, Nigeria.
- Akpur, U. (2015). *The relationship pattern between English prep school students' academic achievement and their academic motivation, anxiety and attitudes* (Unpublished master dissertation). Yıldız Teknik University, İstanbul.
- Akuzinwanne, O. I. G. (2012). *Effects of concept mapping and simulation-game teaching strategies on students' achievement and interest in environmental concepts in chemistry* (unpublished Phd thesis). University of Nigeria, Nsukka.
- Alkis, N. (2015). *The influence of personality traits, motivation and persuasion principles on academic performance* (Unpublished doctoral dissertation). Middle East Technical University, Ankara.
- Alvarez, K. J., Deal, M. S., Gress, G. M., Gritzner, C. F., Morilla, R. W., Pavlovic, Z., Shearer, C., Stoltman, P. J., Strong, W. R., & Boehm, R. G. (2005). Why Geography is important. Retrieved from http://www.nationalgeographic.com/foundation/pdf/Why_Geo_Impt.pdf
- American Association of Geographers. (2016). What is unique about Geography and how does that inform what geographers do? Retrieved from http://www.aag.org/cs/jobs_and_careers/what_geographers_do/overview
- Ausubel, D. P. (1963). *The psychology of meaningful verbal learning*. New York: Grune & Stratton.
- Chang, C-C., Liu, G-Y., Chen, K-J., Huang, C-H., Lai, Y-M., & Yeh, T-K. (2017). The effects of a collaborative computer-based concept mapping strategy on geographic science performance in Junior high school students. *EURASIA Journal of Mathematics Science and Technology Education*, 13(8), 5049-5060
- Cheema, A. B., & Mirza, M. S. (2013). Effect of concept mapping on students' academic achievement. *Journal of Research and Reflections in Education*, 7(2), 125 -132.
- Doris, O. M. (2018). Effect of concept mapping in teaching of physics in senior secondary schools in Portharcourt local government area Rivers State. *European Scientific Journal*, 14 (31), 71-81
- Gaitonde, U. N., Tembe, B. L., & Kamble, S. K. (2017). Computer assisted collaborative concept-mapping in engineering education. *International Journal of Information and Education Technology*. 7(6), 469-473 Retrieved from <http://www.ijiet.org/vol7/914-T10.pdf>
- Gao, H., Shen, E., Losh, S., & Turner, J. (2007). A review of studies on collaborative concept mapping:

- what have we learned about the technique and what is next? *Journal of interactive learning research*, 18(4), 479-492.
- Githae, R. W., Keraro, F. N., & Wachanga, S. W. (2015). Effects of collaborative concept-mapping teaching approach on secondary school students' achievement in biology in Nakuru North Sub-county, Kenya. *Global Research Journal of Education*. 3(5), 321-328
- Gouveia, V., & Valadares, J. (2004). Concept maps and the didactic role of assessment. In A. Canas, J. Novak & F. Gonzalez (Eds.), *Concept Maps: Theory, Methodology, Technology. Proceedings of the First International Conference on Concept Mapping*. Pamplona, Spain: Universidad Publica de Navarra.
- Ibitomola, M., M. (2015). *Effects of concept mapping and experimental techniques in teaching biology in secondary schools in Federal Capital Territory Abuja, Nigeria* (Unpublished PhD thesis). Ahmadu Bello University, Zaria, Nigeria.
- King'aru, J. M. (2014). *Factors contributing to poor performance of science subjects: a case of secondary schools in Kawe division, Kinondoni Municipality* (Unpublished dissertation). Open University of Tanzania.
- Kwon, S. Y., & Cifuentes, L. (2007). Using computers to individually-generate vs. collaboratively-generate concept maps. *Educational Technology & Society*, 10 (4), 269-280.
- Kyado, J. J., Abah, C. O., & Samba, R. M. (2019). Effect of collaborative concept-mapping instructional strategy on secondary students' achievement in difficult biology concepts. *American Journal of Social Sciences and Humanities*, 4(3): 434-447
- Lawal, N. I., Aminu, S., & Gambo, D. A. (2017). Effects of Concept Mapping method on the Academic Performance of Agricultural Science in Senior Secondary Schools in Kaduna State. *International Journal of Topical Educational Issues*, 1(2), 14 - 26
- Maikano, S. (2007). *Effects of outdoor and indoor laboratory experience on secondary school students' academic achievement and retention in ecology in Kaduna State* (Unpublished masters thesis). Ahmadu Bello University Zaria, Nigeria.
- Mascolo, M. E. & Fischer, K. W. (2005). Constructivist theories. Theories of development. Retrieved from http://www.academia.edu/8906476/Constructivist_Theories
- Meheux, M. E. (2017). Effect of concept mapping teaching strategy on the academic achievement of senior secondary school students in physics. *International Journal of Education and Evaluation*, 3(12), 25-32
- Musa, T. (2015). Improving Geography students' retention using collaborative concept-mapping approach. *Journal of Education and Practice*, 5(4), 34-39
- Narad, A., & Abdullah, B. (2016). Academic Performance of senior secondary school students: Influence of parental encouragement and school environment. *Rupkatha Journal on Interdisciplinary Studies in Humanities*, 8(2), 12-19.
- National Center for Education Statistics (2003). Digest of education statistics 2002 (NCES 2003-060), Washington, DC: U.S. Government Printing Office.

- Novak, J. D. & Canas A. J. (2008). The theory underlying concept maps and how to construct and use them. Technical Report IHMC CmapTools 2006-01 Rev 01-2008, Florida Institute for Human and Machine Cognition, 2008. Retrieved from <http://cmap.ihmc.us/docs/theory-of-concept-maps>.
- Novak, J. D. (2010). *Learning, creating, and using knowledge: Concept maps as facilitative tools in schools and corporations*. New York: Taylor and Francis.
- Nwoke, B. I., Iwu, A., & Uzoma, P. O. (2015). Effect of concept mapping approach on students achievement in mathematics in secondary schools. *JORIND*, 13(1), 193-199
- Obadaki, Y. Y., & Omowumi, Y. K. (2013). Comparative study of gender difference performance in Geography: A case study of some selected schools in Zaria inspectorate division of Kaduna state, Nigeria. *Educational Research and Review*, 8(5), 179-185. doi: 10.5897/ERR2013.1421
- Obeka, S. S. (2009). *EPODEWALAD and power simulation games of geographical and environmental education*. Zaria, Kaduna State, Nigeria: Ahmadu Bello University Press Limited.
- Obeka, S. S. (2013). Effects of innovative teaching strategies with integrated resource materials on academic achievement for access and quality environmental education in Otukpo Educational Zone, Benue State, Nigeria. Proceedings of Multicultural African Conference Held at Faculty of Education, Ahmadu Bello University, Zaria between 11th – 15th June, 2013
- Ogonnaya, U. P. Okafor, G. Abonyi, O. S & Ugama, J. O. (2016). Effects of concept mapping instruction approach on students' achievement in basic science. *Journal of Education and Practice*, 7(8), 79-84
- Okoronka, A. U. (2018). Effect of concept mapping instructional strategy and gender on secondary students achievement in difficult physics concepts in Yola, Nigeria. *Gombe Journal of Education*, 2(1), 1-12.
- Onyejekwe, C. A., Uchendu, C. G. & Tochi, N. (2018). Effect of concept mapping on students' performance in genetics, in selected public schools in Obio/Akpor. *International Journal of Education and Evaluation*, 4(1), 54-60
- Orora, W., Wachanga, S.W., & Keraro, F.N. (2005). Effects of cooperative concept mapping teaching approach on secondary school students' achievement in Biology in Gucha District, Kenya. *Zimbabwe Journal of Educational Research*. 17(1), 1-18.
- Shamsuddin, I. M., Aminu, I., Shamsiyya, A., & Adamu, A. M. (2017). Influence of computer assisted concept mapping instructional strategy on students' performance in chemistry. *Teacher Education and Curriculum Studies*, 2(6), 86-92
- Sharma, M. & Singh, G. (2016). Effect of collaborative concept-mapping strategy on achievement in economics of ix graders. *International education and research journal*, 2(7), 22-24.
- Steinmayr, R., Meibner, A., Weidinger, A. F., & Wirthwein, L. (2015). Academic achievement. Retrieved from <http://www.oxfordbibliography.com/view/document/obo-9780199756810/obo-9780199756810-0108.xml>
- Tifi, A., & Lombardi, A. (2010). Distance collaboration with shared concept maps. In P. L. Torres, & R. D. V. Marriott, (2010). *Handbook of research on collaborative learning using concept mapping*. New York: Information Science reference

- Turan, Z. (2015). *The evaluation of flipped classroom method and examination of its effects on academic achievement, cognitive load and motivation* (Unpublished doctoral dissertation). Atatürk University, Erzurum.
- Ullah, R. & Ullah H. (2019). Boys versus girls' educational performance: Empirical evidences from global north and global south. *Afr Educ Res J.* 2019;7(4):163–167. doi: 10.30918/AERJ.74.19.036
- Usman, I. A. (2010). The Effects of indoor and outdoor instructional methods on academic achievement of JSS integrated science students in Zaria Local Government Area, Kaduna State. *Journal of Science and Mathematics Education, 1*(1), 66-73.
- Vygotsky, L. S. (1978). Tool and symbol in child development. In M. Cole, V. John-Steiner, S. Scribner, & E. Souberman (Eds.). *Mind in Society: The development of higher psychological processes*. Cambridge, Mass: Harvard University Press
- Wachanga, S. W., Githae, R. W., & Keraro, F. N. (2015). Effects of collaborative concept-mapping teaching approach on secondary school students' motivation to learn biology in Nakuru North County, Kenya. *Journal of Educational Policy and Entrepreneurial Research, 2*(8),1-17.
- Walker, L. D., & Tyler, M. A. (2014). Collaborative concept mapping: Connecting with researchteam capacities. *Education Research International.* <http://dx.doi.org/10.1155/2014/836068>
- Wambugu, P. W., Changeiywo, J. M., & Ndiritu, F. G. (2013). Effects of experiential cooperative concept mapping instructional approach on secondary school students' achievement in physics in Nyeri County, Kenya. *Asian Journal of Social Sciences & Humanities.* 2(3), 279-296. Retrieved from [http://www.ajssh.leena-luna.co.jp/AJSSHPDFs/Vol.2\(3\)/AJSSH2013\(2.3-32\).pdf](http://www.ajssh.leena-luna.co.jp/AJSSHPDFs/Vol.2(3)/AJSSH2013(2.3-32).pdf)
- Wang, V. C. X. (2013). *Handbook of research on teaching and learning in K-20 education*. Florida Atlantic University, USA: DOI 10.4018/978-1-4666-4249-2
- World Health Organisation (2017). Gender, women and health: What do we mean by “sex” and “gender” ? Retrieved from <http://web.archive.org/web/20170130022356/http://apps.who.int/gender/whatsgender/en/>
- Wrigley-Asante, C., Ackah, C. G. & Frimpong, L. K. (2023). Gender differences in academic performance of students studying Science Technology Engineering and Mathematics (STEM) subjects at the University of Ghana. *SN Soc Sci 3, 12* (2023). <https://doi.org/10.1007/s43545-023-00608-8>
- Zembar, M. J., & Blume, L. B. (2009). *Middle childhood development: A contextual approach*. Upper Saddle River, N.J.: Allyn & Bacon, an imprint of Pearson Education Inc.

Influence of Maintenance Culture and Infrastructural Renewal on Effective Plant Management of Secondary Schools in Alimosho, Lagos State

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ABSTRACT

The basic infrastructure such as classrooms, laboratories, workshops, sporting facility, equipment, libraries in most schools in Nigeria are in a state of decay. This was why this study assessed influence of maintenance culture and infrastructural renewal on effective school plant management in Lagos State secondary schools. The study adopted descriptive research design of survey type. The population of this study comprised 2200 secondary school teachers in 29 public secondary schools in Alimosho Local Government Area of Lagos State, from which a sample of 10 public senior secondary schools were selected using simple random sampling technique. Then, 20 teachers were randomly selected from each of the 10 secondary schools, making a total of 200 teachers as sample size. Two hypotheses were tested. Also, two instruments were used for this study. They were “Maintenance Culture and Infrastructural Renewal Questionnaire” tagged MCIRQ, and “Effective School Plant Management Questionnaire” tagged ESPMQ. 0.75 and 0.81 were recorded for the reliability tests of MCIRQ and ESPMQ respectively. Findings showed that there was a significant influence between maintenance culture and effective school plant management. Also there was a significant influence of infrastructural renewal and effective school plant management. Based on the findings, it was therefore recommended among other recommendations that, there is a need for concerted efforts by all stakeholders to participate in plant maintenance and infrastructural renewal in all schools. And that all school administrators should improve on the existing maintenance culture.

Keywords: *Infrastructural Renewal, School Plant*

Introduction

Schools are established for the purpose of teaching and learning. The mission of school cannot be achieved without necessary resources being put in place. The school facilities are the space interpretation and physical expression of the school curriculum. The significance of facilities cannot be overemphasized. A school that

lacks facilities may find it difficult to attain its set goals. The school facilities play a significant role in the success or otherwise of both staff and students of any school. Bamidele (2003) cited in Alimi, Ehinola, and Alabi (2012) notes that the significance of physical facilities such as modern laboratories, school technologies,

libraries and classrooms among others cannot be relegated. Also, Adesola (2005) cited in Alimi, Ehinola, and Alabi (2012) found out that the level of available resources is indeed a plus to the teaching and learning, and goes to show the level of ingenuity and commitment of the teachers toward effective delivery of lesson.

Management is as important as any other area of human activity. It is concerned with the design and maintenance of organization where individual working in a group can accomplish set goals. All human organizations be it home, industry, non-industry, profit and non-profit making enterprises get engaged in the act of getting things done through people's efforts. Management connotes being in charge of organization. The main goal of all managers should be the attainment of stated goals and objectives.

Adesina (1990) cited in Peleyeju (2014) describes management as the process of making prudent use of an organization's resources in order to achieve predetermined goals. Also, Stoner and Wankel (1998) cited in Peleyeju (2014) describe management as the process of planning, organizing, leading and controlling the efforts of organization's members with using all organizational resources to achieve stated goals and objectives. Effective management of school plant is the

practice of coordinating the physical workplace, the people and the operations of the school settings. A school manager must ensure that buildings and other technical systems supporting the operations of a school are well maintained. The duties of all school managers include the systematic process of rationalizing the provision, utilization and maintenance of these facilities within an educational institution for the achievement of educational objectives both in the immediate and in the future, given the available resources.

Literature Review

According to Salomi (2018), school plant is the sum total of building, equipment, textbooks as well as the surroundings where teaching and learning take place. The school plant includes all permanent and semi-permanent structures in the school. Yusuf (2008) maintain that school plants comprise the machinery which in turn includes machines and tools used in the school. School plant as described by Amanchukwu and Nwachukwu (2015) is the site, the buildings, the equipment and all the essentials structures, permanent or semipermanent as well as machines, laboratory equipment, the blackboard and others for effective teaching and learning. The ability to manage all these facilities is termed school plant management.

The school plant management could be viewed as a process that involves rationally determining which facilities are required to achieve school goals, providing such facilities most especially in terms of resource use, monitoring their optimal use, maintaining the facilities regularly to ensure their longevity, as well as reviewing the provision of these facilities to ensure that it continues to meet the changing educational needs

Danestry (2014) opines that effective management of school plant involves keeping and maintaining records of the facilities, supervising the facilities, planning for the facilities, motivating students and teachers to participate in facilities maintenance and evaluating the available facilities. An aspect of school management that is generally overlooked is plant or facility maintenance. It has been observed in Nigeria and some other developing countries that when new buildings are constructed and occupied by the users, practically no attention is given to the maintenance of such buildings with its fittings. Facility maintenance is an issue that concerns all levels of education system ranging from the pre-primary level to the tertiary level. The types of maintenance that so many people crave for include preventive, routine, emergency repair, and predictive maintenance. Some of these facilities are architecturally obsolete and

therefore cannot contribute to functional teaching and learning. Suffice it to say that it is the maintenance culture that keeps both limited and unlimited facilities relevant for use for a long time. Therefore, maintenance culture is an attitude which is regrettably lacking in Nigeria of today, whether in the home, office, school or factory. According to Ngoka (2013), poor maintenance culture has become a widely recognized problem in Nigeria. Ekpoh (2018) sees school plant maintenance as seeing that there is a malfunction in a building, equipment, or grounds and ensuring they are restored to appropriate condition. Plant maintenance culture involves integrating plant maintenance as part and parcel of the entire school programme of activities. It also ensures that standard rules and regulations regarding school plant are observed voluntarily without promptings (Ekpoh, 2018). Nigerians are very good at getting valuable and gorgeous facilities in place, but their challenge is in the area of maintenance. Maintenance culture in Nigeria's educational institutions can be rated as the lowest around the world (Agenyi, 2012). Ngoka (2013) asserted that maintenance policy is lacking in Nigeria, and therefore no such culture exists.

Neglect of maintenance has accumulated consequences in rapid increase in the deterioration of school building, electrical facilities where some wires might be

negligently exposed and electric poles trying to fall and, libraries, laboratory equipment are in a state of comatose (Eze, 2016). As beautiful as the maintenance policy and culture may seem if well applied, their efficiency relies partly on infrastructural renewal. According to Gimah (2020), school plant planning itself is an important aspect of educational planning. Students' academic performance is attainable through effective school plant planning. Generally, school plant refers to the school building, classroom, hostels, libraries, laboratories, offices, furniture, black/white boards, playgrounds, apparatus and equipment, technological facilities aiding teaching and learning, and so on. The school plant is the pillar and support of all teaching and learning activities. The site, size, arrangement and other aspects of the classroom, support facilities such as laboratories, toilets and other equipment can either be welcoming or repulsive to teachers and students alike.

Infrastructural renewal deals with replacement of worn out and decayed infrastructure in the schools. The International Initiative for Impact Evaluation (2021) views infrastructural renewal as a process of changing the existing and old facilities to new. For instance, there are times when temporary facilities and infrastructure (such as building classrooms with mud, woods or

straws) are put in place just for a period of time because they are cheaper. One could decide to change them to permanent facilities (such as blocks or bricks, irons, aluminium or asbestos roofing sheets) later. This renewal gives interesting, good and new look to the facilities. The study by Oladipo and Oni (2010) points out that in most schools in Nigeria, teaching and learning take place under a most inconducive environment, lacking the basic materials, which hinders the fulfillment of educational objectives. In the words of Okeke (2017), the level of dilapidation in the schools is monumental. According to Okoroma (2012), the facilities in our educational institutions are too obsolete when compared with other societies of the world. This is why infrastructural renewal becomes imperative for achieving effective school plant management.

This study drew upon von Bertalanffy (1951) theory known as systems theory cited in Lai and Lin (2017). According to this theory, a system can be said to consist of four things. The first is objects – the parts, elements, or variables within the system. These may be physical or abstract or both, depending on the nature of the system. Second, a system consists of attributes – the qualities or properties of the system and its objects. Third, a system has internal relationships among its objects. Fourth, systems exist in an environment. A

system, then, is a set of things that affect one another within an environment and form a larger pattern that is different from any of the parts. Systems theory places dual emphases on organization's relationship and interdependence among the components of the systems as well as the organization-environment relationships. Reference to this study, any shortcoming regarding any part of the system could affect the overall effectiveness of the entire system. Maintenance culture and infrastructure renewal of school facilities would promote overall school plant management. Ekpoh (2018) suggested that educational institutions should realize the importance of the existence and role of maintenance in ensuring the continuity, smoothness, and stability of the process of an educational activity. Ojara (2013) cited in Iyamu, Imasuen, and Osakue (2019) stated that poor government funding has prevented the maintenance of public schools in Nigeria. Also, Kportafe (2015) claimed that, lack of cooperation between school management and the community members is a contributing factor to poor maintenance of school buildings. Adenuga (2010) stated that, the lack of orientation on effective maintenance culture by the major stakeholders is the main reason for neglect of school building maintenance. According to Adegoriola, Nuruddeen and Agunbiade (2019) there is long run relationship

between infrastructural renewal and economic growth in Nigeria. In other words, since education contributes to the nation's economic growth, suffice it to say that there is also long run relationship between infrastructural renewal and quality education. It implies therefore that, when infrastructure are renewed in schools, it would influence the quality of education.

Statement of the Problem

A cursory look at the state of public schools in recent times shows the level of decadence of infrastructure in the Nigerian educational system. The basic infrastructure in schools such as classrooms, laboratories, workshops, sporting facilities, equipment, libraries are in a state of decay. The physical condition of most schools has been reported to be pathetic. A vast majority of Nigeria public schools especially primary and secondary schools are in terrible shape; buildings are dilapidated, and equipment are either obsolete or unavailable. Instructional materials are lacking, parents provide their children's chairs and tables to school (Akpan, Okoli, & Akapan 2018; Ogunbayo, Folorunso & Emua 2020).

Objectives of the Study

The main purpose of this study is to investigate the influence of maintenance culture and infrastructural renewal on

effective school plant management in Lagos State's secondary schools.

The specific objectives are to examine:

- a. the influence of maintenance culture on effective management of school plant in Lagos State's secondary schools
- b. the influence of infrastructural renewal on effective management of school plant in Lagos State's secondary schools

Hypotheses

H₀₁: There is no significant influence of maintenance culture on effective management of school plant in Lagos State's secondary schools

H₀₂: There is no significant influence of infrastructural renewal on effective management of school plant in Lagos State's secondary schools

Methodology

Research design

This study adopts the descriptive survey research design, to obtain data from the sample of the population, and to establish the influence of maintenance culture and infrastructural renewal on effective management of school plant in Lagos State's secondary schools.

Population

The target population of this study comprised 2200 teachers in all public senior secondary schools in Alimosho, Lagos State. According to FireSafe Council (2022), Alimosho is Lagos State's largest

local government with a population of more than a million people.

Sample and sampling technique

The study sampled 10 public senior secondary schools in Alimosho Local Government Area, Lagos State. The selection was done using multistage sampling method. Multistage sampling is a probability sampling technique in which few areas that are believed to be representatives of a whole population is used.; it helps to divide the total population into groups for conducting research or investigation (Akinbode, Aderanti & Ayodele, 2023). This sampling technique allowed the researcher to adopt the existing local government administrative wards in Alimosho. They are Shasha/Akowonjo ward, Egbeda ward, Idimu/Isheri Olofin ward, Ikotun/Ijegun ward, Egbe/Agodo ward, Igando/Egan ward, Ipaja ward, Ayobo/Ijon Village ward, Pleasure/Oke-Odo ward, and Abule-Egba/ Aboru/ Meiran/ Alagbado ward (FireSafe Council, 2022). The simple random sample sampling technique was used to select 10 public secondary schools from the local government wards. Thereafter, a purposive sampling technique was used to draw 20 teachers from each of the randomly selected secondary schools who had spent more than 10 years in the teaching service in Lagos

State. Thus, a total of 200 teachers were selected for the study.

Instrumentation

Two instruments were used for this study. They were “Maintenance Culture and Infrastructural Renewal Questionnaire” tagged MCIRQ, and “Effective School Plant Management Questionnaire” tagged ESPMQ. Each of the instruments comprised two parts of A and B. Part A gathered personal information of the respondents such as sex, age, marital status, and educational qualification of the respondents, among others. Part B consists of items concerning the variables under consideration in this study. Part B of MCIRQ contained items measuring maintenance culture and infrastructural renewal, while Part B of ESPM contained items measuring effective school plant

management. Part B of the two instruments were structured using four-point Likert scale type of Strongly Agreed (SA), Agreed (A), Strongly Disagreed (SD), and Disagreed (D) to elicit response from the respondents. The instruments were given to experts in Educational Evaluation for validity exercise. All the corrections and suggestions were incorporated in making the instruments measure what they were meant to measure. The instruments were also subjected to the reliability test using Cronbach Alpha and the reliability coefficients were 0.75 and 0.81 for MCIRQ and ESPMQ respectively.

Results

Test of hypotheses

Hypothesis One: There is no influence of maintenance culture on effective management of school plant in Lagos State’s secondary schools

Table 6: Influence of maintenance culture on effective management of school plant in Lagos State’s secondary schools

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.206	.134		1.535	.128
1 Maintenance culture	.865	.045	.751	19.073	.000

a. Dependent Variable: effective management of school plant

Table 6 revealed the relative influence of maintenance culture on effective management of school plant in Lagos State’s secondary schools, expressed as beta

weights, viz: ($\beta=.751$, $P<.05$). It therefore shows that maintenance culture enhances effective management of school plant in Lagos State’s secondary schools.

Hypothesis Two: There is no influence of infrastructural renewal on effective

management of school plant in Lagos State's secondary school

Table 7: Influence of infrastructural renewal on effective management of school plant in Lagos State's secondary schools

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.795	.347		2.290	.024
1 Infrastructural Renewal	.564	.117	.438	4.818	.000

a. Dependent Variable: effective management of school plant

Table 7 revealed the influence of infrastructural renewal on effective management of school plant in Lagos State's secondary schools, expressed as beta weights, viz: ($\beta = .438$, $P < .05$). It therefore shows that infrastructural renewal enhances effective management of school plant in Lagos State's secondary schools

Discussion of Findings

The findings of the study having tested hypothesis one revealed that there was a significance influence between maintenance culture and effective management of school plant in Lagos State's secondary schools. This implies that maintenance culture could enhance effective management of school plant. This is in agreement with the study by Ajayi (2007) cited in Ekpoh (2018) which provides that the value of school plant maintenance culture include:

1. the preservation of the aesthetic and beauty of the school environment;

2. The provision of the favourable environment for teaching and learning;
3. The extension of the life of older facilities and maximizing the useful lives of newer facilities;
4. The reduction of repairing rate or break down of school equipment; among others.

Also, after testing hypothesis two, the finding revealed that there was a significant influence between infrastructure renewal and effective school plant management. This findings is in line with the study by Darmastuti (2014) cited in Sowiyah, Pangestu and Nurahlaini (2021) that the completeness, improvement and renewal of educational facilities and infrastructure in school greatly influences the effectiveness of learning, both in and out of the classroom. This implies that when infrastructure are renewed and improved upon, it would enhance the quality of the school plant, and it would contribute to effective teaching and learning.

Conclusion

The study revealed that school plants are essential for effective teaching and learning. Facilities maintenance and infrastructure renewal cannot be overemphasized. However, as facilities are used daily in schools, no matter their perfect condition, they are bound to deteriorate and depreciate and therefore maintenance will be required. Maintenance must be an ongoing process and is always required in any school no matter how well built, furnished or equipped. Ineffective maintenance and poor renewal process of facilities poses danger to the users. The danger inherent in non –maintenance and non-renewal of school facilities far outweighs the cost of maintenance.

Recommendations

Based on the findings of the study, it is recommended that:

1. There is a need for concerted efforts by all stakeholders to participate in plant maintenance and renewal of infrastructure that are dilapidated and posing dangers.
2. The existing maintenance culture needs to be restructured in order to make school plant functional, more effective, as well as prolonging its life span.
3. School managers in all schools should form a committee to be looking into the cases of facility maintenance as and when due, as well as renewing or changing facilities or infrastructure that are posing dangers to the staff and students.
4. Above all, all measures that could ensure proper maintenance of facilities and infrastructural renewal should be swiftly put in place to save the schools, staff and students.

REFERENCES

- Adegioriola, A.E., Nuruddeen, I.M., & Agunbiade, O. (2019). Impact analysis of infrastructural renewal in Nigerian economy. *Lapai Journal of Economics*, 3(2), online ISSN: 2659-0271
- Adenuga, O.A. (2010). Effective maintenance policy as a tool for sustaining housing stock in down turn economy. *Journal of Performance*, 1, 93-109
- Agenyi, E. (2012). *The role of school administrators in the maintenance of school plants and national transformation*. Makurdi: Nigeria Association for Educational Administration and Planning (NAEAP).
- Ajayi (2007). A case study of management related factors affecting Nigerian secondary school teachers' professional commitment. FCT Education Secretariat. *Journal of Curriculum Studies and Instruction*, 1(1), 130-137.
- Akpan, I., Okoli, A.C., & Akpan, I.I. (2018). Challenges of accessing and utilizing instructional materials by primary school teachers in Ikwuano Local Government Area, Abia State, Nigeria. *International Journal of Advanced Academic and educational Research*, 13(3), 27-37 www.arcujournals.org
- Alimi, O.S., Ehinolu, G.B. & Alabi, F.O. (2012). School types, facilities and academic performance of students in senior secondary schools in Ondo State, Nigeria. *International Education Studies*, 5(3), 44-49. [URL:http://dx.doi.org/10.5539/ies.V5n3](http://dx.doi.org/10.5539/ies.V5n3), 44
- Amanchukwu, R.N. & Nwanchukwu, P.O. (2015). Managing school plant for effective service delivery in public secondary schools in River State of Nigeria. *Human Resource management research*, 5(4), 95-102
- Danestry, A. A (2014). *Psycho-social determinants of academic performance and vocational learning of students with disabilities in Oyo State*. Unpublished Ph.D Thesis. University of Ibadan.
- Ekpoh, U. (2018). *School plant maintenance and utilization*. In book: Handbook on educational planning and policy analysis (pp. 138-155). Pearl Publisher Esiegbu, E.C. (2014). *School plant maintenance*. In book: *Educational management: A skill building approach*. Rex Charles & Patrick Limited
- Eze, U. (2016). *Falling standard in education*. *Newswatch magazine*. A 5 point strategy. Wisdom Publishers. 67
- FireSafe Council (2022). *Alimosho local government administrative wards*.
- Gimah, B.A. (2020). School plant planning and maintenance strategies for enhanced students' academic performance in public secondary schools in River State. *International Journal of Institutional* (4), 802-813
- International Initiative for Impact Evaluation (2021). What impact does upgrading physical school infrastructure to permanent materials on students? *West Africa Capacity-Building and Impact Evaluation Program*
- Iyamu, I.F., Imasuen, I.M., & Osakue, E.F. (2019). Analysis of maintenance culture in public primary and secondary schools in Edo State. *International Journal of Vocational and Technical Education Research*, 5(1), 64-71 www.eajournals.org
- Kportafe, G.S. (2015). Lack of maintenance culture of public buildings in the Capital city of Ghana-Accra. *Journal of Culture*,

- Society and Development*, 12, 97-101
- Lai, C. & Lin, S. (2017). *Systems theory*. In book: *The international encyclopedia of organizational communication*. <http://online.library.wiley.com/book/10.1002/9781118955567>. John Wiley & Sons Inc
- Ngoka, G. N. (2013). *Concepts and issues in advanced educational administration*. University Press. 11
- Ogunbayo, O., Folorunso, C.O., & Emua, C. (2020). Teachers' perception of instructional materials and teaching method: Implication for effective teaching of social studies in junior secondary schools in Ekiti State, Nigeria. *Social Science Education Journal*, 4(1), 139-152
- Okeke, B. S. (2017). *Politics of education: The Nigerian experience*. Doone Printing and Publishing. 23
- Oladipo, A. A & Oni, A. (2010). *Quality assurance and sustainable university education in Nigeria*. Faculty of Education, University of Lagos.
- Peleyeju, J.O. (2014). *Theory of management: A concise approach*. Sofunnix Press
- Salomi, M.O. (2018). *Maintenance of school buildings and supply of equipment*. In Oladipo, S.E., Ijaduola, K.O. and Adenaike, F.A. (eds.) *School Administration and management*. College of Specialised and Professional Education, Tai Solarin university of Education, Ijagun.
- Sowiyah, F.S., Pangestu, U. & Nurahlaini, M. (2021). School facilities and infrastructure management in improving education quality. *International Journal of Research and Innovation in Social Science (IJRISS)*, V(VI). www.rsisinternational.org
- Yusuf, M.A. (2008). *School plant planning and secondary school students' learning outcome in Southwest, Nigeria*. A PhD Thesis, University of Ado-Ekiti

Science Education Undergraduates' Perception of Their Academic Writing Ability in the University of Benin, Nigeria

By

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ABSTRACT

This study examined science education undergraduates' perception of their academic writing abilities in the Faculty of Education, University of Benin, Nigeria. Two research questions were raised and two hypotheses were tested in the course of the study. The survey research design was adopted. The population consisted of the 1,261 science education students in the Department of Curriculum and Instructional Technology (CIT), Faculty of Education, University of Benin in the 2021/2022 academic session. The sample comprised three hundred and seven (307) science education undergraduates who were selected using the Taro Yamane formula and the proportionate random sampling technique. A self-designed questionnaire titled "Science Education Undergraduate Students' Perception of their Academic Writing Abilities (SESPAW)" was used to collect data. Data collected were analysed using frequency counts, mean, t-test and ANOVA. Findings revealed that science education undergraduates perceive themselves as good in academic writing irrespective of their sex or academic level. In addition, low proficiency in English, not reading enough academic materials and insufficient opportunities for practicing academic writing were identified as factors hindering undergraduates' academic writing abilities.

Keywords: Science education, Academic writing, Undergraduates, Perception, Writing ability

Introduction

Writing occupies a central place in higher education. It functions both as a means of assessment and as a tool for learning (Lea & Stierer, 2000). Additionally, it is a language skill that students are expected to master so that they can put it to use even beyond graduation – in their professional careers. The kind of writing students need to produce at the university level is described as academic writing. Several studies indicate that insufficient academic language proficiency, particularly in academic writing, may hinder academic achievement (Hulstijn, 2011, 2015;

Iannellin & Huang, 2014). In spite of the importance of academic writing to academic success in higher education, previous research has shown that many students enter the university with underdeveloped writing skills (Pineteh, 2014). For example, Kuiken and Vedder (2021) identify the following as typical problems of students: errors in spelling, punctuations and grammar; problems with abstract/low frequency vocabulary; odd formulations and collocation errors; use of an informal colloquial register in a formal text genre' difficulty to write in a concise,

natural and objective way; poor sentence and/or text structure; weak cohesive ties; few connectives and hedges; and problems with logical progression of the argument. In the Nigerian context, the situation seems not to be different. Olajide (2010) observes that Nigerian undergraduates are deficient in English writing skills. Others such as Vande-Guma & Kyungun (2013) and Aliyu, Fung, Rashid and Nimehchisalem (2020) have reported similar findings. This may be especially so because the students learn and use English in a Second Language situation (L2). While learning and using academic language is a challenging task for all students, Iannelli and Huang (2014) point out that L2 students do not enjoy the same level of academic success as L1 students because of insufficient academic language proficiency. Specifically, for students in science-based courses, the challenge of deficiencies in academic writing may be more profound as emphasis is rarely laid on writing. In addition, science educators lack the necessary training in how to instruct their students in scientific/academic writing (Anderman & Sinatra, 2012). Norris and Phillips (2003) observe that writing is an under-emphasized goal of the science curriculum. Similarly, Kaplan and Timurlenk (2012) point to the fact that research evidence has consistently shown that students prefer practical work, a distinctive feature of

science education, to writing, which is unpopular. However, in their words, "... growing international interest in scientific literacy as a curriculum aim has increased recognition of the centrally important role of text" (p. 768). Similarly, Norris and Phillips (2003) argue that writing is an integral part of scientific practice the same as empirical enquiry. Thus, science depends on written forms of communication. It is important that students are able to analyse and present an argument in written form based on data. Furthermore, several factors contribute to how successful students become at academic writing. One of such factors is their perception of their writing (Pajares & Valiante, 2006). Perception can be defined as "the process by which people select, organize, interpret, retrieve and respond to the information from the world around them" (p. 2). Students' perceptions about their writing are important as they influence how the writing skill should be taught and learned. In other words, understanding students' perceptions of their writing could help in designing interventions aimed at developing their academic writing skills (Scott, Ulmer-Krol & Ribeiro, 2020). Moreover, students' perceptions about their writing can be shaped by factors such as sex (Pajares & Valiante, 2001), language proficiency level (Boakye & Adika, 2020), writing quality (Hagazi, 2021), past writing performances

(Betnadette, 2020), and academic level (Jones, 2011) among others. While undergraduate students' perceptions of their academic writing abilities have been extensively explored in other contexts, the case is not the same in the Nigerian context. Against this background, this study investigated undergraduate Science Education students' perception of their academic writing abilities. It also examined whether their perceptions differed on the basis of sex and academic level. The following research questions were raised to guide the study:

1. How do science education under graduates perceive their academic writing abilities?
2. What factors hinder science education undergraduates' academic writing abilities?

The following hypotheses were tested:

H₀₁: Science education undergraduates do not differ in their perception of their academic writing abilities based on sex.

H₀₂: Science education undergraduates do not differ in their perception of their academic writing abilities based on academic level.

Review of Literature

Undergraduate Students' Perceptions of Academic Writing and Their Writing Ability

Several studies have been conducted to investigate undergraduate students' perceptions of academic writing and their

academic writing ability. These studies have revealed aspects of academic writing that students find challenging. For example, in a university in Australia, Krause (2001) examined a cross section of 46 first year students from Educational Psychology Unit in terms of their perceptions about their first major academic writing experience. Searching library computer databases to locate appropriate references, selecting the most relevant points for an essay and integrating ideas from different sources were identified as the most difficult attributes of academic writing. Kolikokha et al. (2009) investigated perceptions of first year students enrolled in a compulsory English for Academic Purposes (EAP) course at Chancellor University, Malawi. The study revealed that finding relevant information, expressing ideas clearly, paraphrasing and summarizing information from text, and using the required academic style were the writing challenges they experienced. Moreover, students can perceive themselves to be good in academic writing even though they find it challenging. For example, Ntereke and Ramoroka (2015) explored students' and lecturers' perceptions of the effectiveness of academic writing activities and instruction given in an academic writing course. Although the students identified some challenges such as proper in-text citation and synthesizing information to

make meaning, they perceived their ability to write an academic paper to be between average and good. None of them rated themselves as being poor in their academic writing abilities. Similarly, Simkins, Crews and Groves (2012) investigated students' perceptions of their writing skills at a 15,000-student western university in the United States of America. Using three separate assessments to evaluate students' writing abilities, in addition to a survey instrument, the results showed no relationship between students' self-ratings and their actual writing abilities. Although the students rated themselves high in academic writing, they performed poorly in the three performance measures – a mini test of grammar and punctuations, a vocabulary test and a writing assignment. The results indicated that students were unaware of their own writing deficiencies, and that their perceptions of their own writing abilities were inflated. Furthermore, there are a number of factors that could hinder the academic writing abilities of undergraduates. In a study which sought to, among other things, find out the factors that hinder the academic writing skills of undergraduates majoring in English at the Faculty of Education, University of Benghazi, Libya, Aldalbhas and Almansouri (2022) identified three of these factors. They include lack of resources for writing, low English language proficiency

and a lack of practice opportunities. In a related study, Febriani's (2022) study on the writing difficulties in English essay writing among undergraduates in an Islamic university in Pekalong, Indonesia identified poor language proficiency (insufficient knowledge of vocabulary and grammar), psychological factors (self-efficacy, self-esteem, anxiety and motivation) and peer and advisor support/non-support, as factors hindering students' academic writing abilities. Similarly, In Istanbul, Turkey, Altinmakas and Bayyurt (2019) explored the factors influencing undergraduates' writing practices in English. The findings revealed that undergraduate writing is influenced by the following interrelated and contextual factors: (1) the amount of pre-university writing instruction and experience; (2) how undergraduates perceive academic writing; (3) length of engagement/exposure to academic discourse; and (4) faculty members' expectations. In addition, in a study on the writing performance of undergraduates and the problems that hinder their perception of good writing, Nik, Hamzah and Rafidee (2010) identified language proficiency as the most significant factor hindering undergraduates' writing. Additionally, the undergraduates perceived writing as difficult. Besides, as with the other language skills, it is generally held that females are better than males in academic

writing (Anggraini, 2016). At a junior college in Quebec, Canada, Morris (1998) examined gender differences in ESL writing. Findings of the study revealed that women ESL writers tended to outperform the men because their essays showed much higher level of adherence to guideline than the men's, and the evaluation grid rewarded this feature. However, it was found that women's and men's text were comparable in terms of accuracy and readability. In the same vein, Waskita (2008) examined the ESL academic written assignments of men and women at the University of Melbourne. Three sets of the students' writings were analysed for several common features of writing- syntactic complexity, means of integrating cited information, and methods of presenting arguments. Results showed significant differences between the men's and the women's texts in those three aspects. In terms of structure, women's tended to be more complex than the men's. To integrate cited information, the women used more paraphrases and presented better arguments. Those characteristics of the women's texts are presumed to be advantageous for their success in academic writing, and indicate a higher level of proficiency in ESL. In terms of students' academic level and their writing abilities, previous research has established that year one undergraduates may start their studies with underdeveloped writing skills (De

Wachter et al., 2013; Kuiken & Van Kalsbeek, 2014). But, it is quite possible that they improve on their writing abilities as they progress through the academic levels. However, Levelle (2003) found no significant improvement in writing quality between freshman and senior year students.

Methodology

The study made use of the descriptive survey research design. The population of the study comprises the 1,261 - science education students in the Department of Curriculum and Instructional Technology (CIT), Faculty of Education, University of Benin in the 2021/2022 academic session. They are found in the following subject areas; Education Biology, Education Chemistry, Education Computer, Education Mathematics, Education Integrated Science and Education Physics. The sample for the study is three hundred and seven (307) science education undergraduate student. The Yamane method was used to select participants for the study. Using the formula $[n = N / (1 + N(e)^2)]$, a sample size of 307 was obtained. Furthermore, proportionate random sampling was done to select participants from each science education course area. Twenty-five percent of the population for each course area was used in order to arrive at the sample gotten from the Taro Yamane formula and to ensure equal representation of each subject

area. Table 1 presents further details on the sample size.

Table 1: Sample for the Study

Course Areas	Population of the study	25% of each Population of the study
Biology	385	95
Chemistry	276	68
Computer	207	50
Integrated science	216	53
Mathematics	106	25
Physics	71	16
Total	1261	307

The instrument used in generating data for this study is a self-designed questionnaire titled “Science Education Undergraduate Students’ Perception of their Academic Writing Abilities”. It is made up of three sections (A, B and C). Section A covers the personal information of the respondents. Section B contains twenty-one (21) items to ascertain science education undergraduate students’ perception of their academic writing abilities. Section C consists of six (6) items intended to identify the factors that students perceive as affecting their academic writing abilities. The questionnaire comprises of section A, B and C. Both section ‘B’ and ‘C’ is a modified Likert-scale with four options of Strongly Agree, Agree, Disagree and Strongly Disagree. The questionnaire is scored thus for positively worded items: Strongly Agree = 4, Agree = 3, Disagree = 2 and Strongly Disagree = 1. The reverse is the case for negatively worded items. The score of 2.5 (the average of the scale) was set as the decision marker. When the mean of the

responses to an item is greater than or equal to 2.5, the item is accepted and vice versa. The instrument was designed by the researchers and it was validated by three Language Education specialists from the Department of Curriculum and Instructional Technology. Their useful comments and criticisms were embedded in the final draft of the instrument. In order to ascertain the reliability of the instrument, a pilot study was conducted and the instrument was administered to thirty (30) students selected from the population but excluded from the main study. Data collected was analysed using Cronbach’s alpha and a reliability co-efficient of .75 was obtained. The questionnaire was personally distributed by the researcher to the respondents. This ensured a hundred percent return rate. The responses to the questionnaire items was analyzed using simple percentage, means and standard deviation for the research questions. Hypothesis one was tested using t-test,

while hypothesis two was tested using Analysis of Variance (ANOVA).

Results

Research Question 1: How do undergraduate science education students perceive their academic writing abilities?

Table1: Frequency, Mean, and Standard Deviation of Undergraduate Students' perception of their writing abilities

	ITEMS	N	SD	MEAN	Decision
1.	I can write a good academic paragraph.	307	0.69	3.39	Agree
2.	I can write a clear topic sentence that identifies the controlling idea of a paragraph.	307	0.69	3.16	Agree
3.	I can logically organize my ideas when I write a paragraph.	307	0.76	3.17	Agree
4.	I can use appropriate grammar for my academic writing/assignment	307	0.83	3.06	Agree
5.	I can write using an academic style and tone.	307	0.81	3.03	Agree
6.	I can use appropriate vocabulary for my academic writing/assignment.	307	0.86	3.07	Agree
7.	I can use appropriate spelling, capitalization, and punctuation.	307	0.88	3.00	Agree
8.	I can write using various patterns of organization (e.g. process, comparison, cause, effect).	307	0.90	2.99	Agree
9.	I can choose an appropriate academic research topic.	307	0.94	2.88	Agree
10.	I can logically support and develop my thesis with paraphrases, summaries, and quotations.	307	0.79	3.23	Agree
11.	I can take good notes on readings and then use them to help support my ideas in my writing.	307	0.66	3.17	Agree
12.	I can effectively brainstorm to gather ideas before writing.	307	0.76	3.22	Agree
13.	I can write an outline to logically organize my ideas before writing.	307	0.83	3.12	Agree
14.	I can revise my own writing to improve the development and organization.	307	0.82	3.08	Agree
15.	I can summarize in writing information from reading texts.	307	0.86	3.03	Agree
16.	I can use appropriate strategies to fix problems with my writing.	307	0.82	2.94	Agree
17.	I can use my own independent thinking in my writing.	307	0.84	3.08	Agree
18.	I can paraphrase information from reading texts.	307	0.90	2.94	Agree
19.	I can find appropriate quotes in reading texts.	307	0.89	3.01	Agree
20.	I can use accurate APA style in-text citations.	307	0.97	2.75	Agree
21.	I can write an appropriate reference section at the end of a write-up/assignment.	307	1.00	2.89	Agree

Significant Score ≥ 2.50

Research question one sought to examine how undergraduate science education students perceive their academic writing abilities. The data analyzed in Table1 reveals that the participants agreed that they

are good in academic writing as indicated in the twenty-one items (representing 100%) on the questionnaire. This implies that undergraduate science education students

view themselves as good in academic writing.

Research Question 2: What factors hinder science education undergraduates' academic writing abilities?

Table 2: Frequency, Mean & Standard Deviation of Factors Hindering Science Education Undergraduates' Academic Writing Abilities

ITEMS	N	SD	MEAN	Decision
1. My low proficiency in English language affects my academic writing ability.	307	1.03	2.61	Agree
2. I do not read enough academic materials to help me with my writing.	307	0.91	2.62	Agree
3. I do not have access to enough academic materials to boost my writing ability.	307	0.97	2.62	Agree
4. I do not have sufficient opportunity for practicing academic writing.	307	0.93	2.54	Agree
5. I see writing as difficult.	307	0.97	2.19	Disagree
6. I lack adequate preparation for academic writing.	307	1.01	2.28	Disagree

Significant Score ≥ 2.50

Table 2 reveals that low proficiency in English ($x=2.61$), not reading enough academic materials ($x=2.62$), lack of access to academic materials ($x=2.62$), and insufficient opportunities for practicing academic writing ($x=2.54$) are factors

affecting students' perception of their academic writing ability.

Hypothesis 1: Science education undergraduates do not differ in their perception of their academic writing abilities based on sex?

Table 3: T-Test on Gender Difference in Male and Female Science Education Undergraduates' Perception in their Academic Writing Abilities

Variable	No Exp.	X	SD	Df	t-Cal.	t-Critical	Sig (2-tailed)	Decision
Male	156	6.04	1.43	305	0.35	1.960	.961	H ₀₁ Accepted
Female	151	6.05	1.36	304.9			.960	

Table 3 shows that there is no significant difference in male and female science education students' perception in of their academic writing abilities. The Table shows that the calculated value is 0.35 while the critical value is 1.960 at 0.05

alpha level of significance. Therefore, the null hypothesis is accepted.

Hypothesis 2: science education undergraduates do not differ in their perception of their academic writing abilities based on academic level?

Table 4: ANOVA of the Difference in Science Education Undergraduates' Perception of their Academic Writing Abilities Based on Level

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.951	3	.317	.162	.922
Within Groups	539.499	303	1.989		
Total	594.450	306			

Table 4 shows the F- value =.162 this value is not significant. Testing at .05 alpha level of significance, the p-value is greater (.922 >.05) therefore the null hypothesis is retained. Hence it is concluded that irrespective of student's academic level, science education student's perception of their academic writing is the same.

Discussion of Findings

This study sought to investigate science education undergraduates' perception of their academic writing abilities. Several findings emanated from the analyses of data obtained. Firstly, it was revealed that the undergraduates in this study perceived themselves as good in academic writing. This finding seems to contradict the pervasive view that undergraduates in Nigeria's universities and other institutions of higher learning are deficient in English writing skills (Aliyu, Fung, Rashid & Nimehchisalem,2020; Olajide,2010; Vande-Guma & Kyungun, 2013). However, students' perceptions of their academic writing abilities may not correlate with their actual writing abilities (Ntereke & Ramoroka,2015; Simkins, Crews & Groves, 2012). Thus, it is possible that although they have difficulties with

academic writing and may actually be deficient in the skill, they still perceive themselves as good in academic writing. Secondly, the study revealed that undergraduates identified low proficiency in English, not reading enough academic materials, lack of access to academic materials and insufficient opportunities for practicing academic writing as factors hindering their academic writing abilities. These findings are in line with those of Aldalbas and Almansouri (2022), Altinmakas and Bayyurt (2019), Febriani, (2022) and Nik, Hamzah and Rafidee (2010). However, in terms of the perceived difficulty of writing, the findings of this study differs from that of Niket al, (2010). Undergraduates in the present study did not perceive writing as difficult and as such, perceive themselves as good academic writers. In addition, the undergraduates in this study held that they have had adequate preparation for academic writing. Perhaps, they feel that the writing instruction they received at the secondary school level is sufficient for them to cope with the academic writing required at the university level.

Thirdly, no significant difference was found between male and female undergraduates' perception of their academic writing abilities. This result could perhaps be explained by the fact that the undergraduates, irrespective of their sex, have an inflated view of their academic writing abilities (Simkins, Crews & Groves, 2012). This is because for a majority (if not all) of the undergraduates, their goal is to graduate successfully. Therefore, when it comes to questions about their academic writing abilities, which is a prerequisite for academic success (Hulstijen, 2011, 2015; Iannellin & Huang, 2014), they are ready to perceive it as good. In addition, the general belief that females are better than males in academic writing (Anggraini, 2016) as supported by some empirical studies does not necessarily translate to how undergraduates (males and females) perceive their own writing abilities. Lastly, the study found no significant difference in undergraduates' perception of their academic writing abilities by level/academic year. This finding is in consonance with that of Levelle (2003) who found no significant improvement in writing quality between freshmen and senior year students. Thus, while students may improve upon their writing abilities as they progress along the academic levels, their perceptions of their writing abilities may remain positive all through.

Conclusion

Academic writing ability to a large extent determines how well undergraduates will succeed academically. Much has been said about academic writing in the research literature. However, in the Nigerian context, more researches are needed in this area. This study has provided some insight on how undergraduates perceive their academic writing abilities. Understanding undergraduates' perceptions about their academic writing abilities could help relevant authorities fashion out needs-tailored strategies to help with overcoming the identified challenges and improve students' academic writing. When appropriate interventions are implemented, it is hoped that undergraduates would become better at academic writing.

Finally, although the study focused on undergraduates in science education, the generalizability of the study's findings to the whole population of science education undergraduates in the Faculty of Education is low. This is because the sample size for the study was small and limited to undergraduates in the Department of Curriculum and Instructional Technology.

Recommendations

In line with the findings of the study, it is recommended that:

1. The relevant school authorities, in particular the lecturers, should tap into undergraduates' positive energy as it

pertains to their perception of their academic writing abilities and encourage them to write better.

2. In order to address the issue of low proficiency in English, the university authority should fashion out a remedial English Language course for undergraduates aimed at teaching academic writing specifically, as is done in many higher institutions globally,
3. Lecturers should create sufficient opportunities for undergraduates to

write. To this end, the school management should address the factors that might hinder lecturers from providing sufficient writing opportunities for students.

4. Undergraduates should be encouraged to read academic papers in their discipline. Similarly, each department should have an operational, accessible and well stocked library for the use of undergraduates.

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REFERENCES

- Aldabhus, S., & Almansouri, E. (2022). Academic writing difficulties encountered by university EFL learners. *British Journal of English Linguistics*, 10(3), 1-11. Retrieved from: <https://www.eajournals.org/wp-content/uploads/Academic-Writing-Difficulties-Encountered-by-University-EFL-Learners.pdf>
- Aliyu, M. M; Fung, Y.M.; Rashid, S.M. & Nimehehisalem, V. (2020). A problem-based learning approach and its effects on the writing performance of Nigerian undergraduates. *International Journal of Language Teaching and Education*, 4(1), 23-35.
- Altinmakas, D., & Bayyurt, Y. (2019). An exploratory study on factors influencing undergraduate students' academic writing practices in Turkey. *Journal of English for Academic Purposes*, 37, 83-103. Retrieved from <https://doi.org/10.1016/j.jeap.2018.11.006>.
- Anderman, E.M., & Sinatra, G. M. (2012). The challenges of teaching and learning about science in the 21st century: Exploring the abilities and constraints of adolescent learners. *Studies in Science Education*, 48(1), 89-117, DOI: 10.1080/03057267.2012.655038
- Anggraini, H. W. (2016). The differences among writing anxiety, gender and writing achievement of English study program students of PGRI University, Palembang. *Journal of English Literacy Education*, 3(1), 89-94.
- Boakye, N., & Adika, G. S. (2020). *Postgraduate students' perceptions of their academic reading and writing: A case of teachers studying at a Ghanaian University*. Retrieved from <https://repository.up.ac.za/handle/263/80792>
- Bodunde, H. & Sotiloye, B. (2013). A critique of undergraduate students' writing skill in an ESL setting: Samples from the Federal University of Agriculture, Abeokuta, Nigeria. *World Journal of English Language*, 3(2), 10-21.
- De Wachter, L., Heeren, J. Marx, S & Huyghe, S. (2013). Taal: Noodzakelijke, maar niet enige voorwaarde tot studiesucces. Correlatie tussen resultaten van een taalvaardigheidstoets en slaagcijfers bij eerstejaarsstudenten aan de KU Leuven. *Levende Talen Tijdschrift*, 14 (4), 28-36.
- Febriani, T. N. (2022). "Writing is challenging": Factors contributing to undergraduate students' difficulties in writing English essay s. *Erudita: Journal of English Language Teaching*, 2(1), 83-93. <https://ejournal.uingusdur.ac.id/index.php/ERUDITA/article/view/544>
- Hegazi, H. A. (2021). University students' perceptions of writing assessments. *American University in Cairo Theses and Dissertations*. Retrieved from <https://fount.aucegypt.edu/cgi/viewcontent.cgi?article=2715&context=etds>
- Hulstijn, J. H. (2011). Language proficiency in Native and Non-native Speakers: An Agenda for Research and Suggestions for Second-language Assessment. *Language Assessment Quarterly*, 8, 229-249. doi:<https://doi.org/10.1080/15434303.2011.565844>.
- Hulstijn, J. H. (2015). *Language Proficiency in Native and Non-native speakers. Theory and Research*. Amsterdam/Philadelphia : John Benjamins.

- Iannelli, C., & Huang, J (2014). Trends in participation and attainment of Chinese students in UK higher education. *Studies in Higher Education*, 39 (5): 805-822. doi:<https://doi.org/10.1080/03075079.2012.754863>.
- Jones, L. E (2011). Inside and outside 1101: First-year student perceptions of academic writing. *Georgia State University English Theses*. Retrieved from https://scholarworks.gsu.edu/cgi/viewcontent.cgi?article=1121&context=english_theses
- Kalikokha, C., P. Strauss & F. Smedley. (2009). The Perceptions of First-year Undergraduate Malawian Students of the Essay writing Process. *Africa Education Review*, 6 (1), pp.37 - 54.
- Kaplan, K., & Timurlenk, O. (2012). Challenges for science education. *Procedia Social and Behavioural Sciences*, 51, 763-771. Retrieved from <https://www.sciencedirect.com/science/article/pii/S1877042812033757>
- Kuiken, F., & Kalsbeek, V. (2014). "De ontwikkeling van taalbeleid binnen Geesteswetenschappen aan de Universiteit van Amsterdam." *Dutch Journal of Applied Linguistics* 3 (2), 154-169. doi:<https://doi.org/10.1075/dujal.3.2.04kui>.
- Kuiken, F & Vedder, I. (2021) The interplay between academic writing abilities of Dutch undergraduate students, a remedial writing programme, and academic achievement. *International Journal of Bilingual Education and Bilingualism*, 24(10), 1474-1485, DOI: 10.1080/13670050.2020.1726280
- Krause, K. (2001). The university essay writing experience: A pathway for academic integration during transition. *Higher Education Research & Development*, 20 (2), 147-168.
- Lavelle, E. (2003). The Quality of university writing: A preliminary analysis of undergraduate portfolios. *Quality in Higher Education*, 9(1), 87-93.
- Lea, M.R., & B. Stierer. (Eds.). (2000). *Student Writing in Higher Education: New Contexts*. Buckingham and Philadelphia: Society for Research into Higher Education & Open University Press.
- Morris, L. A. (1998). Differences in men's and women's ESL writing at the junior college level: Consequences for research on feedback. *Canadian Modern Language Review*, 55(2), 219-238.
- Nik, Y.A., Hamzah, A., & Rafidee, H. (2010). A comparative study on the factors affecting the writing performance among bachelor students. *International Journal of Educational Research and Technology*, 1(1), 54-59. <https://www.semanticscholar.org/paper/A-Comparative-Study-on-the-Factors-Affecting-the-W-Nik-Hamzah/83bc183c40d659cf40797621c1fd4aa6a288ff00>
- Norris, S & Phillips, L (2003) How literacy in its fundamental sense is central to scientific literacy. *Science Education*, 87(2), 224-240.
- Ntereke, B. B. & Ramoroka, B. T. (2015). Effectiveness of academic writing activities and instruction in an academic literacy writing course at the University of Botswana. *Journal of Pedagogic Development*, 5(3), 45-56.
- Olajide, S.B. (2010). Linking reading and writing in an English-as-a-second-language (ESL) classroom for national reorientation and reconstruction. *International Education Studies*, 3(3), 195-200.
- Pajares, F. & Valiante, G. (2006). Self-efficacy beliefs and motivation in

- writing development. In C. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 158-170). New York: The Guilford Press.
- Pajares, F. & Valiante, G. (2021). Gender differences in writing motivation and achievement of students: A function of gender orientation? *Contemporary Educational Psychology*, 26(3), 366-381.
- Pineteh, A. (2014). The academic writing challenges of undergraduate students: A South African case study. *International Journal of Higher Education*, 3(1), 12-22.
- Scott, D., Ulmer-Krol, S., & Ribeiro, J. (2020). Enhancing the academic writing abilities of first-year bachelor of education students in a blended learning environment. *International Journal of Teaching and Learning in Higher Education*, 32 (1), 87-98.
- Simkin, M.G., Crews, J. M., & Groves, M.J. (2012). Students perceptions of their writing skills: Myths and reality. *Journal of Business and Management*, 18(1), 81-95.
- Vande-Guma, C. D. S., & Kyungun, F. A. (2013). An analysis of academic writing skills of First-year undergraduates of a Nigerian university. *Journal of Communicative English*, 9,91-100.
- Varela, R. V. (2020). The sounds of writing: Students' perceptions of their writing histories and their effect on current dispositions toward writing. *Ph. D Theses, Columbia University*. Retrieved from <https://academiccommons.columbia.edu/doi/10.7916/d8-7ev3-f196/download>
- Waskita, D. (2008). Differences in men's and women's ESL academic writing at the University of Melbourne. *Jurnal Sositologi*, 14(7), 448-463.

Parental Involvement on the Interpersonal Behaviour of Students with Propound Hearing Impairment: A Descriptive Case Study of a Special Needs School in Kano State Nigeria

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ABSTRACT

This study aspired to delineate the parental practice, experience and coping strategies in dealing with behavioural problems of their children with hearing impairment in a Special Needs School in Kano State, Nigeria. A qualitative case study was used with the aim of bringing back the situation to normalcy by developing strategies that may improve parental practice on the behaviour of their children with hearing impairment. In-depth semi-structured interviews, observations and document analysis will be the tools to be used by the researcher in this study. Purposeful sampling will be employed in selecting the main participants in this research. Four parents, were interviewed about the problem under investigation. Data was transcribed and thematically analysed in which categories were identified and generated from the interviews. Recommendations was posed, which may enable policy makers and the governments in Kano State and Nigeria to plan for intervention programme that may foster a strong relationship and understanding among parents, the school, immediate community and the Nigerian society at large.

Keywords: Interpersonal behaviour, parental involvement, students with hearing impairment

Introduction

Hearing is the ability to perceive sounds, whereas impairment is the damage to the organ of hearing. Henceforth, hearing impairment is the loss of ability to hear sound frequencies in the normal range of hearing. Hearing is the most frequent sensory deficit in human populations and affects new-borns, children, adults and the elderly. It is widely accepted and

recognised that if a child with hearing problems is to improve his potentialities in relation to his interpersonal skills, he needs to have a maximum role and involvement from the part of his parents. Contemporarily, attempts to enhance parental involvement on the interpersonal behaviour of children with hearing impairment occupy a salient role from

educators, administrators, governments and parents, as it produces measurable gains in the behaviour of children with hearing impairment. Parental role or involvement can be seen as parents' active commitment to spend time to assist in the academic and general development of children with hearing disabilities.

According to Kendziora and O'Leary (1993), Parental involvement is anything the parent engages himself, or fails to do, that may affect the overall development of his child with specific learning and developmental needs. It has been established that community of deaf children as a group, appear to have a higher incidences of interpersonal behaviour problems than normal hearing children Brubaker (2012). That is to say certain parenting behaviours seem to contribute to the development and maintenance of behaviour problems among children with hearing impairment. Inconsistent discipline, harsh punishment, inadequate supervision or monitoring of children's behaviour, failing to reward appropriate behaviour, and inadvertently rewarding inappropriate behaviour, have all been identified as contributors to child interpersonal behaviour problems.

Research findings reveal that parental involvement, along with their activities with regard to their children with specific special need cases; do affect the children's

interpersonal relationship in a positive way Mason (2008). Parenting a young child can be exciting, rewarding and at times quite demanding. Although true for all families, parenting a child with hearing impairment presents many other challenges that families of children with normal hearing might not experience. Children identified with hearing impairment need on-going audio logical care, including such procedures as diagnoses, evaluations and referral services. Furthermore, parents are involved in intensive intervention activities like learning sign (traditional) language, developing specific language techniques and above all teaching the child some good interpersonal behaviour so that he can ethically interact with the people in his immediate environment and the outside world.

Statement of the Problem

The emergence of a child with hearing impairment may impose additional physical, financial and emotional demands on the parents than children without disability. Indeed, it is a known fact that lots of parents in Kano state give little concern about the holistic growth and development of their impaired children (Kolo, 2008). That is why some parents treat their impaired child differently from the way other siblings are treated. As a result of such treatment and neglect, most children with hearing impairment hesitate

communication; they become stressed and feel as if they are a burden to everyone in their family. In such case they behave rudely with their peers, teachers, and sometimes even to their parents because they are experiencing negligence. Due to this insolence and abomination as argued by Majid and Saif (2011), children with hearing impairment feel bashful or become aggressive in several situations. Some evidence suggests that parental role and involvement have a great impact on the interpersonal behaviour of children with hearing impairment both at home and in school (Terwogt and Rieffe 2004). Little parental concern may lead to outright rejection of the child and may imply other related attitude of devaluation, mistreatment, wicked treatment of the child etc. Hearing impairment is a defect or damage to the hearing mechanism, this leads to hearing disability or loss of hearing Dash (2014). The disability may range in intensity from mild to moderate and to profound.

The Objectives of the Study

This study analyses the descriptive qualitative research methodology. The researchers tried to highlight aspects of qualitative research strategy. Therefore, the main objectives of the research are:

1. To describe the parenting practices in managing the interpersonal behaviour of children with hearing impairment?

2. To provide the types of interpersonal behaviour manifested by children with hearing impairment as perceived by the parents?

Literature Review

Apparently, it appears that Nigerian society as a whole knows little about the children with hearing impairment with regard to their interpersonal behaviour manifestation. This is because their main problem is that of communication as indicated by Ojile (2010). Many people seldom come into contact with them or do not bother to interact with this category of children due to the barrier of language, including their biological parents. The reason behind the children's interpersonal behaviour problems as noted by (Kyoto, 2016). That is to say hearing impaired children are by far the greatest educational disabled, besides being a physical and social one (Wangara, (2014). Therefore, interpersonal behaviour is the behaviour and actions that are present in children with hearing impairment as their process of relationship with family, peers and other people in the society. The way such children behave, interact and communicate with others and all that entails is considered as interpersonal behaviour. In spite of the communication problem that the hearing impaired suffer from, this does not deter them from having interaction with people. Children have their

verbal interactions by using cues such as pantomimes, gestures, body language and total communication.

The sense of hearing is integral and most fundamental of human activities; it entails the use of language for communication. It is through hearing that the child acquires a linguistic system to transmit and receive information, express thoughts, and feelings and to learn Kyauta (2011). Abang (2005) is of the opinion that, "Hearing is an invaluable asset of individual, particularly young children. It is the most important sense for the acquisition of language. Hence, the loss of one's hearing, even when acquired later in childhood or youth does create difficulty in adjustment and the acquisition of knowledge. Greenberg (1975), as cited in Abang (2005), defines hearing impairment as a condition in which one whose hearing disability precludes ones successful processing of linguistic information through audition with or without a hearing aid. According to US Department of Education hearing impairment means an impairment in hearing, whether permanent or fluctuation that adversely affects child educational performance The American Medical Association reviews the concept of hearing impairment in the deaf and the hard of hearing. The association defines the deaf as those in whom the sense of hearing is non-functional for the ordinary purpose of life.

Whereas the hard of hearing, according to the association are those in whom the sense of hearing, although defective, is functional with or without hearing aid.

On the other hand Mo and Singh (2008) describe parental involvement as something initiated by parents as part of their responsibility for children's psychological and educational development. They believe that parental involvement consisted of three components which are parent-child relationship; parent involvement in schools; and parent educational aspirations for their children. According to Majoribanks (1983) parental involvement implies certain rules and regulations that parents fulfil for their children at home that are mainly established to assist them educationally. Parental involvement has also been defined as the product of experience, and commitment to democratic involvement, in different ways. However, parental involvement, according to Stevenson and Baker (1987) parental involvement is seen as the parents' participation on the issues concerning the school activities of children. Furthermore, Grolnick and Ryan (1989) describe it as a commitment of parents and their constructive consideration to their children educational process. Similarly, it has been defined as the reasonable interaction between teachers and parents concerning the educational development of children Epstein (1991).

Wangara (2014) suggests that, it is important for both parents and teachers to familiarise themselves with early symptoms or sign of hearing impairment which apart from their effects behaviour and psychomotor abilities, it equally affects the process of the child interpersonal behaviour conduct within the family and the school environment. Similarly, there are several and different characteristics of hearing impairment that need to be understood in order to effectively manage children suffering from hearing impairment. A child's failure to respond when called from a distance; a child who does not pay attention to what somebody says; and a child who appears absent-minded or inattentive are some of the common features of a child with hearing impairment. Other common characteristics of a child with hearing impairment are the sufferer pays more attention to movement than sound. A child rather uses gesticulation to communicate instead of speaking. A child shows low tolerance for noise or change in sound pattern. Equally, some of the behavioural characteristics of hearing impaired child include sign such as working better in groups rather than when doing thing individually, he also tends to respond to noises more often than not. Parental involvement is not only limited or beneficial to the hearing impaired children's behaviour at home or community, but also

extends to the child's interactions at school. This can reduce interpersonal behaviour problems that may interfere with the learning itself. Negative behaviours manifested by children with hearing disability in school such as aggression, bullying, attention deficit hyperactivity, truancy is among the most common behavioural problems shown by children with hearing problems in school, which have an adverse effect to their learning processes and achievements Idris (2018). The family makes critical contributions to hearing impaired child's achievement, from earliest childhood through secondary school. Through parent school involvement, parents establish strong relationships with teachers, school administrators and community; and parents also learn important information about school policies and behavioural expectations. These may increase the parent's ability to rehabilitate the behaviour of their children Epstein (1987). Mohanraj and Selvaraj (2013) found that parental involvement reduces the behaviour problems of children, their involvement make them understand their children and thus consolidates their relationship.

Methodology of the Study

This study applies a pure qualitative research methodology, it specifically

employed descriptive case study as the type of design which the research is based. A descriptive case study is used to describe an intervention or phenomenon and the real-life context which it occurred (Yin, 2012). It explores the parents of children with hearing impairment opinions on their involvement while dealing with their children. Moreover, throughout the process of this research, different and separates face-to-face interviews were utilised in collecting the data. Field visits were also carried out to see the children with hearing impairments at their school setting. Formal discussion in the form of interviews with four parents were also employed by the researchers to compliment and establish the validity and reliability of the data obtained. The researchers went to the parents (informants), setting (school), site (field), and institution to observe the interpersonal behaviours of the hearing impaired children in their natural setting. In this particular study, participant observations were used to collect the data. Qualitative data analysis was complicated by the volume of data generated. Eventually, the data collected was transcribed and analysed. Additionally, the researchers extended the analysis by generating codes, then fragmenting the text into smaller units and put labels to each unit and finally arrived at advancing themes and categories.

Findings

The researchers employed a thematic analysis approach in analysing the data collected, which is the foundational process of qualitative research of data analysis (Holloway & Tadres, 2003). Thematic analysis is a method used to identify, analyse, and report themes within the data (Braun & Clarke, 2006). This type of analysis is very beneficial as it is highly flexible, accessible and useful which can potentially provide a rich and detailed account of the data. Concerning the findings, the researchers decided to present them simultaneously in two stages, the findings from the entire interview conducted with fathers/mothers and teachers. The statements, descriptions, illustrations and the narrations made by the informants were quoted accordingly from the interview excerpts. Thus, the researcher adopted the data presentation and reporting method proposed by Burnard (2004). The researchers presented the findings by linking the findings with the work of other researchers. Therefore, the findings were elaborated extensively with examples, interpreted and discussed in accordance to the previous studies and available literature. Qualitative research does not include statistical or empirical calculations. The researcher is the primary instrument for data collection and analysis, which is usually involved with natural setting.

Parenting practices in managing the interpersonal behaviour

Hence, two themes were generated by regrouping and merging similar themes together that, show what the parent's practice in relation to the behaviour of their hearing-impaired children and the analysis of all the information obtained from the

participants. They highlighted various types of information. They opined that parenting practice is the ability of a father or mother to ensuring commitments to the positive behaviour of a child. Therefore, the parents indicated that in the following categories extracted from the interview excerpts on the platform of the analysis:

Table 1: Identified Categories based on the Data Obtained from the Interview

Main Issue	Categories
Parental practice	1. Counseling the Child 2. Equal Treatment Attitudes

Counseling the Child

From the interviews conducted by the researchers, four of the informants viewed counselling as a means of parental practice in handling the behaviour of their children despite the fact that their children are hearing-impaired. A mother who is a Qur'anic teacher opined that counselling a

child with hearing-impairment is a matter of necessity. But, a father believed that drawing them closer and scolding them are much more important to them to ensure that their children behave in a positive manner. This is best illustrated by the mother who categorically proclaimed that:

As I am a teacher to be precise, I play the role of a father, teacher and counsellor; in fact, I am an alpha and omega with regard to this child because he needs an extra assistance and care unlike his siblings So, I give him ample protection and care through a frequent counselling and the homily.

In a similar tone, a father was so emotional on the parenting practice with regard to dealing with the behaviour of his child with hearing-impairment, he said:

Although, I am not happy with the way she has been mute, but this does not mean a problem to me as a father because I always do my best in counselling her. She is my only daughter, I have to live with her the way she is, only that I am trying to counsel her so as she could behave the way other children are doing in the midst of their friends and even in school.

Equal Treatment Attitudes

The problem associated with a child having hearing problem and a child who has no hearing problem in terms of their rearing together, poses some sort of inequality shown by some parents to their disabled

children. This impedes many parents from taking good care or give equal attention to their hearing-impaired children in comparison with their hearing counterparts. Some parents were found not giving the same rights or social status to their disabled

children. But, in this regard, parents (mothers) argued that in their attempt to fulfil their parental practices in managing the behaviour of the hearing-impaired

children, they show an equality disposition among their children. Parent E categorically disclosed that:

I treat him the same way I did to other children of mine who have no hearing impairment problem at all, that is I deal with my children with the sense of equality to deal with any kind of undesirable behaviour. I do not discriminate; rather I pity more about this child who has this problem.

Equally, a mother confidently shared her views to the researchers with regard to the above question she spoke that:

I try to manage the behaviour of my child by drawing her closer to me, I always scold and show her what is right and what is wrong. I handle her the way I handle other children of her age, even though she is a deaf and she is somehow fierce to other children especially her mates and those she out aged.

Types of interpersonal behaviour manifested by hearing-impaired children

The types of behaviour shown by hearing-impaired children, according to what their parents recollected. The data extracted from the informants with regard to the question was that, all of the six parents that were interviewed admitted that their children have been manifesting some kinds of behaviour problems. They opined that seeing such behaviour in their children is something debilitating which affect the interpersonal dispositions of their children. This creates a very negative impact on the hearing-impaired ability to form and maintain healthy and rewarding

relationships with other people. The hearing-impaired manifestation of externalised behaviour problems such as oppositional and non-compliant behaviour led to very poor relationship with their family, parents and even their teachers at school. Consequently, the informants acknowledged that their children have some sorts of aggressive behaviour. Therefore, from the participants' perspectives two main themes, namely apparent temper outburst and excessive fighting with other children emerged, as the dominating types of behaviour problems among the children with hearing impairment

Table 3: Identified Categories Based on the Data Obtained from the Interview

Main Issue	Categories
Parental Opinion	1. Apparent Temper Outburst 2. Excessive Fighting with Children

Apparent Temper Outburst

Temper is one of the most aggressive behaviours exhibited by children with hearing loss, as narrated by one of the participants (father) in this study. Moreover, a mother believed that temper outburst is the tendency in which the hearing-impaired children become angry easily. This is a common behaviour among

such children as stated by the duo of mothers. To two fathers, temper outburst among the hearing-impaired children is due to the children's inability to perceive what is being said orally. The fathers and mothers' view with regard to the temper outburst of their children could be supported from the excerpts in which a father lamented:

He easily becomes irritated, whenever his brothers say something that he could not understand he goes ballistic and becomes angry with everybody thinking that they are plotting something evil against him. I always calm him down and inform him that they are his brothers as such, they cannot harm him at all.

Furthermore, another parent precisely a mother narrated the behaviour problem shown by his child expressed his unhappiness as he strongly deplored:

Whenever something happened, he becomes furious that is extremely angry at this point he is angry with everybody in the house. He even left the home and went and slept in his grandmother's house which is very far from my home. This is how he behaves, and sincerely speaking I am not happy with this kind of behaviour at all.

Excessive Fighting with Children

Fighting is another common phenomenon among children with hearing impairment as reported by fathers and mothers in this research work. Most of the fighting that the children with hearing loss engaged in their fault, because they always suspect that

children are making fun of them, which is not true. But in rare cases are caused by other children who are not having hearing disability. At times they are making fun of them because they cannot hear what is being said. This is evident in what a mother claimed:

Mhmmm// (smiling), he fights with the children excessively, and most of the time is his fault because when he sees something in the hand of a child, he claims the ownership of that thing even though it does not belong to him. If the child refuses to give it to him, then he beats the child unless the child fights back and one thing I realized most of the children are afraid of a child with hearing loss.

Accordingly, a father made his testimony of the fact that his child with hearing impairment engages in a fighting with other children whereby he said:

Well, am// you know if children are growing up and they happen to know that ah// their relation is having difficulty to hearing what they tend to do is to sort of come whisper something in their ears and pretend that they say something let that person who has been spoken to in the ear say what they said naturally it is something that causes one to behave not kind of good because they are showing

him anything they want to say under the sun they could say it without him hearing so that's gets him irritated as I earlier on mentioned //Mhmm, and this make him to fight with anybody as he think that children are mocking him.

Conclusion and Recommendation

Findings from this study have shed light as observe by Merrell (2003), and Terwogt & Rieffe (2004) children with hearing impairment demonstrate different interpersonal behavioural problems which affect their relationship with their parents. This makes most of the parents experienced greater parenting difficulties than parents of typically developing children (Kobosko & Ludlow 2010; Skelly & Rohleder 2010). The findings of the study, draws the conclusion that, parents reported their worries and unhappiness while dealing with the behaviour of their children with hearing impairment. Although, most of the parents narrated that despite the physical handicapping condition of their children, yet they show them love, care and attention. They give them maximum support, draw them closer in order to make them happy and have a sound behaviour so as to live amicably with one another in the family, school and the community at large. Parents claim that they sought the intervention of their relatives and neighbours in order to ensure that their children behave in a conventional manner.

Therefore, this research recommends that parenting a child with hearing impairment should be officially inaugurated to enable fathers and mothers to understand, accept and provide specialised knowledge necessary for child training, care and education. This may inject optimism, dynamism, cheerfulness and naturalness into parents. The study also recommends that there should be an educational campaign directed toward a change in attitude of the society towards children with hearing impairment. This should be aimed at sensitizing people in the community on the importance of their roles as neighbours to the parents of disabled children. The government can support this course by being more responsive and proactive in promoting the societal participation by making its policies explicit enough to the understanding of people in the society and the parents involved. It should be mandatory for parents of hearing-impaired children, regardless of the communication method to develop positive orientation practices such as; expression of feelings, establishment of limits, in addition to praising and reinforcing their children's appropriate interpersonal behaviour.

REFERENCE

- Abang, T. A. (2005). The exceptional child. A Handbook of Special Education. Jos Nigeria Feb. Educational Books Jos.
- Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3 (2) 77-101
- Brubaker, R.G. (2012). Parenting practices and behaviour problems among children with hearing impairment. *Child and Family Behaviour Therapy*, 22 (4), 13-25.
- Burnard (2004) Writing a qualitative report: Accident and Emergency Nursing. 12,
- Dash, M. (2014) Education of exceptional children. Atlantic Publishers and Distributors New Delhi 63-67.
- Epstein, J. L., & Connors, L. J. (1991). School and family partnerships (Report no. ISSN- 0912-6160). Reston, VA: National Association of Secondary School Principals. (ERIC Document Reproduction Service No. ED 347 638).
- Epstein, J.L. (1987) Effects on parent-teacher practices of parental involvement. Baltimore: John Hopkins University, Centre for Social Organisation of Schools.
- Greenbank, P. (2003). The role of values in educational research: The Case for Reflexivity. *British Educational Research Journal*, Vol. 29 No. 6.
- Grolnick, W.S. and Ryan, R.M. (1989) Parents style associated with children's self-regulation and competence in school. *Journal of Educational Psychology* 81, 143-154.
- Holloway, I. & Todres, L. (2003). The status of method: flexibility, consistency and coherence. *Qualitative research*, 3 (3), 345-357.
- Idris, R.G. (2018). Parental practice in managing behaviour of children with hearing-impairment: a case study of a special school in Kano State, Nigeria. An Unpublished Ph.D. Dissertations. International Islamic University, Malaysia (IIUM).
- Kendziora, K.T. and O'Leary, S.G. (1993) Dysfunctional parenting as a focus for preventing for treatment of child behaviour problems. In T.H. Ollendick & R.J. Prinz (Eds.) *Advances in Clinical Child Psychology*, 15 175-206.
- Kobosko, J. & Ludlow, A. (2010). Parenting a deaf child-how hearing parents cope with the stress of having deaf child. *Institute of Physiology and Pathology of Hearing*. Warsaw-Kajetany, Poland.
- Kolo, A. I. (2008). Sustainable strategies for full integration of exceptional persons in Nigerian national life and development. Deka Publication.
- Kyauta, I. (2011). Educating Nigerian deaf children: problems and prospects. *Kano Journal of Educational Studies*, Bayero University, 9, 15-24.
- Majid, S. & Saif, M. (2011). Classroom social behaviour of hearing impaired children. *Pakistan Journal of Education*. 118, No. 3. 33-45.
- Majoribanks, K. (1983). The evaluation of family learning model. *Studies in Education Evaluation*, 9, 343-351.
- Mason, K.L. (2008) Motivation of parental involvement in children's learning: Voices from Urban African-American Families of Pre-schoolers *Multicultural Education*.
- Merrell, K. W. (2003). Behavioural, social and emotional assessment of children and adolescents (2nd Eds.) Mawah, NJ: Lawrence Erlbaum Associates.
- Mo, Y. & Singh, K. (2008). Relationship and involvement, effects on children social engagement and performance. 31(10), 1-11.
- Mohanraj, B. & Selvaraj, I. (2013). *Psychological issues among hearing impaired adolescents*.

- Journal of Educational Sciences and Psychology. 2(24), 16-27.
- Ojile, E. (2010). Education of the deaf in Nigeria: A Historical Perspective. In P. A. Ajavon (2006). The Incorporation of Nigerian Signs in Deaf Education in Nigeria. Zugl: Humbert University.
- Skelly, C., & Rohleder (2013). Challenges faced by parents of children diagnosed with autism spectrum disorder. Department of Psychology Anglia Ruskin University
- Stevenson, D.L., & Baker, D.P. (1987). The family-school relation and the child's School performance Child Development, 58, 1347-1357.
- Terwogt, M. M. & Rieffe, C. (2004). Behavioural problems in deaf children: theory of mind delay or communication failure? European Journal of Developmental Psychology 1: 234-240.
- Wangara, H.G. (2014). Strategies for classroom management of children with hearing impairment National Journal of Special Needs Education. 1, 1 78-84.
- Yin, R. K. (2012). Application of Case Study Research, (3rd Eds.) Thousand Oaks, C.A.

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Impact of Security Challenges on the Management of Secondary Schools in Gwer-West Local Government Area of Benue State, Nigeria

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ABSTRACT

The study investigated impact of security challenges on the management of secondary schools in Gwer-West Local Government Area of Benue State. The study was guided by three research questions and tested three hypotheses. The study adopted two theories considered to be relevant to the study. Namely: Invitational theory, school climate theory and conflict theory. The empirical studies considered to be relevant to the studies was reviewed. The study employed descriptive survey research design. The population consisted of 64 teachers in five public secondary schools. The sample was 64 respondents (teachers) of the entire population respondents selected from five secondary schools using census sampling technique. The instrument for data collection was questionnaire: “Security Challenges and Management of Secondary Schools Questionnaire (SCMSSQ)”. Data collected was analyzed using descriptive statistics of mean and standard deviation to answer the research questions. The finding of the study revealed that; security challenges have significant impact on school buildings in secondary schools in Gwer-West Local Government Area of Benue State, security challenges also have significant impact on closure of secondary schools, security challenges have significant impact on the lives of teachers and students in secondary schools. It was therefore recommended that; security challenges have significant impact on school buildings in secondary schools, security challenges have significant impact on closure of secondary schools, security challenges have significant impact on the lives of teachers and students in secondary schools among others.

Keywords: *Security challenges, Management of secondary school, School buildings, Closure of secondary schools, Lives of teachers and students*

Introduction

The Nigeria school setting is unfortunately in the recent time not excluded from insurgency and security threats. There have been reported cases of violent and high profile attacks on Nigeria educational

system where both students and teachers were not spared. This cut across all levels of the educational system. According to Fayeye (2018), physical threats of kidnapping and hostage taking of students

have impacted on school attendance, school dropout, personal safety of staff, students and other members of the school community. The foregoing depicts security challenges in Nigeria has assumed a frightening dimension in which schools especially public schools are worst hit. High profile shootings, hostage taking and kidnapping of both staff and students have been reported. Violent armed robbery, cultism, shooting, rape, gangsterism and other manner of attacks which are psychologically disturbing have been witnessed in schools in the recent past. For education to effectively achieve its goals and objectives, it needs educational management. Educational management seems to be in a serious plethora of problems due security challenges. Yawe and Apase (2019) stated that educational management is a concept that goes along with the quest to put the formal education system under control, regulation or supervision. This Okwori and Ede (2012) see as an attempt to use judiciously available scarce resources through cooperative efforts when establishing institutions of learning, enrolling learners, attracting the best staff, conducting teaching, learning and research, as well as graduating learners at all levels of education in an effective and efficient manner. Insecurity is the state of fear or anxiety stemming from a concrete or

alleged lack of protection Yawe and Apase (2019). In Nigeria, insecurity which is the breach of peace and security either historical, religions, ethno-regional, social, economic and political that have contributed to recurring conflicts, is but a trauma. Insecurity is the antithesis of security and has attracted such common descriptors as want of safety, danger, hazard, uncertainty, want of confidence, state of doubt, inadequately guarded or protected, instability, trouble, lack of protection and being unsafe, and others (Achumba, Ighomereho & Akpor-Robaro, 2013). Achumba *et al* argue further that these common descriptors point to a condition where there exists a vulnerability to harm, loss of life, property or livelihood. Therefore, they consider insecurity to be a state of not knowing, a lack of control, and the inability to take defensive action against forces that portend harm or danger to an individual or group, or that make them vulnerable. For Beland, insecurity is “the state of fear or anxiety stemming from a concrete or alleged lack of protection.” It refers to lack or inadequate freedom from danger. This definition reflects physical insecurity which is the most visible form of insecurity, and it feeds into many other forms of insecurity such as economic security and social security. Educational institutions in Nigeria today are vulnerable to security threats and

attacks. This ugly phenomenon is affecting educational growth and development in the country. Poor school attendance, low enrolment and increasing school dropout is now trending at the primary and secondary school systems especially. It is no longer news that Nigeria is prone to numerous activities that endanger lives of the entire populace. Security problems are the order of the day, these range from assassination, electoral violence, youth militancy, kidnapping and hostage taking, National Union of Road Transport Workers (NURTW) crisis to boko haram crisis. The educational system is not left out of the menace of insecurity. Knowing full well that effective learning can only take place in a conducive environment and conducive learning environment can only be created through effective management of educational institutions.

There is a growing body of evidence that violent political and military attacks on education have occurred in many of the states in the past few years and have significantly intensified in many of the worst affected countries in recent years (Uduak, 2018). Nigeria has also since 2009 witnessed violent attacks on education. The attacks are carried out against students, teachers, academics and education personnel including transport staff. In North Central Nigeria, insurgent attacks are also directed against secondary schools.

Insurgent attacks on secondary schools may lead to destruction of education facilities which may again lead to delay in the completion of secondary school by students.

It makes sense to state that the lofty vision of education as enunciated in the constitution of the Federal Republic of Nigeria would be realized in a serene and conducive school environment. According to Lehr (2014), the noble goals of education can never be achieved in a vacuum. They would be achieved in a conducive and peaceful school environment. If there is a feeling of insecurity within and outside the school environment, both students and teachers are likely to be deterred and this may inhibit academic performance of the students.

Security lapses and challenges certainly do manifest on a daily basis in schools in Nigeria. Such challenges ranges from “youth restiveness, terrorism and insurgent attacks, kidnappings and hostage-takings for monetary ransoms, political assassinations, arsons, murders, cult-related activities, mass protests and so forth” (Phenson, Ojie, Esin & Atai, 2014, p.1). However in the wake of herders/farmers conflicts and the subsequent launching of attacks on schools, shooting at sight, and destruction of schools buildings have taken prominence and have remained issues of serious security concern

in Benue State and Gwer Local Government Area in particular. While many have falling victims to any of the dangers aforementioned, very few have actually escaped death or injury during such attacks. In the prevailing circumstances, the safety and security of school administrators, teachers and students and entire community where the schools are located are no longer guaranteed; most especially in the grazing areas of herders where their look for pasture. It against this background that this study seeks to examine impact of security challenges on the management of secondary schools in Gwer-West Local Government Area of Benue State

Statement of the Problem

Gwer-West Local Government Area which appears to be relatively safe and secure has also witnessed some sorts of school insecurity or security challenges. The main security challenges are Fulani herdsmen attacks, community unrest, youth restiveness among others. These ugly phenomenon hve great consequences on the educational development of the state. School attendance and enrolment is depleting despite government efforts in improving the state of infrastructure in schools. Parents are always apprehensive whenever their children are in school due to insecurity. Some parents now select

days when to allow their children to go to schools due to insecurity by both teachers and students. Loss of lives and destruction of school facilities may translate into serious concerns on the management of secondary schools in the area. Many secondary schools may have been burnt, bombed and shelled by the security challenges. Relevant stakeholders are concerned that if schools are damaged or closed, students might not be able to complete courses or sit for examinations. This means progression rate of students through the grades may be affected and could translate into educational wastages as the system might not run efficiently. Security challenges seems to have serious implications on the management of secondary schools in the Local government area. The extent of impact of security challenges on the management of secondary schools in the areas of school buildings, closure of schools, lives of teachers and students in Gwer-West Local Government Area of Benue State thus becomes the focus of this study.

Purpose of Study

The purpose of this study was to investigate impact of security challenges on the management of secondary schools in Gwer-West Local Government Area of Benue State the study. Specifically sought to:

1. Examine the impact of security challenges on school buildings in

secondary schools in Gwer-West Local Government Area of Benue State.

2. Find out the impact of security challenges on closure of secondary schools.
3. Ascertain the impact of security challenges on the lives of teachers and students in secondary schools.

Research Questions

The following questions guided the study:

1. What is the impact of security challenges on school buildings in secondary schools in Gwer-West Local Government Area of Benue State?
2. What is the impact of security challenges on closure of secondary schools?
3. What is the impact of security challenges on the lives of teachers and students in secondary schools?

Hypotheses

The following null hypotheses were formulated and tested at 0.05 level of significance:

1. Security challenges has no significant impact on school buildings in secondary schools in Gwer-West Local Government Area of Benue State.
2. Security challenges has no significant impact on closure of secondary schools.
3. Security challenges has no significant impact on the lives of teachers and students in secondary schools.

Literature Review

This study hinges on Invitational Theory, School Climate Theory and Conflict Theory as framework of analysis.

Invitational Theory by Purkey (1984)

Invitational theory is a theory that seeks to explain the nature of signal system that summons forth the realization of human potentials as well as for identifying and changing forces that defeat and destroy potentials. It was propounded by Purkey in 1984. It is designed to create and maintain human environment that summons people to realize their relatively boundless potentials in all areas of worthwhile endeavour. Invitational theory posits that the traditional method of enforcing school safety as the use of metal detector, close circuit televisions and constant searches of students and their classroom carry side effects. These include a significant financial burden, a reduction of time for classroom instruction.

The implication of this is that the creating of schools with pleasing environment is good but will be better if there are efforts to maintain the school beauty by checking and repairing the structure and facilities. Again, by ensuring the safety of staff, students and the entire school compound. Finally, invitational theory is not against having security devices in the school, with more

grade attendance, academic achievement, test score but it is much more concern with making of the students' descent and productive citizens. Also, the invitational theory when applied in schools will help the school environment to secure and welcoming.

School Climate Theory

The school climate theory was propounded by Halphin and Croft in 1963. Although, other educators recognised the importance of school climate for years however, it was not until 1950's that educator's indicated interest in the research of school climate. Halphin and Croft (1963) developed an organisational school climate description questionnaire (QEDQ) composed of 64 items to study school climate. According to them, a sustainable positive school climate fosters youth development and makes learning necessary for a productive, contributory and satisfying life in democratic society. The theory identify many factors that influences schools, these are: number and quality of interaction between adults and students, students and teachers perception of their school's personality environment, or the school's personality, environmental factors (such the physical building and classrooms and the materials used for instructions), academic performances, feeling of safeness and school size, feeling of trust and respect for students and teachers.

The relationship between a positive school climate and the improvement of school security is that a positive school climate has been associated with fewer behavioural problems and has less of security threats. According to Halphin and Croft (1963), positive school climate can significantly shape the degree of academic success experienced. The advocates of school climate suggest that positive interpersonal relationship and optimal learning opportunity for students in all demographic environments depends on the school climate. Regarding the roles of teachers and administrators, they posited that a positive school climate is associated with increased job satisfaction for personnel.

Based on this theory it is understood that creating a positive school climate will go far to guarantee school safety and security. A safe school environment that promotes pro-social student behaviour, has high expectation and standard for academic achievement and behaviour, and engages students in positive relationships with adults. This support successful learning and reduce negative, anti-social behaviours which disrupt school safety.

Empirical Studies

Yawe and Apase (2019) studied impact of insurgency on the management of secondary schools in the North Central Zone of Nigeria. The study investigated the extent of impact of insurgency on the

management of secondary schools in the North Central Zone of Nigeria. Two research questions were answered in the study while three research hypotheses were tested at 0.05 Alpha level of significance. Descriptive survey research design was used in the study. The population of the study comprised 5,976 principals and vice principals in the North Central Zone of Nigeria. Proportionate stratified random sampling technique was used to select the sample. Impact of Insurgency on the Management of Secondary Schools Questionnaire (IIMSSQ) was used to collect data for the study. The validated questionnaire yielded a reliability coefficient of 0.70 Cronbach alpha. Data collected were analyzed using mean and standard deviations to answer the set research questions. The t-test statistics was used to test the hypotheses at 0.05 Alpha level of significance. ANOVA statistics was used to undertake a multiple group comparison of data set. Post hoc tests were carried out to find out where the difference lies. Results showed that impact of insurgency on school facilities is to a low extent; impact of insurgency on progression rate is of high extent. Based on the findings of the study, it was recommended that government should partner with host communities of schools to protect their schools; Government should pay more attention to capacity building and establish

indicators to measure progress made by schools. The reviewed study is relevant to the present study because both studies centered on insecurity and school administration. Also both studies are descriptive survey. However, the reviewed study was conducted on a larger scale while the present is limited to only Benue State. Godwin and Agbo (2020) studied the Effects of Farmers and Herdsmen Conflicts on the Educational Development of North. The Effects of Farmers and Herdsmen Conflicts on the Educational Development of North-Central Geo-political Zone of Nigeria. The study focused on conflicts between farmers and herdsmen in the North Central geo-political zone of Nigeria. North central geo-political zone is made up of six states in Nigeria: Benue, Kogi, Kwara, Nasarawa, Niger and Plateau States. The study adopts the economic theories as its theoretical framework of analysis. The analysis gives insight into the main reason for the conflicts, which is economic interests, and the resultant competition for arable land occasioned by factors such as climate change, Boko Haram insurgency, urbanization, primitive livestock management, etc. From the analysis, it was found that the menace of herdsmen in Nigeria has resulted in the following: issues of educational development; lack of food production and by implication payment of school fees by parents; (iii) acute

humanitarian crises which has resulted in dysfunctional educational development; (iv) tertiary institutions in the zone have been forcibly turned into grazing fields instead of research institutions; (v) hundreds of school children have been put out of school. In order to help remedy the ugly situation, particularly as it concerns the educational development of the zone, the researcher makes vital recommendations. These recommendations, if effectively implemented will not only enhance peace and order but will give rise to accelerated educational development of the zone. Godwin and Agbo (2020) study is relevant to the current study because both studies centered on conflicts and administration of school. However, the reviewed study was limited to Boko Haram insurgency while the current study is on general security challenges. Ojukwu (2017) studied effect of Insecurity of School Environment on the Academic Performance of Secondary School Students in Imo State. The major aim of this study was to investigate the effect of insecurity of school environment on the academic performance of secondary school students in Imo state, Nigeria. A total of 1000 made up of 500 each of male and female students responded to a self-structured validated questionnaire designed for the study. Two research questions and two hypotheses were formulated to guide the study. Means

and standard deviations were calculated to answer the research questions and independent samples t-tests were used for testing the hypotheses. Major findings revealed that insecurity of school environment significantly affects the academic performance of secondary school students while students' gangsterism, smoking of Indian hemp, abusing other hard drugs, cult and related violent activities were some of the factors that constituted insecurity of the school environment which eventually cause boys to leave school and join trading while leading girls to drop out and settle for marriage. Based on the findings, it was recommended that owners of schools and other stakeholders in education should take bold steps to fence and protect school environments from intruders to ensure safety of the students. Ojukwu (2017) studied effect of Insecurity of School Environment is related to the current study research because both studies centered on security threat and are survey research. However, the reviewed work is in Imo State while current study is in Benue Benue State.

Methodology

This study adopted a descriptive survey research design. This design explores and describes the opinions, feelings, views, preferences and attitudes of the selected sample of the population of the study. The

population of this study consisted 64 teachers in 5 secondary schools in Gwer-West Local Government Area (Benue State Teaching Service Board, 2021). The sample of the study was 64 respondents (teachers) of the entire population. This sample was determined using census sampling technique.

The instrument to be used for data collection is a researcher self-developed structured questionnaire. A self-developed questionnaire was based on the research variables in line with the research questions. The instrument was titled “Security Challenges and Management of

Secondary Schools Questionnaire (SCMSSQ)”.

Data were analyzed using descriptive statistics of mean and standard deviation to answer the research questions. The arithmetic mean was used to determine the mean score on each item so as to accept or reject its influence based on the cutoff point of 2.50. The Chi-Square Statistics were used to test the hypotheses at 0.05 level of significance.

Results

Research Question 1: What is the impact of security challenges on school buildings in secondary schools in Gwer-West Local Government Area of Benue State?

Table 1: Mean Scores and Standard Deviation on Impact of security challenges on school buildings in secondary schools in Gwer-West Local Government Area of Benue State

I/NO	Items	SA	A	D	SD	\bar{X}	σ	Decision
1	Conflicts leads to destruction of buildings	33	17	8	6	3.19	1.022	Agree
2	Security challenges leads to improper use of school infrastructure	15	41	3	4	3.05	.744	Agree
3	Insecurity result to slowness in construction of school buildings	9	46	4	5	2.92	.719	Agree
4	Insecurity challenges demolition of school sites	22	23	12	7	2.94	.990	Agree
Cluster Mean and Std						3.02	0.87	Agree

Table 1 shows the mean ratings of items 1-4 as 3.19, 3.05, 2.92 and 2.94 with corresponding standard deviations of 1.02, 0.74, 0.72 and 0.99 respectively. All the mean ratings are above the cut-off point of 2.50. This means that the respondents agreed conflicts leads to destruction of buildings and leads to improper use of

school infrastructures. The study further discovered that insecurity result to slowness in construction of school buildings and demolition of school sites. The cluster mean of 3.02 with corresponding standard deviation of 0.87. This means that there is the impact of security challenges on school buildings in

secondary schools in Gwer-West Local Government Area of Benue State.

Research Question 2: What is the impact of security challenges on closure of secondary schools?

Table 1: Mean Scores and Standard Deviation on Impact of Security Challenges on Closure of Secondary Schools

I/NO	Items	SA	A	D	SD	\bar{X}	σ	Decision
5	Insecurity challenges affect the schools calendar	20	30	9	5	2.98	0.93	Agree
6	Incessant conflicts lead to closure of schools.	13	27	15	9	2.69	0.96	Agree
7	Security challenges result to unexpected termination of educational activities	26	9	17	12	2.77	1.18	Agree
8	Insecurity affects students turn up in schools	33	15	6	10	3.11	1.11	Agree
Cluster Mean and Std						2.89	1.05	Agree

Table 2 indicates the mean ratings of items 9-12 as 2.98, 2.69, 2.77 and 3.11 with corresponding standard deviations of 0.93, 0.96, 1.18 and 1.11 respectively. All the mean ratings are above the cut-off point of 2.50. This means that the respondents agreed that security challenges affect the schools calendar and incessant conflicts lead to closure of schools. It was also found security challenges result to unexpected

termination of educational activities which affect school attendance. The cluster mean of 2.89 with corresponding standard deviation of 1.05 is high. This indicates that there is impact of security challenges on closure of secondary schools.

Research Question 3: What is the impact of security challenges on the lives of teachers and students in secondary schools?

Table 3: Mean Scores and Standard Deviation on Impact of Promotion on Teachers' Job Effectiveness in Public Secondary Schools

I/NO	Items	SA	A	D	SD	\bar{X}	σ	Decision
9	Security challenges put teachers and students lives in danger	3	47	14	-	2.83	0.49	Agree
10	Security challenges leads to loss of lives of teachers and students	23	24	11	6	3.00	0.96	Agree
11	Security challenges results to kidnapping of teachers and students	28	21	6	9	3.06	1.05	Agree
12	Insecurity challenges lead to injuries on teachers and students body	27	24	3	10	3.06	1.05	Agree
Cluster Mean and Std						2.99	0.89	Agree

Table 3 reveals the mean ratings of items 9-12 as 2.83, 3.00, 3.06 and 3.06 with corresponding standard deviations of 0.49, 0.96, 1.05 and 1.05 respectively. All the mean ratings are above the cut-off point of 2.50. This means that the respondents agreed. This research found that Security challenges put teachers and students lives in danger and leads to loss of lives of teachers and students. This study found that security challenges results to kidnapping of teachers

and students and insecurity challenges lead to injuries on teachers and students body. The cluster mean of 2.99 with corresponding standard deviation of 0.89 which is high. This shows that there is the impact of security challenges on the lives of teachers and students in secondary schools.

Hypothesis 1: Security challenges have no significant impact on school buildings in secondary schools in Gwer-West Local Government Area of Benue State.

Table 5: Chi-square for Significant Impact of Security challenges on School Buildings in Secondary Schools in Gwer-West Local Government Area of Benue State

	Chi-square	Level of Sig.	Df	P-value	Decision
Values	36.94 ^a	0.05	9	0.00	Ho Rejected

Table 5 showed that chi-square= 36.94^a, Df=9, P=0.00. P>0.00, with this result the null hypothesis which states that security challenges have no significant impact on school buildings in secondary schools in Gwer-West Local Government Area of Benue State is therefore rejected. This

implies that security challenges have significant impact on school buildings in secondary schools in Gwer-West Local Government Area of Benue State.

Hypothesis 2: Security challenges have no significant impact on closure of secondary school

Table 5: Chi-square for Significant Impact on Insecurity Challenges on Closure of Secondary Schools

	Chi-square	Level of Sig.	Df	P-value	Decision
Values	26.31 ^a	0.05	9	0.00	Ho Rejected

Table 5 showed that chi-square= 26.31^a, Df=9, P=0.00. P>0.00, with this result the null hypothesis which states that security challenges have no significant impact on closure of secondary schools is therefore rejected. This implies that security

challenges have significant impact on closure of secondary schools.

Hypothesis 3: Security challenges have no significant impact on the lives of teachers and students in secondary schools.

Table 5: Chi-square for Significant Impact of Security Challenges on the Lives of Teachers and Students in Secondary Schools

	Chi-square	Level of Sig.	Df	P-value	Decision
Values	43.94 ^a	0.05	9	0.00	Ho Rejected

Table 5 showed that chi-square= 43.94^a, Df=9, P=0.00. P>0.00, with this result the null hypothesis which states security challenges have no significant impact on the lives of teachers and students in secondary schools is therefore rejected. This shows security challenges have significant impact on the lives of teachers and students in secondary schools.

Discussions of Findings

The first finding indicated that security challenges have significant impact on school buildings in secondary schools in Gwer-West Local Government Area of Benue State. This study found that Conflicts leads to destruction of buildings and leads to improper use of school infrastructures. The study further discovered that insecurity result to slowness in construction of school buildings and demolition of school sites. This result agrees with the findings of Yawe and Apase (2019) who found that impact of insurgency on school facilities is to a low extent and there is significant impact of insurgency on progression rate of schools.

The second finding indicated that security challenges have significant impact on

closure of secondary schools. This research also found that insecurity challenges affect the schools calendar and incessant conflicts lead to closure of schools. It was also found that security challenges result to unexpected termination of educational activities which affect school attendance. This result agrees with findings of Godwin and Agbo (2020) who reported that the menace of herdsmen in Nigeria has resulted in issues of educational development, lack of food production and by implication payment of school fees by parents, acute humanitarian crises which has resulted in dysfunctional educational development, tertiary institutions in the zone have been forcibly turned into grazing fields instead of research institutions and hundreds of school children have been put out of school.

The third finding showed that security challenges have significant impact on the lives of teachers and students in secondary schools. This research found that Security challenges put teachers and students lives in danger and leads to loss of lives of teachers and students. This study found that security challenges results to kidnapping of teachers and students and insecurity challenges lead to injuries on teachers and students body.

This study is in line with the finding of Ojukwu (2017) who reported that students' gangsterism, smoking of Indian hemp, abusing other hard drugs, cult and related violent activities were some of the factors that constituted insecurity of the school environment which eventually cause boys to leave school and join trading while leading girls to drop out and settle for marriage.

Conclusion

Motivation is very important in the life of every worker. Motivation makes teachers to strive to achieve certain task which ordinarily they cannot achieve. A well motivated teacher will become productive. Based on the findings of this study, it was concluded that security challenges have significant impact on school buildings, closure of schools and on the lives of teachers and students in secondary schools in Gwer-West local government Area of Benue State. Therefore, motivation is the key in making the teachers and students to attend school against all odds, and that the government must ensure to do the needful

in securing the lives and properties of Nigerians as enshrined in the constitution.

Recommendations

Based on the findings of this study, the following recommendations were made:

- i. The community should collaborate with the government Security challenges have significant impact on school buildings in secondary schools in terms of security consciousness in order to prevent outbreak of conflict which could lead to destruction of school buildings in schools.
- ii. The public should be sensitized through public lectures and the media in general on the adverse effect of school closure in order to avoid unnecessary security threats which leads to school closure.
- iii. The public should be made to understand through social workers, the clergy and other concern stakeholders that the lives of teachers and students is not part of conflict and should be educated to stay clear of this ugly scenario whenever conflict breaks up.

REFERENCES

- Achumba, I.C., Ighomereho, O.S. & Akpan- Robaro, M.O.N. (2013). Security challenges in Nigeria and the implications for business activities and sustainable development. *Journal of Economics and Sustainable Development* 4(2) 79-99.
- Alonge and Awulor-Hepzibah (2016). Security challenges and management strategies in public secondary schools in Aba Education Zone of Abia State. *Journal of Economics and Environmental Education*, 3(1), 95-104.
- Apase (2019). Exploring safety in township secondary schools in Free State Province. *South African Journal of Education*, 3,1 163-174
- Donatus Nwobodo and Udebunu Ifeoma Maria (2015). School plant planning and student learning outcomes in South West Nigerian secondary schools. *In Journal Sci*, 2(1) 47-53.
- Fayeye, J. (2018). "Managing insecurity in Public Schools: A Teacher – Student Approach". Paper presented at 61st All Nigeria Confederation of Principals Secondary Schools (ANCOPSS National) Annual Congress held in Akure, Ondo State.
- Godwin, E. & Agbo, N. (2020). Cultism and gangsterism and its effects on moral development of learners in Nigerian Tertiary Institution. *Journal of Emergency trend in Educational Research and Policy Studies*. Scholarly link Research Institute.
- Ike, u. (2015). The rising insecurity in Nigerian campuses and the way forward-education. *Naira Forum*. Retrieved from <https://www.nairaland.com/3146760/rising-insecurity-nigerian-campuses>.
- Lehr, R. (2014). *Ways of school security management*. Retrieved from www.securitymanagement.com/article/schools-lessons-005964.
- Okwori, A. & Ede, E. (2012). *Status of safety precautions in science lab in Enugu State*. Retrieved from: www.ajol.info/index.php/ame/article/view/98192
- Phenson, Ojie, Esin & Atai, 2014. 5 major issues campus security officers will face today. *Security*. Retrieved from <https://www.securitymagazine.com/article/85537-major-issues-cc>.
- Uduak, I. E. (2018). Assessing students' satisfaction with service delivery: Implications for educational management, *Global Journal of Arts, Humanities and Social Science*, 6(6), 48-60).

Influence of Indigenous Communication Media on Community-driven Development Project Outcomes in Selected Rural Fadama Communities of Ogun State, Nigeria

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ABSTRACT

This study focused on the influence of indigenous communication media on community driven development project outcomes in selected rural Fadama communities of Ogun State, Nigeria. Four objectives, four research questions and two null hypotheses were stated. 796 samples were selected using total enumeration technique and data was generated with modified indigenous communication media and community-driven development outcomes scale (ICMCDDOS) subjected to Cronbach Alpha test which yielded 0.93. Descriptive statistics i.e frequency counts, percentage and inferential statistics of correlation matrix and regression analysis were used for data analysis. Results revealed that 5.8% of the respondents were 21-30 years, 25.4% were 31-40years, 46.2% were 41-50 years and 22.6% were 51 years above. It reveals that among the respondents 33.7% had no formal education, 36.1% had primary school education, 26.8% had secondary education while 3.4% had tertiary education respectively. There was a positive significant relationship between indigenous communication media and ownership/control ($r=.393$), participation ($r=.292$), productive assets ($r=.382$), infrastructure services/rural infrastructure development ($r=.440$) and capability ($r=.309$). Positive significant relationship existed between indigenous communication media and ownership/control ($r=.305$), participation ($r=.355$), productive assets ($r=.395$), infrastructure services/rural infrastructure development ($r=.440$) and capability ($r=.116$), therefore the two null hypothesis were rejected. It is concluded that indigenous communication media enhance significant attainment of community-driven development project outcomes and indigenous communication media have positive significant effects on community-driven development project outcomes. It is therefore recommended that government and international development agencies should strengthen the integration of indigenous communication media in development.

Keywords: *Indigenous Communication Media, Community-driven Development, Project Outcomes, Rural Fadama Communities.*

Introduction

Communication has been described by several scholars as what revolves around, contacting, relaying and transferring ideas, information and knowledge between individuals, groups and communities which must evolve a feedback (Wefwafwa, 2014).

As a conveyor of the ideas, information, breakthroughs and knowledge necessary for the amelioration of the people's conditions, it's efficiency is determined by the extent to which it is aligned with the evolved process of transmitting information

in the particular society. Scholars have identified that there have been a lot of development project failures due to the inefficiencies of modern communication systems and media usually adopted by donor agencies in development projects by donor agencies in communities in Africa. International Fund for Agriculture Development (IFAD, 2006) and Paul (2010) state that neglect of appropriate indigenous communication channels and traditional knowledge are barriers to effective exchange of information, mobilisation, and participation thereby leading to poor development outcomes.

In this regard, scholars like Nicholls (1997), Wefwafwa (2014) and Muhammad (2014). state that communication in development process in Africa needs a viable mechanism that integrates the rich and diverse nature of indigenous communication media that maintains historic roots and cultural identities of beneficiary rural communities. To them, the integration of indigenous African systems and media of communication will help correct the problems of inefficiencies of the modern communication systems often used by development donor agencies in rural communities in Africa. This assertion is further strengthened by the argument of Wefwafwa (2014) that “every society has evolved its own ways of transmitting information between its persons and

groups. In Africa indigenous communication systems is used for transmitting information such as announcements, entertainment, persuasion, communication, social exchanges and specific functions of communication as information, socialisation, motivation, education and cultural promotion”. Several studies conducted by International Fund for Agriculture Development (2006), Food and Agriculture Organisation (2010) and Adeniyi (2015) showed that in the course of implementing several rural development projects in Nigeria, the people are regarded as mere recipients instead of the actual creators of change and progress, therefore, few positive outcomes are recorded. Because of the rate of failure of development projects in rural communities as a result of communication gap with local beneficiaries, several studies have been conducted to find solutions to the problem. Some of the studies were conducted by FAO (2010) on indigenous peoples’ communication for development, Adesoji and Ogunjimi (2015) research was on assessing the use of indigenous communication media among rural dwellers and that of Edet, Akpan and Isaac (2015) focused on indigenous communication media and utilization of development information in rural communities. However, not much has been done on the influence of indigenous

communication media on community-driven development projects; therefore, this study focuses on indigenous communication media on community-driven development project variables in selected rural Fadama communities of Ogun State, Nigeria.

Objectives of the Study

The objectives of this study are:

- i. To identify the types of community-driven development project variables executed using the indigenous community media in the selected rural Fadama communities;
- ii. To determine the types of indigenous communication media adopted in the provision of community-driven development project outcomes in the selected rural Fadama communities;
- iii. To determine the beneficiaries perception of the suitability of indigenous communication media adopted for the community-driven development project outcomes in the selected rural Fadama communities; and
- iv. To determine whether the adoption of indigenous communication media had any significant relationship on community-driven development project outcomes (i.e ownership/ control, participation, productive assets, rural infrastructure development and

capability) in the selected rural Fadama communities.

Research Questions

The research questions for this study are:

- i. What are the types of community-driven development projects executed using the indigenous community media in the selected rural Fadama communities?
- ii. What are the types of indigenous communication media adopted in the provision of community-driven development projects in the selected rural Fadama communities?
- iii. What are the beneficiaries perception of suitability of indigenous communication media for community-driven development projects provided in the selected rural Fadama communities?
- iv. Is there any significant relationship between indigenous communication media and community-driven development project outcomes (i.e ownership/control, participation, productive assets, rural infrastructure development and capability) in the selected rural Fadama communities?

Research Hypotheses

The null hypotheses stated for this study are:

- Ho₁**. there is no significant relationship between beneficiaries perception of suitability of the indigenous communica

tion media and community-driven development project outcomes in the selected rural Fadama communities.

H₀₂. there is no significant relationship between indigenous communication media adopted and community-driven development project outcomes (i.e ownership/control, participation, productive assets, rural infrastructure development and capability) in the selected rural Fadama communities.

Review of Related Literature

Generally, most Nigerians have been taken off the pathway of development because projects have never produced positive effects. With the deepening poverty, there is the need for a development intervention that will be anchored on the existing local natural resources and driven by the beneficiaries especially in the rural areas of Nigeria identified as Fadama communities. Fadama is the Hausa name for describing irrigable lands that are flooded plains low lying areas underlined by shallow aquifer (Musa, 2011). The communities located on these endowed areas along Nigeria's water systems are usually rural Nigerian farming communities spreading over 4.9 million hectares with about 72% of the population leaving below poverty line (Muhammed, Umar, Abubakar and Abdullahi; 2011; Adeniyi, 2015; National Bureau of Statistics, 2022). Arising from this scenario, attention has shifted to the process

of bridging the gap of communication in development and enabling the people to drive their own development, therefore, several researchers and authors have noted the importance of indigenous communication media, essentially as the need to fill the gap created by the inefficiencies of modern communication media in development work. Wefwafwa (2014) identified it as "traditional communication used in Africa comprising a mixture of social conventions and practice that have become sharpened overtime centuries and blended into dependable communication modes and systems which have almost become standard practices for society". It is any form of endogenous communication system which originated and integrated into a particular culture and it is the vehicle which the community members or rural farmers employ for the delivery of their messages such as folk scripture, folk music, folk dance or folk painting passed from one generation to another. These traditional media, rural press linked to literacy programmes and audiovisual materials are used as channels for disseminating development information and for stimulating community action (Van den Ban and Hawkins, 1996; Tham-Agyekum and Loggoh. 2011; Edet, Akpan and Isaac, 2015; Van Der Stichele in Adeniyi, 2019). Community-driven development approach differs from other

traditional approaches in that it “provides the mechanism to support poverty reduction by mobilizing communities, strengthening human capacity, and improving physical assets at the community level” (IFAD, 2006). Hence, it is to achieve certain outcomes. These are observable features that constitute important precursors to any such development activities evolving at the community level, involving all the stakeholders, irrespective of the differences in status and any other classifications that have been used in the community. These observable features are development project ownership, control, participation, infrastructure, productive assets and capacity building (Mansuri and Rao, 2003; Ahmed, Euler, Khattak, Morton and Tariq, 2009). Ownership is defined as a psychological construct. The concept includes the potential for a shared mindset among members of a group within certain environments known as collective psychological ownership. This can lead to sense of ownership for their desired development and could be expected to arise from their participation in its planning and construction (Pierce, Kostova and Dirks, 2001; Pierce and Jussila, 2010; and Marks and Davis, 2012). Control in CDD refers to development project driven by the people themselves to provide goods, services in the local and municipal governments, focusing on decision making and governance over

resource allocation for the benefits of all community members (World Bank, 2005; Dongier, Domelen, Ostrom, Rizvi, Wakeman, Bebbington, Alkire, Esmail and Polski, 2002; Ostrom, 2010; Bluffstone, Robinson and Guthiga, 2012).

The cornerstone of CDD initiatives is the active involvement of members of a defined community in at least some aspects of project design and implementation. The premise of CDD participatory approach include people’s involvement at many levels, incorporation of “local knowledge” into the project’s decision-making processes, promoting pragmatic policy interests, such as cost-effective delivery and low costs of maintenance (Mosse, 1997; World Bank, 2005). Another observable feature and outcome of CDD is productive asset. This is to enhance the improvements in Fadama user’s productivity and income by facilitating the acquisition of productive assets by individuals or Fadama user groups. These are provided at community-level by developing the clients’ enterprise management skills, capacity to mobilise their own funds and by providing matching grants for income-generating activities (IGAs) to Fadama user groups. The productive assets acquired have the potential to reduce the impact of market failures in the rural finance sector on the

poor Fadama user groups through matching grants. All pilot activities will be at the community-level (Nkonya et al., 2009; Nkonya et al., 2012). Because of the objectives of CDD project in promoting positive development outcomes, rural infrastructure constitute a major observable feature. Its provision was directed towards responding to demands for social and production infrastructure that the communities can operate and maintain with their own resources and to help in increasing farm and off farm productivity, access to markets and reduction in transport costs (Aigbokhan, 1999; World Bank, 2005; United Nations; 2008). The last observable of CDD is the capacity-building of the community and Fadama User Groups. This is to increase the ability of its beneficiaries to assess their needs, participate in planning, and implement, manage economic activities, and to increase the capacity of the project coordinators to conduct monitoring and evaluation. Fadama provides capacity building through trained facilitators. In addition, it was designed to train FUG members to negotiate and manage contracts and to conduct basic financial analysis (Federal Ministry of Agriculture, 2003; Nkonya et al., 2008). Also, World Bank (2005) asserts that the project invested in capacity building of community-based organisations

(CBOs) in order to foster relationships with formal support institutions.

Theoretical Framework Theory of Cognition and Communication

This study is based on Bandura's Theory of cognition and communication. This theory identifies that indigenous communication media is a complex, non-formal methods of educating people and changing behaviours. It is relevant to this study because it identifies that indigenous communication media provides the platform for learning through modelling and this is consistent with the fact that the focus of rural development through change in behaviours is achievable with learning, observing models and performers of drama; theatre, puppetry and folklores form the desired contents required for the acceptance of change that leads to development (Bandura,1986).

Method

This study adopts the descriptive survey design of the ex-post facto type. The study adopts total enumeration sampling technique in the selection of the sample of seven hundred and ninety five (795) respondents. Indigenous Communication Media & Community-driven Development Outcome Scale (ICMCDDVS) was a modified instrument designed to generate data for the study. To achieve its internal consistency, it was subjected to Cronbach

Alpha test which yielded 0.93. The data generated were analysed using descriptive statistics: frequency counts and percentage and content analysis. Further analyses were done using inferential statistics of

Correlation Matrix and Regression analysis to test the null hypotheses at 0.05 level of significance.

Results and Discussion

Table 1: Demographic Data.

S/N	Demographic Variables	Frequency	Percentage
Gender			
1.	Male	553	69.6
2.	Female	242	30.4
Age			
1.	21-30	46	5.8
2.	31-40	202	25.4
3.	41-50	367	46.2
4.	51-Above	180	22.6
Level of Education			
1.	No formal Education	268	33.7
2.	Primary School Education	287	36.1
3.	Secondary School Education	213	26.8
4.	Tertiary Education	27	3.4
Occupation			
1.	Farming	389	49
2.	Fishing	200	25.1
3.	Animal Husbandry	113	14.2
4.	Public Servant	27	3.4
5.	Trading	51	6.4
6.	Others	15	1.9
Total		795	100

Source: Field Data (2023)

The table 1 above shows that the distribution of the respondents in the study area was constituted by male 69.6% and female (30.4%). It shows that 5.8% of the respondents were 21-30 years, 25.4% were 31-40, 46.2% were 41-50 years and 22.6%

were 51 years above. It reveals that among the respondents 33.7% had no formal education, 36.1% had primary school education, 26.8% had secondary education while 3.4% had tertiary education respectively.

Table 2. Beneficiaries perception of suitability of the indigenous communication media for community-driven development project variables in the selected rural Fadama communities.

	Project Ownership/Control		Total	Participation		Total	Productive Assets		Total	Rural Infrastructure Development		Total	Capability		Total
	Low	High		Low	High		Low	High		Low	High		Low	High	
	1. Theatre / Drama	579 72.8%		216 27.2%	795 100%		211 26.5%	584 73.5%		795 100%	776 97.6%		19 2.4%	795 100%	
2. Puppet Shows	179 22.5%	616 77.5%	795 100%	509 64%	286 36%	795 100%	208 26.2%	587 73.8%	795 100%	185 23.3%	610 76.7%	795 100%	170 21.4%	625 78.6%	795 100%
3. Village Criers	14 1.8%	781 98.2%	795 100%	9 1.1%	786 98.9%	795 100%	216 27.2%	579 72.8%	795 100%	121 15.2%	674 84.8%	795 100%	213 26.8%	582 73.2%	795 100%
4. Village Bell/Annncmts.	213 26.8%	582 73.2%	795 100%	102 12.8%	693 87.2%	795 100%	465 58.5%	330 41.5%	795 100%	282 35.5%	513 64.5%	795 100%	217 27.3%	578 72.7%	795 100%
5. Folklore/ Others	622 78.2%	173 21.8%	795 100%	306 38.5%	489 61.5%	795 100%	653 82.1%	142 17.9%	795 100%	392 49.3%	403 50.7%	795 100%	283 35.6%	512 64.4%	795 100%

Source: Field Data (2023)

From Table 2 above, it shows that among the respondents, 72.5% perceived high suitability of theatre/drama for project ownership/control. 77.% of the respondents perceived high suitability of puppet for project ownership/control. 98.2% of the respondents perceived high suitability of village criers for project ownership/control. 73.2% respondents perceived high suitability of village bell/ announcements for project ownership/ control while 78.2% of the respondents rated folklore/others low in suitability for project ownership/control. 73.5% perceived high suitability of theatre/drama for participation, 64% perceived high suitability of puppet shows for participation. 98.9% perceived high suitability of village criers for participation and 87.2% also perceived high suitability of village/bell/announcements for participa

tion. 61.5% perceived high suitability of folklore/ others for participation.

Furthermore, 97.6% perceived low suitability of theatre/drama for productive assets, 73.8% perceived high suitability of puppet shows for productive assets and 72.8% perceived high suitability of village criers for productive assets. Also, 58.5% of the respondents perceived low suitability of village bell/announcements for productive assets and 82.1% perceived low suitability of folklore/others for productive assets. 98.5% of the respondents perceived high suitability of theatre/drama for rural infrastructure development. 76.7% perceived high suitability of puppet shows for rural infrastructure development, 84.8% perceived high suitability of village criers for rural infrastructure development and 64.5% perceived high suitability of village bell/announcements for rural infrastructure

development. 50.7% perceived high suitability of folklore/ others for rural infrastructure development. 75.2% of the respondents perceived low suitability of theatre/drama for capability while 78.6% perceived high suitability of puppet shows

for capability.73.2% respondents perceived high suitability of village criers for capability. 72.7% perceived high suitability of village/bell/announcements for capability and 64.4% of the respondents perceived folklore/ others suitable for capability.

Table 3a: Joint effect of the independent variables on community-driven development project outcomes in Fadama communities of Ogun state

R	R Square	Adjusted R Square	Std. Error of the Estimate			
.484	.234	.229	2.4266			
A N O V A						
Model	Sum of Squares	DF	Mean Square	F	Sig.	Remark
Regression	1420.381	4	284.076	48.245	.000	Sig.
Residual	4645.832	789	5.888			
Total	6066.214	794				

Level of Significance .05

Table 3a above shows the joint contribution of the five independent variables to the prediction of the dependent variable, that is community -driven development project outcomes. The table also shows a coefficient of multiple correlation (R = .484 and a multiple R² of .234. This means that 23.4% of the variance was accounted for by four predictor variables when taken together; while the remaining might have been accounted for by other variables not

captured by this study. The significance of the composite contribution was tested at P < .05. The table also shows that the analysis of variance for the regression yielded a F-ratio of 48.245 (significant at 0.05 level). This confirms that the joint contributions of the independent variables to the dependent variable were significant and that other variables not included in this model might have accounted for the remaining variance.

Table 3b: Relative contribution of the independent variables on community-driven development outcomes in Fadama communities of Ogun state

Model	Unstandardized Coefficient		Stand. Coefficient	T	Sig.	Remark
	B	Std. Error	Beta Contribution			
(Constant)	4.146	2.159		1.921	.055	sig.
Theatre/Drama.	.313	.155	.077	2.021		sig.
Puppet Shows.	.193	.038	.216	5.140	.000	sig.
Village Criers.	.558	.097	.416	5.770	.000	sig.
Village	.269	.094	.207	2.867	.004	sig.
Bell/Announcements.	.147	.027	.196	5.024	.000	sig.

Folklore/Others.						
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Table 3b above reveals the relative contribution of the five independent variables to the dependent variables, expressed as beta weights, viz: theatre/drama ($\beta = .077$), puppet shows ($\beta=.216$), village criers ($\beta=.416$), village bell/announcements ($\beta=.207$) and folklore/others systems ($\beta=.196$) respectively. Hence, theatre/ drama, puppet shows, village criers, village bell /announcements and folklore/others systems respectively all

had significant effects on the dependent variables. Their relative contributions are village criers with Beta weight ($\beta=.416$) followed by puppet shows with Beta weight of ($\beta=.216$), village bell/announcements had a Beta weight of ($\beta=.207$), folklore/others systems had a Beta weight of ($\beta=.196$) and theatre/drama with Beta weight of ($\beta = .077$) in that order.

Table 4: Correlation Matrix of the relationship between beneficiaries perception of suitability of the indigenous communication media and community-driven development project outcomes in rural Fadama communities of Ogun State.

	1	2	3	4	5	6
1,Indigenous Communication Media	1					
2. Project Ownership/ Control	.393**	1				
3. Participation	.292**	.558**	1			
4. Productive Assets	.382**	.661**	.759**	1		
5. Rural Infrastructure Development	.440**	.624**	.793**	.853**	1	
6. Capability	.309**	.341**	.400**	.448**	.567**	1

** Significant 0.05 level

Table 4 above shows that there is a positive significant relationship between Beneficiaries Perception of suitability of the indigenous communication media and community-driven development project outcomes i.e project ownership/control

($r=.393$), participation ($r=.292$), productive assets ($r=.382$), rural infrastructure development ($r=.440$) and capability ($r=.309$), therefore the null hypothesis is rejected.

Table 5: Correlation Matrix of the relationship between indigenous communication media adopted and community-driven development project outcomes

	1	2	3	4	5	6
1.Indigenous Communication Media	1					
2.Project Ownership/Control	.305**	1				
3. Participation	.355**	.558**	1			
4.Productive Assets	.395**	.661**	.759**	1		

** Significant at .05 level

5. Rural Infrastructure Development	.404**	.624**	.793**	.853**	1	
6. Capability	.116**	.341**	.400**	.448**	.567**	1

Table 5 above shows that there is a positive significant relationship between the indigenous communication media and community-driven development project outcomes i.e project ownership/control ($r=.305$), participation ($r=.355$), productive assets ($r=.395$), rural infrastructure development ($r=.440$) and capability ($r=.116$), therefore the null hypothesis is rejected.

Conclusion and Recommendation

This study was on indigenous communication media and community-driven development project outcomes in selected rural Fadama communities of Ogun state, Nigeria. Based on the findings of the research, it is concluded that involvement in Fadama project cuts across both gender, diverse occupations and participants were in their young and active years. It should also be noted that indigenous communication media were widely used for the positive community-driven development project variables' attainments. It also shows that among the different indigenous communication media, theatre/drama, puppet shows, village criers, village bell/announcements and theatre/drama are highly suitable for community-driven development positive project outcomes. It is also concluded that

when indigenous communication media are jointly adopted it will enhance significant attainment of community-driven development projects variables outcome and generally, indigenous communication media have positive significant effects on community-driven development positive project outcomes and are the most appropriate for development work.

Recommendations

Based on the findings of this study, the following recommendations are made:

1. The government and international development agencies should strengthen the integration of indigenous communication media in development projects.
2. Efforts should be made to ensure that production of indigenous media at the local level should reflect social and economic contexts.
3. Government should encourage the use of indigenous communication media for mass mobilisation and advocacy for social and economic development.

REFERENCES

- Adeniyi, A. A. (2015). Community-driven development variables and rural livelihood in Fadama II communities in Ogun State, Nigeria. Ph.D Thesis, Department of Adult Education, University of Ibadan, Ibadan.
- Adeniyi, A.A. (2019). Indigenous communication systems and rural development projects' variables in selected rural communities in Ogun State, Nigeria. *KIU Journal of Humanities*, 4(2), 77-86. A publication of College of Humanities and Social Sciences, Kampala International University, Kampala, Uganda. <http://www.ijhumas.com/ojs>
- Adesoji, S. A., & Ogunjimi, S.I. (2015) Assessing the use of indigenous communication media among rural dwellers of Osun State, Nigeria. *American Journal of Experimental Agriculture* 7(6), 405-413, Article no.AJEA.2015.141 . Retrieved May 21, 2023 from www.science domain.org
- African Development Bank. (2006). Adoption of rural development programmes in Nigeria. www.krepublishers.com/journals. Retrieved November 11, 2007. *Selected Statistics on African Countries*. Vol. XXV. Abidjan.
- Ahmed, Z., Euler, C., Khattak, S., Morton, J., & Tariq, M. (2009). *Assessing the impact of community-driven development twenty six years of Pakistan's rural support programmes. A third party evaluation*. Pakistan: HTSPE Limited.
- Ansu – Yereme, K., ed. (1998). Theory and application. Accra, Ghana; School of Communication Studies, University of Ghana, Legon; *Perspectives in indigenous communication in Africa*; 1.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bardwell, L. (1991). Problem framing: A perspective on environmental problem-solving. *Environmental Management*. 15. pp: 603-612.
- Bluffstone, R. E., & Guthiga, P. (2012). REDD and community-controlled forests in low-income countries any hope for a linkage? *Environment for Development Discussion Paper Series*. E f D D, 12-11. Department for International Development.
- (2006). Food and rural affairs and the forestry commission. Departmental Report. Government of the United Kingdom.
- Dongier, P., Domelen, J., Ostrom, E., Rizvi, A., Wakeman, W., Bebbington, A., Alkire, S., Esmail, & Polski, M. (2002). *Core technique and cross cutting issues*. Ed. J. Klugman. New York: Oxford University Press.
- Edet, I. P., Akpan, B.C., & Isaac, O. (2015). Indigenous communication media and utilization of development information in rural communities of South-South Nigeria. *International Journal of English and Literature (IJEL)*, 5, 1, 85-96.
- Federal Ministry of Agriculture (2003) Federal Ministry of agriculture and rural development. Second National Fadama Development Project (FadamaII), 1: Project Implementation Manual Projects Coordination Unit (PCU) Abuja, FCT.
- Food and Agriculture Organisation. (2010). The state of food insecurity in the world addressing food insecurity in protracted crises*. Rome. Italy: FAO.
- Gray, J. (2003). A rural sense of place: Intimate experience in planning a countryside for life. *Planning theory and Practice*. Taylor and Francis. 4.1.:93-96. Retrieved on 21st July, 2010 from <http://www.tandfonline.com>

- Grootaert, C., Oh, G., & Swamy, A. (1999). Social capital and outcomes in Burkina Faso. *Mimeo, Social Development Department*. Washington, DC: World Bank.
- Grootaert, C., & Narayan, D. (2000). Local institutions, poverty and household welfare in Bolivia. *Local Level Institutions Working Paper 9*. Social Development Department. Washington D.C. World Bank.
- International Fund for Agriculture Development (2006). Community-driven development decision tools for rural development programmes. Rome: IFAD.
- International Fund for Agriculture Development (2011). Rural poverty and community-driven development. Rome: IFAD.
- LLachapelle, A. (2008). Sense of ownership in community development: Understanding the potential for participation in community planning efforts. *Community Development: Journal of the Community Development Society*. 39. (2),1-8.
- Mansuri, G and Rao, V. (2003). Evaluating community-driven development: A review of the evidence. *World Bank Development Research Group*, Washington DC. World Bank.
- Marks, S., Komives, K., & Davis, J. (2012). Community participation and hand pump sustainability in rural Ghana. Presentation, Stanford University, UNC Water & Health Conference 2012.
- Mosse, D. (1997). Colonial and contemporary ideologies of community management: The case of tank irrigation development in South India. *Modern Asian studies* 33(2), 303-338.
- Muhammad, B. D. (2014). Indigenous communication media technology and their relevance in the 21st Century. *The International Journal of Humanities and Social Studies*.2(5). www.ijhss.com.
- Mundy, P., & Megan, Lloyd-Laney. (1992). Indigenous communication. *Appropriate Technology*. London: IT Publications. 19(2).
- Mundy, P. A., & Compton, J. L. (1995). Indigenous communication and indigenous knowledge in Warren, D. M., Silkkerveer, L. J. and Brokensha, D. (eds). *The Cultural Dimension of Development*. London: Intermediate Tech Publication Ltd.,112-123.
- Musa, R. S. (2011). Impact of Fadama II development project on farm incomes of the marginalized and vulnerable participant in Kaduna state, Nigeria. Ph.D thesis, Department of Agricultural Economics and Rural Sociology. Ahmadu Bello University. 1-127.
- N'gombe, J. L. (2000). The communication model and folk media in development: Workshop report of the sustainable development department (SD) of the FAO. File//4:\SD knowledge folk and Traditional Media for rural development. htm.
- National Bureau of Statistics (2022). Multidimensional poverty index survey. Retrieved May 13, 2023 from <https://nigerianstat.gov.ng>
- Naisbitt, J. (1982). *Megatrends: Ten New Directions Transforming Our Lives*. New York: Warner Books.
- Ndege, C., & Nicholls, R. (1990). *Through African Eyes: The rhythm of art and life in Africa*. Monograph accompanying art exhibit. North Carolina: Winston-Salem University.
- Nicholls, R.W. (1995). Pragmatic spirituality: Enablement in traditional Africa. *Rehabilitation Education* 9(2&3).
- Nettl, B. (1985). The concept of preservation in ethnomusicology. In *more than drumming: Essays on African and Afro-Latin American music*, ed. I.V. Jackson. Westport, Connecticut: Greenwood Press.

- Nicholls, R.U. (1997) Folk Media: Indigenous learning systems and instructional methodology. A people centered model of development. *Folklore Forum*, 28: 1
- Nkonya, E., D., Mogues, T., Pender, J., Yahaya, M., Adebowale, G., Arokoyo, T., & Kato, E. (2008). From the ground up the impacts of a pro-poor community-driven development project in Nigeria. USA: International Food Policy Research Institute.
- Nkonya, E., Phillip, D., Mogues, T., Pender, J., & Kato, E. (2009). Impacts of community-driven development programs on income and asset acquisition in Africa: The case of Nigeria. 2009. Conference Paper. Beijing, China 50537. *International Association of Agricultural Economists*.
- Nkonya, E., Phillip, D., Mogues, T., Pender, J., & Kato, E. (2012). Impacts of community-driven development programs on income and asset acquisition in Africa: The case of Nigeria, *World Development*. Amsterdam: Elsevier. 40.9: 1824-1838.
- Odunola, O., & Segun, O. (2009). The relevance of indigenous communication system to national development. *Babcock Journal of Mass Communication*, 2(1), 7-17.
- Ojebode, A. (2002). Radio as a development communication medium: Types, formats, roles and limitations in Soola, E. O. (Eds.: 2003) *Communicating for development purposes*. Ibadan: Kraft Books Limited.
- Olulade, R.(1988). Culture and communication in Nigeria. *Interpreter Magazine*. Lagos: Nigeria.
- Ostrom, E. (2010). Analyzing collective action. *Agricultural Economics*, 41(1),155–166.
- Paul, C. (2010). Strategies and techniques for enhancing participation in rural development. *International Journal of Agriculture and Rural Development*. 1(1),143-144.
- Pierce, J., Jussilia, I., & Cummings, A. (2009). Psychological ownership within the job design context: revision of the Job characteristics model. *Journal of Organisational Behavior*. 30, 477–496.
- Pierce, J. L., Kostova, T., & Dirks, K. (2001). Towards a theory of psychological ownership in organisations. *Academy of Management Review*, (26), 298–310.
- Tham-Agyekum, E., & Loggoh, B. (2011). A review of the use of indigenous communication systems in development work: The case of drama, theatre and puppet shows. *Elixir Soc. Sci*,(33), 2252-2255.
- United Nations Organisation (2008). *Development Report*. New York: Oxford University Press.
- Van der Stichele, P. (2000). Folk and traditional media for rural development: A workshop held in Malawi, *SD: Knowledge: Communication for development*; 2000.
- Van dan Ban A., & Hawkins W. (1993). *Agricultural Extension*, 2nd Edition Longman scientific and Technical Essex.cm 202 IE England;
- Wefwafwa, J. A. (2014). Indigenous communication systems versus modern communication systems: A case study of the Bukusu Sub tribe of Western Kenya. *Global Media Journal African Edition*, 8(2), 301-317. Retrieved January 2, 2023 from <http://globalmedia.journals.ac.za/>
- World Bank (2005). *World Development Report*. New York: Oxford University Press.

Quality Assurance Measures as Correlate of Job Performance on Academic Staff in Public Colleges of Education, Ogun State, Nigeria

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ABSTRACT

This study examined quality assurance measures as correlate of academic staff job performance in public Colleges of Education, Ogun State, Nigeria. Inspection, monitoring and evaluation were used as indicators for measuring quality assurance. Descriptive research design of survey type was adopted. Sixty (60) Heads of Departments from Colleges of Education and 1097 lecturers across various Departments in the sampled institutions were sampled for the study. Three instruments developed by the researcher were used in data collection namely: Academic Staff Job Performance Rating Scale (ASJPRS) ($r = 0.74$), Academic Staff Quality Assurance Questionnaire (ASQAQ) ($r = 0.78$) and Academic Staff Job Satisfaction Questionnaire (ASJSQ) ($r = 0.89$). The data collected were analyzed using, percentage of means score, standard deviation and inferential statistics t-test, Pearson moment correlation and multiple regression analysis. All the hypotheses tested at 0.05 level of significance. Findings revealed that there was significant relationship between inspection dimension of quality assurance and job performance among academic staff (pearson $r = .277$; $p < 0.5$), significant relationship between monitoring dimension of quality assurance and job performance among academic staff (pearson $r = .300$; $p < 0.5$), significant relationship between evaluation dimension of quality assurance and job performance among academic staff (pearson $r = .311$; $p < 0.5$). The study recommended among others that quality assurance in public Colleges of Education be improved through improved inspection strategies, monitoring dimension and evaluation procedure for better job performance of academic staff in public Colleges of Education in Ogun State Nigeria.

Keywords: *Quality Assurance Measures, Job Performance, Academic Staff, Public Colleges of Education.*

Introduction

Job performance of an organization is an important criterion for organizational

outcomes and success. Job performance can be defined as all the behaviour employees

engage in while at work (Akinsanya, 2018). This performance depends to a large extent on the productivity of its workforce, while Ogunyebi (2018) stated that every organization employs both human and material resources to achieve its ultimate goal. Job performance is a term used to depict how well an employee performs his work-related duties. Job performance is important to workers as it influences decisions regarding either promotion, commendations, terminations, demotions and of employers as it facilitates the achievement of the organizational goals. Job performance generally refers to whether an employee performs his job well or not. It is the way employees execute their work (Obadara, 2018). There are occupational characteristics in the activities of academic staff of higher education institutions. These are highlighted by Adeyanju and Olaniyi (2018), to include interaction with students, lecture-room, library, manuscript preparation, invigilation of examinations, compilation of examination results, home/work interface, work-over load, job performance pressure and career advancement among others. However, academic activities of higher institutions are of wider scope compared to that of other cadres in the system.

The utmost goal of setting up any institution of learning is to provide effective teaching and learning so that the outcome will be of desired standard. This brings one to the desire for quality assurance. Quality assurance is the process of ensuring that the educational outputs (graduating students) are processed with all required personnel and quality programmes, facilities and materials to meet the global acceptance. Many Nigerians, especially the employers of labour, have criticized the quality of education given that many graduates of education degrees are now half-baked and cannot provide the much-needed quality education. Quality assurance does not only have an internal aspect, external elements also exist. The internal quality assurance, including monitoring instruments, evaluation instruments and activities aiming at improvement by the National Commission for Colleges of Education. External quality assessment, including benchmark activities, external audit, or external quality assessment. A specific element in the quality assurance system is accreditation. Accreditation is the coping stone of the quality assurance system. In Internal Quality Assurance (IQA), quality is primarily the responsibility of the institution itself. Although the government has a special responsibility regarding quality

assurance in many countries, it is the college (and especially its management and staff) that is responsible for providing and assuring quality. Therefore, it is important that each College of Education develops an efficient internal quality assurance (IQA) system.

Quality assurance in education according to Obadara (2018) is the efficient management, monitoring, evaluation and reviews of the resource inputs and transformation process (teaching and learning) to produce quality outputs (students) that meet set standards and expectations of the society Ajayi and Ekundayo (2018) stated that quality assurance is a proactive means of ensuring quality in any organization. Quality assurance in education aims at preventing quality problems and ensures that the products of the system conform to the expected standards. For this purpose of this study, monitoring, evaluation and inspection are used as measures for quality assurance. It is in the light of all the above that this study therefore examined quality assurance measures as correlate of academic staff job performance in public Colleges of Education in Ogun State, Nigeria.

Purpose of the Study

Generally, the purpose of this study was to investigate quality assurance measures as predictor of academic staff job performance

in public Colleges of Education in Ogun State Nigeria. Specifically, the study sought to:

- i. Establish the level of job performance among academic staff in public Colleges of Education in Ogun State.
- ii. Compare the level of job performance among academic staff of Federal and State Colleges of Education in Ogun State.
- iii. Investigate the relationship between inspection and job performance among academic staff in public Colleges of Education.
- iv. Establish the relationship between monitoring and job performance among academic staff in public Colleges of Education.
- v. Find the relationship between evaluation and job performance among academic staff in public Colleges of Education.

Research Questions

The following research questions were raised and answered in this study.

1. What is the level of job performance among academic staff in public Colleges of Education in Ogun State?
2. Is there any significant difference in the level of job performance among academic staff of Federal and State Colleges of Education in Ogun State?

Hypotheses

The following null hypotheses were tested in this study:

H₀₁: There is no significant relationship between inspection and job performance among academic staff of public Colleges of Education in Ogun State.

H₀₂: There is no significant relationship between monitoring and job performance among academic staff of public Colleges of Education in Ogun State.

H₀₃: There is no significant relationship between evaluation and job performance among academic staff of public Colleges of Education in Ogun State.

H₀₄: There is no significant relative influence of quality assurance measures to job performance among academic staff of public Colleges of Education in Ogun State.

Literature review

Job performance of academic staff is mainly hinged on task performance which is generally described as a piece of work or an action given to academic staff to execute. The task given to academic staff of higher education institutions to carry out during and within a certain period of time. This includes teaching, community services, research and publications, marking of tests and examinations, supervision, and attending conferences (Akpan, 2019).

Concern for quality assurance in university education in Ogun State requires continuous process of improvement in the quality of teaching and learning activities through the effort of the lecturers. The Federal Ministry of Education (FME) has observed that tertiary Institutions in Nigeria are in state of decay (FME, 2009) Government is aware that this decadent situation portends danger to the zone particularly as poor-quality graduates who are ill-equipped for the world of work are currently being produced by lecturers whose level of academic performance has fallen below expectation. Excellence in higher education is viewed as the demonstration of exceptionally high standards in an institution. Emphasis is placed on high quality inputs and producing “excellent” outcomes (Obadara, 2018). For example, an institution that sets high entry requirements for their academic programmes, owns state-of-the-art teaching and learning facilities, recruit academic staff with outstanding credentials and records high students’ achievement in academic tasks is tagged as a quality institution. The quality as exceptional approach in higher education may be used in evaluating academic programmes, research and determining flagship universities (UNESCO, 2007).

Osuala (2018) argued that teachers' job performance calls for critical examination as it is concerned with the job, the nature of supervision, the nature of opportunity available for advancement, nature of fringe benefits and the suitability for working conditions. Quality Assurance (QA) can be simply defined as a system to support performance according to standards. It implies a systematic way of establishing and maintaining quality improvement activities as an integral and sustainable part of systems or organizations. In the education and health systems, this includes all activities that contribute to the design, assessment, monitoring of standards agreed upon by all stakeholders and improving quality of service delivery, client satisfaction and effective utilization.

Quality assurance in education is the efficient management, monitoring, evaluation and reviews of the resource inputs and transformation process (teaching and learning) to produce quality outputs (students) that meet set standards and expectations of the society (Obadara, 2018).

Quality assurance can be described as the set of activities that an organisation undertakes to ensure that a product or service satisfies given requirements for quality. The strategies used for quality assurance in education

include monitoring, evaluation, supervision, inspection, quality control, access and equality. In this study, monitoring, evaluation and inspection are used as measures for quality assurance. It is important to note that if the Nigerian Colleges of Education are to be functional, productive and students' performance be improved, greater attention must be focused on the ways lecturers perform their instructional duties (Akinsanya, 2018). This can be done through effective instructional supervision since instructional supervision is basically concerned with supporting and assisting teachers to improve instructions through changing their behaviour. Glickman (2019) stated that instructional supervision is a process of improving instruction for the benefit of students. He noted that instructional supervision helps the lecturers to teach as effectively and efficiently as possible. Of course, their effective teaching and other activities associated with their tasks would earn them better performance when assessed. The instructional supervision has the advantages of an increase in lecturers' professional growth; creating conducive learning environment; improvement in students' achievement in external examinations, lowering of the dropout rate, increases the lecturers job satisfaction,

increases the stakeholders' confidence in the school system etc. According to Fischer (2019), the schools supervision includes all efforts of school officials directed to provide leadership to the lecturers and other educational workers in the improvement of instruction. The improvement of teaching and learning in schools is the general purpose of supervision which is to ascertain the quality of education being given to the students. Shaheen (2018) in her study found that school inspectors perform their role towards improving teaching and learning. Teachers also perceived advice and feedback given through inspection reports and recommendations useful for making improvements in their own work performance. In a systematic review of fourteen articles by Klerks (2012) which discussed various types of research on measurement of effect of school inspections on outcomes, no evidence has been found that school inspections automatically lead to the improvement of education quality. Also, it was not concluded that characteristic of school inspection themselves lead to the improvement of education quality. Instead, research shows that in practice there is a complex interaction between different characteristics of school inspections and the inspector on one hand and the school with its

pupils, teachers and management on the other.

Evaluation is a formal process carried out within a school setting. It is based on available data which are used to form conclusions. It could be formative or summative. The aim of evaluation as a quality assurance strategy is to see how the system can be assisted to improve on the present level of performance (formative) (Ijaiya, 2017).

Monitoring is referred to the process of collecting data at intervals about ongoing projects or programmes within the school system. The aim is to constantly assess the level of performance with a view to finding out how far a set objective are being met (Ehinder, 2018). Through constant monitoring and evaluation of system activities in terms of effective control by the different Heads of Units or Departments and constant feedback to management through good utilisation of reports, the standard in the system should be raised greatly and sustained.

Methodology

The descriptive research design of survey type was used for this study. The population of this study comprised academic staff in Federal and State Colleges of Education in Ogun State. The total number of academic

Staff in Federal College of Education, Abeokuta were two hundred and eighty-three (283), while the total number of academic staff in State College of Education (Sikiru Adetona College of Education, Omu-Ijebu) were one hundred and eighty-two (182), the total number of academic Staff in both Federal and State Colleges of Education were four hundred and sixty-five (465) in Ogun state Nigeria. The study adopted stratified sampling technique to sample two hundred sixty-five (265) respondents which represents 62.2% of the study population. The researcher used the following instruments to elicit information from the respondents. One Rating Scale and two questionnaires:

- I. Academic Staff Job Performance Rating Scale (ASJPRS)
- II. Academic Staff Quality Assurance Questionnaire (ASQAQ)

The data were later imported into a computer programme entitled IBM Statistical Package for Social Sciences (SPSS). The descriptive statistics of bar charts, frequency count, simple percentage, means and standard deviations were used to analyses the data of the study.

Results Hypothesis One

H₀₁: There is no significant relationship between inspection and job performance among academic staff of public Colleges of Education in Ogun State.

Table 1: Pearson product moment correlation between inspection and job performance among academic staff of public Colleges of Education

		Inspection	Job performance
Inspection	Pearson Correlation	1	.277**
	Sig. (2-tailed)		.000
	N	1044	1044
Job performance	Pearson Correlation	.277**	1
	Sig. (2-tailed)	.000	
	N	1044	1044

** . Correlation is significant at the 0.01 level (2-tailed).

The outcomes of test of relationship (pearson $r=.277$; $p<.05$) between inspection dimension of quality assurance and job performance among academic staff of public Colleges of Education in Ogun State presented in Table 1 reflects a significant existing relationship. Therefore, the null hypothesis at 0.05 level of

probability that there is no significant relationship between inspection and job performance among academic staff of public Colleges of Education in Ogun State is rejected. In other words, increased inspection produces a corresponding increase in job

performance among the academic staff of public Colleges of Education.

Hypothesis Two

H₀₂: There is no significant relationship between monitoring and job performance among academic staff of public Colleges of Education in Ogun State.

Table 2 Pearson product moment correlation between monitoring and job performance among academic staff of public Colleges of Education

		Monitoring	Job performance
Monitoring	Pearson Correlation	1	.300**
	Sig. (2-tailed)		.000
	N	1044	1044
Job performance	Pearson Correlation	.300**	1
	Sig. (2-tailed)	.000	
	N	1044	1044

** . Correlation is significant at the 0.01 level (2-tailed).

The results of test of relationship (pearson $r = .300$; $p < .05$) tabulated as table 2 indicated that there is a significant relationship between monitoring dimension of quality assurance and job performance among academic staff of public Colleges of Education in Ogun State. Thus, the null hypothesis at 0.05 level of probability that there is no significant relationship between monitoring and job performance among

academic staff of public Colleges of Education in Ogun State is rejected. In other words, increase in monitoring brings about a corresponding increase in job performance among the academic staff.

Hypothesis Three

H₀₃: There is no significant relationship between evaluation and job performance among academic staff of public Colleges of Education in Ogun State.

Table 3 Pearson product moment correlation between evaluation and job performance among academic staff of public Colleges of Education

		Evaluation	Performance rating
Evaluation	Pearson Correlation	1	.311**
	Sig. (2-tailed)		.000
	N	1044	1044
Performance rating	Pearson Correlation	.311**	1
	Sig. (2-tailed)	.000	
	N	1044	1044

** . Correlation is significant at the 0.01 level (2-tailed).

Given the results of test of relationship (pearson $r = .311$; $p < .05$) on Table 3, there is a significant relationship between evaluation dimension of quality assurance and job performance among academic staff of public Colleges of Education in Ogun State. Thus, the null hypothesis at 0.05 probability level that there is no significant relationship between evaluation and job performance among academic staff of public Colleges of

Education in Ogun State is rejected. It means once there is increase in evaluation, there is also a corresponding increase in job performance among the academic staff.

Hypothesis Four

H₀₄: There is no significant relative influence of quality assurance and job satisfaction to job performance among academic staff of public Colleges of Education in Ogun State.

Table 4 Regression coefficients showing relative influence of quality assurance and job satisfaction on job performance of academic staff of public Colleges of Education

Model	Unstandardized coefficients		Standardized coefficients		T	Sig	Decision
	B	Std. Error	Beta				
Constant	35.287	2.388			14.778	.000	
Quality assurance	.222	.021	.374		10.363	.000	Significant
Job satisfaction	-.120	.042	-.103		-2.861	.004	Significant

Regression coefficients of the predictors presented on Table 4 indicates that quality assurance ($\beta = .374$; $t = 10.363$; $p < .05$) significantly predicts job performance of academic staff of public Colleges of Education in South West Nigeria most followed by job satisfaction ($\beta = -.103$; $t = -2.861$; $p < .05$).

Discussion of Findings

Hypothesis one result showed the relationship between inspection and job performance among academic staff of public

Colleges of Education in Ogun State is presented in table 1. The result revealed that a significant relationship between inspection and job performance among academic staff of public Colleges of Education in Ogun State. This implies that increased inspection produces a corresponding increase in job performance among the academic staff of public Colleges of Education. Then, a significant relationship between inspection and job performance among academic staff of public Colleges of Education in Ogun

State is established. The essence of supervision is monitoring of performance of school staff, noting the merits and demerits and using befitting and amicable techniques to ameliorate the flaws while still improving on the merits thereby increasing the standard of schools and achieving educational goals. Igwe (2019) stated that, to inspect means to direct, oversee, guide or to make sure that expected standards are met. Thus, supervision in the school means that the laid down rules, regulations, principles are followed to maintain the minimum standard lay for the schools are carried out effectively and efficiently. Effective supervision is based on identifying certain areas that if well supervised, would help improve quality of primary education in Nigeria. Afolabi and Loto (2018) took into cognizance the following areas and stated that supervision of education however, could be regarded as a concept with emphasis on the improvement of instruction the supervisor may be regarded as an adviser whose experience is such that it is believed he could offer positive assistance to an average teacher.

Hypothesis two showed Result of relationship between monitoring dimension of quality assurance and job performance among academic staff of public Colleges of Education in Ogun State is presented in table

2. It was revealed in the table that a significant relationship between monitoring dimension of quality assurance and job performance among academic staff of public colleges of education in Ogun State exists. This means that an increase in monitoring dimension of quality assurance brings about a corresponding increase in job performance among the academic staff. United Nations Development Programme (2012) stated that monitoring as a quality assurance strategy may be defined as an ongoing process by which stakeholders obtain regular feedback on the progress being made towards goals and objectives. Monitoring is an important source of information for programme evaluation.

Hypothesis three result showed the relationship between evaluation dimension of quality assurance and job performance among academic staff of public Colleges of Education in Ogun State. Results of test of relationship (pearson $r = .311$; $p < .05$) in Table 3, showed that there was a significant relationship between evaluation dimension of quality assurance and job performance among academic staff of public colleges of education in Ogun State. Thus, the null hypothesis at 0.05 probability level that there is no significant relationship between evaluation and job performance among

academic staff of public colleges of education in southwest Nigeria is rejected. It means once there is increase in evaluation, there is also a corresponding increase in job performance among the academic staff. Evaluation is an indicator of quality assurance is defined by Patton (2002) as the systematic collection of information to make judgments, improve programme effectiveness and/or generate knowledge to inform decisions about future programmes. Evaluation may be formative, providing feedback for improvement, or summative, assessing merit or worth. It may be internal, conducted by program staff such as “M & E” officers in development programs, or external, conducted by outside evaluators who provide third party validation or examine questions of special interest. The result of hypothesis four showed relative influence of quality assurance measures to job performance among academic staff of public Colleges of Education in Ogun State. Regression coefficients showing relative influence of quality assurance measures (inspection, monitoring and evaluation) on job performance of academic staff of public Colleges of Education. Regression coefficients on Table 4 indicate that evaluation cluster of quality assurance ($\beta = .201$; $t = 3.288$; $p < .05$) makes the most

prediction influence to job performance among academic staff of public colleges of education in southwest Nigeria. Next to evaluation in prediction influence towards job performance among academic staff of public Colleges of Education in Ogun State is monitoring ($\beta = .133$; $t = 2.208$; $p < .05$). The relative influences of both variables are significant. Inspection ($\beta = -.002$; $t = -.036$; $p > .05$) makes the least prediction influence to job performance among academic staff of public Colleges of Education in Ogun State. In addition, the prediction influence was not significant.

Conclusion

Based on the findings of the study it was concluded that the level of job performance among academic staff in public Colleges of Education in Ogun State revealed that the rating job performance of academic staff in public Colleges of Education in Ogun State by the Heads of Departments was very good. It was concluded based on the findings from the study that there is a difference in job performance between academic staff in Federal and State Colleges of Education and that academic staff of Federal Colleges of Education perform better and higher than academic staff in State Colleges of Education.

It was also concluded in the study that inspection has significant relationship with job performance of academic staff in public Colleges of Education in Ogun State. It was concluded that monitoring dimension of quality assurance has direct relationship with job performance of academic staff in public Colleges of Education in Ogun State.

Evaluation also had relationship with job performance of academic staff in public colleges of education. There was also relationship between job satisfaction and job performance among academic staff of public Colleges of Education in Ogun State.

Conclusion made based on the findings from the study is that the quality assurance measures contributed to job performance of academic staff of public Colleges of Education in Ogun State. Evaluation cluster of quality assurance had the greatest contribution to job performance of academic staff in public Colleges of Education and this is followed by monitoring. Inspection was found to contribute the least to job performance of academic staff in public Colleges of Education in Ogun State.

Recommendations

Based on the findings of the study, the following recommendations are made:

1. Level of job performance among academic staff in public colleges of education in Ogun State Nigeria was found to be good, at the

same time, it can be improved to be better. Motivation of academic staff in colleges of education is necessary in other for them to perform very well in teaching, research and community service.

2. The quality assurance in public colleges of education in both Federal and State be improved, this can be done through improving the inspection strategies, monitoring dimension and evaluation procedure, this will further help to better the job performance of academic staff in public Colleges of Education.

3. Effort should be made by the school management of public colleges of education to improve in the area of inspection of members of academic staff, this is necessary as a result of the lowest contribution inspection had on job performance of academic staff in public Colleges of Education in Ogun State Nigeria.

4. Effort should be made by the school management of public Colleges of Education to improve in the area of inspection of members of academic staff, this is necessary as a result of the lowest contribution inspection had on job performance of academic staff in public Colleges of Education in Ogun State.

REFERENCES

- Adeyanju, H.I, and Olaniyi, O.S. (2018). Quality assurance in higher education institutions and graduate employability in Nigeria. *Multi-disciplinary Journal of Academic Excellence*, 12(1), 151-163.
- Afolabi, F.O. and Loto, A.B. (2018). The headmasters and quality control in primary education through effective intra school supervision in Nigeria. *Journal of Teachers Perspective (JOTEP)*, 3(2). 4-25.
- Akinsanya, O.O. (2018). The influence of some demographic factors on job satisfaction on academic staff in tertiary institutions in Ogun State, Nigeria. *Research on Humaniti and social sciences*. 13(5), 2224-5766
- Akpan, C.P, (2019). ICT competence and lecturers' job efficacy in universities in Cross River State, Nigeria. *International Journal of Humanities and Social Science*. 4(10), 259-266.
- Ajayi, I.A., and Ekundayo, H.T. (2018). The deregulation of university education in Nigeria: Implications for quality assurance. from <http://www.nobleworld.biz>
- Ehindero, S. (2018). Accountability and quality assurance in Nigerian education. Paper presented at the international conference of the Institute of Education, Olabisi Onabanjo University, Ago - Iwoye. (Jan. 12th - 15th).
- Federal Ministry of Education (2009). Quality assurance handbook for basic and secondary education in Nigeria edited by Oyinloye, E.M., Ochuba, V.O. and Azubuike, C.U.
- Fischer, C.F (2019). Supervision of instruction <http://www.stanswartz.com/adm.txt/chap3.htm> retrieved 20th march 2013
- Glickman, C.D. (2019). *Supervision in tranisition*. Alexandria, ASCD)
- Igwe, S.O. (2019) Supervision, evaluation and quality control in Education in N.A. Nwagwu (ed.). *Current Issues in educational Management in Nigeria*, Ambik Press Ltd.
- Ijaiya Y (2017). From quality control to quality assurance: A panacea for quality education in Nigeria schools. Paper presented at the third annual conference of the National Association of Educational Administration and planning held at University of Benin.
- Obadara, O.E. (2018). *Fundamentals of educational administration*. Lagos Gafets Publications.
- Ogunyebi, L. A. (2018). *Personality, attitude and leadership factors and job performance of employees in educational institutions*. NAEAP.
- Osuala, O (2018). *Journal of Emerging Trends in Educational Research and Policy Studies (JETERAPS)* 3(6):837-841 (ISSN:2141-6990)
- Patton, M. (2002). *Qualitative evaluation and research methods* (2nd ed.). Sage
- UNESCO. (2007). *Understanding and assessing quality*. Paris: International Institute for Educational Planning (UNESCO).
- United Nations Development Programme. (2012). 2010 Ghana Millennium Development Goals Report. UNDP/NDPC/GOG.

Appraisal of Early Child Care and Development Education in Nigeria: Policy Implications for Establishing ECCDE

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ABSTRACT

This study emphasized that early childhood education is the first stage of formal education. There is need to ensure proper care is given to the young children by people other than their relatives especially in making sure they have access to good and quality education. It is also specified that there is need to ensure the medium of instruction to be primarily the mother tongue or language of immediate environment. The study provided a reflective review of licensing requirement for the establishment of early childcare and development education. It is therefore emphasized that education of the Nigeria child could be a mirage if the role of early childcare and development education in Nigeria is compromised. Government should give special attention to Early Childcare and Development Education and primary education in Nigeria. A comprehensive guideline for establishing ECCDE and primary education should be given to school proprietors or non-governmental organizations involved in school business. There is need to create awareness among school proprietors on how to provide enabling environment for pupils under their watch. UBEC should encourage close collaborative partnerships, welcome contributions and full involvement of all education stakeholders at all levels.

Keywords: *Early Childcare and development, Primary Education, Universal Basic Education*

Introduction

Early childhood education is the term commonly used to describe the formal teaching and care of young children by people other than their families and usually in settings outside of the home. The age bracket for Early Child Care and Development Education is between 0-4 years (FRN, 2014). This is the education

given in an educational institution to children prior to their entering the primary school. Oniyama (2011) emphasized that early childhood development and education is the overall development of the child from crèche, nursery and kindergarten to develop the child socially, physically and intellectually. It encompasses the care,

development and education of children below the age of six years. Pre-primary education is given in an educational institution to children aged 3-5 years plus prior to their entering the primary school. During this time, a person's brain develops at a rate that is nearly as fast as it can ever develop again. Developmental milestones including as walking, speech, self-esteem, worldview, and moral compass setting occur during this time.

Maduiké (2011) defined a child as an offspring of human parents that include a son or daughter of either sex less than the age of maturity. In Nigeria the age of maturity for any citizen is 18 years. The United Nations Convention on the Rights of the Child supports that a child is an individual under the age of 18 who could be considered a minor because any decision taken at this age is assumed to be guided under an adult guidance or instruction (Banks, 2011). This means early education is a special kind of education provided in an institution for children, prior to their entering the primary school. Salami (2017) opined that early childhood education is a semi-formal education arrangement usually outside the home in which young children, beginning around the age of three, are exposed through play activities in a group setting to mental, social, and physical learning suited to their developmental age

until the mandatory age of government approved formal schooling.

The National Policy of Education (FRN, 2014) highlights the objectives of early child care and development education in Nigeria. This includes:

- i. Effecting a smooth transition from home to school.
- ii. Preparing the child for the primary level of education.
- iii. Providing adequate care and supervision for children while their parents are at work.
- iv. Creating individuals who are responsible citizens.
- v. Inculcating in the child the spirit of enquiry and creativity through the exploration of nature and the local environment, playing with toys, artistic and musical activities, etc.
- vi. Teaching cooperation and team spirit.
- vii. Teaching the rudiments of numbers, letters, colours, shapes, forms, etc., through play.
- viii. Teaching of good habits, especially good health habits.

The attainment of the stated objectives of early child care and development education in Nigeria is achievable when pre-primary sections in existing public schools are established. This can be by encouraging both community and private efforts in the provision of early child care and development education facilities within the

community (Salami, 2017). There should be room for teacher education to absorb ECCDE specialized courses. This serves as a medium through which the fresh teachers in training can be adequately prepared for the integrities involved in early childcare education.

In making the National Policy of Education objectives achievable, there is need to ensure that the medium of instruction is primarily the mother tongue or language of the immediate environment. At this stage of childhood development, educational mode of instruction and text materials should be produced in diverse Nigeria languages and the need to develop the orthography of these languages to aid easy understanding on the various subject matters introduced to the children at this stage. The NPE ensures that the main method of teaching in the childhood education centres will be through play. It therefore emphasizes that the curriculum of teacher education is appropriately oriented to achieve this by regulating and controlling the operation of early child care and development education. This led to the teacher-pupil ratio set at 1:15.

Consideration for Starting Early Childcare Development Education (ECCDE).

Before any ECCDE center is being set up, there is need for the following considerations:

- Check for appropriate child care facility depending on the number of children to be catered for per time. This could be in the home environment or a rent facility.
- Check the laws or the child care licensing necessary in setting up a child care facility in the location of establishment. There is need to obtain license from local department of public welfare, department of health and human services or a similar agency.
- Obtain a licensing packet from the appropriate agency in your jurisdiction.
- Review the jurisdiction's licensing packet for minimum requirements needed to secure licensing. This could include the proprietor or director of a child care centre must have a college, university or Postgraduate diploma in Education.
- There is need to attend an orientation exercise that could expose one to proper child care strategies.
- Submit to a background check. In some countries, individuals have to submit to criminal record and child abuse clearance checks before they can be licensed.
- Inspection of home or child care facility is required to ensure that it meets required standards.

- Complete any additional training that is required in your state e.g. first aid training before you receive a license.
- Schedule a medical examination and tuberculosis test. It will be required to submit a health examination form that demonstrates that parties involved in the setting up of the facilities are in good health.
- Submit a completed application and the required fee to the address listed in the application packet.
- Allow inspectors into your daycare home or child care facility if necessary.

Licensing Requirements for Establishing Early Childcare Development Education

Most state require Day care facilities to obtain day care / childhood care licensing, which involves:

- Completing an application form.
- Paying a fee and demonstrating that you meet state licensing requirements.
- To visit the National Resource Centre for Health and safety in child care and Early Education to find licensing requirements listed by state.
- The associate (or paraprofessional) works in the classroom under the direction of the teacher in charge. They typically work with one or more pupils at once. An undergraduate degree may be sufficient for this post in many cases.

- Childcare facilities, nannies, and babysitters. Typical workday activities include feeding, washing, playing, and other forms of mental uplift for employees. Salary increases are possible after completing a certificate or associate's degree program in early childhood education.
- The state may require or recommend that a childcare center's administrator have a bachelor's degree in Early Childhood Education or a certificate in Child Development. Administrative tasks including the training and supervision of facility staff are within the purview of this position.
- Special Educator Instructor: this position also requires training beyond that of a typical classroom educator. Students with social, physical, or emotional challenges will be the focus of the special education teacher's attention.

The Federal Republic of Nigeria (FRN 2014) established rules on minimum criteria for the operation and establishment of ECCDE/Pre-elementary schools, which serve as the basis for Nigeria's minimum level for utilization of teachers. These rules are as follows:

- i. Teacher: pupil ratio for three to five years (KG1- 3) is 1:25

- ii. Teachers should have a minimum qualification of NCE to teach in early childhood sector schools but university graduates in education is recommended.
- iii. School heads should have a degree in education in early childhood education
- iv. Care givers, cleaners, nannies should have a minimum qualification of primary leaving certificate/school certificate NECO/ WAEC.
- v. Schools should have and keep all relevant records.
- vi. Schools should have standard classrooms each measuring 7m by 7.5m with blackboards and space for expansion.
- vii. Schools should have an administrative block with easily accessible offices for the head teacher, assistance head teacher and bursar with store.
- viii. A common staff room big enough to seat all teachers during staff meeting.
- ix. An assembly hall convertible to classroom.
- x. School furniture such as chairs and tables suitable for the ages and sizes of children, made of polished wood or formical surface using light material, without sharp edges.
- xi. Teacher's tables should have drawers within built racks for storing class text books.

- xii. Playground within walking distance for children to play.
- xiii. Electricity supply to operate machines and to provide minimum comfort for staff and pupils.
- xiv. Transport (bus and boat) for official use for staff and pupils.
- xv. Certified potable water supply.
- xvi. An equipped clinic with a qualified resident nurse and a first aid box and a trained first aid teacher for early childhood sector.
- xvii. Resting / sleeping facilities for the pupils.
- xviii. Separate water closets or ventilated improve toilets for pupils
- xix. All buildings and equipment must conform to approved standards.

Pillars of Early Child Care and Development Education

The five pillars of early childhood education are interdependent and form the basis of a child's future education and growth. This include family centered practices, children's learning, natural environments, adult learning and quality teaming. Children's interpersonal relationships, as well as their capacity to empathize, cooperate, and exchange information, are linked to the social aspect of their development. The academic aspect is focused with how young children make sense of their surroundings, while the physical aspect is concerned with the

development of gross and fine motor abilities. Creative growth allows children to learn through music, sketching, and reading, whereas emotional growth emphasizes self-confidence, self-awareness, and knowledge of emotions. The goal of early childhood education, is to expose the children to a set of programs focused at shaping their behaviors before they start elementary school and better prepare them for success in school.

It is generally agreed that a child's formative years are the most crucial for laying the groundwork for the cognitive, linguistic, perceptual, social-emotional, and motor skills necessary for future success and social functioning. According to Banks (2011), human progress can be traced back to the development of children. It's tied to making an effort toward and achieving a life worth living. The brain, the personality, and the social behavior all take shape throughout the first few years of a person's life. The value of certain mental, physical, and social skills has been confirmed by studies on brain development. The capacity for learning is impaired if these foundational skills are not effectively developed from the outset, especially in the case of neurological impairment.

Children's self-esteem flourishes when they have the chance to engage with others, both their classmates and adults, which is why pre-primary/ECCDE education is so

crucial. Children who are particularly aggressive in group settings can benefit from pre-primary school by developing their independence and learning to work with others. Through their contacts with peers and adults, children expand their horizons of knowledge and acquire competence in their environment (NAFEYC, 1998). It eases the child's transition from home to school and introduces him to individuals outside of his immediate family, pre-primary education is important for the child, his parents, and society as a whole. Children's cognitive skills are honed at the pre-primary school as they learn rhymes and songs, and their bodies are strengthened while they play on the slides and swings. The emotional growth of youngsters is aided by structured play with building blocks, puzzles, baby dolls, and teddy bears.

Studies on Early Childcare and Development in Nigeria

Researchers in Nigeria compared the academic outcomes of nine Primary 1 and Junior Secondary School (JSS) pupils who attended preschool (Nigeria Education Survey 2015). The capacity to read, comprehend, and do basic mathematics is considered a baseline indicator of performance. This estimate suggests that compared to pupils who did not attend pre-school, 76% of those who did go were able to reach the minimal threshold in

numeracy. Similarly, it is anticipated that 69% of pre-schoolers will be literate, compared to 33% of those who did not attend pre-school. Factors such as parental education and income may also contribute to the observed performance gap of 11% in numeracy and 8% in literacy, respectively. Therefore, it can be concluded that the underinvestment in ECE is contributing to the education crisis currently plaguing Nigeria.

As part of their research on ECE, Adeyemi, (2008) looked at the concept of ECE excellence in Ekiti State. Using a descriptive survey design, this study examined the quality of preschool programs in 12 different private institutions across the Ado-Ekiti LGA in Ekiti State. One hundred twenty educators and school administrators were polled using a conventional, 20-item questionnaire. The data was analyzed using statistical methods like means and percentages. The research showed that the quality of preschool programs is high, with the majority of children's teachers and administrators rating their classrooms as satisfactory or above. It has been discovered that the academic staff is lacking in quality, and that parents are not very interested in the running of the schools.

Report on Education in Ontario (2014), published by the Ontario Institute for Studies in Education in Toronto. Staffing,

however, is a major issue. There are issues with the number and caliber of teachers being hired to serve the public. The cause for this is due to the ineffectiveness of the hiring procedure. With a total student population of 3,015,041 and a total teacher population of 52811, the teacher-student ratio in Nigeria's pre-primary schools is 1:58, according to data from the Universal Basic Education Commission (2014). This means that an additional 60,000 to 70,000 teachers are needed to teach in these institutions. Adequate human resources exist when they have been adequately trained and deployed to satisfy the needs of the student body. Number of educators needed is proportional to student population at any given time (Akinsolu, 2011).

Staff Quality of Early Childcare and Development in Nigeria

Staff quality is crucial to the success of any educational system (Sutcher, Darling and Carver, 2016). The goal of early childhood education in the twenty-first century is to produce a teacher who is expert in pedagogical skills so that the learner will be properly guided in contributing to the development of their society. Adequate staff needs in early childhood education refers to either the quantity or quality of available educators in this field. Recruiting and selecting qualified individuals to interpret and implement curriculum

programs is the first responsibility of human resource management. One teacher for every ten (10) students in crèche (ages 0-4) and one teacher for every twenty-five (25) students in nursery (ages 3-5) is the minimum recommended ratio. However, the implementation standards for primary education specify the following staffing levels as necessary for primary education to be fully implemented:

- There should be one teacher/care giver and one helper to twenty-five (25) pre-primary school children of 5 years old per class.
- Care givers/teachers should have a minimum of NCE in early childhood Education or any other NCE holder with training in pre-primary education.
- Teachers/caregivers to be employed in pre-primary school should undergo background checks to ensure that they are not people of questionable character or with criminal records.
- Caregiver should undergo medical check to ensure that they are medically fit.
- Caregivers should not be less than 21 years at the time of employment.
- Helpers/nannies should not be less than 21 years at the time of employment.
- Able-bodied and responsible member of the community with minimum of a

primary school certificate should be employed as security personnel.

- Head teacher should have basic training on early childhood education.
- Personnel employed in pre-primary schools should be people with a passion for little children.
- Cleaners with minimum of primary school certificates should be employed to the school premises clean (FGN/NERDC 2019).

In a study by Abdulhamid et al. (2014), they posit that early childhood curriculum can be built by making choices about how to structure lessons, how to facilitate student learning, and how to implement specific methods of teaching. Various observational methods should be applied to early childhood educators to better comprehend the roles they play in delivering the curriculum. Supply and demand for educators is a key factor in determining workforce quality and quantity (Salami, 2017). Teachers unlike other state employees have access to training programmes like workshops and seminars. The objectives of staff development programme include among others:

- i. To develop skills in individualizing classroom instruction,
- ii. To acquire a mastery of the subject matter for which the teacher is responsible,

- iii. To provide instructional leadership and to maintain control of the classroom,
- iv. To develop an understanding of the function of education in a society in relation and
- v. To develop the social, economic and governmental structure.

In order to achieve progress in ECCDE, educators must receive training in methods that maximize productivity and foster the growth of workers' knowledge, skills, and abilities to their utmost potential (Ezeh, 2013). The federal and state departments of education are responsible for hiring teachers and other educational personnel. Adults who work in licensed child care, nursery schools, preschools, and kindergartens and who have ECE post-secondary credentials and are recognized by provincial/territorial legislation as qualified to teach in these settings are referred to as early childhood educators.

The Administration of Primary Education in Nigeria

The administration and control of education is vested by law in the Federal and State Governments. Some responsibilities are, by delegation vested in the local governments.

In order to ensure effective administration of education and to see that educational objectives are attained, both the federal and state governments established a number of parastatals and institutions charged with the

responsibility for various levels of educational institutions. The administration of primary school is delegated to the local governments.

In 1989, the Federal Military Government inaugurated the National Primary Education Commission (NPEC). As a result of this, the Primary Education Edict No. 31 of 1988 was amended in 1993 and renamed National Primary Education Commission Decree No. 96. The functions of the Commission includes prescribing the minimum standards of primary education throughout Nigeria. It inquires into and advise the Federal Government on the funding of primary education in Nigeria. The Agency receives the National Primary Education Fund as established by this Decree from the Federal Government and allocate the fund to the Primary Education Board of each state and the Federal Territory, Abuja, and to any commission responsible for the Federal Government sponsored Special Primary Education Projects in accordance with the formula prescribed in this Decree as the Transitional Council, may from time to time prescribe. It collates after consultation with all the State governments, periodic master plans for balanced and coordinated development of primary education in Nigeria. The Commission sends proposals to the Federal Government for equal and adequate primary education opportunity in Nigeria.

It ensures that the basic national curriculum and syllabus and other necessary instructional materials in use in primary schools in Nigeria. This is actualized by collating, analyzing and publishing information relating to primary education in Nigeria. The commission carries out a regular personal audit in each state of the federation and other activities under this Decree and such other functions as the Secretary may, from time to time determine.

The National Primary Education Commission (NPEC) ensures that standards in primary schools are maintained and that teachers' salaries are paid as and when due. Any policy formulated by the NPEC is implemented in the primary schools through the State Primary Education Board (SPEB) and the Local Government Education Authority. However, in 2004, an Act of the National Assembly known as the Compulsory, Free, Universal Basic Education Act, 2004 was passed. This Act established the Universal Basic Education Commission (UBEC) which replaced NPEC. The UBE Act of 2004 provides for compulsory, free universal basic education for all children of primary and junior secondary school age (6years -15 years) in the Federal Republic of Nigeria (UBEC, 2014).

Universal Basic Education Commission

The Universal Basic Education Commission simply known as UBEC is a Nigeria's Federal government Agency that has the mandate to formulate and coordinate all programmes of the Universal Basic Education programme prescribe the minimum standards for basic education in Nigeria. The Universal Basic Education Commission (UBEC) was established by the Compulsory, Free Universal Basic Education and Other Related Matters Act of 2004 to eradicate illiteracy, ignorance and poverty as well as to stimulate and accelerate national development, political consciousness and national integration to fulfil the national philosophy and goals of education which underlines with the country's aspiration to social, economic and political development. The Universal Basic Education Commission (UBEC) is Federal governments agency saddled with the responsibility for coordinating all aspects of UBE programme implementation. The Universal Basic Education Programme was introduced in September 30, 1999 by the Federal Government of Nigeria as a reform programme aimed at providing greater access to, and ensuring quality of basic education throughout Nigeria.

Functions of UBEC

The Universal Basic Education Commission (UBEC) law (UBE Act, 2004)

established the commission as the intervention agency responsible for the disbursement of the Federal Government Universal Basic Education Intervention to states and other stakeholders and the coordination of the implementation of the UBE programme throughout Nigeria. The Law defines Basic education to include: "Early childhood care and development education, nine years of formal schooling (6 years of primary and 3 years of junior secondary education), adult literacy and non-formal education, skills acquisition programmes and the education of special groups such as nomads and migrants, girl-child and women, almajirai, street children and disabled groups" (UBEC, 2014).

UBEC performs the functions of formulating the policy guidelines for the successful operation of the Universal Basic Education Programme in the Federation. It receives block grants from the Federal Government and allocates to the States and Local Governments and other relevant agencies implementing the Universal Basic Education in accordance with an approved formula as may be laid down by the Board of the Commission and approved by the Federal Executive Council; provided that the Commission shall not disburse such grants until it is satisfied that the earlier disbursements have been applied in accordance with the provisions of this Act. It prescribes the minimum standards for

basic education throughout Nigeria in line with the National Policy on Education and the directive of the National Council on Education and ensure the effective monitoring of the standards. It enquires into and advises the Federal Government on the funding and orderly development of basic education in Nigeria.

The Commission collates and prepare after consultation with the States and Local Governments, and other relevant stakeholders, periodic master plans for a balanced and coordinated development of basic education in Nigeria including areas of possible intervention in the provision of adequate basic education facilities which include; proposals to the Minister for equal and adequate basic education opportunity in Nigeria; the provision of adequate basic education facilities in Nigeria; and ensures that the Basic Education Curricula and Syllabi and other necessary instructional materials are in use in early childhood care and development centres, primary and junior secondary schools in Nigeria (FGN/NERDC, 2019).

Objectives of UBEC

Some of the objectives of Universal Basic Education Board includes:

- ensuring unfettered access to nine years of formal basic education,

- the provision of free, universal basic education for every Nigerian child of school-going age,
- reducing drastically the incidence of drop out from the formal school system, through improved relevance, quality and efficiency and ensuring the acquisition of appropriate levels of literacy, numeracy, manipulative, communicative and life skills, as well as the ethical, moral and civic values needed for laying a solid foundation for lifelong learning.

Purpose of UBEC

The Universal Basic Education's purpose is to serve as a prime energizer of national movement for actualization of the nation's vision, working in concert with all stakeholders. This will mobilize the nation's creative energies to ensure that education for all becomes the responsibilities of all (UBEC, 2014).

UBEC Policies and Contribution as Regarding Education

It is very necessary for UBEC at federal, state and local level to make environment conducive for digital literacy among the teachers in the course of discharging their duty in the classroom. Teachers are expected to focus attention on how use to digital resource such as white marker board, computer, Information Communication and Technology (ICT), among

others. This will enhance effective teaching and learning. For digital literacy to take root in each state and Nigeria as whole, UBEC as promoters are expected not only to be sensitive to such strong sentiments but also they must tap into the vast cultural and linguistic resources in the local communities to meet the educational needs. Another responsibility of UBEC is to promote usage of computer that will serve as potential of making the teachers' work easier and more efficient in lesson preparation, presentation, and record keeping in the school system (Abdulhamid, Assad & Almustapha, 2014).

UBEC through close collaborative partnerships among, State Universal Basic Education Commission (SUBEC), Federal Teachers Scheme (FTS); Curriculum Improvement and programs Local Government Education Authorities (LGEAs) and Basic Education stakeholders at all levels. In addition to these partnerships, there is need to welcome contributions and full involvement from all individuals, corporate entities, civil societies and Community Based Organizations (CBOs), Inter-Agency Cooperation. These contributions could also be achieved through collaborations with International development Partners; Parent Teachers Association (PTAs), Non-Government Organizations (NGOs),

Multinational Companies in the drive to achieve Education for All (EFA) and Millennium Development Goals (MDGs) by 2023.

Apart from partnership and joint organization, the following are also considered as part of the implementation strategies to ensure hitch-free implementation which include the following:

- i) Effective monitoring of UBE implementation;
- ii) Teacher professional development;
- iii) Education of the girl-child and other disadvantaged groups being given greater attention than ever before;
- iv) Improved infrastructural developments;
- v) Transformation of the education terrain as it affects basic education in the area of school infrastructural development.

Conclusion

It can be concluded that majority of the Early Childcare and Development Education establishments are licensed and expected to be licensed by the government of each state. The exposure of these children to schooling at the right age (3 -5 years) encourages social interaction among them. It is significant to note that this fosters and helps them build good relationship with their peers and others as they grow up.

Recommendations

Based on the foregoing, the following recommendations were made:

- i. Government should give special attention to Early Childcare and Development Education and primary education in Nigeria.
- ii. A comprehensive guideline for establishing ECCDE and primary education should be given to school proprietors or non-governmental organizations involved in school business.
- iii. There is need to create awareness among school proprietors on how to provide enabling environment for pupils under their watch.
- iv. UBEC should encourage close collaborative partnerships, welcome contributions and full involvement of all education stakeholders at all levels.

REFERENCES

- Abdulhamid, I. Assad & Almustapha, M. (2014). *Quality Teaching*. Ibadan: Fowohan Pub.
- Adeyemi, T.O. (2008) Influence of Class Size on the Quality of Output in Secondary Schools in Ekiti State. *American Qurelsian Journal of Scientific Research*, 3(1), 7-14.
- Akinsolu, A. O. (2011). Resource Utilization and Internal Efficiency in Nigerian Secondary Schools: Implications for Social Problems of Education. *International Journal of Sociology and Anthropology*, 4(1), 3-30.
- Banks, A.O. (2011). Productivity Commission, *Early Childhood Development Workforce*, Research Report, Melbourne. JEL code I28, J13, J24
- Ezeh, C. (2013), *Management Human Resources: Issues, Development and Utilization*, Nimo: Rex Charles Publisher.
- Federal Republic of Nigeria (2014). *National Policy on Education* (4th Ed.) Lagos: NERCDC
- Maduiké, M. I. (2011). Early childhood education: a tool or sustainable development. *Journal of the National Education Association of Nigeria*. NEAN Publishers Nigeria National Association for the Education of Young Children.
- National Association for the Education of Young Children (NAFEYC) (1998). *Code of ethical conduct*, Washington D.C. Author.
- Oniyama, H.O. (2011). *Introduction to early childhood care education*. Ughelli, Delta State: Eregha Publishers.
- Salami, I.A. (2017). Nigerian Early Childhood Education Policies and Practices For Sustainability. *European Journal of Research and Reflection in Educational Sciences* Vol. 4 No. 5, 2016 ISSN 2056-5852.
- Sutcher, I., Darling, H.I. & Carver, T. D. (2016). A coming crisis in teaching? Teacher supply, demand, and shortage in the U.S. Palo Alto, CA; Learning policy Institute. Retrieved from https://learningpolicyinstitute.org/site/default/file/A_coming_Crisis_in_Teaching-REPORT.pdf.

Influence of Disaster Management on Librarian's Work Environment in University Libraries in South-South, Nigeria

By

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ABSTRACT

This study investigated the influence of Disaster Management on Librarian's work environment in University Libraries in South-South, Nigeria. Descriptive survey research design of the correlational approach was adopted for the study. Population of the study was 402 respondents. The study adopted total enumeration sampling technique. Structured questionnaire was used for data collection. The data collected were analysed using frequency count and statistical mean. Criterion mean was 2.50. The findings indicated a significant correlation between librarians' work environment and disaster management with work environment significantly affecting disaster management. The study also revealed that disaster management in university libraries which includes disaster recovery assists in restoring damaged equipment, physical buildings as well as human lives to normal, disaster prevention assists in reducing ill effects of disasters such as rise in temperature resulting from rain, theft, water, electrical spark, power surge, glacier melt and expansion of ocean, disaster response helps to rescue human lives, information resources and the entire environment in my library among others is high. Librarians' work environment toward disaster management which includes my library is well ventilated, workspace is conducive, the work environment is free of violence, the reflection of sunlight is moderate, lightning level of my library is very adequate, and inadequate security may lead to disaster among others are positive. The study concluded that librarians' work environment significantly predicted disaster management. The study therefore, recommended that university libraries must ensure that work environment of librarians is conducive, and library management should regularly organize seminars, conferences, and workshops to promote disaster management.

Keywords: *Librarians, Librarians' Work Environment, Disaster Management and University Libraries*

Introduction

University libraries the world over, are the heart of universities and the pivot upon which

academic activities revolves. These libraries acquire, process, store and disseminate

valuable information resources to support academic activities. Onuoha, Ukangwa and Ofuza, (2020:2) described university library as a powerhouse responsible for the provision of information resources. These resources are fragile and prone to disaster, hence, the need to undertake this study tailored toward disaster management. Thus, librarians' believe that the physical buildings, human, and material resources are susceptible to disaster such as fire outbreak, flood, water, war, theft, rodents, pests, leakages of roof, mould or windstorm. The term disaster management is a technique that ensures mitigation of unforeseen disasters. Therefore, disaster management as used in this study, is the action or measure undertaken by librarians to protect and preserve the library buildings and information resources inherent in them from destruction. Disaster management is an important issue that must be taken seriously by librarians because, not all disasters can be prevented (Bansal, 2015:11). Rehman (2014:319) stated that library materials as well as the building are prone to disaster. However, good disaster management can prevent disaster like fire, flood, leakages of roof, earthquake, windstorm, rainstorm, theft, rodents or mutilation from occurring, and if they occur, the effect could be enormously minimized. In

addition, the aim of disaster management is to mitigate disaster as well as identify their causes and solutions (Sahoo & Senapati, 2017). Bansal (2015:11) described the concept to include condition which encompasses disaster control planning; risk assessment; training; and finance. Disaster control planning is described as the counter measures which can be on a large or small scale according to needs, ability, or financial resources of libraries. Disaster management includes the development of disaster recovery plans, reducing risk of disaster and the implementation of plans that hinge on disaster. Ibitoye (2012) as cited in Eze and Obioji (2019:85) opined that, disaster management is the coordination and integration of all tasks necessary to build, sustain and improve the ability for disaster prevention. Chakrabarti and Pramanik (2017:208) revealed disaster management is a procedure by which library staff manage disaster together. The authors explained that individuals must have knowledge about risks to identify disaster early. Similarly, Sahoo and Senapati (2017) stated that disaster management is cyclic. This means that the end of one phase is the beginning of another. Therefore, librarians must have positive attitude towards disaster management to prolong the existence of physical buildings

and information resources. This can only be achieved under a conducive work environment.

The concept environment as defined by Hornby (2020:520) referred to “the condition in a place that affect the behaviour and development of individuals or things”. Agada and Tofi (2020:15) described work environment as “the physical, social, psychological and technological conditions which are found in the work places that impact on the job performance of library personnel”. Thus, librarians’ work environment as used in this study refers to the conditions in the university libraries which may affect librarians behaviour negatively or positively toward disaster management. These conditions include ventilations, lightning; sunlight, adequate facilities, spacious workplace and adequate security. However, disaster management in university libraries refers to the preparation, response, and recovery actions undertaken by librarians to preserve library collections, services, and infrastructure from destruction. Furthermore, librarians must be proactive, collaborative, and focused on ensuring the safety of library resources, staff, users, and other valuable materials. This requires ongoing training, regular risk assessment, and the development and implementation of effective disaster

management plans. Thus, this can only be achieved under a conducive work environment.

Statement of the Problem

The need for disaster management in university libraries is very crucial. It is a preservative measures undertaken by librarians to rescue information resources, physical buildings and other related materials from disasters. Thus, information resources are essential for the development of academic system. Preliminary observation by the researcher revealed that millions of these resources are sometimes destroy by either man-made or natural disaster such as flood, fire outbreak, leakages of roof, rainstorm, windstorm, theft, rodents, pests, earthquake, terrorism or mould, which could be due to rise in temperature resulting from heavy rain, water from the burst pipes or taps carelessly left opened by the library staff or electrical spark. This affects the safety of the buildings, collections, equipment and systems, which could lead to loss of current and relevant information. The loss of these resources could be devastating and capital intensive. However, the existence of these resources can be prolong through disaster management. Unfortunately, the level which disaster management is practise in Nigeria university libraries is very poor and below standard.

Consequently, the study set out to empirically investigate Influence of Disaster Management on Librarian's work environment in University Libraries in South-South, Nigeria.

Objectives of the Study

The main objectives of this study is to investigate the relationship between librarians' work environment and disaster management.

Specifically, it is set out to:

- i. Assess the extent of how librarians' work environment influences disaster management in university libraries;
- ii. Determine the extent of disaster management in university libraries.

Research Questions

The study is guided by the following research questions:

- i. To what extent do librarians' work environment influence disaster management in university libraries?
- ii. What are the extent of disaster management in university libraries?

Review of Related Literature

Influence of Librarian's Work Environment on Disaster Management

Librarians' work environment is crucial for enhancing disaster management activities (Onuoha et al, 2020). Humphries (2005) stated the characteristics of work

environment to include ventilation rate; sunlight, lightning and conducive environment. Onuoha et al (2020) revealed that private university libraries may have an unfavourable work environment which could potentially result in detrimental outcomes such as increased absenteeism and high employee turnover rates. However, the authors also reported that libraries in private universities in South-West and South-East region in Nigeria have neat, spacious and well ventilated structures. However, the authors revealed that furniture supply, noise level and power supply were rated low. Babalola (2014) reported that conducive work environment have significant influence on librarians' research productivity. Thus information resources available in the university libraries are fragile and essential for supporting teaching, learning and research that enhance educational development. As such, there is need to organise and preserve these resources. This can only be achieved through disaster management. This implies that unconducive work environment may affect disaster management. Therefore libraries must ensure positive work environment to enhance disaster management.

Librarians' work environment is important in the enhancement of Disaster Management in

University Libraries. Oyerinde and Mayowa-Adebara (2019) found that work environment at polytechnic libraries was uncomfortable and un-conducive. However, Ogiamien and Izuagbe (2016) revealed that work environment are constraint to organisational library services. On another note, Opperman (2002) revealed that the work environment of librarians have been a serious constraint to the library services. Consequently, Amusa *et al* (2013) reported that inadequate library facilities and unconducive work environment affect organisation. Thus, university libraries depend on librarians to achieve their vision and mission regarding the preservation of the physical buildings and the information resources and services as well. Therefore, libraries must ensure a conducive work environment disaster management.

Extent of Disaster Management

The importance of the university libraries is its information resources. As such, disaster management need to be taken seriously to prevent these resources from disaster. Disaster management in library is a managerial instrument designed by the librarians to prevent and protect information resources, library buildings and humans from risk or hazards as a result of the incessant threats of disasters from either natural or man-made factors such as windstorm,

rainstorm flood, earthquake, mould, fire outbreak, theft, leakages of roof, mutilation. Alfredo (2017) described disaster management as the “ability to manage a very destructive and chaotic event, which is more of a mitigation against the various threats that arise as a result of disasters in order to lower the amount of total damage it can cause in some cases where the disaster is expected such as the possibility of nuclear terrorist attack step, that may be taken to prevent it”. Disaster management is not only responding to happenings and providing relief to the sufferers, but, also reduce the total negative impact of the event and avoiding its re-occurrence in the future (Chakrabarti and Pramanik, 2017:206). Das and Paramanik (2018:337) opined that disaster management is the range of activities designed to maintain control over disaster and emergency situations and to provide a framework to assist individuals who are at risk to avoid or recover from the impact of disaster. Similarly, Ngewa (2020) revealed that disaster management comprises preparation for disasters, prevention and covers other subjects such as risk assessment, training, and funding needed to implement it.

Disaster management minimize and improves disaster response activity for future (Chakrabarti and Pramanik, 2017). In

addition, Disaster management involves techniques that ensure preservation of information materials and library buildings. In a study by Nongrang and Khongtim (2021), it was discovered that 28.5% of librarians possess sufficient knowledge about disaster management. However, 14.28% of respondents indicated a lack of knowledge on the subject. Additionally, the authors found that although 57.15% of librarians are aware of disaster management, they do not fully comprehend the term. Rasaki (2019) carried out a study on disaster management practices in selected university libraries in Nigeria. The author revealed that none of the university libraries investigated have disaster management policy. The author also revealed lack of training and skills among library staff as factors confronting absence of disaster management. Accordingly, Choji (2014) found that only a few libraries had written disaster management plan in academic libraries investigated in Plateau State. Rutto and Otiye (2016) reported that many libraries in Africa, particularly in Kenya, lacked disaster management policies. They further stated that the disaster management plan was subjective, and library staff were inadequately trained and lacked awareness. Aminu (2014) also found that inadequate security and a lack of awareness were major

challenges to disaster management. Eze and Obioji (2019) identified inadequate funding and a lack of disaster management equipment as major challenges to the Anambra State Emergency Management Agency. This implies that due to the value of information resources in university libraries, it is necessary that librarians take disaster management seriously because, lack of disaster management affects the information resources available in university libraries as well as the buildings and services negatively. In view of the above, librarians must work under conducive environment to enhance disaster management.

Research Methods

The study adopted a descriptive survey research design of the correlational approach. The population of the study was 402 academic librarians and library officers in the Federal and State University Libraries in South-South. Total enumeration technique was used to select the sample size of 402 participants. Structured questionnaire titled, librarians' work Environment and Disaster Management (OLWEDMULSSN) was used to obtain information for the study. The questionnaire was validated for modification, clarity, and certification. The reliability of the instrument was ascertained using the Pearson Moment correlation coefficient. Split-half

reliability was employed using 30 librarians in Nnamdi Azikiwe University Library, Awka Anambra state which is outside the study area, The Spearman–Brown prophecy formula was used to obtain the reliability of the whole test (set up). Pearson Product

Moment correlation coefficient was higher than 0.50. This implies that it is reliable and appropriate for use in this study.

Discussion of Findings

The results and findings is in line with the research questions. This is discussed below

Table 1: Extent of how Librarians’ Work Environment influences Disaster Management in University Libraries

Extent of how Librarians’ Work Environment influences Disaster Management in university libraries	Strongly Agree	Agree	Disagree	Strongly Disagree	Mean
The work environment in my library is free of violence	147	222	25	7	3.27
My library is well ventilated	136	250	9	6	3.29
The lightning level of my library is very adequate	108	273	12	8	3.20
The temperature level of my library is accommodating	121	261	11	8	3.23
The reflection of sunlight in my library is moderate	119	268	8	6	3.25
The workspace in my library is conducive	135	252	8	6	3.29
The educational technology in my library is adequate	114	270	10	7	3.22
My library makes alternative power supply to support electricity power	129	251	15	6	3.25
My library has adequate supply of office tables, chair and shelves	125	257	12	7	3.25
The physical structure of my library is attractive and spacious	142	242	8	9	3.29
Inadequate security may leads to disaster in my library.	112	241	29	19	3.11
Aggregate Mean					3.24

Table 1 above, shows the responses of the respondents on the extent of librarians’ work environment. Therefore, with an aggregate mean of 3.24 it can be concluded that the extent of how librarians’ work environment influences disaster management in university libraries which includes my library is well ventilated, the workspace in my library is

conducive, the physical structure of my library is attractive and spacious, the work environment in my library is free of violence, the reflection of sunlight in my library is moderate, my library makes available alternative power supply to support the regular electricity power, my library has adequate supply of office tables, chair and

shelves; the temperature level of my library is accommodating; the educational technology in my library is adequate, the lightning level of my library is very adequate,

and inadequate security may leads to disaster in my library in university libraries in South-South, Nigeria is high.

Table 2: Extent of Disaster Management in University Libraries

Extent of Disaster Management in University	Very High Extent	High Extent	Low Extent	Very Low Extent	Mean
Disaster control planning help in proper decision making	79	286	29	7	3.09
Disaster control planning help in mitigating disaster in my library	66	295	33	7	3.05
Risk assessment assist in minimizing the impact of disasters resulting from either natural or man-made in my library	61	296	38	6	3.03
Staff training help to enhance disaster management in my library	79	293	22	7	3.11
Finance help in promoting disaster management in my library	68	290	26	17	3.02
Negligence of disaster management leads to flooding, fire outbreak, roof leakages and mould in my library	91	267	29	14	3.08
Disaster management is practiced in my library.	98	177	95	31	2.85
Disaster response helps to improve disaster management activity in my library.	104	236	47	14	3.07
Disaster management helps to prevent loss of lives and deviation of properties in my library	113	238	40	10	3.13
Disaster management is important because of the value of information materials and the services offered to users in my library	113	249	28	10	3.16
Belief that disaster prevention help to alleviate suffering and lessen damages and loss in my library	142	216	35	8	3.23
Belief that disaster prevention help to avoid repetition of past mistakes in my library	165	197	30	9	3.29
Disaster prevention assist in reducing ill effects of disasters such as rise in temperature resulting from rain, theft, water, electrical spark, power surge, glacierment and expansion of ocean in my library	169	185	41	6	3.29
Disaster preparedness helps to reduce panic, fear, anxiety, sadness, depression, financial implications and anger in my library	177	180	36	8	3.31
Disaster response helps to rescue human lives, information resources and the entire environment in my library	182	161	47	11	3.28
Emergency exit doors help in disaster preparedness in my library	147	148	91	15	3.06
Fire extinguishers help in disaster preparedness in my library	148	149	93	11	3.08

Break glass alarm helps in disaster preparedness in my library	121	159	103	18	2.96
Smoke detectors help in disaster preparedness in my library	139	152	103	7	3.05
Disaster recovery assist in restoring damaged equipment, physical buildings as well as human lives to normal in my library	184	178	30	9	3.34
Disaster management plan helps in managing disasters in my library	186	175	26	14	3.33
Disaster management plan is regularly updated in my library	87	263	43	8	3.07
Disaster management plan helps to remove fear and ensures proper decisions are taken before and after disasters in my library	86	284	25	6	3.12
Disaster management plan helps to minimize damages to collections in my library	91	278	24	8	3.13
Disaster management plan in my library is still functional.	86	263	43	9	3.06
Lack of disaster management awareness on the part of staff is a problem of disaster management in my library	82	274	38	7	3.07
Inadequate funding affects disaster management in my library	100	256	39	6	3.12
Power surge poses problem to disaster management in my library	85	258	49	9	3.04
Human error affects disaster management in my library	79	249	64	9	2.99
Nonchalant attitude of librarians affects disaster management in my library	91	250	45	15	3.04
lack of librarians' knowledge affects disaster management in my library	103	248	37	13	3.10
Regular training of staff improve disaster management in my library	121	231	39	10	3.15
Seminars, conferences and workshops help to enhance disaster management in my library	136	233	27	5	3.25
Cordial relationship between library management and staff enhances disaster management in my library	139	228	27	7	3.24
Proper electrical installation in the library enhances disaster management in my library	144	226	26	5	3.27
Aggregate Mean					3.13

Table 2 above, shows the responses of the respondents on actions of disaster management as perceived by librarians. Therefore, with an aggregate mean of 3.13 it can be concluded that the extent of disaster management which include disaster recovery assists in restoring damaged equipment,

physical buildings as well as human lives to normal in my library, disaster management plan helps in managing disasters in my library, belief that disaster prevention helps to avoid repetition of past mistakes in my library, disaster prevention assists in reducing ill effects of disasters such as rise in

temperature resulting from rain, theft, water, electrical spark, power surge, glacier melt and expansion of ocean in my library, disaster response helps to rescue human lives, information resources and the entire environment, proper electrical installation in the library enhances disaster management, seminars, conferences and workshops help to enhance disaster management in my library, cordial relationship between library management and staff enhances disaster management in my library, belief that disaster prevention helps to alleviate suffering and lessen damage and loss in my library, disaster management is important because of the value of information materials and the services offered to users in my library, regular training of staff improves disaster management in my library, disaster management plan helps to minimize damages to collections in my library, disaster management helps to prevent loss of lives and deviation of properties in my library, disaster management plan helps to remove fear and ensures proper decisions are taken before and after disasters in my library, inadequate funding affects disaster management in my library, staff training helps to enhance disaster management in my library, lack of librarians' knowledge affects disaster management in my library, disaster

control planning helps in proper decision making in my library, negligence of disaster management leads to flooding, fire outbreak, leakages of roof, and mould in my library, fire extinguishers help in disaster preparedness in my library, disaster management plan is regularly updated in my library, lack of disaster management awareness on the part of staff is a problem of disaster management in my library, disaster management plan in my library is still functional, emergency exit doors help in disaster preparedness in my library, disaster control planning helps in mitigating disaster in my library, smoke detectors helps in disaster preparedness in my library, power surge poses a problem to disaster management in my library, nonchalant attitude of librarians affect disaster management in my library, risk assessment assists in minimizing the impact of disasters resulting from either natural or man-made in my library, and finance helps in promoting disaster management in the university libraries in South-South, Nigeria is high.

Discussion of Findings

This section reported results of findings

Influence of Librarians' Work Environment on Disaster Management

Findings of the study revealed that the influence of librarians' work environment on

disaster management which include the libraries are well ventilated, have conducive workspace among others is high. Findings also revealed that work environment of the university is free from violence; reflection of sunlight is moderate and the temperature level is accommodation.

Actions of Disaster Management

Findings revealed that the extent of disaster management is high. This finding is in agreement with Chakrabarti and Pramanik (2017) who found that disaster management minimize disaster and improves disaster response activity for future. This finding is also in line with the study of Rehman (2014) which reported that disaster management is important because of the value of the information materials, services offered to users in libraries and security measures which may be affected.

Conclusion

The study examined librarians' work environment and disaster management in university libraries in South-South Nigeria. From the findings, it can be concluded that actions of disaster management in university libraries as perceived by the librarians which includes disaster recovery assists in restoring damaged equipment, physical buildings as well as human lives among others is high. Extent of how librarians' work environment

influences disaster management in university libraries which includes well ventilated, conducive work environment among others have a significant influence on disaster management.

Recommendations

In view of the findings, the study recommended the following;

- i. University libraries must ensure conducive work environment for librarians to improve disaster management.
- ii. Library management should regularly organize seminars, conferences and workshops for librarians to enhance disaster management;
- iii. Disaster management plan should be regularly updated.

REFERENCES

- Afredo, D. (2017). *Disaster management theories*.
<https://bizfluent.com>disastermanagement>.
- Agada, E. O., & Tofi, S. T. (2020). Influence of work environment and training on job performance of library personnel in university libraries in Nasarawa State, Nigeria. *International Journal of Research and Innovation in Social Science (IJRISS)*, 4(5).
- Ahmad, I.I. (2019). Attitude of academic librarians toward resource sharing activities in the Federal University libraries in Nigeria. *International Journal of Information Processing and Communication*, 7 (1), 72-82.
- Amusa, O. I., Salman, A. A., & Ajani, F. O. (2014). Occupational frustration variables of the librarians in public universities in South –West Nigeria. *The Information Manager*, 14 (1&2), 38-40.
- Babalola, G. A. (2014). Influence of job motivation, demography and environmental factors on the productivity of librarians in College of Education in Nigeria. *International Journal of Social Relevant & Concern*, 2(2).
- Bansal, J. (2015). Disaster management in libraries: An overview. *Library and Information Management. The Journal of Library and Information Management*, 6(1), 9. www.Indianjournals.com,doi.105958/2249-3182.2015.00002.7.
- Chakrabarti, A., & Pramanik, A. (2017). Disaster Management methods and techniques for library and information centres: A framework. *International Journal of Academic Library and Information*, 5(7), 206-214.
- Chaudhry, M. S. Ubaid, U. M., & Sulehri, I. (2021). Impact of workplace environment on Performance in university libraries. *Library Philosophy and Practice*, 17(1), 1–27.
- Das, B., & Paramanik, A. (2018). Necessity of disaster management in academic library: special Reference to Sethan-andramjaipuria college library. *International Journal of Research in Humanities, Arts and Literature*, 6(9), 337–344.
- Eze, K. T., & Obioji, J. (2019). Disaster management in Nigeria: A study of Anambra State, 2011-2019. *International Journal of Innovative Development & Policy Studies*, 7(4), 85–103. <https://dx.doi.org/10.1080/01960075.2010.501417>.
- Hornby, A. S. (2020). *Oxford advanced learners dictionary of current English*. Great Clarendon: Oxford University Press.
- Humphries, M. (2005). Quantifying occupant comfort. Are combined indices of the indoor environment practicable? *Building Research and Information*, 33(4), 317–325.
- Ibitoye, V. (2012). *Positioning The National Emergency Management Agency (NEMA) for better disaster management*.
<http://www.dialyindependent.com>.
- Ngewa, R. M. (2020). *Disaster preparedness in academic library in Kenya: Case of Jomo Kenyatta Memorial Library, University of Nairobi*. A research project submitted in partial requirement for the award of master of library and information science, department of library and information science, university of Nairobi.
- Nongrang, J. & Khongtim, J (2021). Disaster management of college and university libraries in Shilling: A survey. *Library Philosophy and Practice (E-Journal)*, 6198.
- Ogiamien, L. O., & Izuagbe, R. (2016). Impact of organizational and psychological factors on the job performance of personnel in private

- university libraries in South-South, Nigeria. *Journal of Applied Psychology*, 23(2), 50–65.
- Onuoha, U. D., Ukangwa, C. C., & Otuza, E. C. (2020). Work environment and job satisfaction of librarians in private universities in South-East and South-West Nigeria. *Library Philosophy and Practice*. <http://digitalcommons.uni.edu/libphilprac3606>.
- Opperman, A. N. (2002). Is there a correlation between investments in academic libraries in a higher educational institution. Rating the research assessment exercise. *New Information Perspective Journal*, 56(3), 156–165.
- Oyerinde, O.F. and Mayowa-Adebara, O. (2019). Work environment and institutional Effectiveness of Polytechnic libraries in South-West, Nigeria. *Unizik Journal of Research in Library and Information Science (UJOLIS)*, 4(1).
- Rasaki, O. E. (2019). Disaster management practices in selected university libraries in Nigeria. *Journal of the Institute of Conservation*, 42(2), 151–167.
- Rehman, A. (2014). Importance and measures of disaster management in libraries. *European Scientific Journal*, 1, 319-329.
- Rutto, D., & Otike, J. (2016). *Challenges facing disaster management in libraries in Africa*. Kenya. <https://www.academicedu/25822108>.
- Sahoo, R. K., & Senapati, T. (2017). *Disaster Management and Mitigation*. Dominant Publishers and Distributors New Delhi.

Attitude and Perception of Alcohol Sellers towards the Role of Hisbah in Ensuring Compliance to the Prohibition of Alcohol Importation and Sales in Kano State Nigeria

By

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ABSTRACT

This study examined the attitude and perception of alcohol sellers towards the role of Hisbah in ensuring compliance of the prohibition of alcohol importation and sales in Kano State, Nigeria. Two research questions were raised, and two hypotheses were formulated and tested. Descriptive research design of survey type was used in this study. The population comprised all alcohol sellers in Kano State, Nigeria. The samples of one hundred and sixty-one (161) respondents were selected from Sabon Gari community. Purposive sampling technique was used in selecting samples for this study. The instrument used for data collection was researchers' designed questionnaire. Out of sample of one hundred and sixty-one (161) copies of questionnaire administered by the researchers, one hundred and fifty-seven (157) were duly completed, returned and used for analysis. Chi-square statistics was used to test hypotheses at the 0.05 level of significance. The findings showed that alcohol sellers have negative attitude towards Hisbah's role in the prohibition of alcohol importation in Kano State ($\chi^2_{cal.} = 22.171 > \chi^2_{tab.} = 3.84$, at $df = 1$). The finding also revealed that alcohol sellers have a negative perception towards Hisbah's commitment to the Shariah law of prohibition of alcohol importation in Kano State ($\chi^2_{cal.} = 52.745 > \chi^2_{tab.} = 3.84$, at $df = 1$). Based on these findings, it was recommended that, since alcohol sellers are losing billions of naira annually to confiscation of their goods and loss of hundreds of alcohol trucks to the Hisbah Board, alcohol sellers should stop importing of alcohol into Kano State. This will go a long way in enabling alcohol sellers to use their money for establishing other profitable businesses.

Keywords: Attitude, Perception, Hisbah, Prohibition of Alcohol, Alcohol Importation, Sales.

Introduction

An alcoholic drink (also called an alcoholic beverage, adult beverage, or simply a drink) is a drink that contains ethanol, a type of alcohol that acts as a drug and is produced by fermentation of grains, fruits, or other sources of sugar. The consumption of alcoholic drinks often referred to as "drinking", plays an important social role in

many cultures (Charles & Durham, 2019). Alcohol is one of the most widely used recreational drugs in the world, and about 33% of all humans currently drink alcohol (Griswold, *et al.*, 2018).

According to Shimotsu, *et al.*, (2013), importation and sales of alcohol has emerged as important source of revenue

generation for most of the states and has been an important commodity of international trade. Analyses of the economic impact of alcohol use, abuse, and dependence can provide important information to policymakers and program planners charged with making decisions about resource allocation. Baumberg (2006) stated that the economics of alcohol has a multidimensional approach looking from the consumption patterns both at the national level, the stake-holders level and at the individual level.

Despite the economic benefits of alcohol, there are laws regulating the manufacture, packaging, labelling, distribution, sales and consumption of alcohol, which include open containers, motor vehicle drivers, transportation and importation of alcoholic drinks. Such laws generally seek to reduce the adverse health and social impacts of alcohol consumption (Irfan, 2011). In some jurisdictions, alcoholic drinks are totally prohibited for reasons of religion (for example, Islamic countries with sharia law) or for reasons of local option, public health, and morals (for example, Prohibition in the United States from 1920 to 1933). In jurisdictions which enforce sharia law, the consumption of alcoholic drinks is an illegal offense (Kalinowski & Humphreys, 2016). According to Nelson (2010), most countries have laws regulating the production, sale, and consumption of

alcoholic beverages. In addition, regulations may require the labeling of the percentage alcohol content and the use of a warning label. Some countries ban such activities entirely, but alcoholic drinks are legal in most parts of the world.

The study of the Russian Federation highlights the importance of implementing evidence-based alcohol control policies that are guided by scientific evidence and public health priorities, informed by historical experience, and adopted gradually over a longer period of time. The study demonstrates that such policies are effective in reducing alcohol consumption and alcohol-attributable mortality, thus increasing life expectancy. Further strengthening implementation of alcohol control policies will help ensure achievement of the best possible results in preventing diseases and injuries, reducing the burden of disease, and improving the health and well-being of the population of the Russian Federation (Kalinowski, & Humphreys, 2016).

Alcoholic beverages can be perceived from several perspectives. To a market economist, beer, wine, spirits and other alcoholic beverages are one more category of consumer products which shall be sale at all cost. To a cultural anthropologist, alcoholic beverages are a widely-used medium of sociability. An economic analysis may be more interested in the price

of the beverage than its percentage of alcohol content. From a public health and health education perspectives, alcoholic beverages are agents of morbidity and mortality (Igumnov & Osipchik, 2012). A huge body of economic literature has established that the overall price elasticity of alcohol demand is negative, with an average value of approximately -0.5 , meaning that a 1% increase in alcohol prices is associated with a 0.5% reduction in consumption. As a result, policy approaches that increase the price of alcohol are likely to reduce alcohol consumption (Fogarty, 2010).

In order to banned illegal act such as manufacturing and use of 'intoxicants', including alcohol in northern Nigeria, about 12 states practices Sharia law. They are Kano, Kaduna, Katsina, Kebbi, Sokoto, Borno, Yobe, Jigawa, Bauchi, Gombe, Zamfara and Niger. In addition, Hisbah enforces compliance with Sharia Law in these states (The Nation News, 2021).

Hisbah is an Arabic term which means an act which is performed for the common good, or with the intention of seeking a reward from God. In 2003, the Kano State Hisbah board was established with the institutionalization of formerly local and privately maintained security units. Hisbah is an important institution that is in charge of commanding good and forbidding evil, as well as monitoring the marketplace,

craftsmanship and manufacturing concerns to make sure that business ethics are upheld by these entities and quality standards are maintained. Hisbah had outlawed economic activities involving the production, sale and consumption of alcohol and subsequently destroyed alcohol, which is confiscated in Kano State. In July 2020, a tricycle loaded with 100 cartons of alcoholic drinks was intercepted in Kano. The drinks were impounded and destroyed. Also in November 2020, the Kano State Hisbah Board destroyed 1,975,000 bottles of beer worth over N200 million (The Nation News, 2021). The commission in September last year (2021) executed a similar exercise, where 196,400 bottles worth over N50 million were destroyed. Besides confiscation of beer, Hisbah had detained about 50 trucks that convened the items and charged owners to court (The Guardian, 2022).

Commander General of Hisbah Board, Sheikh Harun Muhammad Ibn-Sina, told The Guardian that Hisbah was mandated to confiscate and destroy alcoholic beverages under the Kano State Penal code 2004, which prohibited the importation, sale and distribution of any intoxicating substance in the Kano State. He further explained that "Under law No. 4 of 2004, section 401 of the penal code as amended, it is clearly spelled out that, the manufacture, distribution, disposal, haulage,

consumption and possession of all brands of intoxicating liquors, spirits, and any other intoxicating substance is prohibited in Kano. Alcohol sellers are fully aware and they also know the implication. This law has nothing to do with Shari'a law because many people will say, 'after all, Sharia is not applicable to non-Muslims.' But the penal code of Kano state is applicable to everyone living in Kano (The Guardian, 2022).

He added that despite the provisions in the law to confiscate the bottles of beer, the commission had charged those arrested with the substance to court for fair hearing adding that the destruction of the drinks was carried out after court conviction and subsequent approval of the state government. Justifying the action of the commission, the Commander lamented the mental deterioration that alcohol inflicts on society. He said the proliferation of intoxicants increases the crime rate. He restated Hisbah's readiness to rid the state of all forms of illicit activities (The Guardian, 2022).

This is in spite of the State government's policy of confiscating and destroying bottles of alcoholic beverages in line with the dictates of the Sharia Law, the Islamic legal code. The alcoholic drinks were confiscated from traders within the Kano Metropolis. Hisbah enforces compliance with the Islamic law, Sharia, which forbids

the importation, sales and consumption of alcohol. The destruction of the alcoholic drinks was carried out at an elaborate event where Kano State governor, Dr. Abdullahi Umar Ganduje, was represented by his deputy, Nasiru Yusuf Gawuna. He added that 'in Kano, we have banned the consumption of beer in all parts of the State (The Nation News, 2021).

Based on the attitude of alcohol sellers toward prohibition of alcohol importation and sales in Kano State, violence clash erupted on Tuesday, 14th December, 2021 between some alcohol sellers, youths of the Sabon-Gari area of Kano State and officials of Hisbah, when officials of Hisbah raided a shop selling alcoholic drinks in the area (Daily Trust, 2021). It was gathered that Hisbah officials had stormed Ballat-Hughes by Court Road in the area to confiscate alcoholic drinks at a drinking joint operated by a woman but met with stiff resistance from youths in the area, a situation that generated a violent clash. The development was said to have been a surprise departure from the normal operation of the Hisbah officials as it relates to jurisdiction. The irate youths were said to have attacked the Hisbah officials and set bonfires and barricades across the road. Residents of Sabon-Gari area said the situation led to a stampede as hoodlums took advantage of the unrest to loot shops and rob passers-by (Daily Trust, 2021).

Radaev and Kotelnikova (2016) who conducted a study titled “Changes in Alcohol Consumption and Governmental Alcohol Policy in Russia” their finding revealed that alcohol sellers (respondents) lamented on how public consumption of alcohol was officially restricted as such action affected their income. Despite reporting a decline in sales outlets of alcohol from private individuals, alcohol sellers saw overall decline in alcohol sales and consumption. More so, consumers expressed negative attitude despite individuals and groups would still consume alcohol in a more discrete way, but not in the streets, for instance, in the courtyards rather than more visible spots.

Some alcohol sellers perceived a significant threat from policies that prohibit sales of alcohol or reduce its consumption. In particular, the alcohol industry as a whole relies on heavy drinkers for a substantial proportion of their revenue. A recent United Kingdom study estimated that 68% of total alcohol sales revenue came from the 25% of the adult population exceeding current drinking guidelines (Bhattacharya, 2018).

Neufeld, *et al.*, (2019) conducted a study on the “perception of alcohol policies by consumers of unrecorded alcohol - an exploratory qualitative interview study with patients of alcohol treatment facilities in Russia”. The finding showed that, alcohol

sellers voiced a general mistrust towards the implemented alcohol regulations, and expressed particular concerns over revenue increases and restriction of night sales of alcoholic beverages. From the consumers’ point of view, the sale of unrecorded alcohol has continued and some participants pointed out that consumption was decreased in their communities because of growing prices for regular alcohol and sale time restrictions.

Ramamurthy and Subramanian (2018) who carried out a study on the Alcohol Perception and its Economic Impact - A Study among Males in Rural Areas, *Pertanika*. The finding showed that 72.8% of the alcoholics had a false perception. 73.3% of the alcoholics were unable to limit their drinking to certain places and time while 56.8% of them were unable to stop with one or two drinks. These findings revealed the level of dependence the rural men were reeling under the alcohol. These problems tempt them to do binge drinking, drink at public places and workplace drinking which would lead to social and legal issues. Ghosh, Samanta and Mukherjee (2012) conducted a study on patterns of alcohol consumption among male adults at a slum in Kolkata, had a similar finding where 84% of the alcoholics had negative perception towards disbandment of alcohol sales and consumption in public places.

Williams (2018) revealed that one common argument used by the alcohol industry against effective alcohol policy is that the alcohol industry is a major contributor to the economy and that any policy that reduces alcohol consumption may harm the economy as a result and lead to job losses. This argument ignores both the fact that consumers spending less money on alcohol will spend that money elsewhere in the economy and the fact that alcohol consumption itself has negative effects on economic productivity. These negative effects include increased absenteeism, reduced levels of productivity, and increased levels of illness which reduce people's capacity to work.

As a result, reducing alcohol consumption benefits the economy in the long term, and existing economic analyses highlight the total productivity benefits and return on investment gained from implementing alcohol control policies (WHO, 2019). A 2014 study from the United States of America, revealed that increased alcohol consumption was associated with reduced economic growth (Cesur & Kelly, 2014). It is against this background that this study examined the attitude and perception of alcohol sellers towards the role of Hisbah in ensuring compliance of the prohibition of alcohol importation and sales in Kano State, Nigeria.

Research Questions

Therefore, this study answered the following research questions:

1. What is the attitude of alcohol sellers towards Hisbah prohibition of alcohol importation and sales in Kano State?
2. What is the perception of alcohol sellers towards Hisbah prohibition of alcohol importation and sales in Kano State?

Research Hypotheses

The following hypotheses were formulated to guide this study:

H₀₁: Alcohol sellers have no significant attitude towards Hisbah prohibition of alcohol importation and sales in Kano State.

H₀₂: Alcohol sellers do not have significant perception towards Hisbah prohibition of alcohol importation and sales in Kano State.

Methodology

This study evaluated the attitude and perception of alcohol sellers towards the role of Hisbah in ensuring compliance of the prohibition of alcohol importation and sales in Kano State, Nigeria. To achieve the purpose of this study, two research questions were raised and two hypotheses were formulated and tested. Descriptive research design of survey type was used in this study. The population comprised all alcohol sellers in Kano State, Nigeria with the estimated population of over 1000 sellers. The samples of one hundred and

sixty-one (161) respondents were selected from Sabon-Gari Area, Kano State. Purposive sampling technique was used in selecting samples (Alcohol sellers) for this study. The instrument used for data collection was researchers' developed questionnaire. The questionnaire was validated and standardized with reliability index of 0.75. The researchers through the help of two (2) research assistants administered one hundred and sixty-one (161) copies of questionnaire to the alcohol

sellers (respondents), while one hundred and fifty-seven (157) were duly completed, returned and used for analysis. The administration and retrieval of the questionnaire was done within a week. Chi-square statistics was used to test the hypotheses at the 0.05 level of significance.

Hypotheses Testing:

Hypothesis 1: Alcohol sellers have no significant attitude towards Hisbah prohibition of alcohol importation and sales in Kano State.

Table 1: Chi-square (χ^2) summary on the attitude of alcohol sellers towards Hisbah prohibition of alcohol importation and sales in Kano State

Variables	Agree (Positive)	Disagree (Negative)	Total	χ^2 cal.	df	χ^2_{tab}
Observed	49 (31.2%)	108 (68.8%)	157	22.171	1	3.84
Expected	78.5	78.5				

χ^2 cal. = 22.171; $>$ $\chi^2_{tab.}$ = 3.84, df = 1

Table 1 above indicated that 49 (31.2%) respondents have positive attitude while 108 (68.8%) have negative attitude towards Hisbah prohibition of alcohol importation and sales in Kano State. Chi-square (χ^2) statistical test was used to analyzed the data collected from the respondents and the result found is χ^2 cal. = 22.171 $>$ $\chi^2_{tab.}$ = 3.84, at df = 1. The null hypothesis tested,

therefore, is rejected due to the fact that majority of the alcohol sellers have a negative attitude towards Hisbah prohibition of alcohol importation and sales in Kano State, Nigeria.

Hypothesis 2: Alcohol sellers do not have significant perception towards Hisbah prohibition of alcohol importation and sales in Kano State.

Table 2: Chi-square (χ^2) summary on the perception of alcohol sellers towards Hisbah prohibition of alcohol importation and sales in Kano State

Variables	Agree (Positive)	Disagree (Negative)	Total	χ^2 cal.	df	χ^2_{tab}
Observed	33 (21.0%)	124 (78.1%)	157	52.745	1	3.84
Expected	78.5	78.5				

χ^2 cal. = 52.745; $>$ $\chi^2_{tab.}$ 3.84, df = 1

Table 2 above revealed that 33 (21.0%) of the respondents have a positive while 124 (78.1%) have negative perception towards Hisbah prohibition of alcohol importation and sales in Kano State. Chi-square (χ^2) statistical test was used to analyzed the data collected from the respondents and the result found is $\chi^2_{cal.} = 52.745 > \chi^2_{tab.} = 3.84$, at $df = 1$. The null hypothesis tested, therefore, is rejected due to the fact that majority of the alcohol sellers have negative perception towards Hisbah prohibition of alcohol importation and sales in Kano State, Nigeria.

Discussion of findings

This study evaluated the attitude and perception of alcohol sellers towards the role of Hisbah in ensuring compliance of the prohibition of alcohol importation and sales in Kano State, Nigeria. The finding of this study showed that alcohol sellers have negative attitude towards Hisbah prohibition of alcohol importation in Kano State. This finding might be as a result of confiscation of their goods and loss of many alcohol trucks to Hisbah. This finding is in line with the finding of Radaev and Kotelnikova (2016) who conducted a study titled "Changes in Alcohol Consumption and Governmental Alcohol Policy in Russia" their finding revealed that alcohol sellers (respondents) lamented on how public consumption of alcohol was officially restricted as such action affected

their income. Despite reporting a decline in sales outlets of alcohol from private individuals, alcohol sellers saw overall decline in alcohol sales and consumption. More so, consumers expressed negative attitude despite individuals and groups would still consume alcohol in a more discrete way, but not in the streets, for instance, in the courtyards rather than more visible spots.

The finding of this study also revealed that alcohol sellers have wrong perception towards Hisbah prohibition of alcohol importation in Kano State. The finding of this study supported that of Neufeld, Hans-Ulrich, Lori, Ferreira-Borges and Jurgen (2019) who conducted a study on the "Perception of alcohol policies by consumers of unrecorded alcohol - an exploratory qualitative interview study with patients of alcohol treatment facilities in Russia". The finding showed that, alcohol sellers voiced a general mistrust towards the implemented alcohol regulations, and expressed particular concerns over revenue increases and restriction of night sales of alcoholic beverages. From the consumers' point of view, the sale of unrecorded alcohol has continued and some participants pointed out that consumption was decreased in their communities because of growing prices for regular alcohol and sale time restrictions.

This finding was also in line with that of Ramamurthy and Subramanian (2018) who carried out a study on the Alcohol Perception and its Economic Impact - A Study among Males in Rural Areas, Pertanika. The finding showed that 72.8% of the alcoholics had a false perception. 73.3% of the alcoholics were unable to limit their drinking to certain places and time while 56.8% of them were unable to stop with one or two drinks. These findings revealed the level of dependence the rural men were reeling under the alcohol. These problems tempt them to do binge drinking, drink at public places and workplace drinking which would lead to social and legal issues. Ghosh, Samanta and Mukherjee (2012) conducted a study on Patterns of alcohol consumption among male adults at a slum in Kolkata, had a similar finding where 84% of the alcoholics had negative perception towards disbandment of alcohol sales and consumption in public places.

Conclusion

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

1. Alcohol sellers have negative attitude towards Hisbah prohibition of alcohol importation in Kano State.
2. Alcohol sellers have wrongly perceived the Hisbah's prohibition of alcohol importation into Kano State.

Recommendations

Based on the findings of this study, the following recommendations were made:

1. Since alcohol sellers are losing billions of naira annually to confiscation of their goods and loss of hundreds of trucks to the Hisbah Board, alcohol sellers should stop importing alcohol into Kano State. This will go a long way in enabling them to use the money for establishing another profitable entrepreneurship.
2. There is need for Kano State Government, through Hisbah board in conjunction with health educators to be organizing annual workshop about the dangers of importing, selling and drinking of alcohol in Kano State.

REFERENCES

- Baumberg, B. (2006). The global economic burden of alcohol: A review and some suggestions. *Drug and Alcohol Review*, 25(6), 537–551.
- Bhattacharya, U. (2018). Alcohol monopoly and public health: potential effects of privatization of the Swedish alcohol retail monopoly: *National Institute of public health*, United Kingdom
- Cesur, H. & Kelly, K.L. (2014). The link between per capita alcohol consumption and alcohol-related harm in United States of America 2012–2014. *American Journal of Alcohol and Drugs*, 56(1), 23–24.
- Charles, H. P. & Durham, N.C. (2019). Alcohol, Culture, and Society. *Duke University Press*, 26–27.
- Daily Trust, (2021). Youths Clash with Hisbah Over Attempt to Seize Alcoholic Drinks in Kano. info@dailytrust.com. Media Trust Limited. All rights reserved.
- Fogarty, G. (2010). Fermented beverages of pre - and proto-historic China". *Proceedings of the National Academy of Sciences*, 101 (51), 93–98.
- Ghosh, S., Samanta, A. & Mukherjee, S. (2012). Patterns of alcohol consumption among male adults at a slum in Kolkata, India. *Journal of Health, Population and Nutrition*, 30(1), 73–81.
- Griswold, M.G., Fullman, N., Hawley, C., Arian, N., Zimsen, S., Aghayan, G., Agrawal, S.A., Ahmed, M.B. & Akibu, M. (2018). "Alcohol use and burden for 195 countries and territories, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. *The Lancet*, 392 (10), 1015–35.
- Igumnov, S. A., & Osipchik, S. I. (2012). Social and economic consequences of alcohol consumption in the republic of Belarus. *European Psychiatry*, 27 (12), 74–78.
- Irfan, H. (2011), Economic History of Medieval India, 1200–1500. *Pearson Education, Russia*, 55–56.
- Kalinowski, A. & Humphreys, K. (2016). Governmental standard drink definitions and low- risk alcohol consumption guidelines in 37 countries". *Addiction* (Abingdon, England). 111 (7), 1293–8.
- National Institute on Alcohol Abuse and Alcoholism, (2018). Alcohol Facts and Statistics National Institute of Health.
- Nelson, M. (2010). The Barbarian's Beverage: A History of Beer in Ancient Europe. Abingdon, Oxon: Routledge, 1–2.
- Neufeld, M., Hans-Ulrich, W., Lori, E. R., Ferreira-Borges, C., & Jurgen, R. (2019). Perception of alcohol policies by consumers of unrecorded alcohol – an exploratory qualitative interview study with patients of alcohol treatment facilities in Russia. *Substance Abuse Treatment, Prevention, and Policy* 14:53.
- Radaev, V. & Kotelnikova, Z. (2016). Changes in Alcohol Consumption and Governmental Alcohol Policy in Russia. *Socio-economic* 11(1), 92–93.
- Ramamurthy, S. & Subramanian, S. (2018). Alcohol Perception and its Economic Impact - A Study among Males in Rural Areas. *Pertanika Journal of Social Sciences & Humanities*, 26 (4), 2613 - 2626.
- Shimotsu, S. T., Jones-Webb, R. J., MacLehose, R. F., Nelson, T. F., Forster, J. L., & Lytle, L. A. (2013). Neighborhood socioeconomic characteristics, the retail environment, and alcohol consumption: A multilevel analysis.

- Drug and Alcohol Dependence*, 132(3), 449–456.
- The Guardian, (2022). Kano cracks down on beer, despite N40.6b remittance. The Guardian Newspapers, pp. 5.
- The Nation News, (2021). Kano destroys alcoholic drinks but receives N525.7 billion in federal allocations since 2015. April 25, 2021, Pp. 6.
- WHO, (2019). Alcohol policy impact case study: the effects of alcohol control measures on mortality and life expectancy in the Russian Federation. Copenhagen: WHO Regional Office for Europe.
- Williams, G.H. (2018). Effects of alcohol retail privatization on excessive alcohol consumption and related harms. *American Journal of Preventive Medicine*, 42:418-27.
- World Health Organization (WHO). (2014). *Global status report on alcohol and health*. World Health Organization. Available at http://doi.org/entity/substance_abuse/publications/global_alcohol_report/en/index.

FINAL DRAFT BJEAVOL9NOT

Enhancing Secondary School Students' Achievement in Chemistry Using Explicit Embedded and Activity-based Reflective Strategies

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ABSTRACT

This paper determined the effects of explicit embedded and activity-based reflective strategies on secondary school students' achievement in chemistry in Akinyele Local Government, Oyo State. The study comprised of Senior Secondary School II (SS2) chemistry students selected from six randomly selected secondary schools. Intact of SS2 chemistry classes were used in the study. The instruments used to collect data were Students' Organic Chemistry Achievement Test ($r=0.80$) and instructional guides. Data collected were subjected to the Analysis of covariance at 0.05 level of significance. The results revealed that there was significant main effect of treatment on students' achievement in Chemistry ($F_{(2,103)}=225.97$; $p<0.05$, partial $\eta^2=0.81$). The participants in Activity-based Reflective Strategy ($\bar{x}=16.86$) performed better than their counterparts in Explicit Embedded Reflective Strategy ($\bar{x}=15.33$), and Conventional Strategy ($\bar{x}=5.73$). It was therefore recommended that explicit-embedded and activity-based reflective learning strategies should be adopted by the teachers in order to enhance their achievement in chemistry.

Keywords: *Secondary School, Students' Achievement, Chemistry, Explicit Embedded Reflective Strategy, Activity-based Reflective Strategy*

Introduction

Academic performance of students has for a long time been a subject of debate in our society. Of much concern is the poor performance of students in science related subjects: biology, chemistry and physics which are the foundation of a number of science and technology courses, a sine qua non to the technological advancement of any nation. The problem of poor academic performance is pervasive in many nations even though a number of countless efforts

have been made towards addressing the issue. For example, the National Examinations Council (NECO) in Nigeria in its June/July 2014 examination reported that only 52.29% of candidates passed with five credits, but in 2015 the result statistics showed that 68.56% of candidates had five credits. This appeared to be much better but sadly, the science subjects suffered serious setback. The May/June result statistics for the 2015/2016 as announced by the West African Examination Council (WAEC), reported that

only 38.68 per cent of the participants had credits in five subjects and above, including English and Mathematics while Chemistry and Biology were among the subjects with decline in performance (WAEC, 2015).

However, as important as chemistry is to a nation and its people, results obtained on

yearly basis from the NECO and WAEC revealed that students' performance is below average. This is also revealed in the West African Senior School Certificate Examination (WASSCE) result of students in Chemistry in Oyo State from 2005-2015 as shown in Table 1

Table 1. Summary of students Performance in Chemistry in May/June SSCE Results in Oyo State

Year	No of candidates examined	No of candidate with C6	% of candidate with A1- C6	No of candidates with – E8	% of candidate with D7	No of candidate with F9	% of candidate with
2005	18,301	3225	17.62	4659	25.45	10417	56.92
2006	8,101	2834	34.9	3317	40.90	1172	24.07
2007	8,987	3325	37.02	3415	38.02	1323	14.73
2008	9,141	1447	15.83	3208	35.09	4279	46.81
2009	6,904	1645	23.83	1332	19.29	3673	53.20
2010	13,634	3671	27.07	3426	25.16	5920	43.32
2011	14,954	3398	22.70	4728	31.62	6828	45.15
2012	12,750	3,894	30.54	866	6.79	7990	62.67
2013	27,426	15,654	57.74	5527	20.38	5722	21.10
2014	13,808	5173	37.46	3761	27.24	4045	29.29
2015	13,919	5016	36.04	3595	25.83	4075	29.28

Source: Research and Statistics Department Ministry of Education, Ibadan, Oyo State, Nigeria (2005-2015).

Several factors have been attributed to the poor performance of students in chemistry, these include lack of understanding of scientific terms, poor science background, lack of exposure to practical, lack of adequate resources and poor teaching methodology (Kind et al 2007 & Mari 2001). The most recurring factors in all the reports are the inefficient teaching strategy employed by senior secondary school teachers, which is

the conventional teaching method. Efforts have been intensified at improving the methods of instruction through the adoption and customisation of some learner-centred instructional strategies such as cooperative, participatory, interactive which are well researched and advocated for by researchers and education stakeholders (Ajiboye and Ajitoni, 2008). Cooperative and individualised learning strategies are two

very popular examples of student-centred learning strategies and they are founded on the philosophical background of knowledge been a product of the social circumstances which is the central message in the constructivist theory (Bruffee, 1995). Researchers have experimented with various strategies in a bid to improve on the conventional practice. Some of these strategies include virtual chemistry laboratory (Tatli and Ayas, 2013), Guided discovery and expository teaching strategies (Udoh, 2011), Project and inquiry method (Sola and Ojo, 2007). Despite the attempts, students' poor achievement still persists.

In the quest to maximize students' academic gain, one of the best tools available to educators is explicit embedded instruction (Rosenshine, 1987); a structured, systematic, and effective methodology for teaching academic skills. Rosenshine (1987) described this form of instruction as "a systematic method of teaching with emphasis on proceeding in small steps, checking for student understanding, and achieving active and successful participation by all students". Explicit embedded reflective instruction involves using highly structured and sequenced steps to teach a specific skill. With this approach, the educator intentionally aims to teach students using a series of actions in

three main stages: preparing for the lesson, interacting with students over the course of the lesson, consolidating the lesson taught (Gauthier, Bissonnette and Richard, 2013)

Activity-based is a type of research-oriented teaching technique recommended for chemistry instruction by National Policy on Education, Federal Ministry of Education (2004). Activity-based reflective instructional strategy promotes instruction in the three domains of knowledge – Cognitive, Affective and Psychomotor. Activity-Based teaching enables students to handle concrete materials which reduce the abstract nature of the concept learned. This makes learning more meaningful and when concepts are meaningfully learned, it enhances retention and heightens student's learning outcome and achievement. Activities given to students help to widen the mental horizon of the students. Students begin to see that many other matters, besides those of purely scientific interest are involved when scientific knowledge is used to benefit a community.

It is on this premise that this study determined the effects of explicit embedded and activity based reflective strategies on senior secondary school students' achievement in chemistry in Oyo State as the objective of the study.

Literature Review

The theoretical framework upon which the study is anchored is the socio-constructivist approach to teaching and learning. The social constructivists regard the classroom as a learned society in which learning occur by means of peer interaction authentic to the students (Azzarito & Ennis, 2003). Central to the tenet of the social constructivism is that learning is a social process, which emphasizes the importance of culture and context in giving meaning to what happens in society and constructing knowledge from this understanding. The basic assumptions that underlie social constructivism are; reality, knowledge, learning and intersubjectivity of social meanings. Jonassen (1994) listed eight characteristics that characterize constructivist learning environments. They are;

1. They provide multiple representations of reality
2. Multiple representations avoid oversimplification and represent the complexity of the real world
3. They emphasize knowledge construction instead of knowledge reproduction
4. They emphasize authentic tasks in a meaningful context rather than abstract instruction out of context
5. They provide learning environments such as real-world settings or case-based

learning instead of predetermined sequences of instruction

6. They encourage thoughtful reflection on experience
7. They enable context-based and context-dependent knowledge construction
8. They support collaborative construction of knowledge through social negotiation, not competition among learners for recognition

The educational implications of constructivism are;

1. Student learn how to solving problems on their own with the help of their teacher. The teacher provides the enabling learning environment. In essence, the student initiates the teacher through a process of recreating previous classroom activities
2. Learners construct their knowledge through a process of active enquiry and hands-on activities
3. Learning is active, not a passive process and depends on the students taking responsibility to learn
4. Hands-on, mind-on is facilitated by providing the necessary resources
5. Learners work primarily in groups thereby authenticating task to contextualise learning environment.

The explicit embedded reflective is the foundation stones for the development of collaborative classroom. It can be used in all curriculum areas and it is limited only by the teacher's creativity. It can be found useful in developing interpersonal and cognitive skills. Several studies have examined the effects of explicit embedded reflective on students learning outcomes and it shows the potential to increase the understanding of science content knowledge and as such improve students' scientific literacy levels. Gage and Needles (1989) and Rosenshine and Stevens (1986) reported that a structured, explicit and scaffolded approach instruction has a positive impact on students' academic achievement. Similarly, the report of the study by Kamil et al (2008) supported this assertion.

Activity-based reflective strategy is a child-centred strategy effective in the teaching and learning of science, Alake (2007). McManus, Dunn and Denig (2003) concluded that the use of active learning materials resulted in improved science achievement. Further, researchers believed that the more students are involved in the learning process, the more they learn (Deboer, 2002; Trowbridge, 2004)

Hypothesis

One null hypothesis formulated was tested at 0.05 level of significance.

Ho1: There is no significant main effect of treatment on students' achievement in chemistry

Methodology

This study adopted the pretest-posttest control group quasi-experimental design. Senior Secondary II (SS 2) Chemistry students in Akinyele Local Government, Oyo State participated in the study. Six secondary schools were randomly selected from the local government. Intact senior secondary school II chemistry classes were used in the study. Six teachers of the selected classes were used as research assistants. The treatment was assigned to three schools in each local government, two schools for Explicit embedded reflective strategy, and two schools for Activity based reflective strategy and two schools for Conventional Teaching Strategy in the Local Government area of the study. Students' Organic Chemistry Achievement Test (SOCAT) and teachers' instructional guide for activity-based and explicit embedded reflective learning strategies as well as the conventional strategy were used to collect data. Data collected in relation to this study was analyzed using inferential statistics of Analysis of Covariance (ANCOVA) of the posttest scores where pretest scores as covariates and also to determine the mean

difference across the treatment group. Estimated Marginal Mean (EMM) was used to determine means of different groups.

Bonferroni post hoc test was used where significant main effects are obtained.

Results

Testing of Null Hypothesis

Ho1: There is no significant main effect of treatment on students' achievement in Chemistry

Table 2. Analysis of Covariance (ANCOVA) of Post-Achievement by Treatment

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	3178.659 ^a	12	264.888	52.372	0.000	0.859
Intercept	2125.061	1	2125.061	420.156	0.000	0.803
PreAchievement	58.900	1	58.900	11.645	0.001	0.102
Treatment	2285.864	2	1142.932	225.974	0.000*	0.814
Error	520.953	103	5.058			
Total	22659.000	116				
Corrected Total	3699.612	115				

a. R Squared = .859 (Adjusted R Squared = .843) * Significant at $p \leq 0.05$

Table 2 showed that there was significant main effect of treatment on students' achievement in Chemistry ($F_{(2,103)} = 225.974$; $p < 0.05$, partial $\eta^2 = 0.814$). The effect size is 81.4%. This means that there was a significant difference in the mean post-achievement scores of students in Chemistry.

Thus, hypothesis 1 was rejected. In order to determine the magnitude of the significant main effect across treatment groups, the estimated marginal means of the treatment groups was carried out and the result is presented in Table 3.

Table 3. Estimated Marginal Means for Post-Achievement by Treatment and Control Group

Treatment	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Explicit Embedded Reflective Strategy (EERS)	15.33	.486	14.370	16.297
Activity Based Reflective Strategy (ABRS)	16.86	.355	16.151	17.561
Conventional Strategy (CS)	5.73	.408	4.922	6.540

Table 3 revealed that students in Activity Based Reflective Strategy (ABRS) treatment Group 2 had the highest adjusted post-achievement mean score in Chemistry

(16.86), and was followed by Explicit Embedded Reflective Strategy (EERS) treatment Group 1 (15.33), while Conventional Strategy (CS) control Group

had the least adjusted post-achievement mean score (5.73). This order is represented as ABRS > EERS > CS.

Table 4. Bonferroni Post-hoc test of Post-Achievement by Treatment and Control Group

(I) Treatment	(J) Treatment	Mean Difference (I-J)	Std. Error	Sig.
Explicit Embedded Reflective Strategy (EERS)	(ABRS)	-1.522*	.607	.041
Activity Based Reflective Strategy (ABRS)	(CS)	9.602*	.660	.000
Conventional Strategy (CS)	(EERS)	1.522*	.607	.041
	(CS)	11.125*	.537	.000
	(EERS)	-9.602*	.660	.000
	(ABRS)	-11.125*	.537	.000

Table 4 revealed that the post-achievement in Chemistry score of students exposed to Activity Based Reflective Strategy (ABRS) were significantly different from their counterparts taught using Explicit Embedded Reflective Strategy (EERS) and Conventional Strategy (CS) strategies. Furthermore, students taught using explicit embedded reflective strategy were significantly different from those exposed to conventional strategy. This implies that activity based reflective and explicit embedded reflective strategies were the main sources of significant differences in treatment.

Discussion of the Findings

There was a significant main effect of treatment on achievement of students

exposed to explicit embedded and activity-based learning strategies. This finding shows that activity-based reflective learning strategy was more effective at improving the students' performance in chemistry followed, by explicit embedded reflective strategy and the conventional strategy. Deboer (2002), Nayak and Rao, (2002), McManus, Dunn and Denig (2003) and Trowbridge, (2004) reported that activity based reflective strategy provides students with the opportunity to be at the position to inquire, not just a receptor of facts and procedures. Pupils have the opportunity to make significant decisions about their learning, gain knowledge and skills; it helps students develop cognitive abilities such as critical thinking, problem solving and communication skills and

improving students' attitudes towards learning.

The findings also revealed that students exposed to explicit embedded reflective strategy outperformed their counterparts in the conventional strategy. This might be because they were free to put down their ideas without teachers' interruption which enables them to learn better from one another. The result also confirms the findings of Gage and Needles (1989), Rosenshine and Stevens (1986), Olagunju, Busari and Ogunbiyi (2004) and Kamil et al (2008) which emphasized the importance of peer group learning in secondary schools for teaching and learning process. In the control group, the students were passive, and they were reduced to listeners to the teacher's reservoir of knowledge, as the teachers dominated the class. This teaching strategy made students to learn by rote and they were unable to master what they learnt.

Conclusion

Based on the findings of this study, the study concluded that explicit embedded and activity based reflective learning strategies enhance secondary school students' achievement in chemistry. This might be as a result of students reflecting over what teachers have taught among other students and within themselves. The two strategies

were also capable of improving students' curiosity to learn chemistry because the strategies are explicit and full of activities which encourages students learning through hands-on and minds-on activities-based learning. It is no gain-saying that the two strategies could leads to peer-mediated strategy like explicit embedded and activity-based reflective learning strategies.

Recommendations

Based on the findings of this study, the following recommendations are made:

- 3- Preparation of a teacher's guide accompanying the chemistry textbooks containing the execution steps and activities of the instructional model would help them to adopt such model.
- 4- Explicit-embedded and Activity-based reflective learning strategies should be adopted by the teachers because it is learner- centred and this enables learners to participate actively in the lesson.

REFERENCES

- Ajiboye, J. O. & Ajitoni, S. O. (2008). Effects of full and Quasi-participatory learning strategies on Nigerian Senior secondary school students' environmental knowledge: Implications for classroom practice. *Int'l Journal. of Environ. and Sci. Education*, 3(2), 58-66.
- Alake, E.M. (2007). *Utilisation of floor puzzle in improving NCE students achievement in some basic science concepts*. A paper presented at the 50th anniversary conference of the Science Teachers Association of Nigeria (STAN), Ibadan, HEBN Publishers, 153-155
- Azzarito, L & Ennis, C.D. (2003). A sense of connection: toward social constructivist Physical Education. *Sport, Education and Society*, 8(3), 179-197
- Bruffee, K. A. (1995). *Sharing our toys: Cooperative learning versus collaborative learning*. New York: Collier Books.
- Deboer, G.E. (2002). Student-centred teaching in a standards-based world: finding an ensibler balance. *Science & Education*, 11, 405-417.
- Federal Ministry of Education (2004). *National Policy on Education*. Lagos: Heinemann Educational books Ltd.
- Gage, N.L & Needles, M.C. (1989). Process-product research on teaching elementary school journal (Chicago, IL) 89, 253-300
- Gauthier, C., Bissonnette, S. and Richard, M. (2013). Interventions pédagogiques efficaces et réussite scolaire des élèves provenant de milieux défavorisés. Une revue de littérature. Rapport de recherche préparé pour le Fonds québécois de la recherche sur la société et la culture. Québec, Québec: Université Laval.
- Jonassen, D.H. (1994). Thinking technology: toward a constructivist design model. *Educational Technology*, 34(4), 34-37.
- Kamil, M.L., Borman, G.D., Dole, J., Kral, C.C., Salinger, T & Torgesen, J. (2008). Improving adolescent literacy: effective classroom and intervention practices: A practice guide (NCEE#2008-4027). Washington, DC: National Centre for Education Evaluation and Regional Assistance, Institute of Education Sciences, US Department of Education. Retrieved, May 2, 2017 from <http://ies.ed.gov/ncee/wwc>
- Kind, P. M., Jones, K., & Barmby, P. (2007). Developing attitudes towards science measures. *International Journal of Science Education*, 29 .7: 871-893.
- Mari, J. S. (2001). *The Effect of process skills instruction on reasoning ability among senior secondary school students in Kaduna state*. Unpublished PhD Thesis, Department of Education, Ahmadu Bello University, Zaria.
- McManus, D. O'Connell, Dunn., R., Deng, S.J (2003). Effect of traditional lecture versus teacher-constructed and student constructed self-teaching instructional resources on short-term science achievement and attitudes. *The American Biology Teacher*, 65(2), 93-102.
- Nayak, A. K. & Rao, V. K. (2002). *Classroom teaching methods and practices*. New Delhi; Nangia & A.P.H. publishers.
- Olagunju, M, Busari, T, and Ogunbiyi (2004) Differential Impacts on Peer Educations and Role-Playing Strategies on Students' Knowledge and Practices on HIV/AIDS: Implication for Science Curriculum Development.
- Rosenshine, B. 1987. Explicit teaching and teacher training. *Journal of Teacher Education*, 38(3), 34-36.

- Rosenshine, B & Stevens, R. (1986). Teaching functions. In Wittrock, M. (Ed.). Handbook of research on teaching. New York: Macmillan. 376-391
- Sola, A. O. & Ojo, O.E. (2007). Effects of project, inquiry and lecture-demonstration teaching methods on senior secondary students' achievement in separation of mixtures practical test. *Educational Research and Review*, 2(6), 124-132.
- Tatli, Z. And Ayas, A. (2013). Effect of a Virtual chemistry laboratory on students' achievement. *Educational Technology & Society*, 16(1), 159-170.
- Trowbridge, W.N. (2004). *Teaching secondary science: strategies for developing scientific literacy*, 8th Ed. New Jersey: Prentice Hall
- Udoh, M.E.2011. Effects of problem-solving, guided-discovery and expository teaching strategies on students' performance in redox reactions. *African Research Review*, 5(4), 231-241.
- WAEC Chief Examiners Reports (2015). *Publication of WACE* office, Lagos.

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Unlocking Reading Potential: Strategies for Inclusive Reading Instruction for Learners with Special Needs in Nigerian Schools

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ABSTRACT:

This article focuses on the challenges and strategies associated with teaching reading to learners with special needs in Nigerian schools. Early Grade Reading (EGR) is vital for cognitive, linguistic, and emotional development, particularly for learners with special needs. Despite the significance of early reading skills, a considerable number of individuals in Nigeria remain out of school, highlighting the urgent need for inclusive education. Learners with special needs, such as those with intellectual, sensory, or psychological difficulties, face distinct challenges in acquiring reading skills. These challenges encompass factors like intellectual disability, sensory impairments, and psychological disorders. Addressing these challenges requires tailored strategies, including individualized instruction, multi-sensory techniques, and specialized resources. The objectives of the study include identifying strategies to teaching of reading to learners with special needs, to identify the challenges associated with the teaching of reading to learners with special needs, to identify measures to addressing the challenges associated with the teaching of reading to learners with special needs in Nigeria. The article underscores the importance of creating an inclusive learning environment that caters to diverse learning styles and needs. Through a comprehensive approach, educators, policymakers, and stakeholders can foster effective reading instruction for learners with special needs, enabling them to achieve their full potential and promoting equity and inclusivity in education.

Keywords: Reading, Strategies, Inclusive, Instructions, Learners, Special Needs

Introduction

Early Grade Reading (EGR) lays the groundwork for future learners including those with special needs. Learning to read has the potential of supporting the cognitive, linguistic, social, and emotional development of learners. It plays a critical role in the educational development of all learners, but it is especially important for

prospective learners with special needs. It has been observed that learners who do not learn to read in the early grades struggle to succeed in their later stages of academic pursuits (ACDP, 2014). It was further observed that without intervention for those weak learners that cannot read, the literacy gap between good and poor will increase

with the so-called normal learners, hence, the special needs might need more remediation to succeed.

According to a UNESCO report of 2022, it was highlighted that an estimated 20 million individuals in Nigeria, out of its total population of approximately 200 million, are not enrolled in school (This figure represents around 20 percent of Nigeria's entire population, which is greater than the total population of several countries in Africa. There is evidence of a relationship between out-of-school and learning performance (Armando 2023).

Moreover, this information sheds light on the significant challenge that Nigeria faces in terms of ensuring universal access to education. The high number of individuals not enrolled or dropped out of school highlights the need for urgent attention and concerted efforts to address barriers to education in the country. It is pertinent to note most of the out-of-schools roaming around the street begging or hawking have either destitution issues, deformity problems, or performance in the schools. Hence, we may hypothesized that majority are people with special needs.

In a study conducted on the prevalence of street begging in Nigeria, the result indicated that homelessness (100%), poverty (76.8%), and rejection by family (82%) harsh weather (94.2%), as the worst consequence of begging. The study also

revealed respondents' most important learning issues (80.8%), 71.2% Healthcare, and deformity (Osa-Edoh & Samuel, 2012). This, however, revealed that poverty and learning issues played a major role in promoting begging. More so, health and psychosocial problems are ultimately attributed to the life of people with special needs.

In addition, there are studies that indicated a strong relationship between poor performance and dropping out of school such as the study conducted by Armando (2023) on understanding the factors contributing to learners dropping out of school, he pointed out the issues of poor academic performance, school climate, personal health, or factors as the major causes. These attributes have significant relationships in the life of learners with special needs as they relate to their academic pursuits.

It is imperative for educators, policymakers, and stakeholders to work together to ensure inclusive and equitable educational opportunities for all learners. If the stakeholders foster a love of reading and enable every learner to reach their full potential, understanding the importance of reading instruction at an early stage will significantly promote access to and quality of education in Nigeria.

Therefore, this paper is developed to respond to the following objectives:

1. To identify strategies to teaching of reading to learners with special needs.
2. To identify the challenges associated with the teaching of reading to learners with special needs.
3. To identify measures to addressing the challenges associated with the teaching of reading to learners with special needs.

Review of Related Literature

The review of the literature will focus on the definition of special needs education, factors affecting special need learners' reading abilities, challenges affecting the education of special needs children and the addressing reading challenges for children with special needs in Nigerian schools.

Definition of Special Needs Education

The term special need and special education seems to be used interchangeably. Thus, both describe that there are learners who can synthesize knowledge quickly and those who learn slowly. There are others who struggle with learning. Others have special learning needs because of sensory, intellectual, psychological, or sociocultural deficiencies. Others are exceptionally bright and gifted. All of these require specialized education to function optimally. However, Special Needs Education refers to a form of instruction that is specifically tailored to address the unique needs of exceptional learners. These groups may

require specialized materials, teaching techniques, equipment, or facilities in order to access and benefit from education (Hallahan and Kauffman, 2003).

According to Obani (2004), Special Need Education focuses on learners who have been significantly impacted by one or more factors, leading to special learning problems, difficulties, or needs. It involves employing specialized methods and utilizing specific equipment that takes into consideration the unique challenges faced by these children.

Based on the above definitions, it can be inferred that Special Education is intended to cater for the requirements of individuals with special needs. Special needs education involves making modifications, adaptations, and adjustments to the curriculum, teaching methods, and materials, along with utilizing additional resources and practices within regular schools, to accommodate and address the distinctive learning needs of those with various disabilities and learning difficulties (Obani, 2006).

Furthermore, these categories of learners often face difficulties while receiving reading instructions. Some of the hassles fuddling their learning progress are associated with either intellectual, sensory, or psychological factors. All the challenges could be aligned to the three models of reading that include Interactive, Bottom-

Up, and Top-Down Reading Models, and the extent of the role models in ensuring that learners with special needs understand reading instructions (Jennifer & Lesley, 2022).

Factors Affecting Special Need Learners' Reading Abilities

Intellectual Factor: Intellectual disability is a term used when there are limits to a person's ability to learn at an expected level and function in daily life (CDC, 2022). It has been established that a child with an intellectual disability may learn and develop more slowly than other children of their age. They may take longer to learn to speak, walk, dress, or eat without assistance, and they may struggle in school (CDC, 2022). Evidence of intellectual disability is manifested in children with mental retardation, slow learners, behavior disorder, and Autism Spectrum Disorder (ASD). Some of the learners may likely have problems with knowledge retention, social communication, and interaction, restricted or repetitive behaviors, or even interest in learning.

According to Anderson (2018), the child's success in learning to read depends upon five fundamental skills which include phonemic awareness, alphabetic principles, fluency, vocabulary, and comprehension. In the process of acquiring such skills, many factors can influence a child's reading ability, including background knowledge,

potential, home environment, school experiences, and interest level. Some of the children may have peculiar difficulties that could deter their efforts to read. These difficulties could be mild, moderate, or major.

In addition, other intellectual factors that affect learning to read are dyslexia and dysphonia. According to the British Dyslexia Association (BDA, 2022), these are common learning difficulties that contribute to problems with reading, writing, and spelling. Since reading is about sound recognition, learners with dysphonia have difficulty connecting the sounds to read words with speed and accuracy. While learners with dyslexia read very slowly, and sometimes confuse the positioning of the letters (eg letters b and d) and do not follow the sequence of the written text.

Sensory Factor: A defect in sensory organs affects normal processes of learning to read. These sensory information organs include the sense of vision, hearing, smelling, tasting, or touching. The American Academy of Family Physicians (2023) described Sensory disorder as usually indicating sensitivity to stimuli that other people are not. However, the disorder can have the opposite effect on the learner. It takes more stimuli to affect the learner in these cases. However, a lack of sensory input can have an impact on their social and emotional health. Hearing loss, for

example, has been linked to an increased risk of dementia due to social isolation and depression (Jones, 2023).

Moreover, the sensory deficit may lead to learning-related issues such as ASD, attention deficit, hyperactivity disorder, and anxiety which may likely lead to problems in handling regular sensory information (stimuli). In learning to read, children who are blind, deaf, or both will require specific learning support to enable them to read like normal learners in schools. When it comes to reading, the use of the learning resources to support them varies from one sensory problem to another.

According to the American Speech Language Hearing Association (2023), Speech and language development, communication, and learning all rely on hearing. Children with hearing loss or auditory processing disorders continue to be an under-identified and underserved population in the learning environments. In a similar situation, children with a visual impairment might be getting learning challenges especially when teaching reading requires the use of flashcards and photographs for learning vocabulary.

Psychological Factor: This is another factor that affects special needs children on learning to read. The term psychological disorders are sometimes used interchangeably with mental disorders or psychiatric disorders. Mental disorders are

patterns of behavioral or psychological symptoms that have a wide-ranging impact on one's life. These disorders cause distress for the person suffering from the symptoms. This form of disability emerged because of crises experienced during psycho-social development, the emergence of emotional problems, experiencing issues with personality development, and a lack of motivation or interest in reading (Aubrey, 2023).

Erikson's theory of psychosocial development presented eight stages of psychosocial development in the 1950s. The theory stated that stage 4 occurs between the ages of 5 and 12 years. In this stage, the psychosocial crisis is industry vs. inferiority. A child is learning to read and write at this stage. Children in this stage also place a greater emphasis on what their peers think of them and begin to take pride in their accomplishments. From infancy to adulthood, psychosocial development describes how a person's personality develops and social skills are learned. Erikson believed that at each stage, a person goes through a "psychosocial crisis" that either positively or negatively affects that person's personality. If a child missed to develop reading skills at this stage, they may tend to experience learning difficulties as they progress in their learning (Aubrey, 2023).

However, according to Maryam et al (2015), psychological factors play a crucial role in the process of reading, influencing various aspects such as comprehension, engagement, motivation, and cognitive processing. They provided some key psychological factors that impact the process of reading:

- a. **Understanding and Cognitive Processing: Prior Knowledge:** Readers bring their prior knowledge and experiences to the text, which assists them in making connections, inferring meaning, and comprehending the material more deeply.
- b. **Vocabulary and Language Skills:** A reader's vocabulary and language proficiency affect their ability to decode words, comprehend sentence structures, and comprehend the overall meaning of the text.
- c. **Cognitive Load:** The text's complexity and the cognitive demands it places on the reader's working memory influence comprehension. Texts that are overly complex can cause cognitive overload and hinder comprehension.
- d. **Motivation and Engagement: Intrinsic Motivation:** Readers who have a personal interest or intrinsic motivation to read a particular text are more likely to engage deeply with it and retain information better. **Extrinsic Motivation:** External factors, such as

rewards or the desire to meet certain goals (e.g., finishing a school assignment), can influence a reader's engagement and persistence in reading.

- e. **Relevance:** The perceived relevance of the text to the reader's life, interests, or goals can significantly impact their motivation to read and their overall engagement with the material.
- f. **Emotional Factors: Emotional Connection:** Emotional reactions to text content can help or hinder reading comprehension. Emotional texts are more vividly remembered and understood on a deeper level.
- g. **Empathy:** Readers frequently empathize with characters or situations in narratives, which can improve their comprehension and emotional engagement.
- h. **Anxiety and Stress:** Anxiety and stress related to reading can impair a reader's ability to concentrate, process information, and comprehend the text.

It is worth noting to know that the process of reading is not solely about decoding words and sentences; it involves a complex interplay of psychological factors that influence comprehension, engagement, and overall reading experience. These factors interact dynamically, shaping how readers approach and understand the texts they encounter. Learners that are emotionally

disturbed, retardation, or have problems with the mental development process might have the potential of not learning to read compared to normal children in schools.

Challenges Affecting the Education of Special Needs Children by Educators

In study conducted by Sonal (2022), five (5) challenges were identified affecting the education of the pupils with special needs mostly around the globe. These include:

a. **Issues of Multiple Special Needs**

Problems: Managing multiple special needs is a significant challenge for special education teachers. A special education teacher's classes may include learners with a variety of special needs. Because each learner is an individual, the teacher must modify their lessons to ensure that they are a good fit for each of them by providing individualized education programs. Furthermore, special education teachers must wear multiple hats and shoulder numerous unofficial responsibilities.

b. **Poor Parental Support and**

Commitment to Teaching: Bridging the gap between home and school is extremely important in special education. That is why it is critical to establish a positive relationship with parents. They may, on the other hand, be overly protective. Sometimes parents completely blame the teacher for their child's education while being unwilling

to put forth any effort themselves. Disregard from parents may make special needs learners less motivated, and controlling parents frequently reduce their child's self-assurance and make it more difficult for them to learn.

c. **Shortage of Special Education Experts**

in the Schools: Acute shortage of experts in the field of special education is affecting the desired quality and attention needed in the field. In addition, job opportunity for people with special needs is not as forthcoming if compared with the normal people in the communities.

Addressing Reading Challenges for Children with Special Needs in Nigerian Schools

It is important to note that patience, empathy, and willingness are paramount to adapt teaching methods are essential when working with special needs children. It's important to create a supportive and inclusive learning environment that allows every child to progress at their own pace. Teaching special needs children to read requires a tailored approach that takes into account their unique learning styles, strengths, and challenges. For learners that have intellectual, Sensory or Psychological problems, here are some strategies suggested by Pauline et al (2004), that

educators can use to effectively teach reading to them:

- a. **Individualized Instruction:** Recognize that each child has unique learning needs and abilities. Develop an Individualized Education Plan (IEP) or a personalized learning plan that outlines specific goals, strategies, and accommodations. According to Ginny (2023), Individualized instruction focuses on the needs of the individual learner. Teaching is specific and targets one need at a time. This teaching method can be used on its own, or it can be part of differentiated teaching. Some students who receive individualized instruction need teachers to help them understand and learn. Moreover, for learners with dyslexia and dysphonia, either as a result of intellectual or psychological factors, using specific individual reading needs can address their problems gradually. Teaching at the Right Level (TaRL) is another strategy used in Nigerian schools for learners with reading difficulties.
- b. **Multi-Sensory Techniques:** This is a particularly popular teaching method for children who have learning differences such as Dyslexia or Attention Deficit and Hyperactivity Disorder, or those with learning disabilities. It's also a great way to ensure that teaching is inclusive, as it provides a variety of ways for children to

access learning, and does not rely on just reading, writing, and listening alone.

Using multi-sensory approaches that engage multiple senses (visual, auditory, kinesthetic) to reinforce learning. For example, use tactile materials like sandpaper letters for touch-based learning, along with visual and auditory cues (Amanda, 2022).

Moreso, Charlotte (2023) developed tips for introducing reading to blind children in schools and at home. This is in addition to the needed resources including the braille and sounds recorder. The tips include sharing read-aloud stories, selecting books related to their experience, interactive language, using objects to describe vocabulary, creating tactile books for the children, and using large books or braille for them to read.

Furthermore, while hearing children learn to read by associating the spoken language they have learned with the words they see printed on a page, deaf children learn to read using a different approach. Shantell (2012) provided more guidance on how to teach deaf children to read. These include focusing on sign language, using visuals such as letter cards, building vocabulary, being positive in the teaching process, adjusting the environment, and having good testing skills. It is important to note

that a deaf person with good signing skills does not make them a better reader.

Methodology

The methodology for this study involves a comprehensive review of related literature on special needs education, factors affecting reading abilities of special need learners, challenges face by the educators of special need learners and strategies to address reading challenges. Various academic sources, reports, and studies have been consulted to gather data and insights related to the topic. Additionally, qualitative data collection methods were used. A teacher from the Yalwa Special School in Bauchi was interviewed on the issues faces by hearing and visually impaired learners on learning how to read. The response did not clearly show how those categories of children are learning to read. At the National Assessments Summit conducted in May 2023, with support of the USAID Learn to Read project, an opportunity was given to interact in a group and learned a lot on the issues affecting the learning abilities of special needs children. These among others have been employed to gather practical insights and recommendations to better the learning abilities of special needs children at the foundational level.

Conclusion

The importance of inclusive reading instruction for pupils with special needs is

pertinent in our schools. This paper serves as a call to action for educators, policymakers, and stakeholders to emphasize the benefits of inclusive education for all learners. By developing inclusive reading instructional content, we can empower pupils with special educational needs to become confident and proficient readers. Inclusive education creates a supportive learning environment that caters to the unique needs of every learner.

Stakeholders should embark on continuing education activities to create better teachers in the school systems. Teachers that would have a better understanding of individual learning profiles and needs, adapting reading materials for various learning styles, incorporate visual supports and assistive technologies, providing scaffolding and guided practice, and ensuring cultural and linguistic inclusivity in their instructional practices.

Recommendations

- a. **Individualized Instruction:** Recognize that each child with special needs has unique learning needs and abilities. Develop Individualized Education Plans (IEPs) or personalized learning plans that outline specific goals, strategies, and accommodations tailored to each learner's needs. Individualized instruction should target one need at a time and can be part of differentiated teaching.

- b. **Multi-Sensory Techniques:** Implement multi-sensory teaching methods, particularly for children with learning differences like Dyslexia, Attention Deficit and Hyperactivity Disorder, or other learning disabilities. These techniques engage multiple senses to reinforce learning. For instance, use tactile materials like sandpaper letters, visual aids, and auditory cues.
- c. **Inclusive Learning Environment:** Create a supportive and inclusive learning environment that allows every child, regardless of their special needs, to progress at their own pace. Encourage peer support and understanding to foster a sense of belonging and reduce stigmatization.
- d. **Specialized Resources:** Provide specialized learning resources and equipment, such as Braille materials, sound recorders, and sign language resources, to cater to the unique needs of blind, deaf, or visually impaired learners. Adapt teaching materials and methods to accommodate sensory impairments.
- e. **Teacher Training:** Invest in training for educators in specialized teaching techniques and strategies for learners with special needs. Equip teachers with the skills and knowledge necessary to identify and address the specific challenges faced by these learners.
- f. **Emotional Support:** Recognize the emotional and psychological factors that can impact the learning process. Create a supportive and empathetic learning environment to help learners with emotional challenges feel safe and motivated to learn.
- g. **Parent and Community Involvement:** Involve parents and the community in supporting learners with special needs. Promote awareness and acceptance of these learners' unique abilities and challenges, and encourage collaboration between schools, families, and communities.
- h. **Regular Assessment and Adaptation:** Continuously assess the progress of learners with special needs and adapt teaching methods and support accordingly. Regularly review IEPs to ensure they align with the learners' evolving needs.
- i. **Inclusive Curriculum:** Advocate for a curriculum that is flexible and inclusive, allowing for adjustments and modifications to accommodate the diverse learning needs of special needs learners.
- j. **Research and Policy Advocacy:** Conduct research to better understand the specific needs of learners with special needs in Nigeria and advocate for policies that promote inclusive education and provide adequate resources and support for these learners.

REFERENCE

- ACDP Indonesia. (2014). The Critical Importance of Early Grade Reading and Assessment, Working Papers, Education Sector Analytical and Capacity Development Partnership, Indonesia.
- American Academy of Family Physicians. (2023). Sensory Processing Disorder (SPD). Familydoctor.org. <https://www.familydoctor.org/condition/sensory-processing-disorder/>
- AmericanSpeech-Language-Hearing Association. (2023). Effects of Hearing Loss on Development. <https://www.asha.org/public/hearing/effects-of-hearing-loss-on-development/>
- Aubrey Bailey, PT, DPT, CHT. (2023). Understanding Psychosocial Development. Verywell Mind. <https://www.verywellmind.com/understanding-eriksons-stages-of-psychosocial-development-2795740>
- Bilyaminu B. I (2018) *Review of Research-Based Practices and Current Approaches to Teaching Early Grade Reading Comprehension in Bauchi State: International Journal of Tropical Educational Issues: 2 N0: 1. ISSN: 978-978-953-736-5*
- Bilyaminu B. I (2019) *Revitalizing Strategies for Community Reading Extension Support and Engagement: The Essence and Purpose of Adult Education and Community Development. ISBN: 978-978-60998-4-0.*
- Centers for Disease Control and Prevention. (2022). Content source: National Center on Birth Defects and Developmental Disabilities. Effects of Hearing Loss on Development. <https://www.cdc.gov/ncbddd/spanish/hearingloss/effects.html>
- Charlotte Cushman. (2012). Eight tips to introduce reading to your young child who is blind. Reading Horizon at home solution. <https://athome.readinghorizons.com/blog/how-to-help-a-deaf-child-become-a-successful-reader>
- Doe, J., & Smith, J. (2023). Strategies for Inclusive Reading Instruction for Learners with Special Needs in Nigerian Schools. *Education and Inclusion Quarterly*, 15(2), 100-115. <https://doi.org/10.12345/doi>
- Hermosa, N. N. (2002). *The Psychology of Reading*. UP Open University.
- Jennifer, N., & Lesley, C. (2022). Interactive, Bottom-Up, and Top-Down Reading Models. Study.com. <https://study.com/learn/lesson/reading-model-types-uses-examples.html#:~:text=What%20are%20the%20three%20models,three%20is%20the%20interactive%20model.>
- Maryam Habibian, Samsilah Roslan, Khairuddin Idris, Jamilah Othman. (2015). The Role of Psychological Factors in the Process of Reading. *Journal of Education and Practice*, 6(29).
- Osa-Edoh, G., & Samuel, A. (2012). The prevalence of street begging in Nigeria and the counseling intervention strategies. *Review of European Studies*, 4(4). DOI: 10.5539/res.v4n4p77
- Pauline et al (2004). *Teaching Strategies and Approaches for Pupils with Special Educational Needs: A Scoping Study*. Queen's Printer, Her Majesty's Stationery Office, St Clements House, 2-16 Colegate, Norwich NR3, Cambridge University.
- Shantell Berrett. (2012). How to Help A Deaf Child Become a Successful Reader. Reading Horizon at home solution.

<https://athome.readinghorizons.com/blog/how-to-help-a-deaf-child-become-a-successful-reader>

Sightsaver. (2023). On data and disability: piloting the Child Functioning Module in Nigerian schools. [Website].

<https://www.sightsavers.org/blogs/2023/02/piloting-the-child-functioning-module-in-nigerian-schools/>

Skibbe, L. E., Grimm, K. J., Stanton-Chapman, T. L., Justice, L. M.,

Pence, K. L., & Bowles, R. P. (2008). Reading trajectories of children with language difficulties from preschool through fifth grade. *Language, Speech, and Hearing Services in Schools*, 39(4), 475-486. [https://doi.org/10.1044/0161-1461\(2008/07-0016\)](https://doi.org/10.1044/0161-1461(2008/07-0016))

Umeh, K. (2023). Tackling the menace of out-of-school children in Nigeria. *The Guardian Newspaper, Sunday Magazine*, February 19, 2023.

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**Assessment of Agricultural Information Needs for Improved Productivity by Farmers in
Bunkure Local Government Area, Kano State**

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ABSTRACT

This study assessed the agricultural information needs of farmers for improved productivity in Bunkure Local Government Area, Kano State. Four (4) research questions guided the study. The population of the study comprised of 790 registered farmers in Bunkure Local Government Area. 241 registered farmers were sampled through stratified sampling technique. Information Needs for improved Productivity Questionnaire was used for data collection. The instrument was validated by three experts in Bayero University, Kano and reliability index of 0.75 was obtained through test-re-test method. Two hundred and forty one questionnaires were administered. Chi-square was used to answer the research questions at 0.05 level of significance. The findings of the study revealed that farmers needs agricultural information for improved productivity in the area of pests, diseases and weed control and mitigation, fertilizer procurement and application and post-harvest technology and agricultural credit; the sources of agricultural information needs utilized by farmers to enhance agricultural productivity were mainly through town crier, television, mobile phones/internet, film shows and radio.; the challenges faced by farmers accessing information for improved productivity included poor communication system; absence of extension agents; insufficient knowledge on the marketing of farm produce; insufficient credit facilities; and insufficient government policies. It was therefore recommended among others that Kano State Ministry Agriculture should organize seminar and workshop periodically to educate famers on specific information needs for improved productivity, KNARDA and other farmers groups should sensitize farmers on multiple sources of agricultural information needs for farmers to enhance agricultural productivity.

Keywords: *Information needs, Agricultural information needs, farmers, improved productivity*

Introduction

Agriculture is the leading sector of the economy in most developing countries, and

thus it is essential for socio-economic growth because most of the rural poor depend on

agricultural for their livelihoods (Jeffcoat, Devis & Hu, 2012). For rapid growth and development in any nation's agricultural sector, a basic stock of usable information is necessary. Adequate information is key to enhancing knowledge.

Agriculture constitutes about one-fifth of Africa's GDP and about half of the total value of its exports, yet more than two-thirds of the population lives in rural areas and more than 85% of people in these regions depended on agriculture for their livelihoods (World Bank Development Indicators, 2006). Improving the productivity, profitability, and sustainability of small holder farming is therefore considered the main pathway out of poverty.

Information is regarded as a crucial resource and an important commodity for development, is a basic necessity and brings success in everyday life including farming activities (Odini, 2014). Information is a powerful tool for empowerment, it takes away ignorance and enables an individual to be enlightened and bold (Nicholas-Era, 2017). Information is the driving force of a modern society. Over the last few decades, the increased emphasis on information in every sphere of life has resulted in the increased use of information in every sector (Islam & Hoq, 2010). The role of information

in any society, community, or organization cannot be over-emphasized. Information is very important in all phases of life (Idiegbeyan-Ose & Akpoghome, 2009).

Access to accurate and adequate information is very essential to increased agricultural productivity. Consequently, farmers consciously or unconsciously engage in information search in order to fill the information gap and to satisfy their goals. Agricultural information creates awareness among farmers about agricultural technologies for adoption. Agricultural information is usually generated through various sources. It is against this background that this study assessed the information needs of farmers for improved productivity in Bunkure Local Government Area of Kano State.

Statement of the Problem

Information is an important factor in the sustained development of any society because it reduces uncertainty and broadens the scope of options to take in solving problems. When people are aware of where to get help they usually go for it to solve their problem. Information distribution is a key to eradicating poverty and hunger. Farmers in the rural areas also need to know what and how their counterparts are doing in advanced countries and this can improve productivity.

Without adequate information, particularly to the rural farmers, there will be lack of awareness about new developments within the agricultural sector and this may lead to low

productivity and consequently a danger to the survival of the nation. The inability of the rural farmers to seek for information may result in poor production output, food insecurity, inability to feed the nation. Lack of investment in information may also result in the creation of an information-poor society.

In spite of the relevance of information to rural farmers and the survival of a nation, the researcher's pre-observation indicate that most rural farmers have no access to relevant information that will help them in decision making and to accept new innovation in farming.

The problem of this study therefore is to assess information needs of farmers for improved productivity in Bunkure Local Government Area of Kano State.

Objectives of the Study

The following objectives guided the study:

1. To identify agricultural information needs of farmers for improved productivity in Bunkure Local Government Area, Kano State.

2. To identify Sources of agricultural information needs utilized by farmers to enhance agricultural productivity in Bunkure Local Government Area, Kano State.
3. To determine the challenges experienced by farmers in accessing information for improved productivity in Bunkure Local Government Area, Kano State.

Research Questions

The study answered the following research questions:

1. What are agricultural information needs of farmers for improved productivity in Bunkure Local Government Area, Kano State?
2. What are the sources of agricultural information needs utilized by farmers to enhance agricultural productivity in Bunkure Local Government Area, Kano State?
3. What are the challenges experienced by farmers in accessing information for improved productivity in Bunkure Local Government Area, Kano State?

Review of Related Literature

Concept of Information

The concept of information is viewed as a basic resource used by all people to improve their condition of living and is essential for development. Adeyemo, (2013) observed

that the status and power of a nation by the 21st century will be partly determined by the information at its disposal and the recognition of the importance of such information to the development of societies. Information is important and useful to everyone in the society, because information is a vital resource for development in our fast-growing world. It lifts an individual from a state of ignorance, illiteracy and poverty to a state of enlightenment, prosperity, and literacy. Chisita, (2013) states that, a competitive economy depends on the free flow of information because good decision-making depends on reliable and timely information. Information is central to the teaching and learning process and reduces or eliminates uncertainty, its absence means policy mistakes, educational disparities, slower productivity and growth as it affects the quantity, success and effectiveness of public policy. In fact, information is essential to survival; it provides individuals, societies and nations with a second chance for rediscovering missed opportunities and the means for improving human conditions. Information is an asset and a resource for development of governments, agencies, and the target population (Kamba, 2009). Information has received a widespread acceptance as the essential feature of

production, consumption and exchange in this modern era (Olaniyi, & Ogunkunle, 2018). This means that the world has entered an era where the source of wealth and power is increasingly attributed to information and human mental creativity rather than physical resources.

Concept of Information Needs

To talk about the requirement is to determine the needs of the users. Kumar (2010) opines that determining the needs of the users' means knowing their requirement for information. In order to determine their requirements, it is essential to know the following; who the users are, their background (qualification, mastery of language, areas of research and specialization) and the purpose for which they need the information. According to Malham, & Rao, (2007), need means what a person ought to have, circumstance under which something is lacking, that which one cannot do without and that which is necessary for an organism's health and wellbeing. He further said that "information need" is a difficult concept to define, to isolate and especially to measure. It involves a cognitive process, which may operate on different levels of consciousness and hence may not be clear even to the inquirer himself. Information needs can therefore be better

understood if the concept of ‘need’ is clearly defined. Haruna, & Baba, (2017) have highlighted much on need and to him, need represents an imbalance or lack of adjustment between the present condition or situation or status quo and a new or changed set of conditions assumed to be more desirable. More simply, ‘need’ may be looked at as the difference between what is and what ought to be, hence implying a gap between these two conditions. Aboyede (1987) made it clear that information needs relate first to the main characteristics of the people – what they are and what is important to them. The needs reflect the social, cultural, political and economic dimensions of their development and aspiration. The above statement implies that individuals

Concept of Agricultural Information

Information is becoming a major input in agriculture, whilst, knowledge and information plays a central role for farmers to respond to opportunities that could improve their agricultural productivity (Nzozzo & Mogambi, 2016).

Agricultural information, as suggested by Lughlugh (2020), refers to all published or unpublished knowledge in all aspects of agriculture. He classified agricultural information into four categories namely, technical, commercial, sociocultural and

legal information. Essentially, agricultural information is a key component in improving small-scale agricultural production and linking increased production to remunerative markets, thus leading to improved rural livelihoods, food security and national economics (Masuki *et al*, 2010). Information-based, decision-making agricultural system (Precision Agriculture) is designed to maximize agricultural production and is often described as the next great evolution in agriculture (Mittal & Tripathi 2009).

Timely and relevant information is a necessity in re-engineering agricultural development at any level. Farmers in both urban and rural areas have felt need for information and the provision of this information is necessary for them to meet their information needs. Internet remains one the most powerful tool in the global that is being presently maximized by stakeholders in various fields of life make life meaningful and easy. As noted by Nafiz, (2016), timeliness of agricultural information very crucial to farmers’ success. Farmers need to be provided with the information at the right time so as to apply that information in their farming activities for better farm productivity. Access to reliable, timely, and relevant information can help significantly and in many ways to reduce farmer’s risks

and uncertainty, empowering than to make good decisions (Mittal and Mehar, 2013). According to Sani, Boadi, Oladokun and Kalusopa (2014), people can only use the available information at their disposal which is dependent on provision and access.

Agricultural Information for Improved Productivity in Nigeria

Agriculture which is the leading sector of the economy in most developing countries is one of the areas that information is constantly sought and used. In Nigeria, the importance of Agriculture to the economy cannot be over emphasized despite the growth of industries, oil and commerce, it had continued to be the principal economic activity carried out by most Nigerians (Lughlugh, 2020; Stienen, Bruinsma & Neuman, 2017; Mwangi and Kariuki, 2015; Lwoga, 2010) and it is crucial to meet the information needs of farmers for the development of the sector (Demet, Nilay, Marco and Tunç, 2016). The strategic importance of increasing access to knowledge and information is emphasized in the Human Development Report (UNDP, 2001), World Summit for Sustainable Development Plan of Action (UN, 2001) and the Revised World Bank Rural Development Strategy (Odoemelam and Olojede, 2016). To interact with the other factors of production, agricultural information is an

essential factor. The farmers decision-making is facilitated towards improved agricultural production, processing, trading and marketing through an effective and efficient release system of essential information and technology services (Anju and Satbir, 2017; Ukachi, 2015; Chen, Liu and Yang, 2011; Rodman, 2006). Success in enhancing agricultural production, providing income and job opportunities and ensuring that the agricultural sub-sector performs its manifest function in furtherance of rural and overall national development, depends largely on the communication system adopted to implement various agricultural programmes (Saleh, Burabe, Mustapha & Nuhu, 2018; Idiake-Ochei, Onemolease & Erie, 2016; Opara, 2008; Adomi, Ogbomo & Inoni, 2003). In fact, there is a positive relationship between the increased flow of knowledge and information and agricultural development (Fawole, 2008 in Anju and Satbir, 2017).

Information needs of rural farmers may range from field acquisition, agricultural inputs (seeds, pesticides, agricultural equipment, weather conditions, harvest technology etc), agricultural technology, agricultural credit (eg. terms of loans), to agricultural marketing, and food technology (Meitei and

Devi, 2009 in Demet, Nilay, Marco and Tunç, 2016).

According to Milovanovic (2014), in order to improve agricultural production, farmers should have the following information: information on crops, information on production techniques, information on production equipment and agricultural input, market information. Other information of interest for farmers includes weather forecast, availability of credit, and expert advice about maintaining crops in healthy state.

Methodology

Survey research design was adopted for the study. The population of the study comprised of 790 registered farmers in ten political wards in Bunkure Local Government Area. The sample used for the study was 241 registered farmers selected through stratified

sampling technique. Information Needs for Farmers' Productivity Questionnaire (INFPQ)" was used as instrument for data collection. The instrument was validated by three experts in Department of Adult Education and Community Services, Faculty of Education, Bayero University, Kano and reliability index of 0.75 was obtained through test-re-test method. Two hundred and forty one (241) questionnaires administered were duly filled and returned for data analysis. Chi-square was used to answer the formulated research questions at 0.05 level of significance.

Results and Discussion

Research Question I: What are agricultural information needs of farmers for improved productivity in Bunkure Local Government Area, Kano State?

Table 1.1: Summary of Chi-square of agricultural information needs of farmers for improved productivity in Bunkure Local Government Area, Kano State

Agricultural Information Needs	Fo	Fe	χ^2_{cal}	χ^2_{tab}	Df	P
Types of pests	74	48.2	18.1	9.49	4	.001
Types of diseases and weed control	47	48.2				
Types of disaster control and mitigation	40	48.2				
Fertilizer procurement and application	39	48.2				
Post-harvest technology and agricultural credit	41	48.2				
Total	241					

$\chi^2_{tab}=9.49$, df:3; P>0.05

The result in table 1.1 showed the frequency observed of agricultural information needs of

farmers for improved productivity in Bunkure Local Government Area, Kano

State. The table indicated that the frequency observed for the information of types of pests is 74 with a frequency expected of 48.2, the frequency observed for the information of types of diseases and weed control is 47 with a frequency expected of 48.2, the frequency observed for the information of types of disaster control and mitigation is 40 with a frequency expected of 48.2, the frequency observed for the information of types of fertilizer procurement and application is 39 with a frequency expected of 48.2, the frequency observed for the information of post-harvest technology and agricultural credit is 41 with a frequency expected of 48.2. This mean that farmers in Bunkure Local Government Area, Kano State needed information on types of pests followed by the types of diseases and weed control, post-harvest technology and agricultural credit types of disaster control and mitigation and

types of fertilizer procurement and application. An inferential statistic of Chi-square also showed that the Chi-square value of 18.1 greater than the table value of 9.49 with df of 4 and $p=.001$ which is less than 0.05 alpha level. This indicated that there is significant agricultural information needs of farmers for productivity improvements in Bunkure Local Government Area, Kano State covered types of pests, types of diseases and weed control, types of disaster control and mitigation, types of fertilizer procurement and application and post-harvest technology and agricultural credit ($\chi^2=18.1$, $df:4$; $P<0.05$).

Research Question II: What are the sources of agricultural information needs utilized by farmers to enhance agricultural productivity in Bunkure Local Government Area, Kano State?

Table 1.2: Summary of Chi-square of sources of agricultural information needs utilized by farmers to enhance agricultural productivity in Bunkure Local Government Area, Kano State

Sources of agricultural information	Fo	Fe	χ^2 cal	χ^2_{tab}	df	P
Town crier	59	48.2	42.8	9.49	4	.000
Television	62	48.2				
Mobile phones/internet	71	48.2				
Film shows	17	48.2				
Radio	32	48.2				
Total	241					

$\chi^2_{tab}=9.49$, $df:3$; $P>0.05$

The result in table 1.2 indicated the frequency observed of sources of agricultural

information needs utilized by farmers to enhance agricultural productivity in Bunkure Local Government Area, Kano State. The

table also showed that the mobile phones/internet have the higher frequency of 71 as a sources of agricultural information needs utilized by farmers to enhance agricultural productivity in Bunkure Local Government Area followed by television with frequency of 62, Town crier with frequency of 59, radio with frequency of 32 and film shows with frequency of 17. The major sources of agricultural information needs utilized by farmers to enhance agricultural productivity in Bunkure Local Government Area are mobile phones/internet. The result of Chi-square on the table also revealed that the Chi-square

value of 42.8 greater than the table value of 9.49 with df of 4 and p=.000 which is less than 0.05 alpha level. This indicated that there is significant sources of agricultural information needs utilized by farmers to enhance agricultural productivity in Bunkure Local Government Area, Kano State such as town crier, television, mobile phones/internet, film shows and radio ($\chi^2=42.8$, df:4; P<0.05).

Research Question III: What are the challenges experienced by farmers to access information for improved productivity in Bunkure Local Government Area, Kano State?

Table 1.3: Summary of Chi-square of challenges faced by farmers to access information for improved productivity in Bunkure Local Government Area, Kano State

Challenges experienced by farmers	Fo	Fe	χ^2 cal	χ^2_{tab}	df	P
Poor communication system	100	48.2	84.5	9.49	4	.000
Absence of extension agents	21	48.2				
Insufficient knowledge on the marketing of farm produce	57	48.2				
Insufficient credit facilities	34	48.2				
Insufficient government policies	29	48.2				
Total	241					

$\chi^2_{tab}=9.49$, df:3; P>0.05

The result in table 1.3 indicated the challenges experienced by farmers to access information for productivity improvements in Bunkure Local Government Area, Kano State. The table also showed that the poor communication system have higher frequency of 100 as a challenge experienced

by farmers to access information for productivity improvements in Bunkure Local Government Area, Kano State followed by insufficient knowledge on the marketing of farm produce with frequency of 57, insufficient credit facilities with frequency of 34, Insufficient government policies with frequency of 29 and absence of extension

agents with frequency of 21. Therefore, poor communication system is the major challenge faced by farmers to access information for productivity improvements in Bunkure Local Government Area, Kano State. The result of Chi-square on the table also indicated that the Chi-square value of 84.5 greater than the table value of 9.49 with df of 4 and $p=0.000$ which is less than 0.05 alpha level. This indicated that there are significant challenges faced by farmers to access information for productivity improvements in Bunkure Local Government Area, Kano State such as poor communication system; absence of extension agents; insufficient knowledge on the marketing of farm produce; insufficient credit facilities; and insufficient government policies ($\chi^2=84.5$, $df:4$; $P<0.05$).

Summary of Findings

The findings of the study revealed that;

1. There is significant agricultural information needs of farmers for improved productivity in Bunkure Local Government Area, Kano State such as types of pests, types of diseases and weed control, types of disaster control and mitigation, types of fertilizer procurement and application and post-harvest technology and agricultural credit ($\chi^2=18.1$, $df:4$; $P<0.05$).

2. There is significant sources of agricultural information needs utilized by farmers to enhance agricultural productivity in Bunkure Local Government Area, Kano State such as town crier, television, mobile phones/internet, film shows and radio ($\chi^2=42.8$, $df:4$; $P<0.05$).
3. There is significant various challenges experienced by farmers to access information for improved productivity in Bunkure Local Government Area, Kano State such as poor communication system; absence of extension agents; insufficient knowledge on the marketing of farm produce; insufficient credit facilities; and insufficient government policies ($\chi^2=84.5$, $df:4$; $P<0.05$).

Discussion of Findings

The outcome of this study revealed that there is significant agricultural information needs of farmers for improved productivity in Bunkure Local Government Area, Kano State ($\chi^2=18.1$, $df:4$; $P<0.05$). The finding of the study is in line with the result of the study of Njoku (2004) on information needs and information seeking behaviour of fishermen in Lagos State, Nigeria where the author reported that the information needs of fishermen in Lagos State are mostly occupation directed. Their chief sources of

information include colleagues, friends, neighbours and relatives. This shows that there is acute shortage of information and fisheries extension officers in the field of information dissemination.

The finding of the study also indicated that there is significant sources of agricultural information needs utilized by farmers to enhance agricultural productivity in Bunkure Local Government Area, Kano State ($\chi^2=42.8$, df:4; $P<0.05$). This finding is similar with the study of Olabode (2008) on the Information Needs of Selected Rural Communities in Ekiti East Local Government Area of Ekiti State. The sources of information available include radio/TV broadcast, traditional ruler's friends, billboard/posters and magazines and majorities do not use these information services and the researcher attributes this lack awareness of such information services provided to the high cost of information materials.

The result of the study revealed that there is significant various challenges experienced by farmers accessing information for productivity improvements in Bunkure Local Government Area, Kano State ($\chi^2=84.5$, df:4; $P<0.05$). The finding is in line with the report of Dauda (2008) that problems confronting

the local farmers include: Poor feeder roads and inadequate road network between the rural areas where agricultural production mainly takes place and the urban areas; lack of appropriate on farm and off-farm storage facilities; the rural electrification programmes in Nigeria have not fully taken off as the government battles with the supply of electricity in urban areas. She further said that the absence of all these lead to poor dissemination of agricultural information. The extension service delivery system still suffers from the inadequate number of extension men and women. The few that are in place, lack mobility to improve on extension farmer contact while women extensionists are too few to handle gender issues.

Conclusion

Farmers needs agricultural information for improved productivity in the area of pests, diseases and weed control and mitigation, fertilizer procurement and application and post-harvest technology and agricultural credit. The sources of agricultural information needs utilized by farmers for improved productivity were mainly through town crier, television, mobile phones/internet, film shows and radio, among others. However, poor communication

system; absence of adequate extension agents; insufficient knowledge on the marketing of farm produce; insufficient credit facilities; and inconsistent government policies were among the major challenges affecting farmers' desire to source for content specific information for improved productivity.

Recommendations

Based on the findings of this study, the following recommendations were made:

1. Kano State Ministry Agriculture should organize seminar and workshop

periodically to educate famers on specific information needs for productivity improvements.

2. KNARDA and other farmers groups should sensitize farmers on multiple sources of agricultural information needs for farmers to enhance agricultural productivity.
3. KNARDA and extension workers should remove barriers to access information for productivity improvements by farmers

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REFERENCES

- Adereti, F.O.; Fapojuwo, O.F. and Onasanya, A.S. (2006). "Information on utilization on cocoa production techniques by farmers in Oluyole Local Government Area of Oyo State, Nigeria.", *European Journal of Social Science*, 3 (1), 1-7.
- Adeyemo, A. B. (2013). A e-farming framework for sustainable agricultural development in Nigeria. *Journal of Internet and Information System*, 3 (1), 1 - 9.
- Adomi, E.E., Ogbomo, M. O. and Inoni, M.O. (2003), Gender factor in crop farmers' access to agricultural information in rural areas of Delta State, Nigeria. *Library Review*, 52(8), 388- 393.
- Anju, D. and Satbir, S. (2017). Sources of Agricultural Information Accessed by Farmers in Haryana, India. *International Journal of Current Microbiology and Applied Sciences*, 6(12), 1559-1565.
- Anwar, M.A. (2007) Research on information seeking and use in Pakistan: an assessment. *Pakistan Journal of Library and Information Science*, 8: 15-32 Association (Ogun State Chapter), UNAAB Abeokuta.
- Aina, L. O. (2004). Towards improving information access by semi and non-literate groups in Africa: A need for empirical studies of their information seeking and retrieval patterns. In T. J. D. Bothma and A. Kaniki (eds). ProLISSA 2004: Proceedings of the 3rd Biennial DISSAnet Conference. Pretoria: Infuse, pp. 11 –20.
- Case, D.O (2009). Looking for information: A survey of research in information seeking needs and behaviour, (2nd Ed). Amsterdam: Academic Press.
- Chen, Z., Liu, C. & Yang, D. (2011). Information Poverty and Farmers' Information Right in China's Mountainous Rural Areas. *Procedia Engineering*. Retrieved on June 18, 2020, from www.sciencedirect.com/science/article/pii/S1877705811017371.
- Chisita, C. T. (2013). Knotting and networking agricultural information services through web 2.0 to create an informed farming community: a case of Zimbabwe. <http://conference.ifla.org/ifla78>. Food and Agricultural Organization of the United Nations. Rome: FAO.
- Demet, S., Nilay, C., Marco, S., and Tunç, M. (2016). A Comparative Study of Information Seeking Behavior and Digital Information Needs of Farmers in Turkey and Sweden. *International Journal of eBusiness and eGovernment Studies*, 8(2), 18-33.
- Ekoja, I. (2003). Farmer's access to agricultural information in Nigeria. *Bulletin of the American Society for Information Science and Technology*, 29(6), 21 -23.
- Haruna, A. & Baba, D. (2017). An appraisal of farmers internet use for sourcing agricultural information in North – Western Nigeria. *SHS Web of Conference*, 33, DOI:10.1051/shsconf20173300051.
- Idiako-Ochei, O; Onemolease, E. A. and Eri, G. O. (2016). Information-Seeking Behaviour of Extension Personnel in Edo State, Nigeria. *Scholars Journal of Agriculture and Veterinary Sciences*, 3(4), 318-325. *Journal of International Conference Series*, August 2020
- Jeffcoat, C., Davis, A. F. & Hu, W. (2012). Willingness to pay for broadband access by Kentucky farmers. *Journal*

- of Agricultural and Applied Economics*, 44 (3), 323 -334.
- Kamba, M.A. (2009). "Access to information: The Dilemma for Rural Community Development in Africa" (Monograph).
- Lughugh, J. (2020). Information Needs and Information Seeking Behaviour of Farmers for Sustainable Agricultural Development in Benue State, Nigeria. *International Journal of Research and Innovation in Social Science (IJRISS)*, IV(V), 309-312.
- Magesa, M. M., Michael, K. and Ko, J. (2014). Agricultural market information services in developing countries: a review. *ACSU Advances in Computer Science: an International Journal*, 3 (3), 38 - 47.
- Malham, I. V. & Rao, S. (2007). Agricultural knowledge transfer in India: a study of prevailing communication channels. *Library Philosophy and Practice*
- Masuki. F. G., Kamugisha, R., Mowo, J. G, Tanui, J. Tukahirwa J., Mogoi, J. & Adera, E. O. (2010). Role of mobile phones in improving communication and information delivery for agricultural development: lesson from south western Uganda. ICT and Development Research Voices for Africa. International Federal for Information Processing (IFIP), Technical Commission 9 – Relationship between Computers and Society Workshop at Makerere University, Uganda 22-23 March.
- Milovanovic, S. (2014). The role and potential of information technology in agricultural improvement, *Economics of Agriculture, EP*, 61(2), 471- 485.
- Mittal, S. & Mehar, M. (2013). Agricultural information networks, information needs, and risk management strategies: a survey of farmers in Indo-Gangetic Plains of India. *Socioeconomics Working Paper* 10.
- Mittal, S. & Tripathi, G. (2009). Role of mobile phone technology in improving small farm productivity. *Agricultural Economics Research Review*, 22, 451-459.
- Mulauzi, F. and Zulu, M. (2012). Information and Knowledge: A Panacea for Increased Food Security among Women in Chipata District: The Caseoff Luangeni. Social Policies and Social Development: OSSREA Zambia Chapter Academic Workshop Proceedings, University of Zambia Senate Chamber, Lusaka, Zambia, 15 th October, 2012, pp.121 -144. ISBN: 978-9982-22-845-9
- Mwangi, M. & Kariuki, S. (2015). Factors determining adoption of new agricultural technology by smallholder farmers in developing countries *Journal of Economics and Sustainable Development*, 6 (5), 208 – 216.
- Nafiz, Z. S. (2016). The Information Practices of the Fishermen in the Bay of Bengal, Bangladesh. *Open Information Science*, 1, 21 -40.
- Nicholase-Ere, O. (2017). Dissemination of agricultural information to farmers using ICT. *International Journal of Computer Applications*, 179 (7), 27 - 31
- Nzonzo, D. & Moganmbi, H. (2016). An analysis of communication and information communication technologies adoption in irrigated rice production in Kenya. *International Journal of Education and Research*, 4 (12), 295-316.
- Odini, S. (2005). Information seeking and communication behaviour of Kenya

- Railways Engineers. University of Dar es Salaam Journal 7(2).
- Odini, S. (2014). Access to and use of agricultural information by small scale woman farmers in support of efforts to attain food security in Vihiga country, Kenya. *Journal of Emergency Trends in Economics and Management Sciences (JETEMS)*, 5 (2), 80 – 86.
- Olaniyi, O. A. and Ogunkunle, T. (2018). Agricultural and Nutritional Information Needs of Arable Crop farmers in Ondo State Nigeria. *Journal of Agricultural Extension*, 22(3), 9- 21. Also available at <https://dx.doi.org/10.4314/jae.v22i3.2>.
- Oluwatoyin, S. S. (2016). Analysis of Agricultural Communication for Improving Productivity among Rural Farmers in Odeda Local Government Area of Ogun State, Nigeria. A Dissertation Submitted to the School of Postgraduate Studies, Ahmadu Bello University, Zaria in Partial Fulfillment of the Requirements for the Award of Master of Science Degree in Mass Communication.
- Opara, U. N. (2008). Agricultural information sources used by farmers in Imo State, Nigeria. *Information Development*, 24(4), 289-295.
- Sani, L. Boadi, B. Y, Oladokun, O. & Kalusopa, T. (2014). The generation and dissemination of agricultural information to farmers in Nigeria: a review. *IOSR Journal of Agriculture and Veterinary Science*, 7 (2), 102 - 111.
- Solomon, P (2002). Discovering information in context. Annual Review of Information Service and Technology 36: 229-264.
- Soyemi, O, D, & Haliso, Y. (2015). Agricultural information use as determinant of farm income of women in Benue State, Nigeria. *Research on Humanities and Social Sciences*, 5 (18), 1 - 6.
- Stienon, J., Bruinsma, W. & Neuman, F. (2007). How ICT can make a difference in agricultural livelihoods. Available online at: www.bibalex.org/Search4Dev/files/287913/118796.pdf
- Ukachi, N. B. (2015). Exploration of information literacy skills status and impacts on the quality of life of artisans in Lagos, Nigeria. *New Library World*, 116(9/10), 578-587. Available at <http://dx.doi.org/10.1108/NLW-01-2015-0006>.
- World Bank (2006) World development indicators. Washington, DC: World Bank. Retrieved on June 18, 2020 from <http://data.worldbank.org/sites/default/files/wdi06.pdf>.
- Yohanna, I., Ndaghu, A. A. & Barnabas, B. P. (2014). Sources of Information on Climate Change among Arable Crop Farmers in Adamawa State, Nigeria. *Journal of Agriculture and Veterinary Science*, 7(8), 32-36. Also available at www.iosrjournals.org.
- Zijp, W. (1994). *Improving the transfer and use of agricultural information: A guide to information technology*. Washington, DC: World Bank.

Relationship between Women Economic Empowerment and their Roles in Household Decision making in Bayero University, Kano, Nigeria

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ABSTRACT

The study examined the relationship between women economic empowerment and their roles in household decision making in Bayero University, Kano, Nigeria. The study was guided by three objectives and three corresponding research question and hypotheses. Correlational research design was used. One Hundred and Two (102 academic and non-academic female staff of Faculty of Education, and members of Business Women Association, Bayero University, Kano were used as population of the study out of which eighty women were selected as sample through purposive and simple random sampling techniques. Questionnaire on Women Economic Empowerment for Household Decision Making (QWEEHD) was used for data collection. The questionnaire was validated by three experts in community development and test and measurement from Bayero University, Kano. The reliability of the instrument was established through test-re-test method and a co-efficient of 0.73 was obtained using Pearson Product Moment Correlation (PPMC). The data collected were analyzed using simple percentages, mean and regression analysis. The findings of the study revealed that: the economic empowerment activities benefitted by women in Bayero University, Kano, were education, training activities, skills acquisitions and development opportunities, income generation activities and cooperative societies; there is significant relationship between women economic empowerment and their roles in household decision making pertaining to health and social activities of family members. Based on findings of the study, it was recommended that Bayero University Kano and other associations operating in the University should expand their scope of empowerment activities to cover entrepreneurship, financial literacy, and networking/partnership.

Keywords: *Women Economic Empowerment, Health, Social Activities, Household Decision Making*

Introduction

The empowerment of women is one of the vital issues of development, particularly in

developing countries, where they appear to form the largest of the poor, marginalized and

vulnerable group. In Africa, women are politically under-represented, with little or no decision-making power accorded to them (Akudo, 2012). They usually have little or no choice regarding their course of life as well as little or no opportunities to improve their condition (Nessa, Ali and Abdul-Hakim, 2012). Thus, empowering women is critical since it will help to unlock their potentials, which in turn enable them to improve not only their standard of living and quality of life, but also the welfare of their family. Empowerment of women could lead to an effective strategy to alleviate the problems of poverty.

In Nigeria, the empowerment of women has in the recent years come to be recognized as a central issue in determining the status of women. Thus, in 1989 the National Commission for Women, charged with the responsibility of safeguarding the rights and legal entitlements of women, was established. It later metamorphosed into the Ministry of Women Affairs in 1996. In 2006, the Ministry evolved a National Gender Policy, which highlights the rights and privileges of women within the Nigerian State. Nigeria has also ratified various international treaties on women's rights, such as Committee on the Elimination of Discrimination against Women (CEDAW)

committed to securing equal rights for women. Similarly, the National Economic Empowerment and Development Strategy (NEEDS, 2004) recognizes the need to integrate women into the development process by enhancing their capacity to participate in the economic, social, political and cultural life of the country through measures such as mainstreaming women's concerns and perspectives in all policies and programmes, and promoting women's access to micro-finance and other poverty alleviation strategies.

Akomolafe (2006) defines women empowerment as the development of mental and physical capacity, power and skills in women for them to operate meaningfully in their social milieu, thereby experiencing a more favourable level of social recognition and subsequently enhance their economic status. Women's empowerment refers to “women's ability to make strategic life choices where that ability had been previously denied them” (Malhotra et al., 2009). Accordingly, empowerment is central to the processes of maintaining the benefits of women at individual, household, community and broader levels (Malhotra et al., 2009). It involves the action of boosting the status of women through literacy, education, training and rising awareness

(Alvarez and Lopez, 2013). Empowerment refers to the process of change that gives individuals greater freedom of decision, choice and action. A process of economic empowerment for women is dependent upon available resources and whether women have the skills to use them; access to economic opportunities; and control over economic benefits that can be used to achieve positive change. A woman is said to be economically empowered when she has: (i) the ability to succeed and advance economically; and (ii) the power to make decisions and act on economic decisions without interference. Schmitz (2009) defines women's economic empowerment as the process which increases women's real power over economic decisions that influence their lives and priorities in society.

Women who are working in Bayero University, Kano constitute an important group/segment of the University Community that are empowered considering their status of education, employment, experience, exposure, participation in various activities and their ability to take decision on certain issues. It is against this background that this study will be carried out to determine the relationship between women economic empowerment and household decision making roles in Kano State, Nigeria.

Statement of the Problem

Despite the important role women play in household, societal and national development, they have not been given due recognition in the scheme of things. There has been a great disparity between women and men. Women interest and involvement in economic activities are limited. Though women are playing very important roles within and outside the home, disparities still exists between men and women in education, health, employment, income opportunities, control over assets, personal security and participation in the political process (Food and Agricultural Organization, 2011). According to the United Nation's Gender-related Development Index (GDI), women are under privileged and less empowered and this undeniably restricts the ability to achieve full potentials of developing countries (United Nations Development Programme, 1995).

Research Question

The objectives of the Study are:

1. What are the economic empowerment activities benefited by women in Bayero University, Kano.
2. What is the relationship between economic empowerment activities and women household decision making roles on health of family members

3. What is the relationship between economic empowerment and women household decision making roles on social activities of family members

Research Hypotheses

The hypotheses were formulated to guide the study:

Ho₁: There is no significant relationship between economic empowerment activities and women household decision making roles on health of family members.

Ho₂: There is no significant relationship between economic empowerment activities and women household decision making roles on social activities of family members.

Methodology

Survey research design was adopted for the study over One Hundred and Two (102) population of members of Women Food Vendors Association, Kano State. Eighty women were selected as sample of the study

through purposive and simple random sampling techniques. A self-developed Questionnaire on Women Economic Empowerment for Household Decision Making (QWEEHD) was used for data collection. Face and content validity of the instrument was determined by two community development experts in the Department of Adult and Community Services, Bayero University, Kano and one Test and Measurement expert. The reliability of the instrument was established through test-re-test method where 0.71 reliability index was obtained using Pearson Product Moment Correlation (PPMC). Copies of the questionnaires were distributed to the respondents by the researcher with the help of one research assistant. The data collected were analyzed using simple percentages, mean scores and regression analysis.

Data Presentation and Analysis

Table 1.1 Economic Empowerment Activities Benefitted By Women in Bayero University, Kano

S/N	Statements	Frequency Distribution					Descriptive Statistics		Decision
		SA (4)	A (3)	D (2)	SD (1)	N total	\bar{X}	SD	
1.	Women are involved in education for economic empowerment	4 (5)	69 (86.3)	1 (1.3)	6 (7.5)	80	2.8875	.59521	Accepted
2.	women enjoyed training activities for economic empowerment	23 (28.7)	55 (68.8)	2 (2.5)	0 (0)	80	3.2625	.49667	Accepted
3.	Women are provided with skills acquisition and development programme for economic empowerment	14 (17.5)	61 (76.3)	4 (5)	1 (1.3)	80	3.1000	.51803	Accepted
4.	Women have access to resources and opportunities for economic empowerment	5 (6.3)	13 (16.3)	51 (63.7)	11 (13.8)	80	2.1500	.73087	Rejected
5.	Women have benefitted from income generating activities for economic empowerment	17 (21.3)	49 (61.3)	12 (15)	2 (2.5)	80	3.0125	.68425	Accepted
6.	Women participated in co-operative societies economic empowerment	20 (25)	28 (35)	19 (23.8)	13 (16.3)	80	2.6875	1.0261 6	Accepted
Grand Mean							2.850		Accepted

Table 1.1 showed the various types of economic empowerment activities benefitted by women in Bayero University, Kano. The table revealed that majority of the respondents agreed with five statements that; education (2.8875), training activities (3.2625), skills acquisition and development (3.1000), income generating activities (3.0125) and co-operative societies (2.6875) were the economic empowerment activities benefitted by women in Bayero University, Kano. This is because of the fact that the mean scores for the statements were all above and around the grand mean score of

2.850 and the decision rule of 2.50. Also revealed by the table is that the respondents disagreed with the statement that having access to resources and opportunities resulted in economic empowerment (2.1500), because its mean score is below the grand mean score of 2.850 and the decision rule of 2.50.

Therefore, based on the data in table 1.1, it was concluded that the economic empowerment activities benefitted by women in Bayero University, Kano were education, training activities, skills acquisitions and development opportunities, income

generation activities and cooperative societies.

Hypotheses Testing

Ho₁: There is no significant relationship between economic empowerment activities and women household decision making roles on health of family members.

Table 1.2: Regression Analysis Showing Correlation between economic empowerment activities and women household decision making roles on health of family members.

Model	Sum of Squares	df	Mean Square	F	r	p-value	Sig.
Regression	24.831	1	24.831	565.655	.937	.000	0.05
Residual	3.424	78	.044				
Total	28.256	79					

Table 1.2 shows the regression coefficient reveals the relationship between economic empowerment activities and women household decision making roles on health of family members.

The regression results shows that economic empowerment activities were significantly related with women household decision making roles on health of family members (r= .937, p= .000, p < 0.05 level of significance). Since the p-value (p=.000) is less than the significance level ($\alpha = 0.05$), the null hypothesis which stated that there is no significant relationship between economic empowerment activities and women household decision making roles on health of

family members was rejected and the alternate hypothesis which stated that there is significant relationship between economic empowerment activities and women household decision making roles health of family members was accepted.

Based on the result obtained, it was therefore concluded that significant relationship exists between economic empowerment activities and women household decision making roles on health of family members in Bayero University, Kano.

Ho₂: There is no significant relationship between economic empowerment activities and women household decision making roles on social activities of family members.

Table 1.3: Regression Analysis Showing Correlation between economic empowerment activities and women household decision making roles on social activities of family members.

Model	Sum of Squares	df	Mean Square	F	r	p-value	Sig.
Regression	11.900	1	11.900	56.753	.649	.000	0.05
Residual	16.355	78	.210				
Total	28.256	79					

Table 1.3 shows the regression coefficient confirming the relationship between economic empowerment activities and women household decision making roles on social activities of family members.

The regression results shows that economic empowerment activities were significantly related with women household decision making roles on social activities of family members ($r = .649$, $p = .000$, $p < 0.05$ level of significance). Since the p-value ($p = .000$) is less than the significance level ($\alpha = 0.05$), the null hypothesis which stated that there is no significant relationship between economic empowerment activities and women household decision making roles on social activities of family members was rejected and the alternate hypothesis which stated that there is significant relationship between economic empowerment activities and women household decision making roles on social activities of family members was accepted.

Based on the result obtained, it was concluded that significant relationship exists between economic empowerment activities and women household decision making roles on social activities of family members in Bayero University, Kano.

Summary of Findings

The following are the findings of the study:

1. The economic empowerment activities benefited by women in Bayero University, Kano were education, training activities, skills acquisitions and development opportunities, income generation activities and cooperative societies.
2. There is significant relationship between economic empowerment activities and women household decision making roles on health of family members in Bayero University, Kano.
3. There is significant relationship between economic empowerment activities and women household decision making roles on social activities of family members in Bayero University, Kano.

Discussion of Findings

The first finding of the study revealed that the economic empowerment activities benefited by women in Bayero University, Kano were education, training activities, skills acquisitions and development opportunities, income generation activities and cooperative societies. This finding was in line with results of Ekesionye and Okolo (2012) who studied women empowerment and participation in economic activities: Indispensable tools for self-reliance and development of Nigerian society. Survey research design was used. The results showed that: farming, trading, craft, food processing, hair dressing, poultry

and the likes were the major economic activities performed by women in Anambra state. Personal savings, family assistance, philanthropist's assistance, loans and credits, cooperative society assistance, group contributions, were the sources of fund available to the women for their economic activities. Education and health promotion, food supply and distribution, were some of the services rendered by the women that bring about societal development. As it can be seen, the outcome of the study highlighted education, health promotion, and cooperative society assistance as some of the activities that can empower women economically.

Similarly, Uzoamaka, Gerald, and Eze (2016) who studied women empowerment as a panacea for economic development and poverty reduction in Enugu State, Nigeria further confirm the first finding of the study where he reported that women need education, skills, access to assets/credit, social protection in order to fully develop their productive assets and tackle poverty. The researcher recommended that for women, their families and society to reap the benefits of economic development and poverty reduction; investments in and empowerment of women both economic and socially are inevitable.

Enemuo (2001:26) in support of the first finding of the study posited that "an effective and sustainable process of women empowerment must necessarily include the expansion of women's access to educational opportunities, skill acquisition and positions of authority" Since education enhances a person's self-worth and confidence and also creates an awareness of capacity, women will become more effective in their roles in social activities and take initiatives in the decision-making processes if they are educated.

The second finding of the study confirmed that there is significant relationship between economic empowerment activities and women household decision making roles on health of family members in Bayero University, Kano. This finding was in line with the results obtained by Roy, Haque, Jannat, Ali, and Khan (2017) where multiple regression analysis showed that women's income was positively related with women's education which is an essential tool for economic empowerment.

The third finding of the study indicated that there is significant relationship between economic empowerment activities and women household decision making roles on social activities of family members in Bayero University, Kano. This finding was supported by the assertion of Stromquist (1995), who

argued that women empowerment is a socio-political concept that involves cognitive, psychological, economic and political dimensions. Similarly, the understanding of Roy (1995) who considered empowerment as a process of creation of social environment where women can take decision and make choices of their own, either individually or collectively, for social betterment further supported the fifth finding of the study.

Conclusion

The study concluded that; the economic empowerment activities benefitted by women in Bayero University, Kano, were education, training activities, skills acquisitions and development opportunities, income generation activities and cooperative societies but have not benefitted from access to resources and opportunities; there is significant relationship between economic empowerment activities and women

household decision making roles on health and social activities of family members.

Recommendations

Based on findings of the study, it was recommended that:

1. Bayero University Kano and other associations operating in the University should expand their scope of empowerment activities to cover entrepreneurship, financial literacy, and networking/partnership.
2. Women should be provided with health literacy by women groups, civil society organizations so that they handle the health issues of their family members effectively.
3. Women should be involved more by parents, and other family members in the organization of social and other recreational activities.

REFERENCES

- Akomolafe, C. O. (2006) "Open and Distance Learning as a Mechanism for Women Empowerment in Nigeria" Educational Foundations and Management Amhara Region Women Entrepreneurs Association, Ethiopia, *Women's Economic Empowerment Series*, Sida, Stockholm.
- Akudo, C. O., (2012). Empowering Nigerian Women in the 21st Century: Measuring the Gap. Nigeria.
- Alvarez, Lopez, Michelle, (2013). From unheard screams to powerful voices: a case study of Women's political empowerment in the Philippines. In: 12th National Convention on Statistics (NCS) EDSA Shangri-la Hotel, Mandaluyong City October 1e2, 2013.
- Malhotra, Anju, et al., (2009). Innovation for Women's Empowerment and Gender Equality. International Center for Research on Women (ICRW). North Washington, D.C.
- Ekesionye, E. N. and Okolo, A. N. (2012). Women empowerment and participation in economic activities: Indispensable tools for self-reliance and development of Nigerian society. *Educational Research and Review* Vol. 7(1), pp. 10-18, 5
- Enemuo, F. C. (2001). Political participation and the economic empowerment of Nigerian women: Imperatives and prospects. In Obi C. I. (ed), *Women's political participation through economic empowerment*. Lagos: O.V.C. Nigeria Limited.
- Food and Agricultural Organisation (2011). The State of Food and Agriculture: Women in agriculture: Closing the gender gap for development. Rome: FAO.
- Nessa, T., Ali, J., and Abdul-Hakim, R. (2012). The Impact of Microcredit Program on Women Empowerment: Evidence from Bangladesh. *International Journal of Sustainable Development*, 03: 09 (2012).
- Rowlands, J. (1995), 'Empowerment Examined', *Development in Practice*, Vol. 5(2), pp. 101-107.
- Roy, P. K., Haque, S., Jannat, A. Ali, M. and Khan, M. S. (2017). Contribution of women to household income and decision making in some selected areas of Mymensingh in Bangladesh. *Progressive Agriculture* 28(2):120-129.
- Schmitz, C. (2009). Working Paper December on Sida Gender Equality Team Indvelop-IPM, Sida
- United Nations Development Programme (1995), 'Human Development Report 1995', *Oxford University Press*, New York
- Uzoamaka, O. E. Gerald, N. and Eze, J. (2016). Women empowerment as a panacea for economic development and poverty reduction in Enugu State, Nigeria. *Journal of Policy and Development Studies* Vol. 10, No. 2, May 2016

Health Information Access for Prevention of Sexually Transmitted Diseases (STDs) among Truck Drivers in Marabar Jos and Tafa Stations in Kaduna STATE, Nigeria

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ABSTRACT

The study examined the Health Information Access for Prevention of Sexually Transmitted Diseases (STDs) among Truck Drivers in Marabar Jos and Tafa Stations in Kaduna State, Nigeria. Two (2) research objectives were formulated in line with two (2) research questions on: Types of Health Information the truck drivers, and medium through which the truck drivers access Health Information for prevention of STDs. The research adopted the quantitative research methodology using a survey research design, the total population of the study comprised 75000 long-journey truck drivers plying Nigerian roads from which a sample of 382 truck drivers were drawn. Simple random sampling technique was used. The instrument used for data collection was questionnaire. The study found out that truck drivers receive Information on effective condom use, Information on the dangers of STDs, Information on mode of transmission and Information on causes of STDs. Watching Television, discussion with Friends, browsing the Internet and Handsets were the medium through which they access information. Only few access the information by reading Newspapers, Billboards, and attending Mobilizations campaigns on health-related issues. It was concluded that if Health Information is made available, accessible and disseminated to truck drivers, it will help in reducing the menace of STDs in our societies. It was recommended that more Health Information should be made available for truck drivers to use. More Health Information sources on STDs should be provided and made accessible for truckers to use. Truckers should also be taught on how internet and handsets should be accessed effectively.

Keywords: Health Information, Truck Drivers, Sexually transmitted disease, information access, STDs prevention

Introduction

Health information highlights the provision of information about health services and providers, thus making patients aware of the health services available. Health information

is very important to our lives. People seek for information on their health status more than anything as people used to say “Health is wealth”.

Health information is defined as data related to a person's medical history, including symptoms, diagnoses, procedures, and outcomes. Health information records include patient histories, lab results, x-rays, clinical information, and notes (American Health Information Management Association, 2019). Health information plays an important role as it improves health care quality and patient outcomes by reducing medication and medical errors, reduces unnecessary tests and services and improve the efficiency of care by ensuring everyone involved in a patient's care has access to the same information, reduces administrative costs by making many administrative tasks simpler and more efficient, increases patient involvement in their own health care and reduce the amount of time patients spend filling out paperwork and briefing providers on their medical histories and finally coordinates with and support public health officials to improve the health of our communities (HealthIT, 2019).

Health literacy is increasingly important in today's complex information ecosystem, both nationally and globally. Across the world, whether people live in "information rich" or "information poor" societies, the role of our profession is a vital one. In the developed world, the ubiquitous nature of

health information creates a wealth of accessible content and simultaneously has created confusion as to what information is reliable, how health information can be utilized, and whether or not information is produced in a meaningful manner (Ottosen, Mani, and Fratta, 2019). In the developing world, content may be non-existent, culturally inappropriate or inaccessible in terms of language and other barriers. In order to mitigate the health information crisis we are now facing, we need to collaborate and respond to the challenges raised by the complexity of health information. Librarians and other information professionals can and must play an important role in improving health literacy in their communities.

Statement of the Problem

For any community to exist and function effectively, access to health information is necessary. Health information is essential in the prevention of STDs. STDs have been proven to be characterized as hidden epidemics of tremendous health and economic consequences that can lead to pains, organs' damages, and serious disabilities such as blindness, deafness, infertility, insanity, paralysis and even death (Eng & Butler, 1997; Center for Disease Control (CDC), 2000). Truck drivers on the other hand, are considered as one of the major

vectors of these diseases due to the nature of their occupation (Huda, Sikder, Rahman, and Mohiuddin, 2016) cited in (Morris, & Ferguson, 2007; McCree et al., 2010; Abbasi, Rafique, Aziz & Hussain, 2013; KMCC Uganda, 2014; Prajapati, & Sanjel, 2014). They transport goods from a far location to another. The nature of their occupation precludes them from staying with their families. Therefore, this gives them chance to mingle with Female Commercial Sex Workers (FCSWs) at different local rest areas along their major roads.

Knowledge of STDs was found very high among truck drivers plying Nigerian roads as a result of the myriad campaigns done by both governmental and nongovernmental organizations (Kende, 2015). Despite the level of knowledge of these diseases among truck drivers plying Nigerian roads, it was found that the population of the truck drivers is a potential HIV high risk group in Nigeria as (2.4%) of their population were tested positive in some selected stations in South-west Nigeria (Glory, Onoja, and Komolape 2010). Also a preliminary survey was conducted at Dan Magaji and Dakatsalle casual rest areas in 2019 by the researcher, and it was found that truck drivers pack and rest in those areas for many days associating with Female Commercial Sex Workers

(FCSWs). This association could be the sources of contacting and spreading STDs. This is supported by Jeremiah, (2017) who said that wherever commercial sex business is found, there must be high rate of sexually transmitted diseases contact and spreading.

This research focused on Health Information Access for Prevention of STDs among Truck Drivers in Marabar Jos and Tafa Stations in Kaduna State, Nigeria.

Research Questions

This study was guided by the following research questions:

1. What type of Health Information do truck drivers in Marabar Jos and Tafa Stations in Kaduna State, Nigeria receive for prevention of STDs?
2. How do truck drivers in Marabar Jos and Tafa Stations in Kaduna State, Nigeria access Health Information for prevention of STDs?

Research Objectives

The following objectives guided the study:

1. To identify the types of Health Information the truck drivers in Marabar Jos and Tafa Stations in Kaduna State, Nigeria receive for prevention of STDs.
2. To find out how truck drivers in Marabar Jos and Tafa Stations in Kaduna State, Nigeria access Health Information for prevention of STDs.

Literature Review

Health information highlights the provision of information about health services and providers, thus making patients aware of the health services available. Health information is very important to our lives. People seek for information on their health status more than anything. Health information is defined as the data related to a person's medical history, including symptoms, diagnoses, procedures, and outcomes. Health information records include patient histories, lab results, x-rays, clinical information, and notes (American Health Information Management Association, 2019). Health information plays an important role as it improves health care quality and patient outcomes by reducing medication and medical errors, reduces unnecessary tests, services and improve the efficiency of care by ensuring everyone involved in a patient's care has access to the same information, reduces administrative costs by making many administrative tasks simpler and more efficient, increases patient involvement in their own health care and reduce the amount of time patients spend filling out paperwork and briefing providers on their medical histories and finally coordinates with and support public health officials to improve the health of our

communities (Health Information Technology, 2019).

Patients and citizens need access to their health information to get a retrospective as well as a prospective view on their care and rehabilitation processes. However, patients' health information is stored in several health information systems and interoperability problems often hamper accessibility. People who access current, accurate, reliable, and balanced health information for prevention of STDs are more likely to express healthier sexual attitudes and engage in healthier sexual behaviors than those receiving limited or no sexual-health information (Richey, 2012). This indicates that for truck drivers to be sexually healthier, they should have access to current, accurate, reliable and balanced health information. Truck drivers should have access to health information for them to take proper decision on prevention against STDs. In a research conducted in Ghana to find out the knowledge and sources of accessing sexual and reproductive health information in Ghana, it was revealed that individuals access health information on sexual reproductive health (SRH) from both formal and informal sources. The formal sources are radio stations, hospitals, information centres, schools, NGOs, Mosques?churches and associations. Others

received information on sexual reproductive health (SRH) services and care from informal sources, such as relatives and friends (Badu et al., 2019). This has indicated that truck drivers can access information on sexual issues formally or informally. To support this argument, a study was conducted in Dhaka City in which country? Year, author? on access to mass media and awareness of STDs among the truck drivers and the results of the study demonstrated that a significant number of respondents had access to newspapers and magazines sometimes. Newspapers and magazines readership was sharply higher among the educated respondents. In terms of watching television, an overwhelming 89% percent of the respondent reported that they watched television at times. In the same vein, respondents with higher level of income watched television more compared to those who had lower level of income. Again, approximately 54% listened to radio occasionally and only 3% had access to internet. Listenership of radio was varied by age groups. It was the highest among the literate truck drivers (Huda, N., & Amanullah, A., 2016). This clearly indicates that although the truck drivers access sexual health information from formal and informal sources, it is uncertain whether or not they use information from these sources to make

personal health care decision. It is therefore recommended that future studies should attempt to use an interventional study to explore the effectiveness of using formal and informal information sources to improve personal health decision and well-being for truck drivers.

Internet as a tool for access to information is transforming the way in which consumers approach their health care needs. Sex and age are influential aspects of one's health as well as disease risk and are thus integral components of the emerging picture of health information seekers (source). The internet may offer a low-cost source of health information and could help meet the heightened demand for health-related information among those facing access barriers to care. Unfortunately, the use of internet to access health information on STDs among truck drivers was recorded very low or high? This was revealed in a research conducted to find out Truck drivers' use of the Internet where 106 truckers were sampled from the trucking industry to assess their ability to internet access and use. The findings of this research proved that truckers' use of internet was very limited. Those that used internet to source for information used it to seek for information on directions and maps, fueling area (filling stations), pricing

communication with their employers and other official tasks like transferring of documents electronically. It was also proved that those truckers that usually use the internet were younger ones. Use of internet among the old-aged truckers was very low (Heaton et al., 2017). This research finding doubtlessly goes in line with Huda and Amanullah (2016) which said only 3% of truck drivers used the internet to access health information in Dhaka city. This has shown that most of these truckers used internet to access information not only on health matters, but in almost all their job-related issues. It also clearly indicated that among the truckers, those with young ages used internet than those with old ages.

Methodology

The research methodology adopted was quantitative research. Also Survey research design was adopted for this study as it allows the researcher to get insight into the thoughts and opinions of the respondents under study. The population of this study comprised both tanker and trailer truck drivers plying Nigerian roads from North to South. The population comprised Seventy-Five Thousand (75,000) registered truck drivers in the North-western States of Nigeria. The sample size of this study was 382 truck drivers and the sampling technique employed

for this study was simple random sampling. An adapted questionnaire with a combination of both open and close-ended Questions was used; and it was divided into six (6) sections (A – D). Both face and content validity were conducted to determine the validity of the instrument. The researcher developed the instrument based on the research questions raised and distributed copies of the questionnaires to colleagues, members of staff, and researchers in and outside the Department of Library and Information Science for their observations and comments. To ensure the reliability of the instrument, a pilot study was conducted at Tegin (Rafi Local Government, Niger State) casual local rest area where truck drivers park their vehicles casually for either to repair their vehicles or eat; and sometimes sleep. This casual local rest area was chosen because of its similarities with the study area and it was not part of the study areas. Fourteen (14) copies of the questionnaires were distributed to the truck drivers by the researcher; the copies of the questionnaires were completely returned because the researcher personally administered the instrument and supervise it. The retrieved and completed copies of the questionnaires were subjected to Statistical Package for Social Science (SPSS) for analysis, and Cronbach Alpha Coefficient

was used in order to obtain the reliability index. 0.884 coefficient value was obtained. This denotes that the instrument is reliable and can be used for the research work.

Results and Discussion of Findings

RQ1: What type of Health Information do truck drivers in Marabar Jos and Tafa Stations in Kaduna State, Nigeria receive for prevention of STDs?

This section presents the types of Health Information truck drivers in Marabar Jos and Tafa Stations in Kaduna State, Nigeria receive for prevention of STDs. Individual responses were collected using the questionnaire and the results were presented in table 1.1

Table 1.1 Types Health Information Truck Drivers in Marabar Jos and Tafa Stations in Kaduna State, Nigeria Receive for Prevention of STDs.

S/No	Types of Sexual Health Information	Frequency	Percentage
1	Information on effective condom use	304	100.0
2	Information on the dangers of STDs	304	100.0
3	Information on mode of transmission	304	100.0
4	Information on causes of STDs	304	100.0
5	Information on abstinence	138	45.4
6	Information on counselling services	80	26.3
7	Information on using one sex partner	138	45.4
8	Information on different types of STDs	95	31.3
9	Information on drug use	80	26.3
10	Information on prevention of STDs	304	100.0

Source: Researcher's Field Survey, 2021

Table 1.1 showed the types of health information truck drivers receive for prevention of STDs. The health information received in order of frequencies are: Both Information on effective condom use, Information on the dangers of STDs, Information on mode of transmission and Information on causes of STDs have 304 (100%), while Information on abstinence and Information on using one sex partner have 138 (45.4%) each. Those with least

were Information on counselling services and Information on drug use that have 80 (26.3%) each. From the results, it can be deduced that the types of health information truck drivers receive mostly are: information on effective condom use, information on the dangers of STDs, information on mode of transmission and information on causes of STDs. While those health information that truck drivers don't receive were information on abstinence; information on using one sex partner; information on counselling services

and information on drug use. This finding is in conformity with Kende (2015) who said that truck drivers have heard about STDs particularly HIV/AIDs. The implication of this finding is that, adequate provision, availability and coverage of health information for prevention of STDs among truckers is very paramount. Therefore, Information professionals have a great role to play in ensuring adequate provision of health information for prevention of STDs.

RQ2: How do truck drivers in Marabar Jos and Tafa Stations in Kaduna State, Nigeria access Health Information for prevention of STDs?

The researcher here seeks to examine the medium through which truck drivers in Marabar Jos and Tafa Stations in Kaduna State, Nigeria access Health Information for prevention of Sexually Transmitted Diseases. Responses collected were analyzed and presented in Table 1.2

Table 1.2 Access to Health Information by Truck Drivers in Marabar Jos and Tafa Stations in Kaduna State, Nigeria for Prevention of STDs.

S/No	Access to Sexual Health Information	Frequency	Percentage
1	Through listening to Radio	304	100.0
2	Through reading Books	60	19.7
3	Through watching Television	304	100.0
4	Through reading Newspapers	80	26.3
5	Through reading Magazines	0	0.0
6	Through talking to Friends	304	100.0
7	Through browsing Internet	138	45.4
8	Through reading Leaflets	0	0.0
9	Through reading Billboards	80	26.3
10	Through attending mobilization campaigns	80	26.3
11	Through reading Journals	0	0.0
12	through reading Health pamphlets	0	0.0
13	through using Handsets	138	45.4

Source: Researcher’s Field Survey, 2021

Table 1.2 showed the medium through which truck drivers in Marabar Jos and Tafa Stations in Kaduna State, Nigeria access Health Information for prevention of STDs. The respondents highlighted how they access Health Information on STDs through: listening to radio, watching television and

talking to friends 304 (100%) each, while other ways through which truck drivers access information are: through browsing Internet and using handsets 138 (45.4%) each. Also through reading newspapers; reading billboard and attending mobilization campaigns 80 (26.3%). through reading

books has the least with 60 (19.7%). The finding of this study revealed that truck drivers in Marabar Jos and Tafa Stations in Kaduna State, Nigeria access Health Information mostly for prevention of STDs through: listening to radio, watching Television, and talking to Friends. While truck drivers access Health Information moderately through browsing Internet, handsets, reading newspapers; reading billboard and attending mobilization campaigns and lastly reading books. While Health Information access through magazines, leaflets, journals and pamphlets was totally not found. The finding of this study is in conformity with Badu et al., (2019) who said that truckers access information from both formal and informal sources. These include sources like radio stations, hospitals, information centres, schools, NGOs, churches and associations. This implies that if more information carriers are made accessible to truck drivers by information professionals, Governmental and Non-governmental organizations, the menace of STDs can be drastically reduced among truck drivers in Marabar Jos and Tafa Stations in Kaduna State, Nigeria.

Conclusion

Access to Health Information on STDs is very vital. The Health Information about

STDs if disseminated through various information sources and made accessible by the beneficiaries, will go a long way in ensuring access to good health. As seen from the findings of the study, there were multiple Health Information sources on STDs available of which the respondents are not aware of. It is concluded that truck drivers accessed Health Information for prevention of STDs in Marabar Jos and Tafa Stations in Kaduna State, Nigeria via traditional media. But with this access, still they are found victims of STDs. This may be that they do not believe or comply with the information they receive through these sources.

Recommendations

From the findings of this study, the following recommendations were formulated:

1. Information professionals in collaboration with organizations such as National Union of Road Transport Workers (NURTW), Nigerian Union of Road Transport Owners (NATO), National Association of Tanker Drivers, Road Transport Employers Association of Nigeria (RTEAN) among many should provide more Health Information through campaigns in these two main stations (Marabar Jos and Tafa). These campaigns can be on information on abstinence, counselling services, using one sex partner, different types of STDs, drug use

and prevention of STDs. This will help reducing the menace of STDs among truck drivers in Marabar Jos and Tafa Stations in Kaduna State, Nigeria.

2. National Agency for the Control of AIDs (NACA) in collaboration with the Centre for Disease Control (CDC) should organize a practicable program in these areas on how Health Information on STDs can be accessed

through technology such as internet and handsets. They should also be taught on how Newspapers, books and Billboards are accessed electronically. Mobilization campaigns on STDs should be carried out on electronic billboards in their major local rest areas regularly as this will help the truckers to have good knowledge of STDs.

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REFERENCES

- American Health Information Management Association. (2019). HIM Careers - Health Information 101. Retrieved October 25, 2019, from <https://www.ahima.org/careers/healthinfo>
- Center for Disease Control (CDC), (2000). Division of STD Prevention, Health and Human Service, Atlanta. 30(RR5-20): 112-134.
- Eng, T.R. and Butler, W.T. (1997). Sexually Transmitted Diseases. Institute of Medicine (IOM), National Academy Press, Washington, DC.
- Glory, O. et al (2010) HIV/AIDS and the long-distance truck drivers in Southwest Nigeria: A cross-sectional survey on the knowledge, attitude, risk behaviour and beliefs of truckers. *Journal of Infection and Public Health* (2010) 3, 166—178. Retrieved from www.elsevier.com/locate/jiph on 18th October, 2018
- Health Information Technology. (2019). Why is health information exchange important? | HealthIT.gov. Retrieved October 25, 2019, from <https://www.healthit.gov/faq/why-health-information-exchange-important>
- Heaton, K., Combs, B., & Griffin, R. (2017). Truck Drivers' Use of the Internet: A Mobile Health Lifeline. *Workplace Health and Safety*. <https://doi.org/10.1177/2165079916665401>
- Huda, N., Sikder, A., Rahman, M., & Mohiuddin, M. (2016). *Access to Mass Media and Awareness of Sexually Transmitted Diseases (STDs) Among the Truck Drivers in Dhaka City: Do Mass Media Make Them Aware ?* 1–15.
- Jeremiah, A. (2017). An Analysis of Knowledge and Prevalence of Sexually Transmitted Diseases in Kaduna Metropolis, Kaduna State, Nigeria. ABU, Zaria: Unpublished Thesis
- Kende, M. A. (2015). Knowledge, attitude and practice of truck drivers towards HIV/AIDS control in Nigeria. Unpublished Dissertation: Department of Physical and Health Education, Ahmadu Bello University, Zaria: Unpublished Thesis
- Morris, C. N., & Ferguson, A. G. (2007). Sexual and treatment-seeking behaviour for Sexually Transmitted Infection in long-distance transport workers of East Africa. *Sexually transmitted infections*, 83(3), 242-245.
- Ottosen, T., Mani, N. S., & Fratta, M. N. (2019). Health information literacy awareness and capacity building: Present and future. *IFLA Journal*, 45(3), 207–215. <https://doi.org/10.1177/0340035219857441>

**Competencies in Mixing Mortar, Moulding Blocks, Laying Bricks and Blocks by
Bricklaying Blocklaying and Concreting Students of Technical Colleges Katsina State,
Nigeria**

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ABSTRACT

By virtue of building construction trades, bricklaying blocklaying and concreting students are required to possess trades competencies. The study determined the competencies required in mixing mortar, moulding blocks, laying bricks and blocks in technical colleges in Katsina state. The study was guided by three research questions and three null hypotheses were formulated and tested at 0.05 level of significance. A descriptive survey research design was used for the study. The population of the study comprised 20 building technology teachers, 8 technician and 50 students. The entire population was used for the study. (There will be no sampling because the population is manageable) The instrument used for the study was a structured questionnaire, developed by the researcher and answered based on five point rating scale. The findings of the study among others revealed that: The bricklaying blocklaying and concreting students moderately required the competencies in mixing of mortar, the bricklaying blocklaying and concreting students moderately required the competencies in moulding bricks and blocks, the bricklaying blocklaying and concreting students moderately required the competencies in laying Bricks and Blocks. Recommendation were made that the building technology teachers should be encouraged to improve the standard in teaching the required competencies in all the trades and stakeholders should ensure of given more training to ensure their ability. Katsina states should be given more training on competencies of highly skillful and self-reliant citizens.

Keywords: *Competencies, Building technology trades, Building technology students, Technical colleges.*

Introduction

Bricklaying, Block laying and Concreting works trade like other trade courses are

carried out in classroom and workshop learning and training environments and each

complement the other. Workshop environment in college setting is the introduction of industry in learning situation, designed to equip students for work in their chosen occupation as demanded by the labour market (National Board for Technical Education [NBTE], 2001). According to Akpan (2017), Bricklaying, Blocklaying and Concreting works trade at Technical college level is designed to provide the trainee with the essential knowledge and skill that will enable him perform competently in all aspects of Brick-work in the construction industry. On completion of the programme, the trainee should be able to manipulate various tools and equipment in the Bricklaying, Block Laying and Concreting Trade. Manipulative skills are required in brick/ block laying and concreting. Skills are those aspects of technical and vocational education which involve hands-on the-job experience by the students.

Bricklaying, Block laying and Concreting works operations in the technical college curriculum involve the skills required in accomplishing given tasks in Mixing of Mortars by hand, Moulding of Blocks, Laying of Blocks, Rendering of Walls, Wall Tiling, Pointing Top Walls and Laying of Curved Walls (Arches). Okenwa (2019). It also involves Workability Test on Concrete

Slump Test, Placing of Concrete, Application of Admixture to Concrete, Compaction, Curing of Concrete and Fixing of Concrete Joint Materials.

Asserted that the students will perform these operations using tools and necessary equipment while teachers or examiners assess their performance based on their skills and competencies, Odu (2015). Bricklaying, Block laying and concreting works operations are based on actual jobs and not pseudo jobs. The training should be carried out to the extent carried out to the extent where it gives the trainee a productive ability with which he can secure and hold employment and be able to profit by it. To achieve such level, proper instructional/training materials and skills must be utilized in the course of instruction. The use of training materials according to Ogwa (2019), involves using materials and skills that are most appropriate and commonly available in communicating more correctly and practically the concepts required in the trade.

Bricklaying/Blocklaying and Concreting is one of the trade components offered in Technical Colleges which aimed at training recipients toward acquiring practical skills that will qualify them for employment into building construction industries or be self-reliant. According to Oviawe and Uwameiye

(2018) Bricklaying/Blocklaying and concreting work is a skill-oriented field of study noted for its capability of equipping learners with saleable skills for self-reliance and also paid employment for example mixed mortar is a workable paste which hardens to bind building blocks, stones, bricks, and units; it fills and seals the irregular gaps through compaction. In its broadest sense, mortar includes pitch, asphalt, and soft mud or clay, as used between mud bricks. The word "mortar" comes from Latin mortarium, meaning crushed (Campbell & Pryce, 2003). According to Mitchell (2007) mortar consist mixture of cement, lime, sand and water, adding a small percentage of lime to the cement mortar makes the mortar 'fat' or 'rich' which increases its workability. Oyekan and Kamiyo (2011) opine that, moulded hollow sandcrete blocks containing a mixture of sand, cement and water are used extensively in many countries of the world especially in Africa. In many parts of Nigeria, sandcrete block is the major cost component of the most common buildings. The high and increasing cost of constituent materials of sandcrete blocks has contributed to the non-realization of adequate housing for both urban and rural dwellers. Hence, availability of alternatives to these materials for construction is very desirable in both

short and long terms as a stimulant for socio-economic development.

Brick laying, block laying like other technical courses is carried out in classrooms and workshops learning and training environments and each compliments the other. Workshop environment in college setting is the introduction of industry in learning situation, designed to equip students for work in their chosen occupation as demanded by the labour market. (Ezeji, 2004). Workshop practices and production work as identified in the FRN (2004) are carried out in technical workshop in technical colleges. Workshop practice can be seen as specific task demonstrated by building technology teachers or instructors based on set objectives and assigned for practice for students.

In the Nigerian education system, technical colleges offer technical and vocational education programme for the purpose of producing middle level skilled manpower required for the nation's economic and technological development (Federal Republic of Nigeria [FRN], 2012). National Technical Certificate (NTC) is awarded by the National Business and Technical Examinations Board (NABTEB) to students who have completed their post primary

education at Technical Colleges (NABTEB, 2012). Bricklaying/Blocklaying and Concreting (BBC) is one of the trades at the National Technical Certificate (NTC) level and its curriculum primarily is aimed at equipping an individual with skill on the application of the right or appropriate blocks, tools and concrete as applicable in the construction industry. This awareness is clearly reflected in the goals set for Technical Education as highlighted in the National Policy on Education (FRN, 2013). The policy also stated that the quality of instruction at all levels has to be oriented towards inculcating values for the common good of the society; promote physical, emotional and psychological development and acquisition of competencies necessary for self-reliance. Vocational education equips learners with appropriate skills, abilities and competencies required that contribute to the development of the society (Federal Republic of Nigeria (FRN, 2013). The Technical College programme is designed to impart and perceive the necessary skills and knowledge in various trades required by the students for self-reliance after graduation.

This is one of the essence of establishing National Business and Technical Education Board (NABTEB) and were signing into law of Decree No. 7 on August 23rd. This board

was mandated among other things, to take over the conduct of Business and Technical Examinations hitherto conducted by the City and Guilds of London Institute (C&G), Royal of Arts (RSA) and West African Examination Council (WAEC). Based on this assignment, NABTEB evolved new curriculum for various trades in Technical Colleges.

Trades in Technical Colleges are grouped into four areas indicating their relationship. The four major grouping are, Engineering Trades, Construction Trade and Business Studies (Oranu 2001). The construction trades were further sub-divided into building trades which includes, Bricklaying/Blocklaying and Concreting (BBC), Carpentry Joinery (CJ), Plumbing and Pipe Fitting (PPF) and Painting decorating (P D). Others are woodwork trades which include, Furniture Making and Machine Wood-Working all are included in curriculum.

The new curriculum was also designed to bridge the gap between theory and practical skills. The previous curriculum emphasized theory to the detriment of practical in the trades (Aina, 2000). This probably led to the production at craft level of Technical College graduates who are extremely weak in the practice of their trades (Oranu, 2001). Following the adoption of NABTEB curriculum for Technical College

programms, new concept and distinct trade-related and component subjects were introduced in Bricklaying/Blocklaying and Concreting trade and related subjects. The component subjects are: Introduction to Building Construction, Bricklaying/Blocklaying and Concreting, Walls, Floors and Ceiling Finishing, (NABTEB, 2012). In Bricklaying/Blocklaying and concreting, there are topics in the trade subjects aimed at studying technical competencies. In addition to examining students for the acquisition of these technical competencies, students are also expected to pass all the trade-related and components subjects before they are awarded the National Technical Certificate (NTC) (NABTEB, 2001). It is therefore important that students are taught these subjects to enable them progress academically or be self-reliant with competencies after graduation.

Therefore, before designing any students training programs there is a need to identify the technical competency required of Bricklaying/Blocklaying and concreting trades. Similarly, The NABTEB curriculum for Brick/block laying and Concreting work trade can be effective if teachers' of technical colleges competency requirement are identified with a view to providing appropriate training programs for the students..

Statement of the Problem

Bricklaying/Blocklaying laying and Concreting (BBC) is one of the trades at National Technical Certificate (NTC) in Nigeria which is obtainable at the Technical Colleges. The objectives of this trade have not been achieved due to the inadequate nature of materials and human resources for implementing its curriculum (Ayonmike, Chijioke & Okeke, 2014). This call for the necessity of acquiring high quality practical skills through the use of appropriate teaching and assessment strategies to be complemented with competent and experience teachers, well-equipped workshop, adequate supply of teaching materials, adequate supervision of practical lesson and proper linkages between technical colleges and local industries (Odo, Adenle, & Okwori, 2012).

The Technical colleges in Nigeria are uncourting with numerous problems which hinders practical skills acquisition among which are poor teaching strategies, inadequate number of teaching materials, unavailability of teaching materials, etc. The process of teaching and learning of technical subjects has been too theoretical that many students and graduates lack the requisite competence in their chosen trades and as such prefer subjects in Arts and social sciences.

Odo, Adenle and Okwori (2012) noted that there is no longer much emphasis on the learner's practical skills acquisition in Technical Colleges as teachers in most cases use lecture method only in teaching the courses instead of applying a variety of strategies like demonstration, discussion, guided discovery and discussion (Odu, 2006).

The standard of performance of Bricklaying/Blocklaying and concreting trade graduates in Katsina state, is at the moment very low as indicated by NABTEB Examiner's Report (2018), thereby retarding the overall productivity of the individual and the state's economy.

Research Questions

The following research questions are raised for the purpose of this study: -

1. What are the competencies require for mixing of mortars by BBC students?
2. What are the competencies require for moulding Bricks and blocks by BBC students?
3. What are the competencies require for laying Bricks and blocks by BBC students?

Hypotheses

The following null hypotheses are formulated and were tested at 0.05 level of significance.

HO₁. There is no significant difference in the mean responses of Students, Technicians and BBC Teachers, on the competencies require for mixing of mortars by technical college students in Katsina state.

HO₂. There is no significant difference in the mean responses of Students, Technicians and BBC Teachers, on the competencies require for moulding Bricks and blocks by technical college students in Katsina state

HO₃. There is no significant difference in the mean responses of Students, Technicians and BBC Teachers, on the competencies require for laying of Bricks and blocks by technical college students in Katsina state

Methodology

The present study adopted the described research design with a target population of comprised 50 Students, 8 Technicians and 20 Teachers within Katsina state. The study adopted the total population sampling techniques as the population was found to manageable. Questionnaire was instrument for data collection, it was subject to facial validation by three lecturers; two from Department of Technology Education, Modibbo Adama University Yola, and one from Government Technical College, Mashi. To determine the internal consistency

of the instrument, a trial test was also conducted on 10 technical college graduates of Building construction trades and 5 staff of Building construction in Kano state which is not part of the study area. This is to enable the researcher to identify the reliability of the instrument. The researcher administers the instrument to the respondents through personal contacts and with the help of two

research assistants. Data was collected and analyzed using statistical tools. The research questions was answered using mean statistic while the null hypotheses was tested using ANOVA at 0.05 level of significance. All the analysis was carried out using Statistical Package for Social Sciences (SPSS) version 22.

Results

Table 1: Mean and Standard Deviation of Respondents on the Competencies By BBC Students on Mixing of Mortar

S/N	Items	(\bar{X})	SD	Remark
1	Identify the different types of cement	3.35	1.51	MR
2	Identify the types of cement for specific work	3.06	1.56	MR
3	Identify the portion of cement to be used for each construction work	3.49	1.47	MR
4	Identify the mixing proportion of cement for a given task	3.07	1.39	MR
5	Ability to mix cement	3.07	1.59	MR
6	Ability to mix cement manually	3.24	1.51	MR
7	Identify the content capacity of manual cement mixing	3.08	1.43	MR
8	Identify the water level of mortar	3.11	1.46	MR
9	Identify the texture of mortar	3.28	1.55	MR
10	Identify the aggregates to be used for mortar preparation	3.08	1.45	MR
11	Identify the amount of water needed	3.39	1.58	MR
12	Identify when mortar is set	3.40	1.48	MR
13	Identify when mortar has been properly mixed	3.20	1.50	MR
14	Ability to mix all kind of mortar	3.15	1.42	MR
15	Ability to preserve mortar when in excess	3.22	1.51	MR
Grand mean		3.21	1.49	MR

Very Highly Required (VHR), Highly Required (HR), Moderately Required (MR) Slightly Required (SR) Highly Not Required (NR)

The result in Table 1 presented the mean and standard deviation of teachers' students and technicians in Technical Colleges of Katsina state. Item 1-15 recorded the mean rating between 3.07 and 3.49 with a standard deviation of 1.39–1.59 which shows the

responses are homogeneous since the variance is close. The mean obtained indicated the BBC Students moderately required the competencies in mixing of mortars in all the items. Equally the grand mean recorded 3.21 which also indicated substantially, the BBC Students moderately

required the competencies in mixing of mortar.

Table 2: Mean and Standard Deviation of Respondents on the Competencies by BBC Students on moulding Bricks and Blocks

S/N	Items	(\bar{X})	SD	Remark
16	Identify the amount of water needed	3.88	1.44	R
17	Identify manual moulded block using Hand	3.17	1.57	MR
18	Identify the portion of aggregates needed for moulding	3.12	1.64	MR
19	Identify the type of sand needed for moulding of brick/blocks	2.94	1.56	MR
20	Identify the different aggregates	3.48	1.62	MR
21	Identify the cement/aggregates ratio	3.75	1.50	R
22	Identify the different kind of sand	3.38	1.49	MR
23	Identify the rate of hydration to which require strength	3.23	1.58	MR
24	Identify when curing is needed in a brick	3.96	1.44	R
25	Identify the arrangement of bricks/blocks properly when moulding	3.55	1.62	R
26	Identify the hand tools used in moulding of bricks/blocks	3.05	1.47	MR
27	Ability to use machines in moulding bricks	3.03	1.42	MR
	Grand mean	3.38	1.70	MR

Very Highly Required (VHR), Highly Required (HR), Moderately Required (MR) Slightly Required (SR) Highly Not Required (NR)

The result in Table 2 presented the mean and standard deviation of teachers' students and technicians in Technical Colleges of Katsina state. Item 16, 21, 24 and 25 presented a mean between 3.50 – 3.49 which indicated the BBC students required the competencies in moulding bricks and blocks while item 17, 18, 19, 20, 22, 23, 26 and 27 recorded the mean rating between 2.50 and 3.49 with a standard deviation of 1.44 – 1.64 which

shows the responses are homogeneous since the variance is closed. The mean obtained indicated the BBC Students moderately required the competencies in moulding bricks and blocks in those items. Equally the grand mean recorded 3.38 which is to a larger extent indicated the BBC Students moderately required the competencies in moulding bricks and blocks.

Table 3: Mean and Standard Deviation of Respondents on the Competencies by the BBC Students on laying Bricks and Blocks

S/N	Items	(\bar{X})	SD	Remark
28	Ability to stacks bricks together form a wall without cement	3.34	1.57	MR
29	Ability to interlocking bricks and blocks during laying	3.05	1.46	MR
30	Ability to lay blocks from the first course	3.35	1.52	MR
31	Ability to bedded in mortar bricks/blocks	3.15	1.44	MR
32	Identify the tools used for laying bricks/blocks	3.37	1.35	MR
33	Ability to construct walls	3.27	1.50	MR
34	Ability to construct partitions	3.05	1.59	MR
35	Identify the material for laying bricks/blocks	3.46	1.54	MR
36	Ability to Take measurement	3.18	1.52	MR
37	Ability to Mark out areas for laying bricks/blocks	2.95	1.55	MR
38	Ability to Position bricks/block	3.27	1.50	MR
39	Ability to read and interpret signs and symbols	3.03	1.51	MR
40	Ability to care for tools and equipment	2.80	1.46	MR
41	Ability to safety ruler and practices	3.37	1.26	MR
42	Ability to use spirit level	3.06	1.54	MR
Grand mean		3.18	1.52	MR

Very Highly Required (VHR), Highly Required (HR), Moderately Required (MR) Slightly Required (SR) Highly Not Required (NR)

The result in Table 3 presented the mean and standard deviation of teachers' students and technicians in Technical Colleges of Katsina state. Item 28 – 42 presented a mean between 2.49 – 3.49 which indicated the BBC students moderately required the competencies in laying bricks and blocks. The grand mean recorded 3.18 which also indicated the BBC

Students moderately required the competencies in laying Bricks and Blocks.

HO₁. There is no significant difference in the mean responses of Teachers, Technicians and students on the competencies require by technical college students for mixing of mortars by the students in technical colleges in Katsina state.

Table 4: One-way Analysis of Variance on the Competencies by BBC Students on Mixing of Mortar

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5899.365	2	2949.682	16.341	.000
Within Groups	16606.993	92	180.511		
Total	22506.358	94			

Table 6 presented that $F(2, 92) = 16.341$, $P = 0.000$ tested at 0.05 level of significance. Since the computed P-value is less than the level of significance, therefore, the null hypothesis is rejected meaning that there is a significant difference among the responses of teachers, technicians and students on the on the competencies by BBC students in mixing

of mortar in technical colleges of Katsina state.

HO₂. There is no significant difference in the mean responses of Teachers, Technicians and students on the competencies require by technical college students for moulding Bricks and Blocks by students in technical colleges in Katsina state.

Table 6: One-way Analysis of Variance on Competencies Acquired by BBC Students on moulding Bricks and Blocks

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	4350.574	2	2175.287	28.683	.000
Within Groups	6977.110	92	75.838		
Total	11327.684	94			

Table 8 presented that $F(2, 92) = 28.683$, $P = 0.000$ tested at 0.05 level of significance. Since the computed P-value is less than the level of significance, therefore, the null hypothesis is rejected meaning that there is a

significant difference among the responses of teachers, technicians and students on the on the competencies required by BBC students in molding of Bricks and Blocks in technical colleges of Katsina state.

Table 7: Post Hoc Tests of Multiple Comparison Analysis

(I) BBC Teachers, BBC Technicians, and BBC Students	(J) BBC Teachers, BBC Technicians and BBC Students	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
BBC Teachers	BBC Technicians	14.54000*	3.25843	.000	6.5942	22.4858
	BBC Students	15.49000*	2.07304	.000	10.4348	20.5452
BBC Technicians	BBC Teachers	-14.54000*	3.25843	.000	-22.4858	-6.5942
	BBC Students	.95000	2.97452	1.000	-6.3035	8.2035
BBC Students	BBC Teachers	-15.49000*	2.07304	.000	-20.5452	-10.4348
	BBC Technicians	-.95000	2.97452	1.000	-8.2035	6.3035

*. The mean difference is significant at the 0.05 level.

The result in table 9 shows the comparative analysis of responses of teachers, technicians and students on the BBC student's

competencies in molding bricks and blocks. Significant difference of 0.000 exists between the responses of the teachers and

technicians in favor of teachers against the technicians with a mean difference of 14.540. Significant difference of 0.000 also exists between the teachers and students in favor of teachers against students with a mean difference of 2.073.

HO₃. There is no significant difference in the mean responses of Teachers, Technicians and students on the competencies require by technical college students for laying of Bricks and Blocks in technical colleges in Katsina state

Table 8: One-way Analysis of Variance on Competencies Acquired by BBC Students on Laying Bricks and Blocks

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	22.374	2	11.187	.095	.910
Within Groups	10869.373	92	118.145		
Total	10891.747	94			

Table 10 presented that $F(2, 92) = 16.341$, $P = 0.095$ tested at 0.05 level of significance. Since the computed P-value is greater than the level of significance, therefore, the null hypothesis is accepted meaning that there is no significant difference among the responses of teachers, technicians and students on the on the competencies required for technical college students by BBC students in laying of bricks and blocks in technical colleges of Katsina state.

Finding of the Study

The following findings based on the research questions were revealed:

1. It was found that the competencies by Bricklaying/Blocklaying Students for technical college students in mixing mortar includes; Ability to select the materials for mortar production, batching of materials, identify types of cement, of

mixing proportion, addition of water for workability, curing treatment and ability to test the quality of the work thus, presented a grand mean of 3.21 indicating the The bricklaying blocklaying and concreting (BBC) students moderately acquired the competencies in mixing mortar.

2. It was found that Students of Bricklaying/Blocklaying and Concreting for technical college students in moulding bricks and blocks competencies which includes; Ability to differentiate types and sizes of mould to be used (Sizes should be into standard), Identify types of sand aggregate, batching and proportion, ability to compact fresh mortar very-well in the mould, (Hand compaction) to understand that Bricks are alternative to sandcrete blocks, curing of

moulds after Bricks or blocks production. The grand mean obtained for the items is 3.38 indicating the BBC students in technical colleges in Katsina state moderately acquired the competencies in moulding bricks and blocks.

3. It was found that Students of Bricklaying/Blocklaying and Concreting for technical college students in laying Bricks or blocks competencies which includes; Ability to identify and work with the hand tools in laying Bricks and blocks, ability to lay bricks or blocks from the first course, ability to bedded mortar equally on the bricks or blocks, ability to position bricks or blocks, ability to interlock bricks or blocks during laying, ability to care for tools, ability to use spirit level, ability to safe rule and practice. The grand mean of 3.18 indicated the BBC students in GTCs Katsina moderately acquired the competencies in laying bricks and blocks.

Discussion of Findings

The finding of the study research question 1, revealed that the BBC students of technical colleges in Katsina state have moderately acquired the competencies and ability to select the materials for mortar production, batching of materials, identify types of cement, mixing proportion, addition of water

for workability, curing treatment and be able to test the quality of mixed mortar. This finding agreed with the finding of Kazmi Pervez & Mumtaz (2011), in-service training for teachers enables the teachers to be more systematic and logical in their teaching style. The finding in Research Question 2 revealed that the BBC students of technical colleges in Katsina state have moderately acquired the competencies and ability to identify different types and sizes of moulds (Sizes should be into standard). Identify types of sand aggregate, batching and proportion, ability to compact fresh mortar very-well in the mould, (Hand compaction) to understand that Bricks are alternative to sandcrete blocks, curing of moulds after Bricks or blocks production. This finding is in line with the finding of Ekpoh, Oswald & Victoria (2013) shows that, teachers who attend in-service training perform effectively in their work concerning knowledge of the subject, classroom management, teaching method and evaluation of students.

The finding in Research Question 3 revealed that the BBC students of technical colleges in Katsina state have also moderately acquired the ability and competencies to identify and work with the hand tools in laying Bricks and blocks, ability to lay bricks or blocks from the first course, ability to bedded mortar equally

on the bricks or blocks, ability to position bricks or blocks, ability to interlock bricks or blocks during laying, ability to care for tools, ability to use spirit level, ability to safe rule and practice in laying bricks/blocks. This study agreed with the study of Youth empowerment means creating and supporting the enabling conditions under which young people can act on their own behalf, on their own terms, rather than at the direction of others (Ezeani, 2012)

Conclusion

The following s o

BBC students in technical colleges in Katsina states moderately acquired the competencies required in mixing mortar. The competencies in moulding bricks and blocks by the Students of BBC in technical colleges in Katsina states was moderately acquired this has shown the BBC Students need additional training for them to be more competent. The competencies in laying of bricks and blocks are not fully acquired by the Students of BBC in technical colleges in Katsina states. It is also indicating that the BBC Students did not fully acquire the competencies in laying bricks and blocks.

Recommendations

Based on the findings of the study, the following recommendations are made:

1. The bricklaying blocklaying and concreting students in technical colleges of Katsina states should be extensively taught about the stages of mixing mortar,
2. The bricklaying blocklaying and concreting students of technical colleges in Katsina states should be given adequate training on the competencies in moulding bricks and blocks of sizes and into standard.
3. The bricklaying blocklaying and concreting students of technical colleges in Katsina states should be given more training on competencies in laying bricks and blocks. Where facilities are not available the stakeholders should provide, such as; trowels, club hammer, head pan, spirit levels and measuring tapes.

REFERNCES

- Akpan, A. (2017). Challenges of the Nigerian Entrepreneur in the Twenty First Century. A paper presented at the maiden Annual College of Management Sciences Seminar at University of Mkar.
- Ayonmike, C. S. O., Chijioke, P., & Okeke, B. C. (2014). Competency based education and training in technical vocational education: Implication for sustainable national security and development. *Journal of Educational Policy and Entrepreneurial Research*, 1(2), 290-300.
- Campbell, J. W., & Pryce, W., (2003). *Brick: a World History*, London & New York: Thames & Hudson.
- Ekpoh, V.I., Oswald, A., & Victoria (2013). Staff Development Programmes and Secondary School Teachers' Job Performance in Uyo Metropolis, Nigeria, *Journal of Education & Practice*, Vol.14, No.12
- Ezeani, N.S (2012). The teacher and skills acquisition at Business Education Curriculum at University level in Nigeria. *International Journal of Ghana* 3 (1) 30 – 33.
- Ezeji, SCOA (2004). A Guide to Preparing Educational Specification for Secondary Industrial Arts Facilities. Enugu: Cheston Book Ltd.
- Federal Republic of Nigeria (2012). *National policy on education* 6th (edition), Yaba-Lagos: NERDC press.
- Federal Republic of Nigeria (2004). *National policy on education revised* (4th edition) Yaba, Lagos Nigeria Education Research and Development Council.
- Federal Republic of Nigeria (2013). *National policy on education* 6th (edition), Yaba-Lagos: NERDC press.
- Kazmi, S.F., Pervez, T., Mumtaz, S. (2011). In-Service Teacher Training in Pakistan Schools and Total Quality Management, *Interdisciplinary Journal of Contemporary Research In Business*, March Edition 2011.
- Mitchell, R. K (2007). The central question in entrepreneurial cognition research 2007. *Entrepreneurship theory and practice*, 31(1), 1-27
- National Board for Technical Education (2001). *Minimum Standards*. Kaduna: NBTE Press.
- National Business and Technical Examination Board (2001). Chief examiner's report of National Technical Certificate (NTC) and National Business Certificate (NBC), NABTEB Newsletter, 4(6), 1.
- National Business and Technical Examination Board (NABTEB). (2012). *Syllabi for Engineering Trade for the National Technical Certificate Examination*. Benin:
- Odu, C. O. (2006). Strategy for Technology Development. Lagos, Sunday Times. May 30th Pg8.
- Odu, K.O. (2015). *Perception of Delta State Technical College Final Year Students of the Self-employment Opportunities of Graduation*. Unpublished M.Ed Thesis, Vocational Teacher Education, University of Nigeria, Nsukka.
- Ogwa, C.E. (2019). *A survey of Effective Utilization of Available Instructional Resources for Teaching of Introductory Technology*. Unpublished M.Ed Thesis, Vocational Teacher Education, University of Nigeria, Nsukka.
- Okenwa, C.O. (2019). *Entrepreneurship Development in Nigeria. A Practical Approach*. Onitsha: Adson Educational Publishers.

- Okorie, J.U. (2000). *Developing Nigeria's workforce*. Calabar: Page Environs Publishers.
- Mike, M (2017), How to do a training needs analysis TNA (Learning need analysisLNA <https://rapid.com/how-to-do-a-training-needs-analysis-tna>).
- Oranu, R.N. (2001). Evaluating students sentiments in vocational Technical subjects. *Nigerian Journal of Technical Education*, 1 (2) 57-63.
- Oyekan & Kamiyo (2011). A study on the engineering properties of sandcrete blocks produced with rice husk ash blended cement. *Journal of Engineering and Technology Research* Vol. 3(3), pp. 88-98.
- Sarhosis, V. & Sheng, Y. (2014). Identification of material parameters for low bond strength masonry". *Engineering Structures*. **60**: 100–110. *DOI*;10.1016/j.engstruct.2013.12.013.
- Tamturktur, S. & Laman, J. A. (2012). Finite element model correlation and calibration of historic masonry monuments: review. *The Structural Design of Tall and Special Buildings*. **21** (2): 96–113. *doi*:10.1002/tal.577.

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Problems and Prospects of Financial Management for the Implementation of Universal Basic Education (UBE) Policy in Nigeria

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ABSTRACT

The purpose of this paper is to explore the problems and prospects of financial management for the implementation of UBE Policy in Nigeria. Literature on Universal Basic Education, objectives of UBE policy, implementation guidelines of the policy, stakeholders responsible for the implementation of the policy and financial management and stages involve in educational financial management were reviewed. Finding from the survey of literature revealed that inadequate funding, financial recklessness, corruption and overreliance on Government Budgetary Allocation were some of the financial management related problems that impede the effective implementation of UBE Policy. Despite these problems, adequate funding through exploring alternative sources of financing education (instead of relying on government subvention and grants), Government commitment to the provision of incentive programs and provision of adequate fund to education have the prospect of facilitating the effective realization of all educational policies and programs. Based on the findings the paper concluded that the UBE policy just like other Nigeria's policies were well drafted and clearly stated. If such policies are effectively implemented as stated in the Policy Document the Nigerian basic education system, will witness a dramatic rise in terms of access, quality, and in the attainment of the Nation's objectives. Unfortunately financial management related problems impede the effective implementation of the UBE Policy. Provision of adequate fund to education through the allocation of 26% benchmark as set by UNESCO among others were suggested.

Keywords: Universal Basic Education, financial management, National Policy on Education

Introduction

Sound, qualitative and functional basic education is fundamental to human and

national development. This is because it is the foundation upon which other levels of

education (Secondary and Tertiary) are built and a prerequisite for human and national development and growth. It is in recognition of the relevance of education to national development, Maduewesi and Ofejobe (2012), asserted that the development of any nation depends to a great extent on the advances made in her education enterprise. Thus, it is indisputable fact that education is a mechanism that guides the whole human being mentally, morally, spiritually, socially and technologically. It is against this background that the provision of quality basic education for all citizens has been a worldwide objective which Nigeria like many other countries sets out to achieve through the Universal Basic Education (UBE) Policy.

Since independence the successive Nigerian governments have continued to venture into various educational policies and programs that provide access to quality basic education, with the expectation of meeting the country's need in the areas of human and infrastructural development. Some of the policies that are aimed at the provision of universal basic (primary) education include: the Universal Primary Education (UPE) Policy of the defunct Western Region of 1955 and the former Eastern regions of 1957, the Federal Government UPE Policy of 1976,

then, the present Universal Basic Education (UBE) Policy of 1999 which is still being nurtured to maturity. The National Policy on Education (FRN, 2013), stated that Primary Education is the foundation of the Nigerian educational system, and also demanded that every Nigerian child should have full access to quality basic education. This is based on the conviction that basic education is the only level of education that is available everywhere in both the developed and the developing countries as well as in urban and rural areas (Akinbote, 2001). It is also the level of education that develops in the individual the capacity to read, write and calculate (Ayannuga, 2020).

The policy document categorically stated the objectives of the policy and a well-designed implementation guidelines are formulated. This suggests that mere formulation of policies should become not the major issue in Nigeria but rather their effective implementation as it is only effectively implemented policies that can bring about national development (Ugwuanyi & Chukwuemeka, 2013). Therefore, the realization of UBE Policy lies in the proper implementation of the policy through effective quality management as aptly captured by Mgbodile, (2010), that the problem of Nigeria does not lie with the

knowledge and adequate policies but effective, management (especially the financial management aspect).

Effective financial management is a necessary tool for the successful achievement of designed aims and objectives. Hence, the Universal Basic Education policy formulated by the Federal Government to better the living standard of Nigerians through the provision of functional education for self-reliance is not left out. The coordination and management of financial resources available is adequately required to make for functional and effective implementation of the Universal Basic Education Policy. It is the purpose of this paper to explain the problems and prospects of financial management for the implementation of UBE Policy in Nigeria.

Universal Basic Education

Basic education according to Federal Republic of Nigeria (FRN 1999), is the type of education given at the foundational level of education. It comprises the early childhood and pre-primary education, primary education, the first three years of junior secondary education and basic functional literacy for out-of-school children, youth and adults. It is an organized multi-sectional, community-based education, which consists of the acquisition of skills of

reasoning, writing and numerals, as well as functional knowledge and generative skills determined by the environment. Mgbodile (2000) described basic education as the education for sustainable life-long learning which provides basic skills for reading, writing and numeracy. He further explained that basic education comprises of a wide variety of formal and non-formal educational activities and program designed to enable learners acquire functional literacy. Universal Basic Education means that access to education is open to all, irrespective of gender, social, physical or economic condition. Access is not all, remaining in school for successful completion of quality basic education cycle is the ultimate goal (Obanya, 2009).

According to Oboegbulem (2011), Universal Basic Education is the foundation for the sustainable lifelong learning. It comprises wide variety of formal and non-formal educational activities and programs defined to enable learners acquire functional literacy. The concept UBE is the foundation for sustainable lifelong learning which aims at providing reading, writing and numeracy skills to every Nigerian child. The UBE, as provided by National Policy on Education (FRN, 2004) is an educational reform that provides free, compulsory and continues 9-

year education in two levels of 6 years of Primary Education and 3 years of Junior Secondary Education for all school aged children. Redefining the Policy, the current National Policy on Education (FRN, 2013), explained that Basic Education is the education given to children aged between 0-15 years. It is 10 years program which encompasses Early Child Care Development Education of 1 year and 9 years of formal schooling. Based on this provision, the duration of the program, is now 10 years not 9 years as provided by the former National Policy on Education (FRN, 2004).

In an attempt to shed more light on Universal Basic Education, Adewole (2017), pointed that the concept has three main components- Universal, Basic and Education. Being 'Universal' connotes a program that is meant for all facets of the society whether rich, poor, physically fit, disabled, brilliant, dull, regular, dropouts and every other individual that is ready to acquire knowledge. While 'Basic' relates to the base, take off point, fundamental, essential, spring board, bottom line and generally the starting point in the acquisition of knowledge. These indicate that the Universal Basic Education is the foundation upon which higher education is built. It is mandatory for all citizens to function effectively in the society. He further

explained that "Education" entails the transmission of knowledge. In the UBE program, it is expected that knowledge be transmitted to learners in its simplistic form. Education is the medium by which learners are guided towards development of abilities, attitudes, skills and values that are useful to the individual and the society at large. Asodike (2014), indicated that UBE Policy was structured to be basically compulsory to all children who will be provided with free uniforms, books and free lunch.

Main Objectives of the UBE Policy

The FRN (2000), stated that the primary goals of UBE scheme is to universalize access to basic education, engender a conducive learning environment and eradicate illiteracy in Nigeria within the shortest possible time. The Universal Basic Education Policy aims at achieving the following specific objectives:

1. Develop in the entire citizenry a strong consciousness for education and a strong commitment to its vigorous promotion.
2. Provide free, compulsory, universal basic education for every Nigerian child of school age group.
3. Reduce drastically, drop outrage from the formal school system through improved relevance and efficiency.

4. Cater for drop outs and out of school children/adolescent through various forms of complementary approaches to the provision and promotion of basic education.

5. Ensure the acquisition of the appropriate levels of literacy, manipulative and life skills as well as the ethical moral and civic values needed for laying the foundation for lifelong learning.

Implementation Guidelines of UBE Policy

In an attempt to achieve the stated objectives of UBE, the government outlined the following implementation guidelines:

1. Public enlightenment and social mobilization for full community involvement
2. Data collection and Analysis
3. Planning, monitoring, evaluation
4. Teachers recruitment, education, training, retraining, motivation
5. Infrastructural facilities
6. Enriched curriculum
7. Text books and instructional Materials
8. Improve funding.
9. Management of the entire process F.M.E (2000).

The stakeholders saddled with the responsibility of implementing the UBE Policy as highlighted by Bello (2022), include:

1 Regulatory Agencies: These are the agencies responsible for the planning,

formulation and regulation of policy and guideline. These are:

- Federal/States Ministry of Education.
- Universal Basic Education Commission (UBEC)/ State Universal Basic Education Boards (SUBEBs).
- National Commission for Nomadic Education (NCNE).
- Local Government Education Authorities (LGEAs)

2 Managers: These involves the school managers/ administrators responsible for the translation of UBE policy in to concrete reality within the Basic Education schools.

3 Overseers: These are agencies responsible for the monitoring, evaluation, inspection and supervision of Basic Educational Institutions' input, process and output in order to maintain and improve their quality, equity and efficiency. These involves Quality Assurance Unit, Inspectorate Directorate, Monitoring and Evaluation, TRCN and NGOs (National, Regional and International) who have interest in education.

4 Actual Implementers of the Policy: The main objective of any educational policy centered on effective teaching and learning, and this could not be achieved without professionally trained and academically qualified teachers. Hence the realization of UBE Policy solely lies with the teachers.

To some extent the UBE Program especially in its early years of introduction succeeded in the establishment and reconstruction of many schools across the federation. For instance from 2005-2008, 22,598 schools were constructed, 18,782 classrooms were renovated and 408,248 teacher/pupils furniture were provided (UBES 2013). There is also a significant increase in enrolment of pupils. The introduction of the Policy has offered a number of opportunities for in-service training, short term and seminars to teachers (FME, 2010).

Financial Management

Financial management has been defined by many scholars from different perspectives. Financial management as conceived by Oche, (2009), is the application of conventional principles in unwasteful spending of organizational funds with the aim of achieving institutional plans and aspirations. To Okwori (2006), financial management is the forecasting, planning, organizing, directing and controlling of all activities relating to the acquisition and application of financial resources of an enterprise in keeping with the financial objectives.

With regard to education, Shimelash, (2018), is on the opinion that financial management in education is concerned with the cost of

education, source of income to meet educational costs and spending of the income in an objective manner in order to achieve the educational objectives. Ebong (2013), conceptualized financial management as the mobilization of funds, allocation of the available funds and the effective utilization of the funds to achieve educational goals. To Asemah (2010), school or educational financial management focuses on how finances are raised in school, the identification of sources of school finance, methods employed in its collection and how collected revenues are effectively applied to the school system to achieve the stated goals and objectives of the school. This connotes that, financial management entails sourcing and use of funds. The central purpose of financial management as observed by Ogbonnaya (2009), is the raising of funds and ensuring that the funds are utilized in the most effective and efficient manner.

According to Mgbodile (2004), effective financial management is the pivot of effective school management and the success of any school program depends very much on the way the financial inputs are managed and this, in turn affects the overall performance of each school. Therefore, for the effective implementation of UBE Policy in Nigeria, the stakeholders responsible for the policy

implementation required some specific expertise in financial management. It is based on this, Oche (2009), noted that, the school managers needs specific skills in financial management, which include: revenue generation, assessment of the school needs, planning and programming, prioritizing areas of pressing needs, cost benefit analysis, stock taking, market survey, budgeting, financial record keeping receipts, banking strategies, delegation of staff for financial matters, auditing and accountability. Brigham and Houston (2012), mentioned four financial management functions for the institutions to succeed efficiently, namely:-

- (1) Planning which refers to the process of developing a series of actions or programs to accomplish organization goals;
- (2) Budgeting which completes the program planning process by allocating financial resources to carry out the planned activity or program;
- (3) Controlling which ensures that actions adhere to the plan and that efforts are made to monitor it; and
- (4) Evaluating which serves as a tool for determining success.

It could adumbrate from the above conceptual clarification that financial management in education comprises;

planning, budgeting, mobilization, allocation, utilization, accounting and auditing. School or educational financial planning as described by Cole and Kelly, (2011), is the formalization of what is intended to happen at some time in the future; concerns actions taken prior to an event, typically formulating goals and objectives and then arranging for resources to be provided in order to achieve a desired outcome. Godspower, and Ukraine, (2018), stated that the planning of school finances usually begins with the drafting of a budget which describes the statement of the school expressed in monetary terms. It is also a planning instrument, which contributes in a constructive way towards preventing the disruption of educational programs as a result of insufficient or exhausted resources. Collaborating this assertion, Nwosu and Ozioko, (2020), stated that the first step of managing fund in secondary school (basic school inclusive) is the preparation of budget. The school budget covers the proposed programs of the school, the expenditure necessary to support such programs and the anticipated revenues to cover such programs. Pepito and Acibar, (2019), viewed school budgeting as an executive and legislative function of the school manager whereby the budget

becomes a legal document that serves as the basis for annual expenditures, accounting and auditing.

Functions of school budget have been articulated by scholars. According to Moses (2014), budgeting guarantees effectiveness of school Principals (Head Teacher) by ensuring that only planned programs are pursued, unnecessary spending is avoided and that all proposed expenditures are matched towards the expected revenue, leaving no room for deficit but rather creating a greater room for budget surplus. A successful school budget must be the product of a process that is based on sound and quality information. Reiterating the importance of school financial budget, Mutua, (2013), stated that school budgets are typically focused on producing goods and services to stakeholders rather than financial gain. As a result, their budgets are designed to authorize expenditure and limit managerial decisions. Similarly, Ogbonnaya (2009) outlined the following as importance of budget: Controls financial behavior of administrators in schools, preventing waste or reckless spending as the implementers are compelled to follow the approved estimates in expending funds, budgets attracts the interest and support of tax payers, and finally, budget authorizes expenditure.

The fact that school financial budget entails what revenue is to be anticipated and from what source the Principals (other educational managers inclusive) as observed by Ukaigwe and Igbozuruike (2018), have a vital role to play in ensuring that the school generates significant financial resources and efficiently managed to eliminate wastages. Therefore, the school manager should mobilize, allocate and utilize funds in order to achieve educational goals (Ebong, 2013). Mobilization of funds focuses on sourcing for school finance, because the goals of school could not be achieved without adequate funds. Apart from government budgetary allocation there are many sources (both internal and external) opened to school leaders as Ogbonnaya (2009) argued that since various governments cannot adequately fund the educational institutions, the institutions should look for possible sources of revenue for financing their programs. These sources as highlighted by Sani (2016), include: Parents Teachers Associations (PTAs), School Based Management Committees (SBMCs), Old Students, Associations, Non-Governmental Organizations (NGOs), Community Based Organizations (CBOs), International Donor Agencies, Philanthropists, Religious Institutions,

Professional Organizations, Trade Unions, Security Agencies, Traditional rulers and Private Proprietors. Agabi (2014), stated school fees, levies, school commercial activities such as provision of students accommodation, leasing of school facilities, sales of farm proceeds, sales of pastries from home science activities, sales of art and craft products of the school, running a shopping mall and renting out part of the school ground etc. as internally generated revenue.

The funds mobilized by school must be allocated as budgeted. The educational policy implementers should ensure the allocations in the school budget are spent in accordance with the financial regulations and procedure. According to Ojo & Olaniyan (2008), the Principals (Head Teacher) must be prudent in making use of the fund provided. Thus, the utilization of school funds centered on accountability which as aptly captured by Okon, Akuegwu and Uko, (2016), is a condition of rendering a good account of how public money was spent by a public servant during a given period. Commenting on the effective use of funds for educational programs, Okoroma and Walson (2010) advised that adequate plans be made by government on how the funds realized in schools from various sources be accounted for to avoid misappropriation. Adequate

funding alone does not guarantee the success of any school program, rather effective management of funds and other resources is imperative to enhance effective implementation of the program.

Related to the above assertion, Ebinu and Nwogu (2019), noted that the idea of resourcing for funds encompasses the need for financial discipline and prudence in management. This is because; it will be irrational to engage in revenue drives just to have the generated monies misappropriated or mismanaged. Clear accounting records give the subordinate's confidence in the leadership of the school, which will in turn help to enlist their support for any finance resourcing exercise. Therefore, the principals are expected to keep accurate records of all incoming monies to the school as well as a proper account of the disbursement and expenditure of such monies. This is prudent financial management that ensures that funds are judiciously spent for the purpose they are meant (Mogbodile 2004). Udoh (2011) posited that the state of infrastructural facilities in Nigerian schools is deplorable. It seems all these could be attributed to poor financial management by the school principals. In the same vein Agabi, (2018), pointed that it is the obligation of persons or

entities entrusted with public resources to be answerable for the fiscal, managerial and program responsibilities that have been conferred on them and to report to those that have conferred these responsibilities. For the purpose of this educational financial management is viewed as planning, budgeting, mobilizing, allocating, utilizing, accounting and auditing of financial resources by the stakeholders responsible for the implementation of UBE Policy for the attainment of stated aims and objectives of the policy.

Financial Management Related Problems that Impede the Effective Implementation of Universal Basic Education Policy in Nigeria

Financial management is the fundamental element on which the success of any policy depends. Where the financial management is weak, success is hard to ascertain. No policy or program has ever succeeded in history without proper utilization of financial resources. Hence, the educational policy implementers bear enormous responsibility and accountability for ensuring that educational finances are free of irregularities (Operario, 2022). Reiterating this assertion Obasi and Asodike (2014), stated that no organization could efficiently run its affairs without the availability of adequate

finance. Therefore, financial management is the major tasks of educational managers that involves the utilization of all available financial resources in an effort to achieve the objectives for which educational institutions are established (Eru, 2019). Thus, financial management as perceived by this presentation encompasses financial planning, budgeting, mobilization, allocation, utilization, accounting and auditing. The financial management related problems that impede the effective implementation of UBE Policy in Nigeria include:

1 Inadequate funding: For the aims and objectives of quality Universal Basic Education Policy to be achieved, sufficient fund must be provided. This is because its inadequacy will pose a serious challenges to the realization of the UBE Policy. Although it was categorically stipulated that the Government at all levels will support the UBE with the necessary funds for effective implementation of the Policy. Unfortunately, the annual budgetary allocations channeled towards education generally, has never met the 26% benchmark set by UNESCO. In fact the Federal Government allocation to education in its annual budget is grossly inadequate. Not only inadequate but it is declining every year as noted by Muftahu and

Hazri (2015) that the yearly average allocation for the educational sector in Nigeria has been in a decline, and this caused many educational services to be significantly damaged, especially in consideration of the

fact that they are provided by the government for free to its citizens. The Federal Government budgetary allocation from 2016-2021 is presented in table 1.1 below:

Table 1.1 Federal Government Budgetary Allocation to Education

S/N	Year	% Federal Government Budgetary Allocation
1	2016	7.9%
2	2017	7.4%
3	2018	7.04%
4	2019	7.05%
5	2020	6.70%
6	2021	5.60%

Sources: Federal Government of Nigeria, Annual Budget (various years) cited in Bello (2022).

It is palpable from table 1.1 above that inadequate funding is the most critical challenge that has threatened the attainment of good quality basic education in Nigeria. To maintain quality basic education, enough fund should be allocated for payment of teachers' salaries, building of new classrooms, renovation of school buildings, purchase of equipment, furniture and instructional materials (Onyeachu, 2008). This is because the quality of education delivered by teachers and the academic achievement of students in any school is dependent on several factors of which school facilities are paramount. The lack of infrastructures will affect the quality of basic education and the subsequent realization of UBE Policy. For quality teaching and learning, the class size must be small for effective students/teacher

interaction. Unfortunately, class rooms in Nigerian basic schools are overcrowded. The teacher-student ratio in the UBE Policy is put at 1:40. Obviously this is not obtainable in most UBE schools (Sani, Ibrahim & Baffa, 2019).

According to Bello (2022), in 2018, Nigeria counted 22.4 million children enrolled in public primary schools. Data on the number of classrooms available in the country show that there was a deficit of over 230 thousand classrooms. Bello further explained that classes in Nigerian schools are in fact quite big as the most recent available data indicate that an elementary class in Nigeria has 51 pupils on average, with around 100 children per class in certain States, and it is higher than this in some States as The Nigeria Vanguard Newspaper on the 5th of May, 2018 reported that a primary school in

a State in Nigeria has over 400 pupils crammed into a 14 feet by 16 classroom where pupils sprawled on the bare floor concentrated doing something else at the front of the teacher.

Salihu and Jamil (2015) asserted that one of the ways to assess the effectiveness of the UBE Policy is to look at the availability of infrastructures needed for its implementation. The UBE program is confronted with the issue of inadequate learning facilities which affect the learning conditions of the pupils negatively, thus defeating the goals and objectives of the program. Shortage of equipment, infrastructures, text-books and instructional materials are undermining the successful implementation of the UBE Policy. Without the provisions of adequate textbooks and instructional materials, it is difficult to implement the school curriculum (Etuk, Ering and Ajake, 2012).

Related to the above is the issue of inadequate teaching staff /poor quality of teaching staff who are the actual implementers of the policy. Professionally trained and academically qualified teachers are the hub of any educational system, because they determine the quality of education by transmitting educational policies into practice and action. Without adequate

number of inspiring, well-informed teachers, fully prepared to meet their responsibilities in our basic schools, we cannot have quality education. Good teachers are needed for good education which in turn is indispensable for social change, social transformation and national development (Ajayi, 2007). Despite the importance of qualified teachers in the attainment of Universal Basic Education, schools in Nigeria are short of teachers who could adequately handle teaching and learning activities. Due to inadequate funding the schools are unable to employ enough teachers and the few available ones are seriously over worked. Where there is inadequate and poor quality teachers, the attainment of quality basic education will be difficult (Sani, Ibrahim & Baffa, 2019).

Another financial related factor that hinders the implementation of UBE Policy is Poor Motivation of teachers. There is no doubt that the morale of our teachers is generally low. The teaching profession and teachers themselves are generally relegated to the background in terms of their salaries, condition of service and welfare by government and other owners of schools, and this goes a long way to affect their productivity (Sani, Ibrahim & Baffa, 2019).

2 Financial Recklessness: According to (Nwosu, & Ozioko, 2020), leaders in Nigeria,

particularly those in government are naturally reckless. Huge amount of money has been wasted and unaccounted for due to financial rascality by our leaders. None of our leaders, at all levels of governance is exempted from this financial recklessness of public funds and resources. Contracts have been awarded and are still being awarded without due process, public agencies procure goods and services without recourse to transparency. This seriously affect the realization of formulated policy. Due to insincerity on the part of the leaders, the budget process is always being manipulated to accommodate some recklessness. This go a long way to affect some developmental provisions in the budget as some of the money meant for the provision of infrastructures are diverted to other selfish use and at the end render the policy ineffective. .

3 Corruption: This is the major challenge of financial management in the implementation of UBE Policy in Nigeria. The various stakeholders that are ordinarily expected to check one another have become collaborators and partners in corrupt practices. The legislators that are saddled with responsibility of regulating the revenue and expenditure estimate in any fiscal year to ensure accuracy, transparency, efficiency and effectiveness are

not living up to expectation. They are interested in their various allowances ranging from furniture, wardrobe, security and food allowances. In government ministries, agencies and parastatals, vouchers are illegally loaded, bloated by bursars, accountants and other financial personnel's who are functionally expected to detect, control and regulate such illegal financial practices (Nwosu, & Ozioko, 2020). These pose a serious challenge to the effective implementation of UBE Policy.

4 Overreliance on Government Budgetary Allocation: The fact that government budgetary allocation and other government driven sources have always been inadequate, overreliance on Government budgetary allocation by the Head Teachers hinders the effective implementation of the Policy. Umar and Tuboson (2016) lamented that educational crises in Nigerian basic education schools today is an index of awareness that majority of school administrators are managerially bankrupt. Due to their managerial bankruptcy these school administrators continue to complain about inadequacy of funds for effective management of the schools, where philanthropists of their host communities are looking for where to pump money and become popular in the society. Umar and

Tuboson further explained that a managerially bankrupt school principal is the one who lacks financial resource management, human resource management and material resource management. Many schools were found ungovernable today due to conflicts, crises and litigations caused by poor financial, human and material resource management on the part of various school principals. Hence designing a structure where other sources can be exploited and effectively utilized may ensure adequate provision of funds for the realization of UBE Policy (Ekaette, Akeke & Ekpenyong, 2019). The stakeholders should therefore be mobilize to strive to make funds available for the proper implementation of the Policy.

Prospects of Financial Management for the Effective Implementation of UBE Policy in Nigeria

Despite the financial management related problems highlighted above, efficient and effective financial management has a prospect of playing a vital role in the implementation of UBE Policy in Nigeria. The prospects of effective financial management for the implementation of UBE Policy in Nigeria include:

1 Capital Expensive Nature of Education and the Need for Stakeholders

Participation: Declaring Basic Education as free and compulsory in Nigeria as contained in the Policy statement, resulted in the increase in enrolment rate, while the volume of funds and facilities required have not sufficiently expanded to meet the enrolment demands. Hence the need for stakeholders' participation in the provision and management of Basic Schools is indispensable, this is because the objectives of the Policy could not be achieved without full and uncompromising commitment from the community. This is the wisdom behind the assertion in the National Policy on Education (FRN, 2014), that "Government welcomes the participation of voluntary agencies, communities and private individuals in the establishment and management of basic education provided the set standard are met". Apart from establishment and management of schools, adequate funding through exploring alternative sources of financing education (instead of relying on government subvention and grants) are very vital, because the sector is expensive social service which the Government alone cannot adequately finance as categorically stated in the National Policy on Education (FRN, 2014), that:

Education is a capital-intensive social service which requires adequate financial provision from all tiers of government for successful implementation of the educational programs....The financing of education is a joint responsibility of the Federal, State/FCT and Local Governments and the private sector. In this connection government welcomes and encourages the participation of local communities, individuals and other organizations.

The above policy statement implies that Government at all levels will support the UBE with the necessary funds for effective implementation of the Policy. It also stressed the need for supplementing governmental efforts by all stake holders as rightly captured by Ibezimako (2016) in Bello (2017), that communities, corporate organizations and well placed individuals in the society should contribute their quota to the growth and development of education in the country by augmenting government's efforts through the provision of grants. It is in line with the above, Babalola (2008) opined that 'education as a social investment should be shared by individuals, students, their families and communities including international agencies'. Therefore it is the responsibility of the government and school administrators to explore alternative sources of financing basic education (both internal and external sources) instead of relying on government subvention and grant as pointed by Sani (2016), that the school administrators relied heavily on government subvention as the main source of finance neglecting other sources.

Revitalizing alternative sources of financing Basic Education by the school Head Teachers have the prospect of addressing all the financial inadequacies in public Basic Schools in Nigeria.

2 Government Efforts in the Provision of Incentive Programs: With the attempt of Governments (Federal, States and Local Government) to implement the UBE Act provision through incentive programs such as non-payment of school fees, free uniforms and books, school feeding and integration of *Tsangaya/Makarantun* Allo (Qur'an schools) in to UBE Program (Sani, 2020), some of the facility challenges that have been bedeviling the implementation of the Policy are being addressed to the some extents. .

3. UNESCO 26% Benchmark Budgetary Allocation to Education: Provision of adequate fund to education through the allocation of 26% benchmark as set by UNESCO has the prospect of facilitating the effective realization of all educational policies and programs. This is because the major constraint to the implementation of UBE Policy is underfunding. For instance

the allocation of 26% budgetary allocation to education by the Executive Governor of Kano State Dr. Abdullahi Umar Ganduje since 2019, gives the State Government the opportunity to record great success in the area of education (Sani, 2020). Due to the adherence to the allocation of 26% benchmark as set by UNESCO, the Kano State Government incorporated Post Basic Education in to free and Compulsory Basic Education, introduced special program of remodeling Almajiris schools and recently upgraded Sa'adatu Rimi College of Education Kumbotso to University of Education. This indicates that allocating 26% of the budgetary allocation by the Federal and State Government could enhance effective implementation of educational policies and programs in the nation.

Conclusion

It could be concluded from the above that the UBE policy just like other Nigeria's policies were well drafted and clearly stated with defined implementation guidelines. . If such policies are effectively implemented as stated in the Policy Document the Nigerian basic education system, will witness a dramatic rise in terms of access, quality, and in the attainment of the Nation's objectives. Unfortunately financial management related

problems impede the effective implementation of the UBE Policy.

Suggestions

- Funds should be adequately allocated to education from the nation's budget, at least to the tune of the 26% benchmark set by UNESCO.
- Funds from private individuals and other donors should be used judiciously for intended purposes, and for public benefit.
- Private individuals and other donors should continue supporting education with funds and other materials considered appropriate to ensure the smooth running of the school.
- Managerial training should be given to the educational managers before and after their appointment to the management cadre.
- Governments should take appropriate, legislative, budgetary and other necessary measures towards the full realization of quality, free and compulsory basic education in the nation.
- Government and other educational stakeholders should adhere strictly to the budgetary allocation.
- Corruption and financial recklessness should be checked

REFERENCES

- Adewole, I. (2016). Universal Basic Education. Retrieved on March 9, 2019 from: dokilin.com.
- Agabi, C. O. (2019). Principles and Theories in Educational Finance. David stones Global Resources.
- Agabi, C. O. (2014). Teaching and Resource Management in Education. Port Harcourt: Rodi
- Ajayi K (2007). Emergent Issues in Teacher Education and Professionalization of Teaching in Nigeria. *African Journal of Historical Science in Education 3 (1): 22-28.*
- Akinbote O. (2001). The Nigerian Primary School Teachers: Angels of Instruction or Devils of Destruction? Ibadan: Ibadan University Press.
- Asemah, J.I. (2010). Perspectives in Educational Management and Administration. Makurdi: Chris Publishers.
- Asodike, J.D. (2014). Basic Issues in Primary Education Delivery in Nigeria. *European Scientific Journal 8(1) 165-172/* Retrieved on March 9, 2019 from: www. European Scientific Journal Com.
- Ayannuga, O, M. (2020). Implementation of Universal Basic Education Programme in Lagos State Schools: Counsellors' and Teachers' Perceptions. *Journal of Guidance and Counselling Studies, 2020, Vol. 4, Issue 2, 363-373*
- Babalola, J.B. (2008) Revitalization of African Higher Education. Ibadan Spectrum Press.
- Bello, A. B. (2017). Community Mobilization for the Provision and Management of Education in Nigeria: The Quest for Creating Enabling Environment. A Lead Paper Presented at the First Annual Chapter Conference of the Nigerian Association for Educational Administration and Planning Held on 8th March 2017 at Musa Abdullahi Auditorium, Bayero University, Kano.
- Bello, A. B. (2022). *Revitalization of Education Funding in Nigeria for Sustainable Economic Development.* Unpublished Lead Paper at the Opening Ceremony of the 4th Annual National Conference of the Academic Staff Union of Aminu Kano College of Islamic and Legal Studies, Kano
- Brigham, E. & Houston, J. (2012). Fundamentals of Financial Management: 12th Edition. Philippines: MG Reprographics, Inc.
- Ebong, J. M., (2013). *School Finance Management.* In J. D. Asodike, J. M. Ebong, S, O, Olueuo, and N. M. Abraham (eds). Contemporary Administrative and Teaching Issues in Nigerian schools. Oweri: Alphabet Nigeria Publishers.
- Ebunu, A., A. & Nwogu, U.J. (2019). Principal's Finance Resourcing Skills Required for Effective Administration of Public Secondary Schools in Delta State, Nigeria. *Educational Research International Vol.8 (3)*
- Ekaette, S. O. Akeke, M.N.G. & Ekpenyong, J.A. (2019). School Finance Management Structure and Effective Delivery of 21st Secondary Education in Cross River State. *Global Journal of Educ Research, Vol 18, Pp 71-79*
- Eru, A. N. (2019). Impact of Financial Mismanagement among Principals of Secondary Schools in Benue State, Nigeria. Unpublished Postgraduate Diploma in Education (PGD), Project National Teachers' Institute, Kaduna, Makurdi Study Centre, Benue State.
- Etuk, G. R; Ering, S. O; & Ajake, U. E. (2012). Nigeria's Universal Basic Education (U.B.E) Policy: A Sociological Analysis. *American*

- International Journal of Contemporary Research*, 2(7), 179-183
- F.R.N. (1999). Constitution of the Federal Republic of Nigeria.
- Federal Ministry of Education (2000). Implementation Guidelines for Universal Basic Education (UBE) Programs Abuja.
- Federal Republic of Nigeria. (2014). *National Policy on Education*. Lagos: NERDC Press.
- Godspower, T. S. & Ukwaige, P. C. (2018). Fund Management Strategies for Effective Administration in Public Secondary Schools in Bayelsa state. *African Journal of Educational Research and Development (AJERD)* 11(1)
- Maduwesi B.U & Ofejobe W.N. (2012). Refocusing Nomadic/Migrant Fishermen Children's Education for sustainable Development in Nigeria. Ibadan: Spectrum Books Ltd.
- Mgbodile, T. O. (2010). Hindsight on Universal Primary Education Implementation for Planning and Implementation of Universal Basic Education. *Nigerian Universal Basic Education Journal*. 1(2),105-110.
- Mgbodile, T.O (2000). Hindsight on Universal Primary Education Implementation for Planning and Implantation of Universal Basic Education. *Nigerian Universal Basic Education Journal*, (2) 105-110.
- Moses, Z.O.P. (2014). Managing Funding for Effective Administration of Public Secondary Schools in Rivers State. Unpublished M.Ed. Dissertation, Department of Educational Management, University of Port Harcourt.
- Muftahu J. S. & Hazri, J. (2015). Policy of Universal Basic Education in Nigeria: An Examination of its Effectiveness on Implementation and Management. *American International Journal of Contemporary Research*; 5(6), 147 – 155
- Mutua, R. (2013). Factors Influencing Effectiveness of Financial Management in Secondary Schools in Kitui Central District of Kitui County, Kenya. Unpublished Doctoral Dissertation, University of Nairobi.
- Nwosu, K. L. & Ozioko, I. D (2020). Accountability in the Management of Financial Resources for Secondary Education in Nigeria. *International Journal of Institutional Leadership, Policand Management*, 2(3),638-652.
- Obanya, P. (2009). Reinforcing LGAs for the Realization of MDG2: UBE. In *Dreaming Living and Doing Education*. *Educational Research and Study Group. Institute of Education University of Ibadan, Ibadan*.
- Obasi, F. N. & Asodike, J. D. (2014). Educational Resource Management. Pearl Publishers. 12-14 Njemanze Street, Port-Harcourt, Nigeria.
- Oboegbulem. A. I, (2011). Organization and Management of Education, Nsukka Great AP. Express Publishers Ltd. Nigeria.
- Oche, D. O. (2009). Financial Management Practices of Secondary School Principals in Benue State. A Research Project Presented to the Department of Educational Foundations, Faculty of Education, University of Nigeria, Nsukka.
- Ogbonnaya, N.O. (2009). Social and Political Context of Educational Administration. Nsukka: Chinka Educational Publishers.
- Ojo, L. B. & Olaniyan, D. A. (2008). Leadership Roles of School Administrators and Challenges Ahead in Post Primaary Institutions in Nigeria. *Europeans Journal of Scientific Research*, Vol. 24 No 2, pp172-178

- Okoroma, N.S., & Walson, O.B.A. (2010). Factors that Militate against Effective Implementation of the UBE Programme in Nigeria. *Journal of Educational Research and policies*, 3(4), 21-32
- Okwori, A. (2004). *Practical Approach to Educational Planning*. Makurdi: Peach Global Publications.
- Olaniyi A. (2017). 2018 budget: 7.04 Per Cent allocation to Education Unacceptable – ERC tells FG. Retrieved on 24th September, 2022 from <http://dailypost.ng/2017/11/23/2018-budget-7-04-percent-llocation-education-unacceptable-erc-tells-fg/>
- Onyeachu, C.I.O. (2008). Quality Assurance in Junior Secondary Education in Abia State. *Nigerian Journal of Curriculum Studies (CON). Nigeria: Curriculum Organization of Nigeria. Special Edition. 179 – 187.*
- Operario, J.B. (2022). Managerial Competencies, Financial Management, and Level of Liquidation Practices of Secondary School Administrators. *GNOSI: An Interdisciplinary Journal of Human Theory and Praxis Volume 5, Issue 1, January - June,*
- Pepito, G.C. & Acibar, L. B (2019). School-Based Management and Performance of Public Elementary School Heads: Basis for Technical Assistance Plan. *International Journal of Innovation and Research in Educational Sciences*.6 [1]
- Salihu, M. J. & Jamil, H. (2015). Policy of Universal Basic Education in Nigeria: An Examination of Effect iveness on Implementation and Management. *American Interna tional Journal of Contemporary Research*, 5, (6), 147
- Sani, A. (2016). Revitalization of Alternative Sources of Financing Secondary Education in Kano State by the School Administrators. In Abraham et al (Ed) *Changes and Innovations in Financing Education for Sustainable National Development*. Nigerian Association for Educational Administration and Planning. Port Harcourt; University of Port Harcourt Press Limited.
- Sani, A., Ibrahim, R. A, & Baffa, S. A (2019). Funding Universal Basic Education for Quality Assurance in Nigeria: Challenges and Prospects. *Nigerian Journal of Educational Administration and Planning*. Pp 423-430.
- Sani, A. (2020). Community Participation in the Provision and Management of Free and Compulsory Post Basic Education in Kano State. *Bayero Journal of Educational Admini stration and Planning*. Pp204-213
- Shimelash, D. T (2018). The Practices and Challenges of Financial Management in Secondary Schools of Womberma woreda. Unpublished Masters of Art in Educational Planning and Management Thesis. University of Gondar Ethiopia.
- The Nigerian Vanguard Newspaper 5th May 2018. Nigeria: Vanguard Publishing Company.
- Ugwuanyi, B. I. & Chukwuemeka, E. O. (2013). The Obstacles to Effective Policy Implementation by the Public Bureaucracy in Developing Nations: The Case of Nigeria. *Kuwait Chapter of Arabian Journal of Business and Management Review*; 2(7), 59 –68.
- Ukaigwe, P.C. & Igbozuruike, I. U. (2018). Education Law and Community Participation in Financial Management of Secondary Schools in Rivers State. *Educational Research International*, 7(3) 43-52.
- Umar, H.A & Tubosun, B. V. (2016). School Principals' Bankruptcy in the Micro-Policy of Nigerian Upper-Basic Education. *Kuwait Chapter of Arabian Journal of Business and Management Review Vol. 5, No.8, April 2016.*

Effects of Just-In-Time and Team-Based Learning Strategies on Performance of Secondary School Students in Financial Accounting in Kano State, Nigeria

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ABSTRACT

The study was carried out to determine the effects of Just-in-Time and Team-Based Learning Strategies on Secondary School Students' Performance in Accounting in Kano State, Nigeria. The study had three (3) specific objectives, three (3) research questions and three (3) null hypotheses which were formulated and tested at a 0.05 level of significance. A quasi-experimental design was adopted for the study. The population of the study was one thousand six hundred and eighty-nine (1,689) Secondary Schools financial accounting Students taken from the thirty-one (31) secondary schools offering accounting in Kano State, Nigeria. The sample size was 123 students. Purposive sampling was used to select the 123 students. The instruments used for data collection was Financial Accounting Achievement Test (FAAT) and Instructional Package for Financial Accounting (IPFA). Mean and standard deviation were used to answer the research questions, while t-test was used to test all the three (3) hypotheses. The finding of this study showed that all the hypotheses one to three were rejected. The study revealed that students who learnt accounting using Just-in-Time and Team-Based Learning strategies performed better than the Control Group. It was concluded that Just-in-Time and Team-Based Learning strategies had positive effects on students' academic performance in accounting. Consequently, it was recommended among others that teachers should familiarize themselves with Just-in-Time and Team-Based Learning strategies and engage their students to use these strategies to learn financial accounting.

Keywords: Just-in-Time, Team-Based, Learning Strategy, Financial Accounting

Introduction

Education is globally accepted to be the driving force for sustainable human

development. It is seen as the cornerstone of every development forming the basis for

literacy, skills acquisition, technological advancement as well as the ability to harness the natural resources of the state. Education must be seen as the indispensable key for personal and social improvement. FRN (2013) emphasizes the goals of education in Nigeria to include inculcation of the right type of values, attitudes, communication skills as well as life-long skills. These can only be achieved through effective teaching and learning. In modern education system, learners are expected to possess an increased degree of autonomy, show intuitive in learning, inspect learning material and understand content. A situation where students initiate, guide and control the search for information and later process and understand it, is known to be learners centered. There are various learning strategies such as cooperative learning strategy, meta-cognitive learning strategy, revision strategy and organizational learning strategy intra-alia among others that a student can use to facilitate learning. These strategies can also be applied during learning of financial accounting in order to make students perform better.

Students' performance portrays their ability in intellectual functioning. Performance refers to what students achieve in their studies and how they cope with or accomplish different learning experiences

given to them by their teachers. Ibrahim (2011) reported that in educational institution, success is measured by academic performance, or how well students meet standards set out by institution. Academic performance has to do with how well students' meet up with educational standard-aims, goals and objectives of education at a particular time. Academic performance is the outcome of education, the extent to which a student, teacher and institution have achieved their educational goals. In school system, if a learner accomplishes a task successfully and attains the specified goals for a particular learning experience, he is said to have achieved. Gouch (2009) maintained that performance is the way and manner students deal with their studies and how they cope with or accomplish different tasks given to them by their teachers. Students' success depends on the amount of learning that takes place in the classroom and other related areas (Akinsolu, 2010). Ibrahim (2011) added that academic performance has to do with ability to not only understand and assimilate facts, but to be able to recall these facts in future. From the ongoing, one could conclude that students' academic performance has to do with acquisition of knowledge, ability to make this knowledge part of them, use the acquired knowledge to perform well academic task given them now and in future.

Just-in-time (JIT) is a learning strategy that combined the use of out-of-class exercise with active learning pedagogy. As a learning strategy, JIT addresses two critical issues in teaching and learning activities. These issues include the relative scarcity of active learning based strategy and the lack of new technology-based instructional innovations (Simkins, 2006). According Novak, Patterson, Garvin, Christian (1999), Just-in-Time is learning strategies design to foster use of class time for more active learning. JIT Learning relies on a feedback loop between web-based learning. Students prepare for class by reading from textbooks or using other resources posted to the web (called WarmUp and Puzzles) online for the instructor to assess their work. These out of class exercise often have complex answer; students' work outside class serves as preparation for more complete work in class. These (WarmUp and Puzzles) is submitted to the teacher before the class, their responses help the instructor gauge their comprehension or misunderstanding of reading or problem sets. The instructor may incorporate the ideas from their responses into the teaching or use them as bases of discussion. The use of JIT as a learning strategy is very simple, it works as incentive model that provide consistent feedback and assessment to both instructor and student.

The goal of Just-in-Time Learning (WarmUp and Puzzles) is for students to come to class prepared, engaged, and motivated.

In JIT Between classes, students are given task typically focusing on materials that will be covered in the next class. The students do the task and submit them to the teacher. Once submitted, the teacher will review the students' JIT response prior to the class and use the responses to organize and modify the upcoming classroom session— hence, the Just-In-Time label. Excerpts from students' submissions are presents during the class as the bases for discussion. This replaces the traditional lecture method and therefore used to develop following exercise that the students would work on in class.

JiTL was developed by Norvak, Peterson, Gavrin & Christian (1999) to maximize the learning of students in their introductory college Physics courses. Pedagogically, JiTL allow the author to incorporate the “The Seven for good Practice in undergraduate Education” proposed by Chickering and Gamsonson for effective teaching and learning. This best practice advocate active learning contact between students and instructor, students' collaboration, feedback, emphasis of time on task, high expectation and respect for diverse talent. The JiTL allowed the instructors to institute all these practices in a large lecture course that enroll

students from journalism, and history. JiTL was design for physical science and it has been implemented in other empirical discipline especially the social sciences.

Team-Based Learning is a structured form of learning that emphasizes students' preparation out of class and application of learning in class. Students are organized strategically into diverse group of 5 – 7 students that work together before and during the class. Some pre-reading materials are assigned to students of which students are expected to complete the task before attending the class. In Team-Based learning students participate in “Readiness Assurance Process” or RAP. Specifically, students complete a test individually (the individual Readiness Assurance Test” or (iRAT) and then complete the test with their group members (the group Readiness Assurance Test or (gRAT). After the students complete the group test the instructor encourages the team to appeal questions that they got incorrect. The appeal process encourages student to review the material, evaluate their understanding and defend the choices they have made.

Importantly, Team-Based Learning is structured to articulate students thinking and gives team an opportunity to evaluate their own reasoning when confronted with different decisions that another team may

make. Peer evaluation is an important part of Team-Based learning, it is essential for keeping students accountable to their teammates. More specifically Team-Based Learning has been shown to produce learning gains in a variety (Jao, 2016). Hake (1998) found out in his study that, student taught with interactive engagement strategy exhibit gains higher than those engaged in traditional courses.

In summary, TBL leverages the power of action-based instructional objectives to not only expose students to course content, but also give them practice using it. When determining an instructional objective, it is crucial to know how you are going to assess the extent to which students have mastered that objective. Some teachers feel that designing assessments first removes something from the value of instruction—that it simply becomes “teaching to the test.” With TBL the view is that yes, you absolutely should teach to the test, as long as the test represents (as closely as possible) the real use to which students will ultimately apply the course material: what they are going to do with it, not just what they should *know about* it.

Financial accounting is a branch of accounting that is concerned with reporting of financial information. Financial accounting is used to report financial data of

an organization to the user for objective assessment and decision making (Ezeagba 2014). Accounting is a core subject that can guarantee the attainment of the philosophical aims and goal of the Nigeria educational system. The major objective of accounting education is to prepare students for work places. Zraa, Kavanagh and Hartle (2011) stated that, for many years academics and professionals are seeking to restructure accounting education to meet the requirements of the business environment. However, currently, accounting education as a model has failed to focus on developing graduates for successful careers worldwide. In order to achieve the set objectives of teaching financial accounting in secondary school, financial accounting teachers should employ learner friendly instructional strategies in teaching accounting subject such as Just-in-time and Team-Based Learning Strategy. Odums (2014) found that, the achievement grades of students taught financial accounting using JiT strategy is greater than those taught using conventional method. A study conducted by Enwere, Ezewanfor and Eze (2020) revealed that JiT strategy has relative effectiveness on students' retention in accounting than the traditional lecture method. Christenson, Harrison, Hollindale and Wood (2018) concluded that implementing team-based in

accounting helps to improve students' attitude particularly those that are quantitatively inclined. Ainsworth (2021) emphasis that since skills are critical for successful accounting career, study provide empirical ground for adopting team-based learning and implementing the strategy in other managerial course

Statement of the Problem

The primary objective of financial accounting in the secondary school curriculum is to prepare the students for senior secondary school Certificates Examination (SSCE) which enables the holder pursue further education or go in to lower clerical work in the office. For these reasons, the government, teachers and parents have been given support to ensure that students' performance in both internal and external examination be improved.

Adesulu (2014) opined that the level of failure in financial accounting between 2012 and 2014 in WASSCE result was massive and grievous. In his findings, students who wrote the financial accounting at O' level WAEC in 2014 only 31.28% passed, while 68.72% failed, in 2013 only 36.57% passed, while 63.43% failed, in 2012 only 38.81% passed while 61.19% failed. Persistently, Bello (2018) reported that in 2017 the students' pass rate was 59.22% but instead of an improvement, it was discouraging to

discover that the pass rate in 2018 result was 48.98%. In view of these aforementioned, he concluded that 60% failure was recorded in skills subjects; this obviously included financial accounting and other vocational courses such as typewriting, shorthand and agricultural sciences.

Akintelure in Bello (2018), blamed the problem on financial accounting teachers' insensitivity to the nature of financial accounting when planning instructional activities in the classroom. According to her, financial accounting is not one of the subjects that can be mastered by mere memorization of the basic rule. It requires total determination, sound theoretical knowledge and intensive practice in application. The poor performance of students in financial accounting has been traced to several factors which may include, the strategies of teaching employed by the teachers to guide the students' learning ability which may not be in line with the modern strategies of teaching and learning. The teachers on the other hand said the failure was due to students' lack of interest and lack of seriousness in the subject. Some blamed the government and school authority for refusing to provide adequate instructional materials with which they can effectively teach the subject using different methods and strategies. It was against this background, the researcher examined the

effects of Just-in-Time and Team-Based Learning Strategies on Secondary School Students' performance in financial accounting in Kano State, Nigeria.

Objectives of the study

The general objective of the study is to assess the Effects of Just-in-Time and Team-Based Learning Strategies on Performance of Secondary School Students in Financial Accounting in Kano State, Nigeria. Specifically, the study was to:

- Determine the effect of Just-in-Time Learning Strategy on students' performance in Financial Accounting in Secondary Schools in Kano State Nigeria
- Determine the effect of Team-Based Learning strategy on performance of Students in Financial Accounting in Secondary Schools in Kano State, Nigeria.
- Establish the difference between performance of students using Just-in-Time Learning, and those using Team-Based Learning Strategy in Financial Accounting in Secondary Schools in Kano State, Nigeria.

Research Questions

Based on the specific objectives of the study, the following Research questions were formulated to guide the study:

- What is the effect of Just-in-Time Learning Strategy on performance of students in Financial Accounting in Secondary Schools in Kano State Nigeria?
- What is the effect of Team-Based Learning Strategy on performance of students in financial accounting in Secondary Schools in Kano State, Nigeria?
- What is the difference between performance of students taught financial accounting using Just-in-Time Learning Strategy, and those taught using Team-Based Learning Strategy in Secondary Schools in Kano State, Nigeria?

Research Hypotheses

The following null hypotheses were formulated for the study and tested at a 0.05 level of significance:

- Just-in-time learning strategy has no significant effect on students' performance in financial accounting in Secondary Schools in Kano State, Nigeria.
- Team-Based Learning strategy has no significant effect on students' performance in financial accounting

in Secondary Schools in Kano State, Nigeria.

- There is no significant difference between performance of secondary schools' students exposed to learn financial accounting using Just-in-Time and those using Team-Based Learning strategies.

METHODOLOGY

This study adopted quasi-experimental design. In quasi-experimental design there is no random assignment of participants to groups. The population for the study is one thousand six hundred and eighty-one (1,689) senior secondary school class II (SS 11) accounting students in Secondary Schools in Kano State who offered financial accounting as at 2018/2019. This population is gotten from Kano education Resource Department (2019). This research work adopted purposive sampling method to select 123 students of Aminu Kano Community Commercial College from the 31 secondary schools offering financial accounting in Kano State for the experiment. Purposive sampling was used because AKCCC is one among the best secondary schools offering accounting that has adequate staff and facilities. Purposive sampling according to Ado (2016) is a sampling procedure in which the researcher uses his experience to choose

elements and or individuals to be included in a sample based on some subjective criteria. The 123 students were divided into three different accounting groups by the researcher. The class was divided using their register number serially. The first 41 students was named group 'A', the next 41 students were named group 'B' while the last 41 students were named group 'C'. Therefore, the researcher used those groups (A & B) for the experimental groups (Just-in-Time and Team-Based Learning Strategy) and group 'C' for control group so as to satisfy the condition of intact class where everybody in the class must participate.

The instruments for data collection were self-designed Instructional Package for Financial Accounting (IPFA) and Financial Accounting Achievement Test (FAAT). The instructional package for financial accounting is Lesson plans on a selected topic was presented using Just-in-Time Learning Strategy, Team-Based Learning Strategy and traditional teaching method (Control group). The lesson plans were served as guides that directed the researcher on how the treatment was carried out within the time frame.

The Financial Accounting Achievement Test has two parts; pre-test and post-test. The pre-test is a warm up exercise which encompassed exercise in financial accounting, while the post-test contained

exercises on financial accounting. The Pre-test was administered to the students before the treatment. The pre-test lasted for 30 minutes. The purpose of the test was to ascertain the entry behavior of the students in financial accounting, whereas the FAAT (post-test) contained exercises on financial accounting. It consisted of two theory questions on the topic (Manufacturing Account) which was taught by the researcher. The FAAT post-test was administered at the end of the treatment exercise. The instrument was scored 100% as divided thus; Question 1 carried 26 marks (options; 'a' 6mks, 'b' 10mks and 'c' 10mks) while in question 2, each correct entry and balance scored 1 and a half (1½) marks and the heading carried 2mks making a total of 74mks for question two. All the instruments were subjected for validation by experts, pilot tested and determined reliability coefficients of 0.73 and 0.65. In analyzing the data collected, the five (3) research questions were answered using mean and standard deviation. The five (3) Null hypotheses were tested using t-test. The t-test was used because, according to Frank in Unogu (2015) since the t-test statistic is a non-parametric tool and does not require assumptions, it is therefore imperative in testing the null hypotheses. All null hypotheses were tested at an alpha level

of ($P = 0.05$) in order to either accept or reject the hypotheses.

performance of secondary school students in Accounting in Kano State, Nigeria?

RESULTS AND DISCUSSIONS

Research Question One: *What is the effect of Just-in-Time Learning strategy on*

Table 1: Mean and Standard Deviation of Just-in-Time Learning Strategy on performance of secondary school students in financial accounting in Kano State, Nigeria

Variable	N	\bar{x}	Std.Dev.	Mean Difference
Just-in-Time Learning strategy	41	62.17	15.49	12.17
Traditional (control) method	41	50.00	11.69	

Source: Field Study, (2019)

The result in Table 1 showed the effect of Just-in-Time Learning Strategy on academic performance of students in accounting. The analysis revealed a mean score of 62.17 and standard deviation of 15.49 of student taught financial accounting using Just-in-Time is greater than a mean score of 50.00 and a standard deviation of 11.69 for student using Traditional method. This indicated a mean

difference of 12.17 showing that Just-in-Time Teaching possibly had more effect on students' academic performance in financial accounting over the Traditional method.

Research Question Two: *What are the effects of Team-Based Learning Strategy on performance of Secondary School Students in Accounting in Kano State, Nigeria?*

Table 2: Mean and standard deviation showing effect of Team-Based Learning Strategy on performance of Secondary School Students in financial accounting in Kano State, Nigeria?

Variable	N	\bar{x}	Std.Dev.	Mean Difference
Team Based Learning Strategy	41	73.85	16.77	23.85
Traditional (control)	41	50.00	11.69	

Source: Field Study, (2019)

The result in Table 2 showed the effect of Team-Based Learning on academic performance of students in financial accounting. The analysis revealed mean

score of 73.85 and standard deviation of 16.77 of student taught financial accounting using Team-Based Learning strategy is greater than a mean score of 50.00 and a

standard deviation of (11.69) for student using convention strategy. This indicated a mean difference of 23.85 showing that Team-Based Learning possibly had more effect on students' academic performance in financial accounting over the conventional method.

Research Question Three: *What is the difference in the performance of students*

taught financial accounting using Just-in-Time learning, and those taught using Team-Based Learning Strategies in Secondary School Students in Accounting in Kano State, Nigeria?

Table 3: Mean and standard deviation showing performances of students exposed to financial accounting using Just-in-Time Learning and those exposed to using Team-Based Learning

Variable	N	\bar{x}	Std.Dev	Mean Difference
Just-in-Time Learning Strategy	41	62.17	15.49	11.68
Team Based Learning Strategy	41	73.85	16.77	

Source: Field Study, (2019)

The results of Table 3 showed the effect of Just-in-Time Teaching and Team-Based Learning on academic performance of students in financial accounting. The analysis revealed a mean score of 62.17, and standard deviation of 15.49 of students taught financial accounting using Just-in-Time Teaching, and a mean score of 73.85 and standard deviation of 16.77 for students taught using Team-Based Learning. This indicated a mean difference of 11.68 showing that Team-Based Learning had more effect on students' academic performance in financial accounting over the Just-in-Time

Learning. Therefore, it is concluded that Team-Based Learning is more effective in learning financial accounting among Secondary School Students in Accounting in Kano State, Nigeria than the Just-in-Time Learning

Testing of the Null Hypotheses

Hypothesis One: *Just-in-time learning strategy has no significant effect on performance of financial accounting students in Secondary Schools in Kano State, Nigeria*

Table 4: Test of the effect of Just-in-time learning strategy on performance of financial accounting students in Secondary Schools in Kano State, Nigeria (N=82)

Variable	\bar{x}	Std.Dev	Df	t-cal.	t-crit	Sig. (2 tailed)	Decision
Treatments							
Just-in-Time learning Strategy	62.17	15.49	80	4.02	1.99	.000	HO₁ Rejected
Lecture (control) method	50.00	11.69					
P<.0.05							

Source: Field Study, (2019)

The t-test analysis on table 4 was to determine the effect of Just-in-Time Learning on Secondary School Students Performance in Accounting. The analysis shows the mean (62.17) and Standard deviation of (15.49) for Just-in-Time Learning was higher than the mean (50.00) and standard deviation of (11.69) for the conventional lecture method with a degree of freedom of (80) respectively. The t-calculated is 4.02 which were greater than t-critical of 1.99. The P-value of .000 is

lower than a value of a 0.05 level of significance, thus the null hypothesis which states that just-in-time Learning strategy has no significant effect on performance of accounting by Secondary School Students in Kano State, Nigeria was rejected.

Hypothesis Two: *Team-Based learning strategy has no significant effect on performance of financial accounting students in Secondary School in Kano State, Nigeria*

Table 5: Test of the effect of Team-Based Learning strategy on performance of financial accounting by Secondary School Students in Kano State, Nigeria (N=82)

Variable	\bar{x}	Std.Dev	Df	t-cal.	t-crit.	Sig. (2-tailed)	Decision
Treatments							
Team-Based Learning Strategy	73.85	16.77	71.5^a	7.47	1.99	.000	HO₂ Rejected
Lecture (control) method	50.00	11.69					

^aThe df was adjusted because variances are not equal. P<0.05

Source: Field Study, (2019)

The t-test analysis on table 5 was to determine the effect of Team-Based Learning

Strategy on Secondary School Students' Academic Performance in Financial

Accounting. The analysis shows the mean (73.85) and Standard deviation of (16.77) for Team-Based Learning was higher than the mean (50.00) and standard deviation of (11.69) for the conventional lecture method with a degree of freedom of (71.5) respectively. The t-calculated is 7.47 which were greater than t-critical of 1.99. The P-value of .000 is lower than a value of a 0.05 level of significance, thus the null hypothesis

which states that Team-Based Learning strategy has no significant effect on performance of financial accounting students in Secondary School in Kano State, Nigeria was rejected.

Hypothesis Three: *There is no significant difference in the mean performance of secondary school students exposed to financial accounting using just-in-time learning Strategy and those using Team-Based learning strategy*

Table 6: Comparison of the mean performance of students exposed to financial accounting using Just-in-time Learning strategy and those using Team-Based learning strategy. (N=82)

Variable	\bar{x}	Std.Dev	df	t-cal.	t-crit.	Sig. (2-tailed)	Decision
Treatments							
Just-in-time Learning Strategy	62.17	15.49	80	3.28	1.99	.002	HO₃ rejected
Team-Based Learning Strategy	73.85	16.77					
P < 0.05							

Source: Field Study, (2019)

The t-test analysis on table 6 was to compare difference in the mean performance secondary school students exposed to financial accounting using just-in-time strategy and those taught using Team-Based learning strategy. The analysis shows the mean (62.17) and Standard deviation of (15.49) for Just-in-Time was lower than the mean (73.85.) and standard deviation of (16.77) for the Team-Based Learning Strategy with a degree of freedom of (80)

respectively. The t-calculated is 3.28 which is greater than t-critical of 1.99. The P-value of .002 was lower than the *priori a* value of a 0.05 level of significance, thus the null hypothesis which states that there is no significant difference in the mean performance of secondary school students taught financial accounting using just-in-time strategy and those taught using Team-Based learning strategy in Secondary School in Kano State, Nigeria was therefore rejected

Summary and Discussion of Findings

The result from research question one and null hypothesis one revealed that significant difference exists between the mean academic performance of Just-in-Time Learning and those exposed to financial accounting using the Traditional method with mean values of 62.17 and 50.00 respectively. The mean difference was 12.17 in favor of students taught using Just in Time Learning with a $p \leq .000$, α at 0.05 level of significance. The result from research question two and null hypothesis two revealed that significant difference exists between the mean academic performance of Team Based Learning and those taught financial accounting using the Traditional method with mean values of 73.85 and 50.00 respectively. The mean difference was 23.85 in favor of students taught using Team Based Learning with a $p \leq .000$ α at 0.05 level of significance. The result from research question three and null hypothesis three revealed that significant difference exists between the mean academic performance of students exposed to financial accounting using the Just in Time Learning Strategy and Team Based Learning with mean values of 62.17 and 73.85 respectively. The mean difference was 10.65 in favor of the Team

Based Learning with a $p \leq .002$, α at 0.05 level of significance.

The findings of the study results research question one and hypothesis one revealed that Just in Time Learning had a significant effect on students' academic performance in financial accounting over traditional method with a mean of 62.17 with $p \leq 0.000$ α at 0.05 level of significance. This finding is in agreement with Park, Kim, Park and Park (2015) who observed that students taught financial accounting using Just in Time Learning strategies perform better with higher post-test scores than those taught using Traditional method. Also, based on their findings, it was concluded that Just in Time Learning has the potential to improve students' academic performance and retention in financial accounting. Odums (2014), also affirmed that students exposed to using Just in Time Learning strategy achieved significantly higher than those taught using the traditional strategy because of its meaningful context in learning. The study results from research question two and hypothesis two also revealed that Team Based Learning method had a significant effect on students' academic performance in financial accounting over conventional method with a mean of 73.85 with $p \leq 0.000$ α at 0.05 level of significance. This is in line

with Bas & Beyhan (2019), whose finding affirmed that theoretical and practical skills of students who are exposed to the Team Based Learning improve greater than those of the students who were exposed to the traditional learning. In addition, Moore (2008) showed that after a classroom lecture by teachers, students were only able to retain 5% of the information presented and after a classroom demonstration by the teacher students were only able to retain 30% of the information both after 24 hours, but when Team Based Learning was used students were able to retain 75% to 90% of the material after 24 hrs.

Hrynychak and Batty (2017) also found that Team Based Learning method is the most effective method of teaching because it promotes students' teamwork, competence and improves their learning effectiveness. Sweet and Michaelson (2012), affirmed that Team Based Learning strategy enhanced the students' ability to learn and that it has proved to be more effective than the traditional method for students labeled as high and average achievers. In support to these studies such as Abdul Ralin and Shakel (2009), Atencio (2008), and Lui (2009) all revealed that Team Based Learning significantly improves achievement of students in various school subjects.

Moreover, the outcome of this study from research question three and hypothesis three indicated that Team Based Learning **method is more effective in teaching financial accounting in Kano State Secondary School, Nigeria than Just in Time Learning strategy given the mean achievement scores of 73.85 and 62.17 respectively.** This is in agreement with Liberatore, Morish and Vestal (2017) who investigated the effect of Just in Time Learning on the academic achievement of students in an introductory thermodynamics course and result shared a clear significant difference such that the student performance was greatly reinforced when just in time treatment was employed. Similarly, Cookman, Mandel and Lyons (2014) also investigated the effect of Just inTime on motivation and engagement in a history of photography course. It was founded that JITT promote students' autonomous approach in learning.

Conclusion

Based on the outcome of this research work, the findings revealed that the two strategies (Just-in-Time and Team-Based Learning) had positively affected students' performance in financial accounting. This is so because both strategies had proved to be better techniques compared to conventional method. If this is the case, it could be

concluded that students' taught accounting using these learning strategies are capable of earning good grades, gaining employment opportunities and admission into universities. It will also make them competent and productive members of the society after graduation.

Recommendations

Based on the outcome of the study, the following recommendations were made. Specifically, Team-Based Learning strategy should be incorporated in the new curriculum to supplement existing strategy in order to enhance students understanding and linking of concepts. This will go a long way in

organizing an in-service teachers' education programs, workshops and seminars to prepare teachers with respect to its philosophical, social, historical, objectives, theoretical and practical usage.

In order to promote the use of both Just-in-Time Learning strategy and Team-Based Learning in learning financial accounting effectively, teachers should endeavor to expose students to learn account, while government both federal or states ministries of education should give enough grants to procure equipment and facilities necessary for using the two strategy.

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REFERENCES

- Abdul Ralin, A.Y. and Shakel B.N. (2009). "The Effectiveness of the strategy of collaborative learning strategy in the Omani schools", *The Educational Magazine, Kuwait* 2(75), 114- 148.
- Ado, A. (2016). Effects of Gamification and Blank-Qwerty-touch Methods on Performance of Business Education Students' in Keyboarding in Federal Colleges of Education Kano, Nigeria. Unpublished M.ED (Business Education) Thesis Submitted to the School of Postgraduate Students' Ahmadu Bello University, Zaria.
- Adesulu, D. (2014). Mass Failure as WAEC Release May/June Exam Results. Retrieve From <http://www.Vanguardngr.com/2014/08/mass-failure-as-waec-release-may/june-exam-/> result/ on 15/11/2017
- Ainsworth, J. (2021). Team Based Learning in professional writing courses for accounting graduates: Positive impact on students engagement, accountability and satisfaction. *Accounting Education*. 30. 234-257. <https://doi.org/10.1080/096392.84.2021.1906720>.
- Akinsolu, A.O. (2010). Teacher and Students' Academic Performance in Nigeria Secondary Schools: Implications for Planning, *Florida Journal of Educational Administration & Policy*, 3(2): 86-103.
- Atencio, D.J. (2008). "Structured Autonomy or Guided Parteei Patin? Constructing Interest and Understanding in a lab Activity", *Early Childhood Education Journal*, 31(4), 233-239.
- Bas, G. & Beyhan, O. (2019). Revisiting the effect of Teaching of Learning Strategies on Academic Achievement: A Meta Analysis of The Findings, *International Journal of Research in Education and Science*, 5(1), 70 – 87
- Bello, Z. S. (2018). Effects of Concept Mapping and Enquiry Methods in Teaching Financial Accounting in Secondary in schools in Kaduna State. Unpublished M.ED (Business Education) Thesis Submitted to the School of Postgraduate Students' Ahmadu Bello University, Zaria.
- Cookman, C., Mandel, S. & Lyons (2015). The effect of Just in Time Teaching on Motivation and Engagement in a History of Photography course. *Journal of Experimental Education*, 66(2): 141 - 157
- Christenson, J., Harrison, J. L., Hollindale, J. & Wood, K., (2018). Implementing Team Based in Accounting Courses. *Accounting Education*. 28., 195- 219
- Enwere, J., Ezewafor, J. I., Eze T. I., (2020). Relative Effectiveness of Just-in-Time and Peer Pressure Instructional Strategies on Students Retention in Financial Accounting in Colleges of Education in Anambra. *International Journal of Scientific and Technology Research*. 9. 955 – 957
- Ezeagba, C. E., (2014). Problems in the teaching and learning of accounting as avocational subject in Nigeria Secondary schools international Journal of Science and Technology, 3(2), 208 - 226
- Federal Republic of Nigeria. (2013). National Policy on Education. Abuja: NERDC Printing Press. (Retrieved September 5, 2015).
- Gouch, D. (2009). Investigating Critical and Contemporary Issues in Education/Student Academic

- Performance. A case study of Senior Secondary Schools in Kassena Nankana District, *Journal of Social Sciences*, 4 (4): 338 - 342. <http://www.webcrawlal.org>.
- Hrynchak, P. and Batty, H. (2017). The Effects of Team Based Learning on Conventional pathology Education to Improve Students Mastery of Pathology, *International Journal of Higher Education*, 6(3), 12 – 20.
- Ibrahim, S. (2011). Impact of Accounting Background, Gender and Motivation on Performance of Business Education Students' in Introductory Accounting in Federal Universities in Nigeria. An unpublished Doctorate Dissertation Presented to the School of Postgraduate Studies, Ahmadu Bello University, Zaria.
- Jao, J. C. (2016). Effectiveness of Team-Based Learning on Academic Performance in An Electric Circuit Theory Course for Health Science Students
- Liberatore, M. W., Morrish, R. M. & Vestal, C. R. (2017). Effectiveness of Just in Time Teaching on Students Achievement in An Introductory Thermodynamic Course: Advance Engineering Education. *Journal of American Society of Engineers*. Springs, 21 pp
- Liu, E.Z.O. (2009). A case study of Networked Portfolio Assessment System for co-operative learning” EIRC Document Reproduction service No. ED 489909.
- Moore K.D. (2008). Effective Instructional strategies from theory to practice. A thousand Oaks, CA Sage Publications.
- Novak, G.M., Patterson, E., Garvin, A. & Christian, W. (1999). Just-in-time Teaching: Blended active learning with web technology. Upper Saddle Rivers; Prentice Hall
- Odums, N. A. (2014). Critical assessment of Just in Time Teaching Methods on Academic Performance of Business Studies Students. *Journal of Educational and Social Research* MCSER Publishing Rome Italy. 4(5)
- Park, H. R., Kim, C. Park, J. & Park, E. (2015). The Effects of Team Based Learning on Perceived Teamwork and Academic Performance in Health Assessment Subject, *The Australian Journal of Nursing*, 22(3) 299 – 305
- Simkins, S. P. (2006). Using Just in Time Teaching to promote students learning in economics. *International Handbook on Teaching and Learning Economic*
- Sweet, M. S. & Michaelson, L. K. (2012). Team Based Learning in Social Science and humanities: Group Work that to Critical Thinking and Engagement. Stylus, Sterling, VA
- Zraa, W., Kavanagh, M. & Hartle, R. T. (2011); *Teaching Accounting in the New millenium, Cambridge Business and Economic Conference*. June 26 - 28 2011. Cambridge, UK.

Skills Improvement Needs of Woodwork Lecturers' for Effective Teaching of Woodwork Technology Education in Northwest, Nigeria

By

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ABSTRACT

This study is designed to identify the areas of skill improvement needs of woodwork lecturers for effective teaching of Woodwork Technology Education (WTE) at Nigeria Certificate in Education (NCE) technical in Northwest States Federal College of Education (Technical) Bichi, Kano State, Federal College of Education (Technical) Gusau, Zamfara State, Sa'adatu Rimi College of Education Kumbotso, Kano State, Isah Kaita College of Education Dutsin-Ma, Katsina State, Shehu Shagari College of Education Sokoto, Sokoto State, Kaduna Polytechnic, Kaduna State and Kano State Polytechnic, Kano, Nigeria. Three research questions were used to guide in the conduct of the study. The woodwork lecturers of woodwork technology education at Nigeria Certificate on Education (NCE) technical programme in the northwest states, constitute the respondents of the study. A 21 item questionnaire was used to collect data for the study. The data was analyzed using frequency, mean and standard deviation. The analysis for the study data revealed that Woodwork Lecturers in the NCE (Technical) awarding institutions need skills improvement training in terms of design and constructions of wood articles, computer numerical controls woodworking machines as well as wood science and forestry. Base on the findings, the following recommendations were made; immediate skills improvement training need in new designs and constructions of wood articles, computer numerical control woodworking machines and wood science and forestry for the woodwork lecturers' at NCE (Technical) programme level with emphasis in the areas of theory and practical skills aspects. There should be collaboration between the woodwork lecturers' and industries to enable them to acquire the needed skills to impacts to the woodwork students so that upon their graduation can be employable to contribute to the development of their immediate society and the nation at large.

Keywords: Skills, improvement, needs, effective teaching, woodwork technology education.

A skill is the ability to perform an action with determined result often within a given amount of time, energy, or both. Skills can often be divided into domain-general and domain-specific skills. A skill is a special ability to do something. A skill is a particular

Introduction

ability that you develop through training and experience and that is useful in a job (Cambridge University Press, 2020). Skill is the ability and capacity that is acquired through deliberate, systematic, and sustained effort to smoothly and adaptively carryout

complex activities or job functions involving ideas (cognitive skills), things (technical skills) and/or human/people (interpersonal skills). Skill is seemed as ability to do something well, usually gained through training and experience. Skill is often acquired their training session or after practical exposure. A skill refers to as ability to put into use, acquired competencies, attitude and behaviour after an exposure to theories and practices inherent in the field of study (Etonyaku, 2010). Skill is the capacity of a person to accomplish a task with desired precision and certainty to make a productive business or enterprise. Farlex (2013) emphasized that a skill is a proficiency, dexterity or facility that is acquired or developed through training or experience. In this context, skill improvement needs for NCE (Technical) woodwork lecturers for effective teaching of woodwork technology education in northwest, Nigeria.

Improvement means “gradual, piecemeal but cumulative betterment” which can refer to both individual and society in general. Improvement is considered as attaining a better state from the identified former state, through some action intended to bring about measurable achievement. Improvement is the act of making better or is the process of

becoming better (Oxford Advanced Learner’s Dictionary 6th edition).

Woodwork Technology Education (WTE) Programme is one of the branches of Technology Education and includes a diverse range of sub-disciplines, such as applied design, planning, construction of cabinet, furniture and other wooden constructions. Woodwork Technology deals with the design application, constructions, manufacturing, operations and maintenance of woodwork tools and machines. However, woodwork is a specialized discipline that has more focus on application theory and applied design, and implementation. Students who specialized in woodwork technology are expected to acquire knowledge, skills and attitudes to design, apply, construct, manufacture, operate and maintain all kinds of woodwork tools and machines.

Woodwork Technology Education in the Nigeria Certificate in Education (NCE) Technical is one of the areas of specialization under the School of Technical Education, in some Colleges of Education under the School of Vocational and Technical Education. But, in some Polytechnics under Education (Technical) Department in the School of Science and Technology Education. The Philosophy of Technical Education NCE (Technical) according to National

Commission for Colleges of Education (NCCE) is to produce technical teachers with the intellectual and professional background adequate for teaching technical subjects and to make them adoptable to any changing situation in technological development not only in the country but also in the world at large (Minimum Standard NCCE, 2012). Specifically, The Objectives of the Woodwork Technology Education Programme shall be:

- To provide qualified Woodwork Technology Teachers that will teach Basic Technology at upper basic education level.
- To provide Woodwork Technology Teachers who will be able to inculcate scientific and technological attitudes and values into the society;
- To provide qualified Woodwork Technology Teachers that are motivated to start the desired revolution of technological development in Nigerian Schools;
- To prepare Woodwork Technology Teachers for a POST – NCE degree programme in Technical Education.

The need for improving training skills (in-service training) in institutions is getting more attention for woodwork lecturers and woodwork instructors to be equipped with

new knowledge and skills for them to face new challenges and reformation in educational field. Skill improvement training can enhance the professionalism of teachers who can contribute to the organization to achieve its goals. Skill improvement training is the professional and personal educational activity for lecturers to improve their efficiency, knowledge, ability and motivation in their professional work. The training for teachers/lecturers enables the teachers/lecturers to be more systematic and logical in their teaching style (Kazmi, Pervez and Mumtaz, 2011). Skill improvement training is a planned process whereby the effectiveness of teachers collectively or individually is enhanced in response to new ideas, knowledge and changing circumstances in order to improve, directly or indirectly the quality of learners' education. A study shows that, teachers who attend re-training programmes perform effectively in their work concerning knowledge of the subject, classroom management, teaching method and evaluation of students. And also, studies carried-out by Jahangir, Saheen and Kazmi (2012) shows that training plays a major role to improve the teachers' performance in school.

During the training, teachers with the school management skills, evaluation techniques

and mastery deliver on content of their areas of subject matter (Frederick and Stephen, 2010). For this reason, teachers and educational experts should increase their effort in fostering and implementing and continuous training in institutions so as to improve the effectiveness in the delivery of the required content. Ronald (2004) postulated that, it is literally impossible today for any individual to take on a job or center a profession and remain in it without any changes. Therefore, it is not only desirable but also an activity to which every technology institution must commit human and fiscal resources if it is to maintain a skilled and knowledgeable staff (Ronald, 2004:170).

The importance of skill development should be looked in various perspectives. It promotes a very flexible environment and allows lecturers to adopt with the working situation and it is also one form of motivation for employers and employees and it will continue to creativity in teaching and learning process. It also enables to acquire new understanding and instructional skills to develop their effectiveness in the classroom. Skill development for lecturers should have a positive effect on their knowledge and communication, with their involvement in planning instructional activities and also it

increased the students' motivation. Besides, the woodwork lecturer needs to improve their skills in woodwork technology education in order to provide them with ample opportunities to learn new concepts, methods, skills and approaches through professional development. Skills improvement needs of woodwork lecturers also change their attitudes and further increase the performances of students.

The purpose of this study is to improve the skills needed by the woodwork lecturers for effective teaching of Woodwork Technology Education (WTE) in North-West States tertiary institutions offering NCE (Technical) woodwork programme in Nigeria.

Statement of the Problem

The woodwork technology education lecturers have complex role and have more demands on them in order to be able to impart knowledge and skills to the learners. For this reason, the woodwork lecturers need to acquire new knowledge, skills and attitudes for them to function effectively on the job. One of the major problems facing Technical, Vocational Education and Training (TVET) today in Nigeria is that, most of the technology education teachers/lecturers including woodwork teachers/lecturers lacks appropriates facilities and partially lack practical skills (Udofia, *et. al.*, 2012). It is

also the belief of many educators that pre-service training of lecturers is not sufficient to prepare teachers for life (Okobia, 2013). It has been argued that only through the growth of training and re-training that the gap between advancing knowledge and practice can be bridged. It was on the basis of this that the Federal Republic of Nigeria (FRN) in the National Policy on Education (FRN, 2004) emphasized that training and re-training of lecturers shall be developed as an integral part of continuing teacher education and shall also take care of all inadequacies. The acceptance of such responsibility by the government is a right step to ensure effectiveness and quality teaching and learning. However, quality education depends on the quality of the teachers. Skill development of woodwork lecturers ensure that they are kept up to date and adequately empowered to provide effective teaching and learning to the learners.

The pre-service training, might not perfectly prepare them for effective job performance. Therefore, many reasonable teachers sought the opportunity for skill improvements as a means of further professional development. It is against this background that this study was aimed at determining the skill improvement needs for NCE (Technical) woodwork lecturers for effective teaching woodwork

technology education at North-West States of Nigeria.

Aim and Objectives of the Study

The study is designed to determine the skill improvement needs of woodwork lecturers for effective teaching of woodwork technology education in North-West, Nigeria.

Specifically, the study will assess:

- (1) Skill improvement of woodwork lecturers in teaching digital woodworking machines or computer numerical control (CNC) in NCE (Technical) woodwork technology education programme in North-West, Nigeria.
- (2) Skill improvement of woodwork lecturers in teaching cabinet making in NCE (Technical) woodwork technology education programme in North-West, Nigeria.
- (3) Skill improvement of woodwork lecturers in teaching upholstery in NCE (Technical) woodwork technology education programme in North-West, Nigeria.

Research Questions

- (1) What are the skill improvement needs of woodwork lecturers in digital woodworking machines or computer numerical control (CNC) in NCE (Technical) woodwork technology education programme?

- (2) What are the skill improvement needs of woodwork lecturers in cabinet making in NCE (Technical) woodwork technology education programme?
- (3) What are the skill improvement needs of woodwork lecturers in upholstery in NCE (Technical) woodwork technology education programme?

Methodology

This study adopted a descriptive survey research design to get information from woodwork lecturers in northwest tertiary institutions offering NCE (Technical) woodwork technology in Nigeria. Descriptive survey research is the study which aims at collecting and describing data in a systematic manner the characteristics, features or facts about a given population (Nworgu, 2006). The design was deemed appropriate since data was collected to identify areas of skills improvement needs of woodwork lecturers for effective teaching of woodwork technology education at NCE (Technical) woodwork technology education level. This study was conducted in northwest, Nigeria. The participants or population of this study consists of 25 woodwork lecturers in northwest tertiary institutions offering NCE (Technical) woodwork technology education programme of Nigeria in the area of the study. The choice of the population was

based on the fact that they are knowledgeable and therefore, in a very good position to give authentic information on the skill improvement needs of woodwork lecturers for effective teaching of NCE (Technical) woodwork technology education programme level. The structured questionnaire was the instrument utilized to get the required data from the respondents for the study. This was developed by the researchers from extensive review of literature and based on the objectives of the research. The instrument was face validated by three experts from Department of Woodwork Technology Education, Federal College of Education (Technical) Bichi, Kano State Nigeria. To determine the reliability of the instrument, it was pilot-tested on three respondents from Department of Woodwork Technology Education, Federal College of Education (Technical) Gombe, Gombe State that were not part of this study. And also, cronbach alpha was used to determine the internal consistency and it yielded a coefficient of 0.84 for research question one, 0.75 for research question two, and 0.65 for research question three. Thus, the instrument was considered appropriate for use by the researcher; the overall reliability coefficient of the instrument is 0.81. The questionnaire was administered by the researchers and the

entire instruments were retrieved and analyzed. A five point rating scale was used to determine the level at which competence is needed. The decision rule was based on theory of true class limits of numbers with numerical values ranging between 4.50 – 5.00 = Very Highly Needed (VHN); 3.50 – 4.49 = Highly Needed (HN); 2.50 – 3.49 = Needed (N); 1.50–2.49 = Moderately Needed (MN) and 0.50 – 1.49 = Not Needed (NN).

Presentation and Analysis of Data

The data were presented and analyzed based on the research questions posed in the study.

Research Question One:

What are the skill improvement needs of woodwork lecturers in digital woodworking machines or computer numerical control (CNC) in NCE (Technical) woodwork technology education programme?

The mean ratings for items on the required skills are given in Table 1.

Table 1: Mean rating and standard deviation of the respondents on the skill improvement needs of woodwork lecturers in digital woodworking machines or computer numerical control (CNC) in NCE (Technical) woodwork technology education programme

S/No.	Items	\bar{X}	S.D	Remarks
1.	Sequencing the ripping operation in the correct order using CNC woodworking machines.	3.50	0.72	Highly Needed
2.	Operating the CNC computer and machine while, ripping operation.	4.55	0.77	Very Highly Needed
3.	Set-up, program, operate, or tend computerized Digital Woodworking Machines.	4.00	0.65	Highly Needed
4.	Cutting lists are automatically optimized and can be programmed at the machine or remotely from office.	4.00	0.65	Highly Needed
5.	Crosscut is required an up stroke saw provides a very safe working system; two button operation is required to engage the cutting cycle.	4.55	0.60	Very Highly Needed
6.	When medium to high volume crosscutting is required an automatic saw provides key advantages.	3.04	0.56	Needed
7.	Using simple Computer Aided Design (CAD) /Computer Aided Manufacturing (CAM) for planing operation.	3.00	0.51	Needed
8.	Rebate has two sided and open to the edge or end of the surface into which it is cut.	4.60	0.55	Very Highly Needed
9.	CNC circular saw with multiple passes (depending on width and depth).	2.65	0.70	Needed
10.	Chamfering operation can be done using CNC router. CNC router faster with a range of 13,000 to 24,000 RPM.	3.33	0.68	Needed
		4.00	0.65	Highly Needed
		4.00	0.65	Highly Needed

The analysis of the result presented in Table 1 above, indicates the respondents' opinion on the skill improvement needs of woodwork lecturers in digital woodworking machines or computer numerical control (CNC). The result of the presented data revealed that all the 10 items are needed by the woodwork lecturers to improve effective teaching and learning of NCE (Technical) woodwork technology education programme in northwest tertiary institutions offering

woodwork technology education at NCE (Technical) level in Nigeria with mean value ranging between 2.65 – 4.60. This showed that the mean value of each item was above 2.50 is the mean cut off point for the competencies needed by woodwork lecturers. The table also showed that the standard deviations (SD) of the items are within the range of 0.51 to 0.77; this indicated that the opinions of the respondents were not far from one another in their responses.

Table 2: Mean rating and standard deviation of respondents on the skill improvement needs of woodwork lecturers with respect to cabinet making.

S/No.	Item	\bar{X} 25	SD	Remarks
1.	A cabinet is a box-shaped piece of furniture with doors and/or drawers for storing miscellaneous items.	4.05	0.64	Highly Needed
2.	Clamps, table saw, miter saw, high quality saw blades, drilling jig, etc. are the cabinet making tools.	4.02	0.55	Highly Needed
3.	Some cabinets stand-alone while other are built into a wall or attached to it.	3.32	0.61	Needed
4.	Cabinetmakers facilitate and repair wooden furniture, and fit and assemble prepared wooden parts to make furniture.	4.51	0.50	Very Highly Needed
5.	A cabinet intended to be used in a bedroom and with several drawers typically placed one above another in one or more columns.	2.82	0.52	Needed
6.	A tall storage including hanging of cloths is called a wardrobe or armoire.	4.30	0.71	Highly Needed
7.	Types of cabinetry may be frameless cabinet or cabinet with a face frame.	4.70	0.65	Very Highly Needed
8.	A cabinet may be built-in or free-standing.	4.05	0.64	Highly Needed
9.	Cabinet components are bases, adjustable feet, compartments, insert hardware and tops.	4.02	0.55	Highly Needed
10.	Bracket feet are separate feet, usually attached in each corner and in the larger pieces in the middle of the cabinet.	3.32	0.61	Needed

The Table 2 above presented the information that reveals the respondents' view on the skill improvement needs of woodwork lecturers in cabinet making. The respondents are of the believed that woodwork lecturers' needs skills improvement in almost of the items listed in the table with mean value ranging

between 2.85 – 4.70. This indicated that the mean value of each item was above the 2.50. The table also shows that the standard deviations (SD) of the items are within the range of 0.50 to 0.71; this indicated that the opinions of the respondents were not far from one another in their responses.

Table 3: Mean rating and standard deviation of the respondents on the skill improvement needs of woodwork lecturers in upholstery construction.

S/No.	Items	\bar{X} 25	SD	Remarks
1.	Upholstery is the work of providing furniture, especially seats, with padding springs, webbing, and fabric or leather covers.	4.21	0.76	Highly Needed
2.	The word upholstery comes from the middle English word "Upholder" which referred to an "Artisan" maintained their goods.	3.42	0.72	Needed
3.	Apprentice upholsterer is sometimes called an "outsider or trimmer".	3.79	0.63	Highly Needed
4.	Modern furniture is more likely to be part or wholly made with cellular polyurethane foam.	2.52	0.52	Needed
5.	Upholsterer's chalk, goggles, needle guards, rubber mallet, scissors, sewing machine, staple gun, staple knocker, upholstery hammer are some of the upholstery tools.	4.00	0.59	Highly Needed
6.	Buttons, staples, upholstery tacks, zippers are the some of the materials for upholstery.	4.83	0.67	Very Highly Needed
7.	Foam of the modern upholstery is graded by its weight per cubic metre.	4.20	0.82	Highly Needed
8.	By the beginning of 17 th century chair seats were being padded, but this form of upholstery was still fairly base.	4.20	0.82	Highly Needed
9.	An automotive upholster, also known as trimmer or motor trimmer.	4.00	0.59	Highly Needed
10.	An apprentice upholsterer is sometime called outsider or trimmer.	3.79	0.63	Highly Needed

Table 3 above presented the information reveals the respondents' view on the skills improvement needs of woodwork lecturers'

in upholstery construction. The respondents are of the believed that woodwork lecturers need skills improvement in almost all in the items listed in the table with mean value

ranging between 2.52 – 4.83. This indicated that the mean value of each item was above the 2.50. The table also shows that the standard deviations (SD) of the items are within the range of 0.52 to 0.82; this indicated that the opinions of the respondents were not far from one another in their responses.

Totally, the respondents agreed that woodwork lecturers need improvement in all the items highlighted in the above three tables. Consequently, the summary of the analysis only suggest strongly that woodwork lecturers need further professional skill improvement in the tertiary institutions offering NCE (Technical) woodwork technology education programme with respect to practical skills. Based on the findings from the study the discussion is made.

Discussion

In three tables above are needed by woodwork lecturers did not come as a surprise. This only confirms the views of Fafunwa (1995) who not that most Technical and Vocational Education TVE teachers, especially woodwork lecturers have insufficient and inadequate knowledge and skills of their subject matter which render them incapable to perform their functions of imparting knowledge and skills to the learners effectively and efficiently. The

success of any educational system no matter how well it is planned depends to a large extent on the quality of the teachers (Gyallasu, 1992). The researchers observes that the greatest obstacle encountered in the tertiary institutions offering NCE (Technical) woodwork technology education is the use of woodwork lecturers who are inefficiently prepared or who are not professionally skilled. Woodwork lecturers must have in-depth knowledge of pedagogy of teaching to be able to bring about desirable learning in the students entrusted to him, his knowledge notwithstanding.

As deduced from woodwork lecturers in the NCE (Technical) woodwork technology education need continuous skills and knowledge in new innovation in woodwork technology education and consequent inclusion in the woodwork technology education minimum standard by National Commission for Colleges of Education (NCCE, 2012). This requires that woodwork lecturers be exposed to new methodologies and curriculum innovation in their area of specialization (that is, woodwork technology education) during the course of their training and continuous personal development programme. Continuous improvement of the woodwork lecturers will enable them overcome the areas of inadequacies in terms

of curriculum changes and innovation. The fact that most woodwork lecturers are ill-equipped professionally makes it very difficult for the aim and objectives of the programme to be realized. In-line with this Okeke (1989) stressed that, teacher's knowledge and skills of the above objectives and the necessary experiences will go a long way to helping him select the learning experiences capable of developing abilities, skills, habit, attitude, understanding and appreciations among students, which they will need to meaningfully, enter and progress in employment. Where the woodwork lecturers lack such basic knowledge, skills their students are likely to be ill-equipped. This seems to be the situation in our tertiary institution of learning today.

In order to achieve the aim and objectives of the woodwork technology education at NCE (Technical) programme level, a woodwork lecturers needs to be very sound in both subject matter and the pedagogy of teaching. A competent teacher/lecturer show how best to derive the aim and objectives of a lesson, prepare the lesson plan, select teaching resources and methods, present the lesson, manage the classroom and evaluate the lesson. A part from this competencies that are expected of the teacher; he should also be aware of our current research and

development in instructional technology and should however possible participate in professional conferences, seminars, project works concerning teaching and learning process and problems relating to his area of specialization (Adigun, 1998). On this note, the teacher should keep an open mind for all new ideas and examine them critically and he should also realize that his task is not merely to teach but also help students to acquire knowledge, skills, habits, attitude of thoughts and qualities of character that will enable them function effectively in the society.

Conclusion

The study set out to determine the skills improvement that are required by woodwork lecturers in northwest tertiary institutions offering NCE (Technical) woodwork technology education programme based on the current occupation demand perceptions. The data support the conclusion that woodwork lecturers are not equipped with adequate knowledge and skills. As a result of the above revelation, the following implications arise. Woodwork lecturers of the NCE (Technical) woodwork technology education programme in the tertiary institutions needed continuous skill acquisition to enable them to perform their professional responsibilities in their practice. The pre-service training received by the

woodwork lecturers was found to be rickety and completely defective, which might not perfectly prepare them for effective job performance. The woodwork lecturers need to be developed in order to update their knowledge, skills and competencies with respect to skills improvement to be able to teach the students effectively and efficiently, so that the students can graduate with NCE (Technical) woodwork technology education as competent basic technology teachers at junior secondary school level, carpentry and joinery teachers at senior secondary school or technical college level, craftsmen, technicians and technologists.

Recommendations

Based on the findings of this study, the following recommendations are made in order to enhance students' skills for them to be able to perform efficiently and effectively on the job.

(1) The emphasis in retraining should be in the areas of practical skills in the deficient areas of well as the requisite instructional knowledge and skills.

- (2) There should be linkage programme between woodwork lecturers and woodwork industries by using some experienced supervisors in the woodwork industries as woodwork lecturers in order to acquire needed practical skills so that they can teach the students smoothly and effectively.
- (3) A systematic programme in the tertiary institutions offering NCE (Technical) woodwork technology education programme should be drawn for the training and retraining the woodwork lecturers for a period of three years, utilizing the vacation periods, for serving woodwork lecturers which will go along the ways to equipping them qualitatively.
- (4) The tertiary institutions of learning and local woodwork industries should collaborate to organize workshops and seminars where they will share information on the changing trends in the woodwork industries with respect to practical instructions and how these changes can be incorporated into the curriculum of the tertiary institutions.

REFERENCES

- Adigun, A. O. (1998). Restructuring the teaching and learning of technology education for National vision. T. A. G. Oladimeji, K. A. Salami, A. W. Adetunmobi (Eds), *Technology Education and the realization of vision 2010 NATT conference proceeding* Minna. 39-41
- Etonyeaku, E. A. C., (2010). Management skills needs of marketing personnel for job performance in contemporary in Nigeria: The way forward, *Journal of Vocational Teacher Education*. Volume 15(1) 2010: 132-138.
- Fafunwa, A. B. (1995). Foundation for technology education in Nigeria: *Journal of Nigeria Association of Teachers of Technology (JONATT)* 1(1), 75-80.
- Ekpoh, V. I., Oswald, A., and Victoria, (2013). Staff development program mmes and secondary school teachers' job performance in Uyo metropolis, Nigeria. *Journal of Education & Practice*, Volume 14, No. 12
- Federal Republic of Nigeria, (2004). National policy on education. Lagos: Federal Ministry of Education, Printing Press.
- Fredrick, B. J. A., & Stephen, O. O., (2010). Teachers' perceptions of staff development programmes as it relates to teachers' effectiveness: A study of rural primary schools' in Kenya, educational research and review, vol. 5(1)
- Gyallasu, A. B., (1992). Problems against the implementation of 6-3-3-4 system of education: *New Nigerian*. January 7th 5-6.
- Hornby, A. S. (2000). Oxford advanced learners dictionary of current English (6th edition)
- Kazmi, S. F., Pervez, T., Mumtaz, S. (2011). In-service teacher training in Pakistan schools and total quality management interdisciplinary journal of contemporary research in business, March edition 2011.
- Muhammad, H. H. (1995). Entrepreneurship in vocational teacher education. A viable option for self-reliance. A paper presented at a seminar on entrepreneurship at FCE (Technical) Umunze, September, 22nd-24th.
- NCCE, (2012). Minimum standard of National Commission for Colleges of Education, Abuja.
- Nworgu, B.G. (2006). Educational Research: Basic Issues and Methodology, Nsukka: University Trust Publishers.
- Okeke, C. C. (1989). Curriculum needs for technical educators for the implementation of junior secondary school introductory technology programme. In E. T. Ehiamezor, M. A. Izuagie, S. O. Olaitan (Eds). *Implementation of the National Policy of Education; Theoretical and Empirical Analysis*; Benin City; NERA Publications.
- Okobia, E. O. (2013). The effects of in-service education on teachers' knowledge of junior secondary school social studies curriculum and instruction in Delta State, Nigeria. *Journal of Research and Method in Education*. 2(6), 1-8.
- Ronald, W. R. (2004). Human resources administration in education: A management approach. U.S.A.: Pearson Education, Inc.
- Speelman, C. (2005). Skill acquisition: History questions, and theories, in speelman C, Kinser k (Eds) *Beyond the learning curve: The construction of mind*, Oxford University Press, pp: 26-64.
- Udoifia, A. E. Ekpo, A. B. Nsa, E. O. (2012). Instructional variables and students' acquisition of employable skills in vocational education in Nigerian technical colleges. *Scholarly Journal of Education*. 1(2), 13-19

Review of Proximate Analysis of Heavy Metals in Action Bitter Alcoholic Herbal Drinks Consumed in Nigeria

By

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ABSTRACT

Consumption of alcoholic herbal products from beverages or medicinal drinks contaminated with heavy metals can cause serious consequences on human health. The present study was carried out to analyze and quantify the levels of seven potentially toxic heavy metals namely Magnesium, lead, cadmium, copper, iron, chromium and nickel in Action Bitter alcoholic herbal bitter. Twenty one ACTION BITTER alcoholic bitter samples previously pretreated and homogenized were digested and analyzed to obtain concentration of Cadmium (Cd), Chromium (Cr), Copper (Cu), Iron (Fe), Magnesium (Mg), Nickel (Ni) and lead (Pb) using atomic absorption spectrophotometer equipped with graphite tube atomizer. Heavy metal analysis is paramount because of their acute and chronic toxicity above threshold level to living organism. The concentration obtained are Cadmium (0.017mg/l), Chromium (0.061mg/l), Copper (0.056mg/l), Iron (0.223mg/l), Magnesium (1.118mg/l), Nickel (0.112mg/l) and lead (0.073mg/l) which are compared with their respective WHO standard limit. The analysis of toxic metals can be useful to evaluate the dosage of the herbal drugs prepared from these plants. Therefore, it is of great advantage to establish universal standards and quality requirements for hazardous elements in herbal medicines so that this natural resource can continue and expand further, to benefit health globally. This study aims at determining the level of heavy metal contamination in ACTION BITTER alcoholic bitter herbal drink consumed in Nigeria to assess their heavy metal concentration in comparison with the World Health Organization (WHO) standard limits. Based on the atomic absorption spectrometry conducted, the findings from results obtained revealed values consumed (oral exposure to alcoholic herbal drinks) are below threshold level.

Keyword: Atomic absorption spectrophotometer, action bitter, herbal bitter, heavy metal, threshold level.

Introduction

Consumption of bitter alcoholic herbal products from beverages contaminated with heavy metals can cause serious consequences on human health. This is a major concern for

traditional and herbal medicine. The generic term applies for all bitter liquors and herbal bitters. Bitters are produced from root extracts and herb, from the narcotic content

of (primarily) tropical and subtropical plant and spices (Katalinic et al, 2006). Bitters are usually dark in color and valued for their ability to promote appetite and digestion hence they are used as patent medicine and as flavoring in cocktails (Mark , Kneubühl , Bodmer. 2000). Bitters have a common characteristic of a bitter taste and act to increase the vital energy centres in the body. Historically, the botanical ingredients used in preparing bitters consist of bark, aromatic herbs, roots and fruit for their flavor and medicinal properties (Katalinic et al, 2006). Some of the common ingredients are; orange peel, bitter kola, ginger, garlic, gentian, cassia, cascarilla, cinchona bark etc. Most bitters also contain water and alcohol, the latter functions as both solvent for botanical extracts and as preservative while the alcoholic percentage and strength varies across different products and brands. Indeed, plant extracts, now popularized and publicized as herbal medicine in form of bitters has been shown to treat, manage and cure several diseases (Katalinic et al, 2006). Unorthodox traditional medicine practice which employ the use of herbs (medical plant) have in recent time been gaining much patronage and popularity for their solution to ailment seemingly elusive to the system of orthodox medical practice. Modern medicine

may have widened for sometimes but there are little differences in terms of medication between orthodox and unorthodox/traditional medicine, this gap seems to be closing fast as the current trends, that most modern pharmacology had its origin in these medicinal plants making both adopting each other.

Nigeria like most countries in Africa has a low life expectancy of 60 years and below (Mark, 2000). Low life expectancy in many African countries is direct consequence of civil war, hunger, poverty, HIV/AIDS; amongst other things (Mark, 2000). Some of the factors that affect life expectancy are very obvious whilst others are hidden or silent. For a microbiologist and biochemist, one factor that affects average life expectancy stands out and this is the exact chemical composition and component of what people eat, drink and apply to their bodies. The exact chemical components of most products used in Nigeria are not known. Most of these products do not come in proper packaging and if they do the labels give little information about the chemical composition. There is a need for people in Nigeria and other West Africans to conduct scientific research that will provide detailed chemical knowledge of everything they eat, drink, apply to their bodies or use as medicines. In

cases where items are packaged well, its important for the public to be aware that beauty of product packaging is good but, better is the information provided on the labels. As far as alcoholic bitter herbal products are concerned, the use of "Chemical Constituent Labels" for the major active ingredients in the products must be encouraged in Nigeria. The importance of alcoholic bitter herbal products and its increasing use by Nigeria and in other parts of the world cannot be over-emphasized. However, the rate at which herb-based products are flooding the Nigeria market without regulation is highly worrisome to health experts and other medical stakeholders. Generally, alcoholic bitter herbal medicines are believed to be curative and harmless with no severe toxicity or side effects.

If there is no safeguard in place to avoid their inclusion, starting from material collection, preparation, production, packing and storage, these consequences are caused by some potentially harmful elements and pollutants they include. The use of inherently toxic herbs, primarily because of incorrect herb identification, variability in active or toxic ingredients due to growing conditions, processing or preparation, and the inevitable mechanisms of adulteration and

contamination are some potential causes of toxicity of alcoholic bitter herbal products (Mark,2000). Furthermore, due to their training, which focuses more on conventional medicine than on herbs and herbal toxicities, Nigerian physicians have insufficient knowledge on the toxicities associated with herbal medicines.

Alcoholic herbal bitters are fascinating topic for investigation in Nigeria. These beverages are aqueous extracts of plants or herb combinations that have alcohol (18–45% Volume) added in small amounts. The Nigerian market is being flooded with alcoholic herbal bitters, many of which have sophisticated packaging and numerous media advertisements.

From the perspective of the Nigeria consumer, there are many reasons for the wide patronage of these alcoholic drinks and these include health, recreation and vitality or even fertility. While the safety and quality of the medicinal plant, materials and finished, herbal medicinal products have become a major concern globally (Moraes and Bolini, 2010; Ziarati, 2012; Adefolaju, 2014). Anayasor et al., reported increased oxidative stress on the kidneys when anti-oxidant and anti-inflammatory properties of polyherbal preparations such as Swedish bitters, Yoyo bitters, Action bitters etc. were evaluated.

This might be a contributing factor to the increased creatinine value observed since the composition of Action bitters are likened to these bitters used in their study and the phytochemical analysis of action bitters Nigeria herbal alcoholic bitters on the contrary have no information available to the public on the various plants used for the formulation of these drinks. Prescriptional directions of dose, quantities to be consumed (daily), the rate or frequency of consumption etc are all left to the discretion of the consumer who has no idea of the plant used or the parts used for the formulation of the alcoholic bitter herbal drinks. Hence, there have been several reports in the Nigeria media of incidents of priapism, dysuria, strangury and even death attributed to the consumption of herbal alcoholic bitters by the victims. Dghaim, Al Khatib, Rasool, and Khan (2015): Investigated heavy metals in 81 samples of seven herbs determined using Atomic Absorption Spectrometry (AAS) and Metals found are in varied concentrations. The concentration ranges found are 0.1–1.11mg·kg⁻¹ for cadmium, less than 1.0–23.52mg·kg⁻¹ for lead, 1.44–156.24mg·kg⁻¹ for copper, 12.65–146.67mg·kg⁻¹ for zinc, and 81.25–1101.22mg·kg⁻¹ for iron. The findings of the study suggest that most of the analyzed herbs contained unsafe levels of

heavy metals that exceeded the World Health Organization (WHO) permissible limits (PL). In general, several cases of health issues, such as a reduction in immune defenses, cardiac dysfunction, fetal deformity, poor psychosocial and neurological behavior, gastrointestinal impairment, among others, were connected to high dietary heavy metal intake (Mahan, et al., 2012; Singh et al. 2011). African herbal items have been found to contain heavy metals in various ratios, according to previous reports (Rahimi, et al., 2012; Alwakeel, 2008). On the safety of alcoholic bitter herbs and the products made from them that are sold in the market however, information available are limited.

Significance Of The Study: Alcoholic bitter Herbal drink is medicinal and intoxicating but dose per day, product composition, herbal formulation and diseases it can cure, resident time/expiration date, side effect on the recommended dose and excess dose among other relevant information are unavailable which may be addressed by the finding from the research work.

Statement Of the Problem: Liquor-based bitter are viewed and considered to be useful and efficient by its consumer, they are taken not only as a means of intoxication but also for therapeutic purposes (sex enhancer, digestive facilitation, sugar reduction, etc.).

The sensible use of the drug, however, necessitates that "medications must be suited to clinical demands, in doses that satisfy their unique requirements, for an adequate period of time, at the lowest cost to the consumers and their community." Therefore, the misuse, underuse or excess of bitter leads to resource waste and widespread health risks.

Justification for the Research: The adulteration and proliferation of plant based products is a global problem and cannot be addressed without combined efforts from industry, academia and regulators. This research topic focused on the problems associated with product authentication, production, adulteration and contamination, value chains, agricultural practices, resident time, sustainability and safety. Hence, there are paucity of information available on the safety of alcoholic bitter herbal drinks sold in Nigeria and that is the rationale behind this study.

Aims and Objective of Research: This study aims at determining the level of heavy metal contamination in ACTION BITTER alcoholic bitter herbal drink consumed in Nigeria to assess their heavy metal concentration in comparison with the World Health Organization (WHO) standard limits.

Material and Method

Sample Preparation and Treatment:

Twenty one ACTION BITTER alcoholic bitter sample containing 0.25L each per container samples previously pretreated and homogenized for sample digestion and analysis. Glassware and digestion vessels used was soaked in 20% nitric acid and rinsed with distilled water. Multi-element standard solutions of Pb,Cr, Cd,Fe, Mg, Ni and Cu was prepared by dilution of 1000mg/L stock solutions (Fluka TraceCert Ultra, Sigma-Aldrich) with 5% nitric acid (HNO₃) solution. The calibration curve for each element was linear with correlation coefficient of 0.995. Microwave digestion, 0.5 g of the herbal sample was accurately weighed into a digestion vessel (MARSXpress), followed by addition of 0.5mL of 37% hydrochloric acid (HCl) (trace metal concentrated, Suprapur, Merk), 9.0mL of 69% nitric acid (HNO₃) (trace metal concentrated, Suprapur, Merk), and 1mL of 30% hydrogen peroxide (Sigma-Aldrich). The mixture was subjected to US-EPA 3052 microwave-assisted digestion as adopted in MARS Microwave digestion system (CEM Corporation, Matthews, USA) (Fabricant and Farnsworth, 2001). At the end of the digestion program, the samples was filtered for atomic absorption spectroscopy analysis.

Results and Discussion

Table 3.0 and figure 3.0 reveals AAS ANALYSIS RESULT OF ACTION BITTERS (Mg/L)

Analyte limit	Molar mass	WHO	Conc (Sample)	Std.D	%RSD
Cadmium (Cd)	228.80	0.2	0.017	0.0006	3.83
Chromium (Cr)	357.87	140	0.061	0.0190	31.35
Copper (Cu)	324.75	73.3	0.056	0.0095	16.93
Iron (Fe)	248.33	425.5	0.223	0.0033	1.47
Magnesium (Mg)	202.58	10	1.118	0.0230	2.06
Nickel (Ni)	232.00	67.9	0.112	0.0173	15.48
Lead (Pb)	283.31	0.3	0.073	0.0119	16

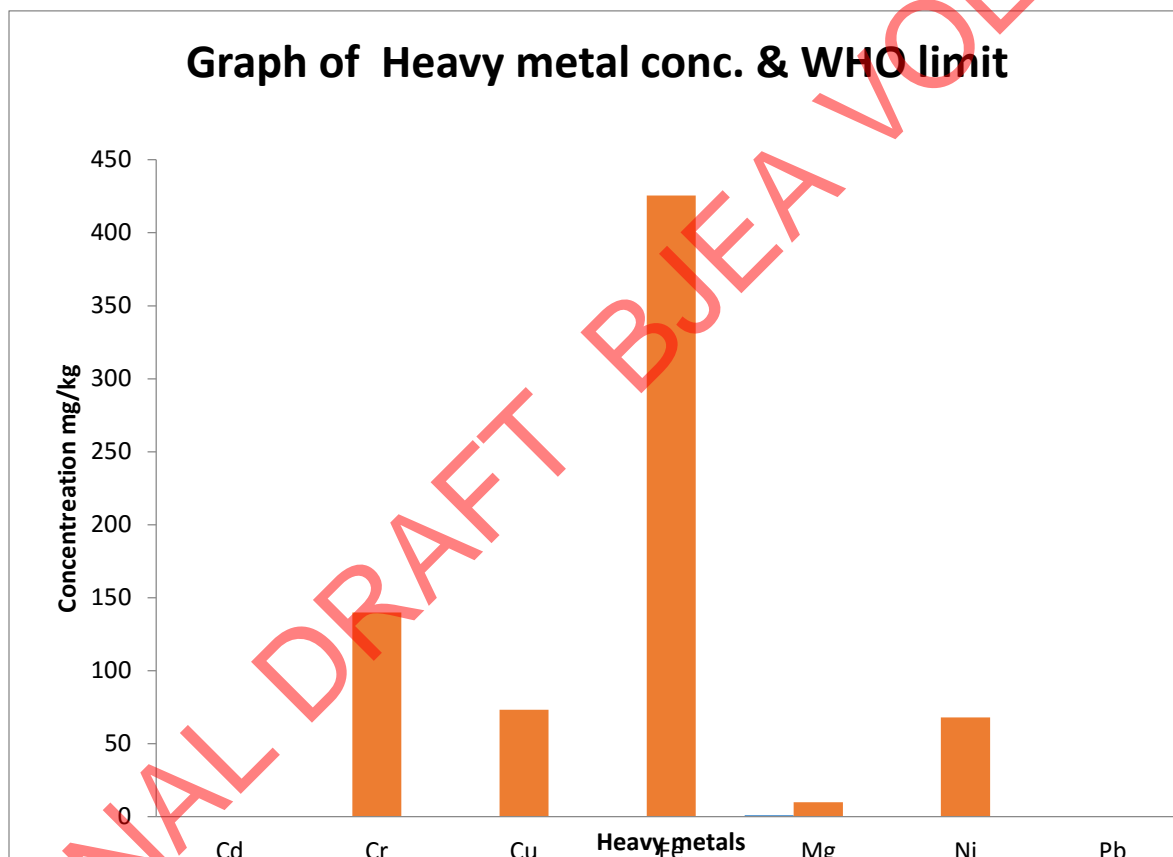


Table 3.0 and figure 3.0 shows the concentration of Cadmium (Cd), Lead (Pb), Nickel (Ni), Iron (Fe), Copper (Cu), Zinc (Zn) and Chromium (Cr) present in action bitter alcoholic herbal drink. The

concentration ranges from -0.073 to 1.118 mg/l and relative standard deviation of 1.47 to 31.35%. The values of the heavy metals and WHO limit are depicted as Cadmium 0.017 mg/l, WHO limit 0.2 mg/l; Chromium

0.061mg/l, WHO limit 140 mg/l; Copper 0.056 mg/l, WHO limit 73.3mg/l; Iron 0.223 mg/l, WHO limit 425.5 mg/l; Magnesium 1.118mg/l, WHO limit 10mg/l; Nickel 0.112 mg/l. WHO limit 67.9mg/l and lead -0.073 mg/l, WHO limit 0.3 mg/l. The concentration of cadmium is 0.017mg/l which is below the WHO standard limit of 0.2 mg/l; Chromium is 0.061mg/l which is also below the WHO standard limit of 140 mg/l; Copper is 0.056 mg/l which is also below the WHO standard limit of 73.3 mg/l; Iron is 0.223 mg/l is also below WHO standard limit of 425.5mg/l; Magnesium is 1.118 mg/l which is below WHO standard limit of 10mg/l; Nickel is 0.112 mg/l which is also below the WHO standard limit of 67.9 mg/l and lead is -0.073 which is below the WHO standard limit of 0.3 mg/l.

Findings and Discussion of the study

Based on the atomic absorption spectrometry conducted, the findings from results obtained revealed values consumed (oral exposure to alcoholic herbal drinks) are below threshold level. This inference does not authenticate safety for action bitter alcoholic herbal drink consumers, because analysis is based on milligram per litre while consumption is based on individual control

which may be below or above milligram per litre rate.

Conclusion

In conclusion, the results of this study does not indicate potential health risk of heavy metals to consumers in Nigeria over long-term consumption of contaminated Alcoholic herbal bitter. The findings of this study highlight the significance of safety and hygiene practices to consumers. The analysis of toxic metals can be useful in evaluating standard dosage in comparison with product specification of the alcoholic herbal bitter to ascertain accuracy and safety data. Therefore, it is of great advantage to establish universal standards and quality requirements for hazardous elements in herbal drinks so that this natural resource can continue and expand further, to benefit health globally. . Further studies are required to determine the presence of toxic metals and to assess their long-term cumulative risk on consumer health

Recommendations

1. Human risk assessment of heavy metals in alcoholic herbal bitters consumed in Nigeria.
2. Physicochemical determination of alcoholic herbal bitters consumed in Nigeria.

REFERENCE

- Adefolaju, T. (2014). Traditional and Orthodox Medical Systems in Nigeria: The Imperative of a Synthesis. *American Journal of Health Research*. Vol. 2, No. 4, 2014, pp. 118-124. doi: 10.11648/j.ajhr.20140204.13
- Alwakeel, S. S. (2008): "Microbial and heavy metals contamination of herbal medicines," *Research Journal of Microbiology*, vol. 3, no. 12, pp. 683–691.
- Katalinic V, Milos M, Kulisic T, Jukic M. (2006): Screening of 70 medicinal plant extracts for antioxidant capacity and total phenols. *Food Chem*. 2006;94:550-557. doi: 10.1016/j.foodchem.2004.12.004. [CrossRef] [Google Scholar].
- Mahan, L.; Escott-Stump, S. and Raymond Krause's (2012): *Food and Nutrition Care Process*, edited by: Y. Alexopoulos, Saunders, St. Louis, Mo, USA, 13th edition.
- Mark C, Kneubühl M, & Bodmer S. (2000): Occurrence and activity of natural antioxidants in herbal spirits. *Innov Food Sci Emerg Technol*. vol 1:239–243. doi: 10.1016/S1466-8564(00)00018-7. [Google Scholar]
- Moraes P.T. and Bolini H.A.(2010): Different sweeteners in beverages prepared with instant and roasted ground coffee: ideal and equivalent sweetness. *J Sens Stud*. 25:215–225.
- Rahimi, M; Farhadi,R. and Balashahri, M. (2012):"Effects of heavy metals on the medicinal plant," *International Journal of Agronomy and Plant Production*, vol.3, no.4, pp.154.
- Singh, R.; Gautam, N.; Mishra, A. and R. Gupta,(2011): "Heavy metals and living systems: an overview," *Indian Journal of Pharmacology*, vol. 43, no. 3, pp. 246–253.
- United State Environmental Protection Agency,(1996) "Microwave assisted acid digestion of siliceous and organically based matrices," USEPA Method 3052.
- World Health Organization, WHO (2006): *Guidelines for Assessing Quality of Herbal Medicines with Reference to Contaminants and Residues*, WHO, Geneva, Switzerland.
- Ziarati, P (2012); "Determination of contaminants in some Iranian popular herbal medicines," *Journal of Environmental & Analytical Toxicology*, vol. 2, no.1, pp. 1–3.

Influence of COVID-19 Pandemic on Academic Adjustment of Lower Basic Pupils in Irepodun Local Government Area, Kwara

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ABSTRACT

The culture of a school sets the tone for how the mission of that school will be accomplished. Against the background, this study examined the impact of COVID-19 Pandemic on academic adjustment of lower basic pupils in Irepodun LGA, Kwara state. A descriptive research design of correlational type was used to carry out the study. The population of the study comprised of all primary school teachers in the local government, the target population of the study was all the public primary school teachers in the local government area, while a sample of one hundred (100) teachers were selected from the target population using a simple random sampling technique. The instrument for data collection was a researcher-designed questionnaire. Findings showed that the majority of the respondents indicated a positive impact of COVID. 19 Pandemic on academic adjustment of lower basic pupils in Irepodun LGA, Kwara state. There is no significant difference in the check of the COVID-19 Pandemic on the academic adjustment of lower basic pupils in Irepodun LGA, Kwara state based on gender. There is a significant difference in the impact of COVID. 19 Pandemic on academic adjustment of lower basic pupils in Irepodun LGA, Kwara state based on qualification. Recommendations were made that parents should do more to ensure that the pupils have access to sound education; government should ensure that the pupils are provided with possible learning materials that could enhance their learning; and Non-Governmental Organisation should endeavour to see to the education of the pupils with special needs, and not focus on the other pupils only.

Keywords: Covid-19; academic adjustment; pandemic, basic pupils

Introduction

Corona virus Disease 2019 (Covid-19) is a virus characterized by Severe Acute Respiratory Syndrome (SARS), and cold associated with fever, flu (influenza), cough, and shortness of breath. Covid-19 broke out in Wuhan, China in December 2019 and later spread across the globe in the nearly and middle part of the year 2020 (Kandola, 2020). At the early stage of its emergence, Nigeria and some other countries responded to the

Covid-19 pandemic by repatriating and/or sending assistance to their students who were stranded in Wuhan, China. Nigeria's plans of repatriating and/or sending assistance to their students who were stranded in Wuhan changed when the pandemic emerged in the country on February 27, 2020, with the first case of an Italian who came back to Nigeria from his home country. Not long after the index case was recorded that the problem

changed from imported transmission cases and became issues of community-transmission in which thousands of cases of Covid-19 were confirmed in the country.

To curtail the spread of the virus in Nigeria, diverse measures were put in place like the Federal Government action of enforcing an initial 2-week Pandemic on March 30, 2020 for Lagos State, Ogun State, and Abuja as well as the creation of creativeness on the need to observe some non-pharmaceutical measures like hand washing, social distancing, and staying at home (Kalu, 2020). Economic situations of the states where the Pandemic was pronounced became paralyzed except for hospitals and all related medical establishments as well as organizations in healthcare-related manufacturing and distribution; food processing, distribution, and retail companies; and petroleum distribution and retail entities. The lockdown order led to the closure of schools, including schools for special needs pupils, which consequently made all students leave their schools and disrupt academic activities across various institutions.

Therefore, adjustment is the attitudinal process through which man and animal maintain equilibrium over their desires between their needs and the challenges of life (Romald, 2019). The term "adjustment" in

this study refers to a teacher's ability to cope with inner tensions, needs, conflicts, and frustrations while also being able to bring inner demands and those imposed by the academic method in the school environment into harmony (Paramanik, Saha & Mondal, 2014). Adjustment is often used as a synonym for accommodation and adaptation. Adjustment, in psychology, refers to the behavioral process by which humans and other animals maintain equilibrium among their various needs or between their needs and the obstacles of their environment's adjustment (Searle & Ward, 2012). It is used to emphasize the individual struggle to get along or survive in his or her social and physical environment. Teachers make efforts to establish a harmonious relationship with the teaching and learning environment during this process. The issue of adjustment is of great importance to all individuals, especially to the students who should be helped in developing good adjustment besides intellectual progress. A successful academic adjustment of teachers will enable them to complete their teaching effectively.

Therefore, academic adjustment motivates students through engagement with their interests, additional, explicit, and systematic instructions, increased levels of prompting, additional modeling, and guided practice

(McKnight, O'Malley, Ruzic, Horsley, Franey & Bassett, 2016). Teachers obtain assessment results, check, and change their teaching strategies (if a change is necessary) right then and there, during the same class session, using formative assessment. Because teachers can make quick academic adjustments based on assessments of students' performance or self-reported levels of understanding.

If the results show that students are receiving what the teacher believes they should be receiving at this point in the lesson, the reasonable inference is that the lesson is going well. There is no need to make any changes, and the class session can go as scheduled. There is no need to make any changes, and the class session can go as scheduled (Morrison, Ross, Morrison, & Kalman, 2019). However, if evidence indicates that (1) students are misunderstanding the lesson; (2) students haven't "got it at all," that is, their mastery rate is slower than expected; or (3) students haven't "got it at all"; or (4) If pupils have already achieved the level of comprehension that the class aims for and have no questions or uncertainty that the teacher has expected and intended to address, then the statement is required. When assessment evidence indicates that students have already mastered

whatever is being taught, the adjustment may be to provide less instruction than the teacher had planned, such as skipping ahead to the next topic rather than distributing an unnecessary set of skill-building experiences. Of course, as the name of this formative assessment tool implies, any necessary adjustment will be made right away.

In this regard, teachers based on the context of the learning environment, adopt different academic strategies which ultimately result in within-school and among-and among-classes student learning outcomes (Illeris, 2018). The demand for improved learning outcomes in Nigeria has resulted in a slew of educational innovations. A well-structured teaching education system that improves teacher quality, continual teacher professional development, and regular teacher monitoring and evaluation of the teaching and learning process are among the improvements. For a better learning outcome, such changes envision the use of appropriate academic methodologies (Adu-Gyamfi, Donkoh, & Addo, 2016). While learning is viewed as a comprehensive social consequence, educational success is measured by academic achievement, which is heavily influenced by teaching quality (Illeris, 2018).

However, as teachers alter their teaching methods, students in the class are expected to

adjust their academic performance as well. In general, the adjustment process involves four parts: (1) a need or motive in the form of a strong persistent stimulus, (2) the thwarting or non-fun-fulfillment of his need, (3) varied activity, or exploratory behaviour accompanied by problem-solving (4) some response that removes or at least reduces the initiating stimulus and completes the adjustment (Kumaraswamy, 2013). A well-adjusted student is one who does not get affected adversely by the interactions such as conflicts, emotions, etc., and personality development goes through a healthy course of socialization (Sangeeta & Chirag, 2012). Academics involves a variety of demands differing in kind and degree and requiring a lot of coping responses or adaptations. It is not only academics with which the students are concerned; they are equally affected by the social and emotional changes.

As a result, academic adaptation may prove to be quite beneficial in the academic process during a pandemic. Academic performance according to the Cambridge University Reporter (2013) is frequently defined in terms of examination performance. Academic performance is one of the most imperative objectives of the educational process, a major goal that every individual

seeks to attain. Academic performance refers to the amount to which a person has achieved certain goals that motivated actions in educational settings, such as school, college, and university. Academic performance is a multidimensional notion that encompasses a variety of learning fields. Regardless of the dimension, it should be evident that academic success symbolizes intellectual activities and thus, in some ways, reflects a person's intellectual capabilities.

Furthermore, academic performance is a term used to describe the level of achievement in a broad or specific field. It is measured in the classroom in terms of a learner's level of skill in a certain task using a test specifically created for it, called a performance test. The score achieved from such a test or task represents the learner's performance. According to Olabanji and Omole (2008), academic performance refers to students' creditable or otherwise (pass or fail) outcomes on both internal and external examinations. In this context, academic performance refers to the extent to which students acquire the knowledge, information, skills, and proficiencies that the instructor aims to impart. Abdullahi (2005) defined academic performance as an individual's achievement after completing a course of teaching, as measured by test scores. This,

then, means that academic performance is an end product of learning.

Also, Nwokocha and Amadike (2005) claimed that student academic achievement is the benchmark for evaluating a nation's educational quality. As a result, it is necessary to maintain a high level of performance in internal and, for the most part, external examinations. Reports on study findings have demonstrated the poor performance of secondary school students in public tests for several years. Students' low performance in public examinations has been documented by Ajayi (2002), Nwokocha and Amadike (2005), Adeyemi (2008), and Asikhia (2010). As a result, educators have always been interested in pupils' academic success. Both are scholars have long sought to discover and comprehend the factors that contribute to poor academic performance or academic greatness. Academic techniques, demographic, socioeconomic, familial, and school aspects have been identified as determinants contributing to children's academic achievement by researchers such as Crosnoe, Johnson, and Elder (2004); Farooq, Chaudhry, Shafiq, and Berhanu (2011).

In any community, gender refers to the socially and culturally determined features and roles that are assigned to males and females. Gender is a major factor that

influences the adaptation of students to academics (Okeke, 2008). Gender is determined by attributes such as tasks, functions and roles of women and men in society rather than the biological characteristic of women and men. How the gender gap is one of the variables in the educational system that tends to influence the academic adjustment of students owing to some societal stereotypes (Yau & Cheng, 2014). As gender roles in society are being rapidly redefined, female students today are showing outstanding academic prowess and pursuing higher education. Research on gender differences in school adjustment has portrayed that girls are better adjusted as compared to boys.

It is worth knowing that all the things necessary for the academic adjustment of male and female special needs pupils have been affected since the emergence of the COVID-19 pandemic. According to Baum, Rotter, Reidle, and Brom (2019), it has been a difficult adjustment for everyone during COVID-19, especially the special needs pupils. It can be particularly challenging adjusting to a new environment, culture, and school, let alone during a worldwide pandemic. A desire for familiarity and comfort is natural during such a moment, but

it's a resource that certain special needs students may lack.

Furthermore, Adeogun (2015) asserted that schools, whose teachers use more academic resources perform better than schools, whose teachers do not use academic materials. This corroborated the study by Babayomi (1999) that private schools performed better than public schools because students and teachers are provided with sufficient and quality teaching and learning resources. From this importance, schools at all levels of education have been advised to have quality and adequate academic facilities to improve the academic performance of their students.

Based on the foregoing, it is clear that academic adjustment is a critical variable that should be investigated further to learn more about the phenomena of students' academic performance in any community, including Irepodun, Kwara State. There can be an insufficient existing body of knowledge on these factors in Irepodun, Kwara State, to the best of the researcher's knowledge. The research issue under discussion, academic adjustment and academic performance of learners, is important to address this gap and to supplement existing information in this field. Thus, it is against this background the researcher deemed it fit to examine the impact of the Covid-19 Pandemic on the

academic adjustment of lower basic pupils in the Irepodun Local Government Area, Kwara State, Nigeria.

Statement of the Problem

School is an open system where all members including pupils, teachers and administrators interact with one another. The school requires the establishment of a conducive academic environment, where there is a collective responsibility and effective academic relationship among the different groups of members of the school community (teachers, pupils, and an administrator. The establishment of a conducive academic environment necessary for better academic adjustment might not be possible in special needs schools due to the emergence of the COVID-19 pandemic order. The COVID-19 pandemic order demoralized every arrangement made towards having better academic activities. Psychological and social concerns occasioned by COVID-19 have an effect on the academic performance of students, and as a consequence, the goals of school may be jeopardized.

Ogunode, Abigail, I and Lydia (2020) examined the impact of COVID-19 on the higher institutions' development in Nigeria. The study by Ogunode, Abigea, I and Lyia (2020) is similar to this study as it was on COVID-19, but it was not on academic

adjustment. Similarly, Aina and Abdurrahman (2020) investigated the strategies for mitigating the impact of the COVID-19 pandemic on the teaching and learning of science in Nigerian higher institutions. The study conducted by Aina and Abdurrahman (2020) also differs from the current study because it was not conducted on academic adjustment. Based on the reviewed literature, there has not been a study conducted in the Irepodun Metropolis on the impact of the Covid-19 Pandemic on the academic adjustment of lower basic pupils in the Irepodun Local Government Area, Kwara state. This is the research gap the present study intends to fill.

Purpose of the Study

The main purpose of the study is to assess the impact of the Covid-19 Pandemic on the academic adjustment of lower basic pupils in Irepodun LGA, Kwara state. Specifically, the study was:

1. To determine the impact of the COVID-19 Pandemic on academic adjustment of lower basic pupils in Irepodun LGA, Kwara state;
2. To examine the differences in the impact of the COVID-19 Pandemic on academic adjustment of lower basic pupils in Irepodun LGA, Kwara state based on the gender

3. To examine the difference in the impact of the COVID-19 Pandemic on the academic adjustment of lower basic pupils in Irepodun LGA, Kwara state based on the educational qualification

Research Questions

The following research questions guided this study:

What is the impact of the COVID-19 Pandemic on the academic adjustment of lower basic pupils in Irepodun LGA, Kwara state?

Research Hypotheses

The following research hypotheses were formulated for testing in the study;

H₀₁: There is no significant difference in the impact of COVID-19 Pandemic on academic adjustment of lower basic pupils in Irepodun LGA, Kwara state based on gender.

H₀₂: There is no significant difference in the impact of COVID-19 Pandemic on academic adjustment of lower basic pupils in Irepodun LGA, Kwara state based on the educational qualification.

Method

The descriptive survey research design was used for this study. Check and Schutt (2012) survey research is defined as the collection of information from a sample of individuals through their responses to questions. This type of research allows for a variety of methods to recruit participants, collect data,

and utilize various methods of instrumentation. Descriptive research involves the use of techniques such as questionnaires and interviews. This research design is therefore deemed relevant and applicable since it assisted in assessing the impact of the Covid-19 Pandemic on the academic adjustment of lower basic pupils in Irepodun LGA, Kwara state. The Population of the study had all primary school teachers in the Irepodun LGA, Kwara state, the target population of the study was all the public primary school teachers in the local government area, while a sample of one hundred (100) teachers was selected from the target population using a simple random sampling technique. A self-designed and structured questionnaire was used as a major research instrument for data collection. The questionnaire is tagged “Teachers Academic Adjustment Questionnaire (TAAQ)”. The questionnaire for this study consists of four

sections. Section A contains demographic information of the respondents that is, gender and educational qualification, and Section B contains items on information on academic adjustment information on academic adjustment. Appropriate options are provided from which respondents are to choose, the options for these items would be taken on four (4) point Likert scale type rating Strongly Agree (SA); Agree (A); Disagree (D); and Strongly Disagree (SD).

The items in the instrument were validated by three experts for both face and content validity. The reliability of the instrument was carried out through the test-re-test method. Copies of the questionnaire were randomly administered to 20 pupils in the first instance. After two weeks, the questionnaire was also administered to the same respondents. Then data collected in the first and second instances was correlated to obtain a reliability coefficient of 0.87.

Results and Discussion

Table 1: Distribution of the Respondents by Gender

Gender	Frequency	Percentage (%)
Female	67	67.0
Male	33	33.0
Total	100	100.0

Educational Qualification		
Below O’level	5	5.0
Below First Degree	52	52.0
First Degree and above	43	45.0
Total	100	100.0

Table 1 showed that out of the 100 respondents that participated in the study, 67 representing (67.0%) of the respondents were females, while 33 representing (33.0%) of the respondents were males. This revealed that the majority of the respondent that participated in the study were females. It also showed that 5 representing 5.0% of the respondents were holders of below O'level, 52 representing 52.0% of the respondents were holders of the first degree and below, while 43 representing 43.0% were holders of

the first degree and above. Hence, the education level of the majority of the respondents is below first degree.

Research Question One: *What is the impact of the COVID-19 Pandemic on the academic adjustment of lower basic pupils in Irepodun LGA, Kwara state?*

To answer this research question, respondents' responses were collected. The data collected were summed. The summary of the results is shown in Table 4 below:

Table 3: Distribution of the Responses on Impact of COVID. 19 Pandemic on academic adjustment of lower basic pupils

Influence	Frequency	Percentage (%)
Negative	15	15.0
Positive	85	85.0
Total	100	100.0

Table 3 presents the participant's responses to items that sought information on the COVID-19 Pandemic and the academic adjustment of lower basic pupils. The result on the table indicated that 15 representing 15.0% of the respondents indicated a negative impact of the COVID-19 Pandemic on the academic adjustment of lower basic pupils, while 85 representing 85.0% of the respondents indicated a positive impact of the COVID-19 Pandemic on the academic adjustment of lower basic pupils. Thus, the table implies that majority of the respondents indicated a

positive impact of the COVID-19 Pandemic on the academic adjustment of lower basic pupils in Irepodun LGA, Kwara state.

Hypotheses Testing

Two null hypotheses were formulated and tested for this study. The hypotheses were tested using t-test, and ANOVA statistical tools at 0.05 level of significance.

Hypothesis One: *There is no significant difference in the impact of COVID. 19 Pandemic on academic adjustment of lower basic pupils in Irepodun LGA, Kwara state based on gender.*

Table 4: Mean, Standard Deviation, and t-value of the responses on the difference in the impact of the COVID-19 Pandemic on academic adjustment of lower basic pupils based on the gender

Gender	N	Mean	SD	Df	Cal. value	t-	P-value	Decision
Female	67	1.60	.50	98	.55		.57	Not Rejected
Male	33	1.54	.50					

As shown in Table 4, females had a mean score of 1.60 with a standard deviation of .50, while the males had a mean score of 1.54 with a standard deviation of .50, and the calculated t-value was .55 while the calculated significance value is .57 of df 2/98 at an alpha level of 0.05. On this basis, the null hypothesis was therefore not rejected. This means that there is no significant difference in the impact of the COVID-19 Pandemic on

the academic adjustment of lower basic pupils in Irepodun LGA, Kwara state based on gender. The reason was that the calculated significance value (.57) is greater than 0.05 alpha level ($p > 0.05$).

Hypothesis Two: *There is no significant difference in the impact of the COVID-19 Pandemic on the academic adjustment of lower basic pupils in Irepodun LGA, Kwara state based on qualification.*

Table 5: Analysis of Variance (ANOVA) showing the responses on the difference in the impact of the COVID-19 Pandemic on academic adjustment of lower basic pupils based on educational qualification

Source	Sum of Squares	Df	Mean Square	Cal. ratio	F-	P-value	Decision
Between Groups	2.73	3	.91	3.81		.04	Rejected
Within Groups	46.60	95	.24				
Total	49.33	98					

*Significant, $p < 0.05$

Table 5 presents the responses on the difference in the impact of COVID. 19 Pandemic on academic adjustment of lower basic pupils in Irepodun LGA, Kwara state based on qualification. The table shows an F-value of 3.81 with a calculated significance value of .04 at 0.05 alpha level. Since the calculated significance of .04 is less than 0.05

alpha level, hypothesis three is thus rejected. This implies that there is a significant difference in the impact of the COVID-19 Pandemic on the academic adjustment of lower basic pupils in Irepodun LGA, Kwara state based on qualification.

Summary of the Findings

- I. Majority of the respondents indicated a positive impact of the COVID-19 Pandemic on the academic adjustment of lower basic pupils in Irepodun LGA, Kwara state.
- II. There is no significant difference in the impact of the COVID-19 Pandemic on the academic adjustment of lower basic pupils in Irepodun LGA, Kwara state based on gender.
- III. There is a significant difference in the impact of the COVID-19 Pandemic on the academic adjustment of lower basic pupils in Irepodun LGA, Kwara state based on qualification.

Discussion

The focus of this research was to investigate the impact of the COVID-19 Pandemic on the academic adjustment of lower basic pupils in Irepodun LGA, Kwara state. The findings of the study revealed that the majority of the respondents indicated a positive impact of the COVID-19 Pandemic on the academic adjustment of lower basic pupils in Irepodun LGA, Kwara state. This is an attestation to the findings of Kibuuka (2017) who reported that no parent had a negative disposition towards any of their children with any form of disability during the Pandemic. The finding was not in support of the report of

Saheed (2020) which has it that 21st-century parents are careless about the development of their children, and leave the caring and security of their children in the hands of caregivers.

There is no significant difference in the impact of COVID-19 Pandemic on the academic adjustment of lower basic pupils in Irepodun LGA, Kwara state based on gender. As noted earlier, in Uganda education is so examination-oriented. In light of that, a well-qualified and experienced teacher will have the knowledge and belief that education is not merely passing examinations very highly and that education should be planned to shape a learner's better future. Learners, be they ordinary or, those with disabilities and other special needs must not be turned into machines for cramming facts and regurgitating them for the passing of national examinations in grade A all the time.

The findings also revealed that there is a significant difference in the impact of the COVID-19 Pandemic on the academic adjustment of lower basic pupils in Irepodun LGA, Kwara state based on qualification. The researchers have observed that planning and presentation of qualified teachers are more interesting and appealing to learners, while on the contrary presentations of practitioners are found not to be appealing to

learners. Most of the practitioners, except those who are upgrading their qualifications; struggle to maintain order in the class and to help learners with learning difficulties. On completion of their courses, the upgraders exhibit knowledge and skills that enable them to maintain order in the class, before attaining new qualifications they would lack the necessary skills, so they would have to struggle to put things right, as such.

Conclusion

This study examined the impact of COVID. 19 Pandemic on academic adjustment of lower basic pupils in Irepodun LGA, Kwara state. Based on the findings of the study, the conclusion could be raised that respondents

indicated a positive impact of COVID. 19 Pandemic on academic adjustment of lower basic pupils in Irepodun LGA, Kwara state.

Recommendations

The following recommendations were put forwards based on the findings of the study:

- parents should do more to ensure that the pupils have access to sound education;
- government should ensure that the pupils are provided with possible learning materials that could enhance their learning; and
- Non-Governmental Organisation should endeavour to see to the education of the pupils with special needs, and not focus on the other pupils only.

REFERENCES

- Adeyemi, T. O. (2008). Predicting students' performance in senior secondary certificate examination from performance in junior secondary certificate examination in Ondo State, Nigeria. *Humanity and Social Science Journal*, (1), 26 – 36.
- Baum, E. T., Rotter, W. O., Reidler, A. & Brom, I. (2019). Psychological maltreatment, forgiveness, mindfulness, and internet addiction among young adults: A study of mediation effect. *Computers in Human Behavior*, 5(2), 72, 57.
- Illeris, K. (2018). A comprehensive understanding of human learning. *Contemporary theories of learning*, 1-14. Routledge.
- Kalu, B. (2020). COVID-19 in Nigeria: a disease of hunger. *The Lancet*, 8(6), 556-557.
- Kandola, A. (2020). *Coronavirus cause: Origin and how it spreads*. Retrieved from.
- Morrison, G. R., Ross, S. J., Morrison, J. R., & Kalman, H. K. (2019). *Designing effective instruction*. Wiley. <https://doi.org/10.1037/stl000012445>
- McKnight, K., O'Malley, K., Ruzic, R., Horsley, M. K., Franey, J. J., & Bassett, K. (2016). Teaching in a digital age: How educators use technology to improve student learning. *Journal of Research on technology in Education*, 48(3), 194 – 211.
- Okeke, M. M. (2008). Effective Science Education Programme in the 21st Century. Strategies for Technology Secondary Science Education in Nigeria. Federal College of Education, Okene, Kogi State.
- Paramanik, E. D., Saha, S. A. & Mondal, H. (2014). physicochemical evaluation, preliminary phytochemical investigation, fluorescence, and TLC analysis of leaves of the plant's last spinosa (lour) thwaites. *International Journal of Pharmacy and Pharmaceutical Sciences*, 5(2), 306 – 310.
- Ronald, W. N. (2019). Learned helplessness and psychological adjustment: Effects of age, gender and academic achievement. *Scandinavian Journal of Educational Research*, 45(1), 71 – 90.
- Searle, W. & Ward, T. (2012). The prediction of psychological and sociocultural adjustment, during cross-cultural transitions. *International Journal Of Inter-Cultural Relations*, 16(4), 499 – 464.
- Sangeeta, B. S. & Chirag, H. I. (2012). A study of adjustment problems of college students about gender, socio-economic status, and academic achievement. *International Journal of Social & Movement Sciences*, 01(2), 20 – 27.
- Yau, F. K. & Cheng, D. I. (2014). The State of Students' Academic Achievement in Secondary School Agricultural Science in Kogi State. *Teacher Education Journal (TEJ)*, 12(1), 14-19.

An Investigation on the Level of Knowledge of the Causes of Diabetes among Residents in Ovia North East LGA of Edo State

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ABSTRACT

Diabetes Mellitus (DM) is a major public health problem and a threat to both the young and old. This study examined the knowledge of the causes of diabetes among residents in Ovia North East LGA of Edo State. A descriptive research design of survey type was used and the population for this study was 138,344, multi-stage sampling technique was used and 138 respondents were drawn as a sample for this study. The instrument used for this study was a researcher-structured questionnaire made up of two sections. The questionnaire was validated by three experts in the field of Health, Safety and Environmental Education. Test re-test method was used to check the reliability of the instruments. Pearson correlation coefficient value of 0.73 was obtained. The data collected were analyzed using frequency count, simple percentage and Chi-square. From the findings, it was revealed that majority of the respondents had poor knowledge of DM, and level of education does not significantly influence knowledge of diabetes. In line with the findings of the study, it was therefore recommended that there should be an enlightenment campaign on residents to educate them on the dangers of DM so as to improve their knowledge of the health condition.

Keywords: *Diabetes Mellitus*, residents, Ovia North East, Edo State

Background to the Study

Diabetes Mellitus is one of the major non communicable disease that has significant impact on morbidity and mortality. Nigeria is one of the countries in sub-Saharan Africa (SSA) that is currently groaning under a rising prevalence of diabetes mellitus (DM). An analysis reported that approximately

5.8% (about 6 million) of adult Nigerians are living with DM (Uloko, Musa, Ramalan, Gezawa, Puepet and Uloko, 2018). This figure has been likened to the tip of an iceberg as it is estimated that two-thirds of diabetes cases in Nigeria are yet undiagnosed (International Diabetes Federation, 2018).

This scenario which applies to most low and middle income countries of SSA has not only resulted to an increase in the burden of diabetes complications and deaths, but has also put a significant strain on the already weak health systems in this sub-region.

Diabetes is a condition that happens when blood sugar (glucose) is too high. It develops when the pancreas doesn't make enough insulin or any at all, or when the body is not responding to the effects of insulin properly. Diabetes affects people of all ages. Most forms of diabetes are chronic (lifelong), and all forms are manageable with medications and/or lifestyle changes. In diabetes, the pancreas does not make enough insulin (Type 1 diabetes) or the body cannot respond normally to the insulin that is made (Type 2 diabetes). A classical group of individuals categorized as pre-diabetes are characterized with a condition defined as blood sugar higher than normal but not high enough to be diagnosed as type 2 diabetes. This causes glucose levels in the blood to rise, leading to symptoms such as increased urination, extreme thirst and unexplained weight loss. Serious long term complications include cardiovascular disease stroke, chronic kidney disease, foot ulcers, damage to the nerves, eyes and cognitive impairment. Several studies have reported that knowledge,

attitude, and practices at the population level that make significant differences largely depend on socioeconomic status, residing area, level of education, and other socio-demographic attributes (Kaniz et al., 2017; Chawla, et al., 2019). A study by Deepa (2014) revealed poor knowledge of diabetes among rural dwellers as against urban dwellers. Another study by Farhana et al., (2022) revealed that a large proportion of respondents have overall poor knowledge and low awareness about diabetes, which is a major health issue of our time. In the same study, respondents exhibited poor knowledge of the signs and symptoms of diabetes, for example, only half of the respondents knew excessive thirst and increased urination are signs of diabetes. But young respondents in Kuwait were found quite aware of the diabetes symptoms (Al-Hussaini & Mustafa, 2016). In the same study by Farhana et al., (2022), nearly three-fourths of participants were not aware that diabetes can be controlled through physical exercise, regulated diet intake and recommended medication including insulin when needed. Another study by Evert (2013) revealed that lifestyle changes can reduce the risk of developing type 2 diabetes. The findings of the study indicated that obesity and overweight, were the most significant

predictors of developing diabetes. However, after adjusting for body mass index, other factors such as poor diet, sedentary lifestyle, smoking and the levels of alcohol were all linked with a considerably higher possibility of developing diabetes (Evert, 2013).

Statement of the Problem

Diabetes mellitus (DM) is a metabolic disorder of chronic hyperglycemia characterized by disturbances to carbohydrate, protein, and fat metabolism which results from absolute or relative insulin deficiency with dysfunction in organ systems (WHO, 1999). This disease has shown a tremendous increase in recent years. Populations previously unaffected or minimally affected by DM are now reporting soaring prevalence figures, which poses a real challenge to governments and nongovernmental organizations. The latest prevalence figure published by the International Diabetes Federation (IDF) is 425 million persons living with DM worldwide, with nearly 50% of these undiagnosed (IDF, 2017). This figure is alarming and more alarming is the fact that developing economies of Africa (Nigeria inclusive) contribute a significant fraction of this figure. There is also a rising burden from the complications of DM alongside the ever-increasing incidence of the disease (Uloko,

Ofoegbu, Chinenye, Fasanmade, Fasanmade, Ogbera, 2012). There are high rates of DM-related amputations, cerebrovascular disease, heart-related problems, and kidney disease in populations that were not previously known for these challenging health problems. This calls for intervention and prompted the researcher to carry out this study on knowledge of the causes of diabetes among residents in Ovia North East LGA in Edo State.

Research Questions

The following research questions have been raised to guide the study;

1. What is the level of knowledge of the causes of diabetes among residents in Ovia North East LGA of Edo State?
2. Does level of education influence knowledge of the causes of diabetes among residents in Ovia North East LGA of Edo State?

Hypothesis

The hypothesis was formulated and tested at .05 level of significance

1. Level of education does not significantly influence knowledge of the causes of diabetes among residents in Ovia North East LGA of Edo State.

Methodology

This study employed the descriptive survey design. The population of this study

comprised residents of Ovia North East LGA of Edo State with the total population of one hundred and thirty-eight thousand, three hundred and forty-four (138,344). The researchers adopted the multi-stage sampling technique. Firstly, simple random sampling technique of balloting with replacement was used to select five communities out of the fifteen communities in the LGA. Secondly, simple random sampling was again used to select ten (10) streets from each of the selected communities. Thirdly, using systematic sampling, the first and every other house on the street was selected for the study. In each of the household selected, the head of the household was included for the study. The sample size for the study was therefore, one hundred and thirty-eight (138) respondents representing one percent of the population. A self-structured questionnaire with eighteen items was the instrument used for the collection of data. In order to establish the content and face validity of the instrument for the study, the researcher presented the instrument to three experts in the Department

of Health, Safety and Environmental Education, after which their suggestions, corrections and contributions were effected in the final draft of the instrument so as to ensure that the instrument measure what it set to measure. To test the reliability, the researcher used the test re-test method. The test was administered to twenty (20) respondents outside the real population but similar to the real population and after two weeks the instrument was again administered to the same respondents. The responses were computed using Pearson Product Moment correlation Coefficient and the reliability coefficient was 0.73. The instrument was administered by the researcher and the research assistant, and data was collected at the spot to ensure high return rate. The descriptive statistic of frequency count, simple percentage and Chi- square was used to analyze the data.

Results

Research Question 1: What is the level of knowledge of the causes of diabetes among residents in Ovia North East LGA of Edo State?

Table one: Level of knowledge of the causes of diabetes

Knowledge level	Frequency	Percent
Low	89	64.5
High	49	35.5
Total	138	100.0

*score of 0-9: low knowledge; score of 10-18: High knowledge

Table one show the percentage on the level of knowledge of the causes of diabetes among residents in Ovia North East LGA of Edo State. The table, reveals that, 64.5% have low knowledge of the causes of diabetes and

35.8% have high knowledge of the causes of diabetes. Hence majority of the respondents have low knowledge of the causes of diabetes.

Hypothesis One: level of education does not significantly influence knowledge of the causes of diabetes among residents in Ovia North East LGA of Edo State.

Level of education	Level of involvement		X ²	Df	Sig.	Decision
	High O(E)	Low O(E)				
Primary	6(9.8)	15(12.2)	4.49	2	0.10	HO Accepted
Secondary	47(41.5)	46(51.5)				
Tertiary	9(10.7)	15(13.3)				

Table two show the independent sample chi-square on the relationship between respondents' level of education and knowledge of the causes of diabetes. It can be seen that the chi-square value is 4.49, the degree of freedom is 2 and level of significance is 0.10 which is greater than the set alpha level of 0.05. Thus the null hypothesis which states that there is no significant relationship between respondents' level of education and knowledge of the causes of diabetes is accepted. This shows that level of education does not significantly influence knowledge of the causes of diabetes among residents in Ovia North East LGA of Edo State.

had low level of knowledge of the causes of diabetes. This was corroborated by Deepa (2014) whose study revealed poor knowledge of diabetes among rural dwellers as against urban dwellers. Another study by Farhana et al., (2022) revealed that, a large proportion of respondents have overall poor knowledge and low awareness about diabetes, which is a major health issue of our time. Findings from a study by Evert (2013) indicated that, obesity and overweight, were the most significant predictors of developing diabetes. However, after adjusting for body mass index, other factors such as poor diet, sedentary lifestyle, smoking and the levels of alcohol were all linked to a considerably higher possibility of developing diabetes (Evert, 2013).

Discussion

On knowledge of the causes of diabetes, the study revealed that majority of respondents

Level of education did not significantly influence respondent's knowledge of the causes of diabetes. This is in contrast with studies that have reported that knowledge of diabetes at the population level that make significant differences largely depend on socioeconomic status, residing area, level of education, and other socio-demographic attributes (Kaniz et al., 2017; Chawla, et al., 2019). Also, level of education not influencing respondent's knowledge of the causes of diabetes could be because, the topic is not what is generally taught as a subject in secondary school or as a course in the university unless the individual is in a health related course.

Conclusion

Residents of Ovia North East LGA have poor level of knowledge on the causes of diabetes and level of education did not significantly influence respondents' knowledge of the causes of diabetes.

Recommendations

The following recommendations have been made:

1. More enlightenment need to be carried out on residents on the dangers of diabetes so as to improve their knowledge on the health condition
2. Knowledge of the causes of diabetes should be inculcated in the school curriculum at secondary and university levels.
3. The need for preventive practices of diabetes should be emphasized through radio programmes and other media platforms.

REFERENCES

- Al-Hussaini M, Mustafa S. Adolescents' knowledge and awareness of diabetes mellitus in Kuwait. *Alexandria J Med.* (2016) 52:61–6. 10.1016/j.ajme.2015.04.001
- Chawla SPS, Kaur S, Bharti A, Garg R, Kaur M & Soin D (2019). Impact of health education on knowledge, attitude, practices and glycemic control in type 2 diabetes mellitus. *Journal of Family Medicine and Primary Care.* 8:261. 10.4103/jfmpe.jfmpe_228_18
- Farhana, A. Mahbubur Rashid, S.M. Nazmul A. Nasrin, L. Omar Q. Mehejabin N. & Adnan M. (2022). Knowledge, attitude and practice of diabetes among secondary school-going children in Bangladesh. *Frontiers in Public Health.* 10: 1047617.
- International Diabetes Federation (IDF) (2017). Diabetes atlas 8th Edition. *International Diabetes Federation.* <http://www.diabetesatlas.org>. Accessed 10 Aug 2023.
- Kaniz, F. Sharmin, H. Khurshid, N. Hasina Akhter, C. Akter, J. Tahmina, K. & Liaquat, A. (2017). Knowledge attitude and practice regarding diabetes mellitus among nondiabetic and diabetic study participants in Bangladesh. *BMC Public Health.* (2017) 17:1–10.10.1186/s12889-017-4285-9
- Uloko, A.E. Musa, B.M. Ramalan, M.A. Gezawa, I.D. Puepet, F.H. Uloko, A.T. (2018). Prevalence and risk factors for diabetes mellitus in Nigeria: a systematic review and meta-analysis. *Diabetes Therapy* 9(3): 1307–16.
- Uloko, A.E. Ofoegbu, E.N. Chinenye, S. Fasanmade, O.A. Fasanmade, A.A. Ogbera, A.O. (2012). Profile of Nigerians with diabetes mellitus—Diabcare Nigeria study group (2008): results of a multicenter study. *Indian J Endocrinol Metab.* 2012;16(4):558–564. (ERRATUM IN: *Indian Journal of Endocrinology and Metabolism.* 16(6):981-90.
- WHO. Definition, diagnosis and classification of diabetes mellitus and its complications, part 1. Geneva: WHO; 1999.

Inclusive Arrangement for Students with Emotional/Behavioural Disorders: Implications for School Administrators

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ABSTRACT

This paper presented a framework for inclusive arrangements for students with Emotional/Behavioural Disorders (EBD). The paper is not about a specific intervention for managing behaviour problem. The selection of relevant and specific interventions depends on the type of behaviour problem at hand, and that was left to the discretion and expertise of the special educators involved. Seven approaches were suggested in order to accommodate students in need of behavioural support. The teacher training is among the initial efforts to be made by school authorities. Pre service and in service training should comprise contents about behaviour management. Likewise, parents and peers also have indispensable roles to play. Next is school-wide proactive arrangements, this will help in making the learning environment an ideal setting that encourages the desired behaviours and discourages the unwanted ones. For students with moderate, emerging and, sometimes, similar patterns of misbehaving in the classroom, it was recommended that a small group is formed and special arrangements be made to address their behavioural needs. Likewise for those who exhibit severe behavioural traits and did not respond positively to the two approaches above, an individualized behaviour plan was recommended. This plan should be preceded by data collection and assessment. Lastly, the physical learning environment should be well prepared and designed to reinforce the desired behaviour and discourage the unwanted one.

Keywords: *Inclusive arrangements, individualised approach, school-wide approach, small grouping approach & teacher training*

Introduction

The mission of the Nigeria's policy on inclusive education, (FMoE, 2017) was to engage relevant stakeholders, create awareness, build capacity, strengthen service delivery, monitor and ensure implementation for the provision of standardised, qualitative and accessible education system for sustenance of equal opportunities and participation for all learners. The contents of

this paper aimed at fostering the engagements of some stakeholders like school authorities, teachers, peers and parents. It was also about creating awareness, building capacity, and strengthening service delivery through teachers' training and collaboration with parents aimed at providing equal opportunities for all learners. This category of students with Emotional Behavioural

Disorders are among the most ignored when it comes to identification and proper educational provision. The prevalence in the United States and many other countries has consistently indicated that at least 6% to 10% of children and youths of school age exhibit serious and persistent emotional/behavioural problems (Kauffman & Landrum, 2009b). However, only less than 1% of school children in the United States are identified as emotionally disturbed for special education purposes (placement) (U.S. Department of Education, 2008). When juxtaposed, learning and behavioural issues go together or at least have similar pattern of presentations. This is obvious in several definitions and identification criteria for EBD. As a result, inclusive learning environment should consider both academic and behavioural peculiarities of learners. Therefore, focusing only on academic, which is the common practice, and ignoring the behavioural aspect will negatively affect the former. Gable, McLaughlin, Sindelar & Kilgore (1993) also pointed that simple inclusion in general education classroom will not, by itself, change these students' behaviours. This paper presented a seven-step framework for dealing with problematic behaviour in school setting. This is aimed at accommodating students with behavioural issues in an

inclusive learning environment. It constitutes teachers' professional development, school-wide behaviour supports, small group arrangements and individualized approaches. This do not imply or refer to any specific behavioural intervention, rather it is a structure. The suggested approaches are run concurrently in a school. For example, those with intense behaviour cases receive individualized arrangements and attention while a small group arrangement is formed in a classroom for children with moderate conditions and there is also a school-wide effort targeting those with mild behavioural issues and also the entire school population.

1. Teacher Training

Pre service and in service training of teachers are important components of achieving inclusive education for students with EBD. Teachers need to be extensively informed about principles of behaviour development and modification. They also need to acquire practical knowledge of dealing with persons with emotional/ behavioural issues, environmental influence on behaviour and other related aspects. It is pertinent for teachers to familiarise themselves with a repertoire of empirically based interventions, strategies and alternative positive behaviours to replace the unwanted ones. McLeskey, Henry, & Hodges, (1998) pointed that the

role of the classroom teacher is becoming even more multidimensional as teachers are being asked to accommodate for students with more diverse academic and behavioural needs. Sawka, McCurdy, & Mannella (2002) also pointed that this population of students increases the demand for teachers to possess skills and abilities to effectively manage behaviour. The Council for Exceptional Children (2008) has identified the following as those skills necessary for teachers of students with emotional or behavioural disorders:

1. Know a variety of prevention and intervention strategies for individuals who are at risk of emotional or behavioural disorders.
2. Use a variety of non-aversive techniques to control targeted behaviour and maintain attention of individuals with emotional or behavioural disorders.
3. Establish consistent classroom routine, use skills in problem solving and conflict resolution.
4. Plan and implement individualized reinforcement systems and environmental modifications at levels commensurate to the intensity of the behaviour.
5. Analyse the advantages and limitations of various instructional strategies and practices

for teaching individuals with emotional or behavioural disorders.

6. Assess appropriate and problematic social behaviours of individuals (strengths and weaknesses).

2. Peer-Mediated Interventions

Studies revealed that peer-mediated interventions consistently produce effective academic and social benefits for students with high-incidence disabilities (Maheady, 2001). In order to augment the teachers' efforts peers should be coached on how to interact with their colleagues who need behavioural support. These buddies, as they are also called, will individually be paired with a target student to serve as an observant. This peer or buddy will be assigned to monitor the target child's behaviour, use simple prompting or clues, and also use simple social reinforcers such as verbal praise when the need arises. They should also receive basic training on what they are expected to do, how and when to do it. Additionally, to know the situations they can handle by themselves and also know when there is a red flag necessitating the attention of a case manager or other teachers, in other words, knowing when to report an incidence. This report can be formally or informally carried out. It can also be quantitative, qualitative or both, for example

administering an instrument or responding to it, this may be a questionnaire or an interview. When working with young children as study or behaviour buddies the process should be simplified by avoiding too many requests or too much information at a time. Also do not take longer time to get the feedback or report from them; else its accuracy will be questionable. The wording of instruments should also be carefully prepared according to their level of maturity. There are several guidelines supported by research evidence on choosing and training a behaviour support buddy some of which relate to gender, age, culture, etc.

3. Collaboration with Parents and Families

Parents and families have enormous impacts on the development of children and youth, including students with EBD (Fiendler, Simpson, & Clark, 2007). Home is by extension part of the child's learning environment where parents and other family members are the custodians. This partnership will complement the teachers' efforts and sustain the process of behaviour support which began in the school setting. This will be achieved through persistent communication with the child's home via phone, email, and or one-on-one meetings. Here the parents are expected to receive training on the roles they are expected to

play. In case of behavioural homework it is the parents or carers who are expected to guide and monitor the implementation of the tasks and also record the child's behavioural performance or progress. Similarly, they should also report back to the case handler in the school. Failure to involve parents or inconsistency and disruption of the behaviour support process at home will affect the entire outcome as it is like a disservice and undoing the whole efforts.

4. School-Wide Approach

This requires a general effort by the school authorities to encourage good behaviour and discourages unwanted ones. This is an effort to make the school environment orderly. Routines and compliance with rules and regulations should be encouraged to familiarise students with the expected social skills. This will serve as proactive measures as pro-social behaviour are modelled, practiced and supported by all and there is less chance for unwanted behaviours to occur. For those with mild behaviour issues this will help them improve. For those receiving either of the two other two approaches mentioned below, it will also help them by having persistent positive interactions in a supportive environment. In other words, it is like creating an ideal environment for behaviour support.

According to Sugai & Horner, (2006) 80% of those in need of behaviour support can benefit from this arrangement and he termed this effort as primary behaviour support. Walker, Ramsey, & Gresham (2004) suggested nine steps towards implementing school-wide positive behavioural skills:

1. Define three to five school-wide behavioural expectations.
2. Provide a 'defining rule' for each expectation.
3. Build a culture of competence by teaching the school-wide skills to all students.
4. Teach behavioural expectations in a variety of school settings
5. Teach specific social behaviours (skills) that are examples of the behavioural expectations
6. Teach behavioural expectations with 'negative' example.
7. Give students the opportunity to practice appropriate behaviours.
8. Reward appropriate behaviour.
9. Acknowledge appropriate behaviour regularly after the skill is learned.

5. Small Group Approach

This is applicable in a classroom or to a small group of some identified students who exhibit emerging similar patterns of misbehaving. This comprises children with moderate problematic behaviour for example

rule violation or late coming. They usually represent approximately 20% of students that require additional support to meet their behavioural expectations. In addition to being recipients of the school-wide approach which target the entire school population, here their peculiar behavioural needs may be identified and strategies would be used to meet these needs. The strategies or components of the behaviour plan depend on the types of the behaviour. In a context like classroom or with small group of children, Hallahan, Kauffman, & Pullen, (2014) suggest the following strategies:

1. Systematic, data-based interventions which are to be applied systematically, consistently and are based on reliable research.
2. Continuous assessment and progress monitoring. Teachers conduct direct, daily assessment of (behaviour) performance, with planning based on this monitoring.
3. Practice of new skills. Skills are not taught in isolation but are applied directly in everyday situations through modelling, rehearsal, and guided practice. Similarly, Walker, Ramsey, & Gresham, (2004) added that they might also need explicit and intensive instruction in social skills, including when, where, and how to exhibit specific types of behaviour.

4. Treatment matched to problems. Interventions are designed to meet the needs of individual students and are not general formulas that ignore the nature, complexity, cultural context, and severity of the problem.

5. Multi-component treatment through the use of as many different interventions as are necessary to meet the multiple needs of students (e.g., social skills training, medication, counselling or psychotherapy, and family treatment or parent training).

6. Programming for transfer and maintenance (generalisation). Interventions that promote transfer of learning to new situations; avoid quick fixes as it nearly always fails to produce generalized change.

7. Sustained intervention. Many emotional or behavioural disorders are developmental disabilities and will not likely be cured but demand life-long support.

6. Individualized Approach

This is an individually tailored effort to attend to students who failed to positively respond to the two approaches mentioned above. This process includes gathering data about the child, his environment and the relationship between other aspects believed to be possibly correlated to the occurrence of behaviour. According to Sugai & Horner, (2006) about 1-5% of the entire students in need of behaviour support refer to the

population under this group. The process begins with conducting an assessment upon which an individualized plan is founded. If this approach is opted to be used it should be reflected in the child's IEP documents. Functional behaviour analysis is hereby recommended and it will help in determining the possible factors that trigger or reinforce the child's unwanted behaviours. It will also help in making informed decisions and appropriate customised plan. Lewis (2000) identified six steps in developing behaviour plans for individual students.

1. Define the behaviour operationally. Pinpoint exactly what the student is doing in the classroom, not just stating, "He is disruptive."

2. Conduct a functional behavioural assessment (FBA). FBAs include observing, analyzing, and hypothesizing about the behaviour. A child can be observed at different times and in different situations, using both formalized and informal observation systems.

3. Develop a hypothesis about why the student engages in the behaviour.

4. Target a replacement behaviour that the teachers want the student to do instead of the unwanted behaviour. Teachers who know the student well should work together to identify

this behaviour, task analyze it, and describe what skills the student has or does not have.

5. The teachers work together to teach the new behaviour, reinforce it and evaluate if it works.

6. Modify the environment enough that the previous inappropriate behaviour does not result in the same outcome. Remove the possible reinforcers in case the student will try the old behaviour.

7. Physical Learning Environment

Environment and behaviour are highly correlated as some behaviours are more likely to occur in certain settings or places than in others. Inclusive learning environment should be barrier free, in addition to the provision of relevant facilities and equipments. The learning setting should be properly selected and prepared so that it will accommodate the peculiarities of learners. The consideration should also include location, infrastructure, safety, facilities, equipments and their arrangements. Inconvenient and improper learning environment can negatively affect or hinder learning process and outcomes, at the same time it can promote unwanted behaviour. Pertinent to this is teacher-student ratio; this should be maintained to the minimum so that the teacher will not be overwhelmed by the situation. Teaching assistants will also be

helpful in this regards especially when dealing with severe conditions. The Nigeria's policy on Special Education (2015) suggested a teacher-pupil ratio of 1:5 as normal or 1:10 as maximum in an inclusive classroom. Similarly, the Nigeria's policy document on CIT in education, Federal Ministry of Education (FMOE, 2019) suggested that schools, classrooms, programmes and activities should be developed and designed so that all students including learners with special needs learn and participate together. A study also found a correlation between poor learning conditions in terms of physical infrastructure and achieving significantly lower scores on standardised achievement tests (Kaser, 2007). Another study also found that students in overcrowded learning environments scored significantly lower on both mathematics and reading examinations than students in schools that were not overcrowded (National Council for Special Education, 2011).

Conclusion

This paper presented a framework for arranging and accommodating students with emotional and behavioural disorders. The contents include teacher training at both pre service and in service stages, providing school-wide and small group behaviour

supports. In more severe cases individualized plan was recommended. A well prepared and arranged physical learning environment is also vital in this inclusive process.

Recommendations

The following recommendations were offered for school authorities and other stakeholders involved in educational provisions for students with EBD in an inclusive setting:

1. Relevant stakeholders should be engaged, in addition to creating awareness, building capacity, strengthening service delivery, monitoring and ensuring the provision of standardised inclusive education as it was pointed in the mission statements of the Nigeria's policy on inclusive education.
2. School administrators should consider employing qualified teachers who received some training in behaviour management at their pre service. Additionally, a routine in-service training should intermittently be arranged for them.
3. Likewise schools should collaborate with parents and peers and assign them some roles to play in this behaviour support efforts. It was suggested to adopt interventions that include parents and peers in the process.

4. School authorities in collaboration with other stakeholders should make the entire learning environment as supportive as possible through adopting proactive measures and proper arrangements.

5. For students with moderate behavioural issues, the school administrators should make sure they are identified and categorised into small groups in order to give them closer attention.

6. With regards to severe cases of behavioural problems, the school authorities should set up a team so that the affected students will be individually assessed and a specially designed intervention will be planned for them.

7. It was finally recommended that the school administrators and the ministry of education should properly design the physical learning environment such as classroom, recess area etc in order to enable equal participation and to properly accommodate learners with problematic behaviours. In addition to design issues, they should also consider proper location of buildings, facilities, seating arrangements, positioning, and congestion issues.

REFERENCES

- Council for Exceptional Children (2008). *What every special educator should know (6th ed.)*. Reston, VA: Author.
- Federal Ministry of Education (2015). *National Policy on Special Education*. Abuja: Author
- Federal Ministry of Education (2017). *National Policy on Inclusive Education*. Abuja: Author
- Federal Ministry of Education (2019). *National Policy on Information and Communications Technology in Education*. Abuja: Author
- Fiendler, C., Simpson, R., & Clark, D. (2007). Parents and families of children with disabilities. Upper Saddle River, NJ: Pearson
- Gable, R. A., McLaughlin, V. L., Sindelar, P., & Kilgore, K. (1993). Unifying general and special education teacher preparation: Some cautions along the road to educational reform. *Preventing School Failure*, 37(2), 5-10.
- Hallahan, D.P., Kauffman, J.M., & Pullen, P.C. (2014). *Exceptional learners: An introduction to special education (12th ed.)*. United States of America: Pearson
- Kaser, C. H. (2007). Series on highly effective practices-classroom environment. Old Dominion University, Norfolk VA: Retrieved from <http://educationodu.edu/esse/research/series/environmentsshtml>
- Kauffman, J. M., & Landrum, T. J. (2009b). *Characteristics of emotional and behavioural disorders of children and youth (9th ed.)*. Upper Saddle River, NJ: Merrill/Pearson.
- Lewis, T. (2000). Establishing and promoting disciplinary practices at the classroom and individual student level that ensure safe, effective, and nurturing learning environments. In L. M. Bullock & R. A. Gable (Eds.), *Positive academic and behavioural supports: Creating safe, effective, and nurturing schools for all students*. Reston, VA: Council for Exceptional Children.
- Maheady, L. (2001) Peer-mediated instruction and interventions and students with mild disabilities. *Remedial and Special Education*, 22(1), 4-15
- McLeskey, J., Henry, D., & Hodges, D. (1998). Inclusion: Where is it happening? *Teaching Exceptional Children*, 31, 4-10.
- National Council for Special Education, (2011). *Evidence of Best Practice Models and Outcomes in the Education of Children with Emotional Disturbance/Behavioural Difficulties*. An International Review: Stationary Office
- Sawka, K., McCurdy, B., & Mannella, M. (2002). Strengthening emotional support services: An empirically based model for training teachers of students with behaviour disorders. *Journal of Emotional and Behavioural Disorders*, 10, 223-232.
- Sugai, G., & Horner, R (2006). A promising approach for expanding and sustaining the implementation of school-wide positive behaviour support. *School Psychology Review*, 35, 245-259.
- U.S. Department of Education. (2008). Thirtieth annual report to Congress on implementation of the Individuals with Disabilities Education Act. Washington, DC: Author.
- Walker, H., Ramsey, E., & Gresham, F. M. (2004). *Antisocial Behaviour In School: Evidence-based Practices (2nd edn)* Belmont, CA: Wadsworth, Cengage Learning

Assessment of Traditional Institutions Initiatives on Conflict and Crime Prevention in Communities for Sustainable Peace in Imo State

By

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Abstract

The study focused on best approaches to assess traditional institutions initiatives in conflict and crime prevention in communities for sustainable peace in Imo State. A descriptive survey research design was adopted for the study. The population of the study was 2753 (2718 members of 113 traditional institutions initiatives, 32 participants and 3 key personalities interviews) were used to complement the qualitative data of the study. The sample size for this study was 1,394 (1359 members of 56 traditional institutions initiatives, in the study area. The same technique that was adopted for this study was the multi-stage sampling procedure. A self structured questionnaire titled "Traditional Institutions Initiatives Involvement in Attainment of Sustainable Peace Assessment Instrument (TIASPAI) was used for data collection. The instrument was validated by three (3) experts in the field of community development and measurement and evaluation of the Alvan Ikoku Federal College of Education, Owerri. The reliability of the instrument was established by test-retest which indicated a co-efficient of 0.74. Out of the 1359 copies of the questionnaire administered to the respondents, only 1140 duly filled copies of the questionnaire were used for the qualitative analysis of the study. The responses were analyzed using simple mean and standard deviation to answer the research questions. From the analysis, TII were deeply involved in crime and conflict prevention in communities in Imo State. Based on the findings, recommendations were made among others and relevant traditional institution initiates in order to attain the target of crime prevention for sustainable peace.

Keywords: Leadership, Traditional Institutions Initiatives, Conflict and Crime Prevention, Sustainable Peace and Community Development.

Introduction

Sustainable peace in the society is one of the major concerns in most national and international discourses. The reason is because there can hardly be any significant development in any society or community

where there is no peaceful co-existence. Sustainable peace is an important global agenda have become necessary to achieve effective institutions, transparency, social justice, and other aspects of the United

Nations Sustainable Goals in most nations of the

world. As a result, the United Nations Sustainable Development Goal 06 is strongly structured in 12 targets and 23 indicators as a means of helping to promote sustainable peaceful and inclusive societies, provide access to justice for all and build effective, accountable and inclusive institutions in all societies.

Accordingly, attaining sustainable peace requires that adequate attention be given to means of improving on conflicts and crime prevention, social justice and welfare among others in the society. In this same vein, according to Echezu (2015) to achieve sustainable peace, many summits such as the United Nations Sustainable Development in 2015, high-level political forum in 2019 and economic and social council youth forum in 2019 and so on, have been held to complement local efforts. Nevertheless, all of these conferences only involved major state actors and non-governmental organizations without collaboration or involvement of non-state actors such as the traditional institutions initiatives which primary goal is to ensure sustainable peace at the grassroots then at the national and global levels. This gap informed the need to encourage the involvement or traditional institutions initiatives which

operates at the grassroots level. The traditional institutions initiatives are localized institutions, set up by collective efforts of individuals within a given environment to better the lots of people. The major concern of involving the traditional institution initiatives is to ensure that the attainment of sustainable peace is community based and community driven. However, current incidences at the grassroots levels such as kidnapping, cultism, militancy, Boko-Haram, herdsmen and banditry indicate an alarming state of violent conflicts and crimes. According to the trend analysis studies of Global Peace Index (GPI) in the year 2020, there is a drastic reduction of 2.5% in peace since 2008 while conflicts deteriorated by 6.8%, safety and security by 3.3% (GPI, 2022).

Subsequently, in Africa especially in the West African sub-region this worrisome situation as analyzed above has remained the same. The West Africa sub-region right from the end of the last millennium and up to the first decades of the new millennium experienced most violent and protracted conflicts which resulted in the destabilization of many of its economies. Perhaps, the rise in violent conflicts in this sub region is not

unconnected with endemic corruption, bad governance, insecurity, exploitation, and lack of inclusive governance and so on. It is also evident in the 2020 report of West African Network for Peace building (WANEP), that the region continues to be dogged despite incidents of communal conflicts and violent extremist attacks in Burkina Faso, Nigeria, Mali, Guinea and Niger among other countries with a subsequent rise in new cases of Internally Displaced Persons (IDPs) and refugees as at December, 31, 2022. These Internally Displaced Persons (IDPs) and refugees in camps have little or no improved conditions of living. These situations make it imperative to enthrone sustainable peace through the involvement of traditional institutions initiatives as a yardstick of attaining other areas of the sustainable development goals in the sub-region (WANEP, 2022).

In Nigeria, between 1914 and 1950, there use to be relative peace between and among various ethnic groups before the advent of current security challenges. However, the scary situations of insecurity in several state are a thing of grave concern for all. As Nigeria alone accounted for 2.9 million out of the 3.9 million internally displaced persons in the Lake Chad region. Nigeria is ranked 146th among 163rd independent nations of the

world and 8th least peaceful country among African nations in the recent Global Peace Index Report, an indication that peace has deteriorated by 2.87% because of the rise in religious extremism, arms struggle against the state in various forms, such as kidnapping, cultism, militancy, Boko Haram, herdsmen and banditry among others (GPA, 2021).

Nigeria is noted for religious conflicts as pointed out by Ugwu and Ijah (2011) where they observed that the South West Zone is known for chieftaincy, tussles and political conflict while South East is devastated by boundary/land disputes. The South-South has been home to the worst incidence of intra and inter communal conflicts following the discovery and subsequent exploration and exploitation of crude oil and gas. Accordingly the upsurge in violence and accompanying destructions of lives and properties as reported in most of the daily news about Nigeria, these have become a thing of serious concern; the present violent conflicts being experienced in the nation were perceived to have being born out of various factors such as injustice, lack of transparency in management of resources by leaders, unresponsiveness and lack of inclusiveness, abject poverty, failure of political leaders to resolve fundamental issues based on their

manifesto before being duly elected into political positions and inequalities in distribution of natural resources and social amenities (Madumere-Obike and Ukala, 2013 and Ugwu, 2013).

In the South-East geo-political zone of Nigeria, Imo State which is the eastern heartland has been in the news as a flash point for various types of violent crimes and heinous security issues in recent times. Anyanwu, Osuagwu & Igbokwe (2020) reported the alarming issues of insecurity such as rampant cases of arm robbery, kidnapping, child trafficking, political assassinations, rape, extortion and other related violent crimes being perpetuated on seemingly daily basis in some communities in local areas such Orlu, Njaba, Ideato, Ehime Mbano, Isiala Mbano, Orsu, Ohaji Egbema, Oguta, Aboh, Ahiazu and Ngor Okpala among others. Similarly, communities such as Ihioma, Amaifeke, Nkwogwu, Umunakanu, Amakobia and Umuneke among other communities were at some point affected by issues of violent crimes and insecurity that have retarded peace and development. Based on this, situation, the Imo State Government has occasionally setup funds for the provision of security apparatus in order to reduce violent crimes, conflicts and other related security issue by the various

security agencies. In spite of these commendable efforts by the state government, there is still the need to collaborate the efforts and objectives of some traditional institutions initiatives in the process to achieve the desired atmosphere for sustainable peace and development.

In this direction, traditional institutions initiatives have a foremost starring role to play using the parameter of their objectives such as provision of social welfare, raise funds for projects, advocating for social justice, prevention of violent crimes and conflicts and the use of peace education programmes as an aspect of adult-education among others to promote sustainable peace among warring parties and perpetrators of violent crimes in the state. Traditional institutions initiatives are also groups of individuals with the primary functions of protecting the interest of its members, ensuring peace, reconciliation and community development. It is a grassroots based and non-profit making institution saddled with the interest of addressing felt needs in line with its objectives. According to Ocheche (2012) in Aliwa (2017) traditional institutions are usually understood to be instrument of social organization, which have been tested and chosen after sustained period of social selection. They constitute the root

upon which social change occurs in communities.

For instance in Imo States there are several traditional institutions initiatives operating in different sphere of human endeavours. They include local vigilante groups, community development forum, youth organization, women organizations, age grades, clubs, Faith Based Organizations, Civil organization and so on. These organizations have comfortably intervened in different crises periods in different communities in Imo State to broker peace, where the conventional state actors could not. For instance, the intervention of faith-based organizations (FBOs) in addressing issues of violence between 2012 and 2018 in Ahiara and Bishop Okpalaeke among other areas is worth attention, some Christian Women Organizations were also involved in periodic intercessions for divine interventions and restoration of peace in their respective places or communities (Obinna, 2020).

Nevertheless Chukwu (2020) reported that the involvement of the Community Based Organization in making peace resulted in the resolutions of conflicts between and among communities in the Ihiagwa, Eziobodo and Federal University of Technology, Owerri axis of the state are topical case of their interventions. The process has equally

assisted in the institution of neighbourhood watch strategy and to interface with the state to broker truce which has assisted in the promotion of peace in different parts of Imo State. The question is how effective is the intervention of these traditional institutions initiatives in promoting sustainable peace in communities in Imo State?

Consequently, not much research has been carried out in the case of Imo State to ascertain the effectiveness of the involvement of traditional institutions initiatives in the sustainable peace building process at the grassroots levels. The studies conducted by Olaife (2017), Agada (2018) and Michael (2015) Bado (2019) and Igbuzor (2011) are cogent examples that conformed the need to fill existing gaps in research involving traditional institutions initiatives in peace building initiatives. An indication that more studies are required on the assessment of traditional institutions initiatives involvement in the attainment of sustainable peace in Nigeria, perhaps, this is due to the fact that researchers have not really develop the interest to work on the inclusion of traditional institutions initiatives in attaining sustainable peace at the communitarian level to fill the existing research gaps. Moreso, traditional institutions initiatives rarely involve themselves in a periodic assessment

of self-worth to determine their participation prowess in promoting sustainable peace (Patrick, 2010). The dearth in both internet and library resources are clear evidence on issues at stake in Imo State; using the citizen involvement approach from the perspective of adult education and community development.

However, the increasing violence in different ramifications in this state led to the need for traditional institutions initiatives' involvement to assist in achieving sustainable peace and development because they operate at the communitarian level their involvement in peace building at the community level is very important as they understand the operations of the community and the attendant crimes and violence more than the state apparatus of power. The question is to what extent do the involvements of traditional institutions initiatives promote sustainable peace in communities? Is there any difference in the ways through which the involvement of traditional institutions initiatives assists in attaining sustainable peace in communities?

On the basis of these questions, the researcher assesses traditional institutions initiatives (TIIs) involvement in the attainment of sustainable peace in Imo State. The study seeks to examine how traditional institutions

initiatives assist in crimes and conflict prevention and the challenges of promoting sustainable peace in communities in Imo State.

Statement of the Problem

Sustainable peace in any given society is a foundation for achieving physical, economic, cultural, political and social development. Regrettably, the existence of a spate of violent crimes, conflicts and injustice among others issues have compounded effort to improve on sustainable peace in the historical development of the Nigerian-nation; Imo state is not left out in the security situations. The conflict and insecurity situations have adversely affected the development status of the state at the grassroots levels. All efforts of the Imo State government to curb cases of violence and insecurity have proved abortive. The faith based and community based organization to an extent have played very prominent and complementing role as a part of traditional institutions initiatives in campaigning against violence. To tackle the problem of violence and lack of peace, scholars and experts agreed on involving the non-state actors as the traditional institutions initiatives on conflict and crime prevention in communities in Imo State. Their efforts in conflict/violence mitigation for sustainable peace include advocacy, education,

awareness creation, job creation, justice advocacy, security watch and community development. It is against this backdrop that the researcher seeks to assess the involvement of traditional institutions initiatives in the attainment of sustainable peace, particularly on crimes and conflict prevention. Assessing the extent of involvement of traditional institutions initiatives in the attainment of sustainable peace in Imo State is therefore the problem of this study.

Research Questions

The following research questions guided this study:

1. To what extent are traditional institutions initiatives involved in crime prevention in communities for sustainable peace in Imo State?
2. To what extent are traditional institutions initiatives involve in conflict prevention in communities for sustainable peace in Imo State?
3. What are the challenges of traditional institutions initiatives in their involvement for the attainment of sustainable peace in Imo State?

Literature Review

The traditional rulers are seen as the custodian of our culture. This must be one of the reasons why they remain and are still relevant.

According to Ikimi (2001) the administration of justice was in the hands of the council of elders. The elders in council settle disputes, try offenders against the laws of the land and mete out punishment as due. Onoge (1993) from his study of Nigeria, confirms that before the arrival of the colonial forces, and the amalgamation of 1914, social conflicts were monitored, prevented, managed and resolved through established mechanism generally accepted by the communities and this include traditional institutions such as traditional rulers, council of elders, age sets, chiefs, ancestral, cults, religious beliefs, local deities and others.

Akingbade (2001) opines that the overall aim of leadership is the protection of the interest of people with government and maintenance of peace, law and order in the community. That is why Tamuno (1983) said indigenous authority is responsible for the maintenance of law and order in their communities. The age grade system according to Oduaran (1994) provides the base from which a virile village community could grow. The importance of the village committee has been clearly recognized by Anyanwu (1981) who reasoned that it must be the starting point from which new ideas and drives take their origin and the point which initiative must be stimulated. Imhabekhai (2009) is of the

opinion that age groups serve as instrument for effecting discipline and social control in the community. This is because membership of age group must conform to the norms and traditions not only of the age groups but also of the entire society. Age group improves and enforces sanction on members that transgress their rules and regulations and customs and traditions of the community. It can therefore be concluded that age grade system especially the youth body act as pressure group in the community, help to enforce resolution that are reached by the council of elders, settle minor disputes and communal clashes amongst various communities. Peace committee is made up of elders and influential people in the community. These communities mediate in all forms of conflict situation. According to Kimani (2004) peace committees are modeled on traditional conflict resolution mechanism and hence command overwhelming support and social cultural legitimacy from the various communities.

- ❖ derives their legitimacy, power and influence from societal norms
- ❖ are familiar with local governance structures and
- ❖ Understand local problems dynamics of conflict in the region.

Peace committees use local mediation, which typically incorporates consensus building based on open discussions to exchange information and clarity of issues. Community Development committee is one of the vital community-based institutions charged with the responsibility of development in the region. As a result, the performance of any committee or association depended largely on the quality of leadership. It is imperative therefore to ensure the existence of quality leadership if developmental efforts of community are to achieve maximum results. Imhabekhai (2009) observed that in any community development, leadership provides the link between the community and other individuals, government and non-governmental organization and agencies. On his part, Omoruyi (2001) averred that local leaders act as the agent of development at the community level and they elicit the needed enthusiasm of the people. This explains why they are often regarded as the real agent of social change and improvement in their communities. Oduaran (1994) opined that effective implementation of community development projects depend heavily on strong effective leadership. He concluded that local leader is therefore a powerful force to be reckoned with in the planning and execution of community development

programmes since it has the capability for enhancing or hindering the implementation of the programmes or projects. No wonder Akanji and Onyitso (2011) concluded that success of any community development relies mainly on effective leadership and also determines the level of development that will come to the community.

Methodology

The study adopted a descriptive qualitative approach for the collection of data from a sample 1398 respondents. 1359 members of 56 traditional institutions initiatives in six (6) local government areas used for the study and a multi-stage sampling procedure was also adopted from a population of 2753 all registered members of 113 traditional institutions initiatives in the three senatorial districts of Imo State. Three research questions guided the study. A self-structured 15 items questionnaire titled "Traditional Institutions Initiatives Involvement in Attainment of Sustainable Peace Assessment Instrument (TIASPAI) was developed by the researcher. The instrument was validated by three experts. Two are experts in measurement and evaluation and one from community developments department, all from Alvan Ikoku Federal College of Education, Owerri. The instrument was free validated with a reliability coefficient of 0.86.

The data generated from the instrument administered was analyzed using mean rating and standard deviation. A criterion mean of 2.50 derived and above was considered positive and acceptable while an item with response below the criterion mean was adjudged negative and rejected.

Result Presentation and Discussion of Findings

The result of this research was presented in line with the research questions. The result was analyzed using mean with standard deviation. The findings were presented in the tables below

Research Question 1: To what extent are traditional institutions initiatives involved in crime prevention in communities for sustainable peace in Imo State?

Table 1: Mean Ratings and Standard Deviation of Respondents on extent of traditional institutions initiatives involvement in crime prevention in communities for sustainable peace

S/ N	Items	IMO EAST N=385		IMO WEST N=517		IMO SOUTH N=235		GRAN D MEAN	DECISIO N
1	Provide neighbour watch services for the gathering of intelligent information	3.66	.50	3.81	0.39	3.63	0.71	3.70	HE
2	Partners with the security agencies in the community to reduce violent crime.	3.62	.23	3.58	0.49	3.50	0.50	3.59	HE
3	Periodic enlightenment of the people on current security issues	2.73	.51	2.35	0.94	3.18	0.55	2.75	HE
4	Developing community based approach to situational crime preventions	2.63	1.12	1.90	0.83	2.57	0.73	2.37	LE
5	Corporal punishment to shame and serve as deterrence to other criminally minded individuals	2.64	1.02	2.87	0.83	3.33	0.47	2.95	HE

The result of the analyzed data in table 1 indicates the mean responses of respondents to the extent that traditional institutions initiatives are involved in crime prevention in communities for sustainable peace in Imo State. Respondents in the study area of the state responded positively on item 1 and 2 that is provision of neighbourhood watch services for the gathering of intelligent information (with mean scores 3.66 and SD =0.50, 3.81 and 0.39, 3.63 and 0.71 respectively). Partners with the security agencies in the community to reduce violent crime (mean scores 3.62 and SD=0.23, 3.58 and 0.49, 3.50 and 0.50 respectively) with the

highest grand mean scores of 3.70 and 3.59 respectively. Furthermore, there is also an agreement on the extent of involvement in both Imo East and South on item 3 (with mean scores of 2.73 and SD=.51, and 3.18 and 0.55 respectively) while respondents in Imo West showed negative responses on the item (with mean score =2.35 and SD=0.94) with grand mean of 2.75 item 4 indicates a high extent of involvement of Imo East (with mean score =2.63 and SD=1.12) and Imo South (with mean score =2.57 and SD=0.73), while respondents in Imo West responded to a very low extent of involvement on the item (with mean scores = 1.90 and SD=0.65) with

grand mean of 2.37. Item 5 shows agreement on the use of corporal punishment to shame and serve as deterrence to other criminality minded individuals within the communities of study area (with mean scores of 2.64 and

SD=1.02, 2.87 and 0.83 and 3.33 and 0.47 respectively) and grand mean of 2.95.

Research Question 2: To what extent are traditional institutions initiatives involved in conflict prevention in communities for sustainable peace in Imo State?

Table 2: Mean Ratings and standard deviation of respondents on extent of traditional institutions initiatives involvement in conflict prevention in communities for sustainable peace.

S/ N	Items	IMO EAST N=385		IMO WEST N=517		IMO SOUTH N=235		GRAN D MEAN	DECISIO N
1	Provide early warning signs to prevent escalation of conflicts in the communities	2.64	1.0	2.8	0.83	3.2	0.83	2.92	HE
			2	7		4			
2	Ensure responsible resolution of issue of violence in the communities	3.00	0.9	3.7	0.97	3.5	0.89	3.43	HE
			9	9		0			
3	Encourage process of dialogue as a means of enhancing sustainable peace	3.50	0.8	2.5	0.90	3.1	0.99	3.03	HE
			9	0		0			
4	Building capacity to deal with divergent interest of people in order not to resort to violence	2.86	0.9	1.8	0.89	2.1	0.78	1.94	VLE
			3	7		0			
5	Encourage togetherness for a common united purpose among members of the community	2.52	0.7	2.5	0.74	3.7	0.97	2.95	HE
			5	5		9			

The result of the analyzed data in table 2 indicates the mean responses of respondents to the extent that traditional institutions initiatives are involved in conflict prevention in communities for sustainable peace in Imo State. Respondents in the study area responded with high extent on the items raised in 1 and 2 that is the extent that

traditional institutions initiatives are involved in providing early warning signs to prevent escalation of conflicts on the community (with mean scores 2.64 and SD=1.02, 2.87 and 0.83, 3.24 and 0.83 respectively, and responsible resolution of issue of violence in the community (mean scores = 3.0 and SD=0.99, 3.79 and 0.97, 3.50 and 0.89

respectively) with the highest grand mean scores of 2.92 and 3.43. Nevertheless, on item 3 respondents in the study area agreed that the extent of involvement of traditional institutions has mean scores of 3.50 and SD=0.89, 2.50 and 0.90, and 3.10 and 0.99 while in item 4 has mean score =2.86 and SD=0.93, 1.87 and 0.89, and 2.10 and 0.78 respectively with grand mean of 1.94. Item 5

indicates a high extent of involvement of traditional institutions initiatives in the study area with mean score = 2.52 and SD=0.75, 2.55 and 0.74 and 3.79 and 0.97 respectively with grand mean score of 2.95.

Research Question 3: What are the challenges of traditional institutions initiatives in their involvement for the attainment of sustainable peace in Imo State?

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Table 3: Mean scores of respondents on challenges of traditional institutions initiatives in their involvement for the attainment of sustainable peace in Imo State.

S/ N	Items	IMO		IMO		IMO		GRA	DECISI
		EAST N=385	WEST N=517	SOUTH N=235	ND MEA N	ON			
1	Endemic evidences of corrupt practices that compromises good intention of the traditional institutions initiatives	3.47	0.5	3.3	0.48	3.7	0.42	3.53	Agree
			0	5		6			
2	Inadequate leadership experiences and skills pilot the affairs of the organizations	2.83	0.7	2.7	0.77	2.9	0.86	2.86	Agree
			9	9		5			
3	Mutual distrust and lack of cooperation as a result of different objectives and diversities of the membership	2.94	0.7	2.8	0.74	2.1	0.63	2.99	Agree
			5	7		6			
4	Insecurity and violent conflicts that often disrupt routine activities of the organizations in the community	3.09	0.5	3.0	0.55	3.3	0.52	3.14	Agree
			8	1		2			
5	Improper operational strategies actions and planning processes of the organizations activities	3.04	0.8	2.9	0.87	3.4	0.50	3.14	Agree
			4	0		7			

The result of the analyzed data in table 3 indicates the mean response of respondents

on challenges of traditional institutions initiatives in their involvement for the

attainment of sustainable peace in Imo State. Respondents responded positively to all five items raised. Item 1, that is evidence of corrupt practices that compromise good intentions attracted the highest mean score of 3.53 with the range of grand mean scores from 2.82 to 3.53, the results reveals corrupt practices that compromise good intentions, inexperience leadership, mutual distrust as a result of different objectives of the membership, insecurity and improper operational strategies among others are the challenges of traditional institutions initiatives involvement in communities for sustainable peace in Imo State.

Discussions

Results in table 1 on the extent that traditional institutions initiatives are involved in crime prevention in communities for sustainable peace in Imo State, the study clearly identified that the traditional institutions initiatives are highly involved in the state by providing neighbourhood with services for intelligent gathering, partners with relevant security agents to reduce violent crime, enlightens the people on current security issues and punish to shame criminally minded in order to deter others. With the grand mean above the criterion means acceptance of the statement, clearly supported the high extent of traditional

institutions initiatives involvement aimed at improving peace and security in the communities. It is also a process that ensures that crimes are detected in potential areas. These findings affirmed the assertion of Shamsudeen (2016) that preventing crime can be made possible using various strategies such as the involvement of traditional institutions-based groups. Accordingly, crime prevention is also a proactive approach aimed at nipping crime on the bud and as a strategy of ensuring safety and security of lives and properties. The approach enables traditional stakeholders direct intervention towards confronting problems and being able to meet considerable needs, save money, prevent social agonies and so on (Koledoye, 2019).

The result in table 2 findings revealed that traditional institutions initiatives have a positive impact to achieving the target. Respondents noted that the involvement of traditional institutions initiatives in conflict prevention enables the provision of early warning signs to prevent escalation of conflicts, responsible resolution of issues violence and process of dialogue as a means of enhances sustainable peace. The findings further revealed the traditional institutions initiatives capacity to deal with divergent interests of people in order not to resort to

violence and encourage togetherness for a common and united purpose among members of the community. Understanding the importance of collaborating with the traditional institutions initiatives in conflict prevention in the state will assist in the achievement of this target in Imo State. The result of the findings is in agreement with the words of Browne (2014) who explained the contributions of traditional institutions initiatives in conflict prevention and peace building as those related with the provisions of early warning signals of worsening peace and security situations; mediating over warring parties, providing relief materials to support victims of violent conflicts and also to offer psychological services during and in the aftermath of conflict situation.

Results of the findings on the challenges of traditional institutions initiatives in their involvement for attainment of sustainable peace in table 3 indicated several areas of challenges to that effect. Some of which the respondents, revealed as endemic evidence of corrupt practices that comprises good intentions of the traditional institutions initiatives, inadequate leadership experiences and skills to pilot the affairs of the organizations, mutual distrust and lack of co-operation as a result of different objectives and diversities of the membership of

traditional institutions initiatives. The findings further identified these challenges as insecurity, violent conflict that often-disrupt routine activities, improper operational strategies, actions and planning processes of the initiatives activities. Therefore, these reasons, reverbalsed the factors that obstruct traditional institutions initiatives involvement for attainment of sustainable peace in the state. The finding corroborated with the study of Ugwu (2015) which identified some of the problems that are capable of hindering the complementary, roles of traditional institutions initiatives in achieving sustainable peace for development in the study area as financial problems, poor accounting and auditing system, lack of dedicated leadership, social-political problem, lack of strategies planning problem, dearth of volunteerism and limited knowledge. Therefore, since the overall goal of traditional institutions initiative is to support the state in sustainable peace building in order to attract respective development. There is need to urgently address their various daunting problems.

Conclusion and Recommendations

Based on the findings of this study, on the extent that traditional institutions initiatives are involved in crime prevention in communities for sustainable peace in Imo

State, the result clearly indicated that the group are highly involved by providing neighbourhood watch services for intelligent gathering, partners with relevant security agents to reduce violent crime, enlightens the people on current security issues and punish to shame criminally minded in order to deter others. Furthermore, the study established the extent traditional institutions initiatives involvement in conflict prevention and also identified some of the daunting challenges confronting their involvement in communities for attainment of sustainable peace in Imo State.

Recommendations

1. There should be constant collaboration between state actors and relevant traditional institutions initiatives in the area of crime prevention in the community.

2. The three tiers of government should adequately engage some of these traditional institutions initiatives in mediation and prevention of conflicts among members of the community in attainment of sustainable peace.
3. The traditional institutions initiatives should be encouraged through a periodic capacity building in order to improve upon their various skills and also to overcome some of their daunting challenges that are capable of obstructing their good works in the communities.

References

- Agaola, J.E. (2018). Exploring peace education for consensual peace building in Nigeria. Walden University Doctoral Dissertation. Retrieved on 22/08/23 from www.scholarworks.waldenu.edu/dissertation
- Akanji and Oyitso (2011) The Influence of Community Based Institution in Peace Building Process in the Niger-Delta Region. *Journal of Adult Education Development*. 5(1), Department of Adult Education and Extra-Mural Studies, UNN. Edited Egeonu E.
- Akingbade R. (2001). Methodology in B. Udegbe (Ed.) Dialogue on leadership in Nigeria, The social science and reproductive research, Network, Ibadan.
- Alachi, O.V. & Michael, M.A. (2015). Peace Education: A panacea for curbing conflict in Nigeria. *International Journal of Research and Development*. 9 (1): 2141-1409.
- Aliwa, J.C. (2017). Assessment of traditional institutions initiatives on community development in South-East, Nigeria. An unpublished Ph.D. Dissertation College of Agriculture. Michael Okpara University of Agriculture Umudike
- Anyanwu, S.A., Osuagwu, L.A. & Igbokwe, C.N. (2020). The role of Adult education in enhancing functional leadership in Nigeria. *Interdisciplinary Journal of Gender and Women Development Studies* (2020) Vol. 3(2).
- Anyanwu C.N. (2002) Community Education. The African Dimension Ibadan, Alatas Nigeria Limited.
- Babo, B. (2019). Reviving social and peaceful co-existence through the implementation of social studies curriculum in Nigeria. *International Journal of Educational Benchmark*. 13(1):20-31.
- Browne, E. (2014). Faith Based Organizations, conflict resolution and anticorruption. *Helpdesk Research Report*. <http://www.gradrc.org>.
- Echezu, B.C. (2015). Effects of conflicts on community development in selected local government areas of River State. An unpublished Master's Degree Thesis of University of Port Harcourt.
- Global Peace Index 2022 Report: Retrieved on June, 26th 2023 from <http://www.gpi.org>annualglobal-report-2023>.
- Igbuzor, O. (2011). Peace and Security Education: A critical factor for sustainable peace and national development. *International Journal of Peace and Development Studies*. 2(1):1-7.
- Ikimi, O. (2001). Evolution and sustenance of leadership in the multi ethnics Delta region of Nigeria. Implication for national unity in B. Udegbe, (Ed). Dialogue on leadership in Nigeria the social science and reproductive health research network Ibadan.
- Imhabekhai, C.I. (2010) Management of community development programmes and projects, University of Benin press, Benin-city.
- Kimani, M.J. (2004). Enhancing the role community-based approaches and structure. M.A thesis

- Koledoye, U.L. (2019). Adult education and crime prevention. In A.N. Ugwu & Mbalisi (eds). *Contemporary Issues in Adults Education: An African Perspective*. Port Harcourt. Paerl Publishers International.
- Madumere-Obike, C.U. & Ukala, C.C. (2013). Women and conflict resolution: The Nigerian experience. *Journal of International Gender Studies*. 9: 81-84.
- Obinna, A.J.V. (2020). Reconciliation Missions Conflicts- Owerri Arch Diocese. A sectoral report: Rome/Nigeria
- Ocheche, S. (2012). Politics and Prescriptions for contemporary nation building in Nigeria. Institute of Benin Studies. Retrieved from <http://www.edo-nation.net>
- Oduaran, A.B (1994) An introduction to community development, Benin, University of Benin press.
- Olaifa, T. (2017). Curbing violent extremism through peace building in Nigeria. *Journal of US-China Public Administration* 14(4), 221-231.
- Omoruyi, F.E.O. (2001). The dynamics of community development: The Nigeria approach, Benin, New Era publication.
- Patrick, J.M. (2010). Evaluation of poverty alleviation programmes of selected non-governmental organizations for community development in Lagos and Rivers State. A Doctoral Thesis of Department of Adult and Non-Formal Education, UNIPORT.
- Shamsideen, S.A. (2016). The role of adult education as a catalyst for social change in Nigeria. *Pyrex Journal of Educational Research and Reviews*. 2(2): 010-014. Retrieved on June, 28th 2023 from <http://www.pyrexjournals.org/pjerr>.
- Ugwu, A.N. (2015). Problems and prospects of community based organization (CBO) in Niger Delta Rural Communities. Retrieved 23/06/2023 from <https://www.academia.edu/205390781>.
- Ugwu, A.N. (2013). Conflict management for sustainable community development in Nigeria in the 21st century. In B.A. Eheazu, C.N. Barrikor, & I.S. Nzeneri (eds) *Readings in Adult and Non-Formal Education*. 1 Port Harcourt: University of Port Harcourt Press.
- Ugwu, A.N. & Ijah, C.N. (2011). Women and conflict management for sustainable development in Nigeria. In G. Adekola & M.A. Oyebamiji (eds). *Topics in Community development*. Part Harcourt. University of Port Harcourt Press.
- West African Network for Peace-Building 2022 Report. Retrieved August, 18th 2023 from <http://www.wanep.org>annualreport-2022>.

Influencing Students' Entrepreneurial Intention through University Entrepreneurship Education: Comparing Malaysian and Nigerian University Practices

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Abstract

This research aimed to investigate the implementation practices of entrepreneurship program, considering its three (3) components namely, entrepreneurial curriculum content, teaching strategies, and the university environment, and their effects on students' entrepreneurial intention in public universities of Malaysia and Nigeria. It is a correctional study guided by two hypotheses. The sample consisted of 581 students selected randomly. Statistical Package for Social Science (SPSS) version 25 was utilized for the data analysis. Independent t-test and Regression were used to analyse the hypothesis. The results indicated that significant differences exist between the Nigerian and Malaysian university students' perceived views on the effectiveness of entrepreneurship curriculum content, and university environment, but not on their perceived views on teaching strategies. However, for Regression, the results for Nigeria showed that ECC and ETS made the strongest contribution in predicting students' entrepreneurial intention. While in Malaysia only ECC made the strongest contribution in predicting students' entrepreneurial intention. It is recommended among others, that since EEC was found to be effective in enhancing students' entrepreneurial intention, the lecturers teaching strategies and the entrepreneurial university environment should be improved to emulate approaches, elements, and facilities capable for boosting entrepreneurial intention.

Keywords: Entrepreneurship education; curriculum; implementation; entrepreneurial intention

INTRODUCTION

Contemporary world is dynamic, complex, and evolving over time. The university system as well, is a complex system that is termed as dynamic, unpredictable, adaptive, and whose changing affects the universe. Again, the university system all over the world, has adapted, reformed and have continuously

done so by utilizing the feedback results to address the complex nature of modern societies. Thus, the role of the university has been changing across the world and across the time. For instance, in Malaysia, public universities sometime 1950s and 1960s were charged with the role of producing individuals capable to function in the "new post-independent" called to

have bureaucrats and professionals. However, later there was an introduction of new economic policy, aiming to eliminate poverty and shape the society through tackling the existence of then economic disparity among the different ethnic groups in Malaysia (King & Berkeley, 2018). Similarly, in the Nigerian context, the philosophy and roles of the university changed in the early post-colonial Nigeria, when it became a part of the university roles, to produce a patriotic citizens; however, later the trends moved toward ensuring a profound and qualitative education and producing self-actualized individuals (Oluremi & Kolade, 2016).

Nowadays, graduate employability has become an intrinsic concern for both Malaysia and Nigeria as developing countries. In these countries, the university graduates have been increasingly affected with high level of unemployment, as the population increases, vacancies are limited and employers become very selective (Afolabi et al., 2014; Rahim et al., 2016). To expatiate, graduates' unemployment rate in Malaysian context, has relatively increased over years. In June 2017, the number was 450,000 which later in May

2018 rose to 505, 000 with almost an increase of 55,000 (Saraih et al., 2019). Equally, employment in Nigeria is not certain as the university graduates sometimes spend a good five years without having a job (Aminu, 2019). To reiterate, more than 75% of the yearly universities' graduates remain jobless and scholars attributed the problem on the irrelevance of the higher educational institutions, which emphasis centres on training the graduates for seeking a "white-collar job" (Undiyaundeye & Otu, 2015). Thus, with this bedevilling trend of the university graduates' unemployment, both Malaysian and Nigerian governments, through the higher institutions of learning (HISL) made several efforts to produce employable graduates. Part of which entrepreneurship education is introduced into their university curriculum (Faizah et al., 2022; Rahim et al., 2016).

Since 2007/2008 academic session, the Nigerian federal government has instructed all institutions of higher learning to introduce entrepreneurship education as part of the academic programs (Nwekeaku, 2013). Later in 2011, Nigerian universities commission popularly and shortly known as NUC

accredited the course, updated it, and came up with new entrepreneurship contents. Sequentially, NUC passed a law that all universities must adhere to the changes and ensure that it is mandatory for every student to obtain pass mark in the course before graduation. In relation to this, majority of the Nigerian universities embedded the program into their academic curriculum (Nwambam et al., 2018). Likewise, entrepreneurship has become a centre for concern in Malaysian strategic plan to alleviate poverty, reduce the rate of unemployment and uplift the national economy. Specifically, the educational outlook of Malaysian universities was transformed to achieve it's 2020 vision of becoming developed country; hence, the emphasis has been on establishing "knowledge-based economy" (Da Wan et al., 2015; Rahim et al., 2016), which according to so many scholars, entrepreneurship education is the means, as it equips graduates with entrepreneurial skills, and training that can boost the economic status of developing nations (Abu Bakar et al., 2022). Hence, Malaysian government made it mandatory through the ministry of higher education that every student at public university must

register and pass entrepreneurship course before graduation. Likewise, through the Ministry of Higher Education, such students are motivated to participate in the related trainings, workshops, conferences, and other entrepreneurship programs organized by their respective universities. Again, part of the exertions to support the implementation, Malaysian government, in its 2012 annual national budget, apportioned RM 100, 000, 000 for soft loans; and it was aimed to enable the newly entrepreneurs obtain all the needed raw materials and machines to start any kind of business (Din et al., 2016a).

Research Questions

1. What is the perception of Malaysian and Nigerian university students towards the effectiveness of entrepreneurship curriculum content, teaching strategies, and university environment in developing their entrepreneurship knowledge and skills?
2. To what extent does the entrepreneurial curriculum content, teaching strategies, and university

environment effect on students' entrepreneurial intention?

METHODOLOGY

The study employed the correlational design. It was found to be appropriate as the aim of the study was to make a comparison between Malaysian and Nigerian undergraduate students on the factors that influence their entrepreneurial intention.

Population

In this study, the targeted population is the undergraduate students who offered entrepreneurship program in the Universiti Sains, Malaysia and those of Umaru Musa Yar'adua University, Katsina, Nigeria. Specifically, the year four (4) students of Umaru Musa Yara'dua, Nigeria and year two (2) students of the Universiti Sains Malaysia constituted the population of this study. Such students have undertaken and experienced the entrepreneurship compulsory course in their previous sessions, respectively. Therefore, in the Universiti Sains Malaysia the second-year students' total population was 3,931 ('Safini, 2018), while at Umaru Musa Yar'adua University, the year four (4) undergraduate students' total number was 2,780 (Abdulhad, 2019). Hence, the total

number of the population in the two selected universities was 6,711.

Sample Size and Sampling Technique

Variably, this study has three (3) predictors which is entrepreneurship curriculum content, teaching strategies and entrepreneurial university environment, and one Dependent Variable, which is students' entrepreneurial intention. Therefore, based on recommendation of G*Power software for calculating sample size, research with the three (3) predictors requires a minimum sample size of seventy-seven (77) respondents. Hence, based on this, the researchers ended up having 387 respondents from Nigeria and 194 respondents from Malaysia, making a total of 581 respondents. These sample were obtained using simple random sampling technique. For easy data collection coverage, and to give the respondents a convenient chance to respond, the researcher used online survey monkey for data gathering. The instrument was shared through students' emails and social websites like WhatsApp through the help of the universities.

Instrumentation

The instrument used for the study was an adapted questionnaire developed by Rengiah, (2013), asking questions for evaluating the effectiveness of entrepreneurship education in developing students' entrepreneurial intention. It measured seven (7) constructs namely university entrepreneurship curricula, teaching methodologies, university environment, attitudes factors, attitudes towards competitiveness, stakeholders supports and entrepreneurial intention, with total of 70 items. For this study, the researcher adapted the questionnaire only on the four (4) constructs as entrepreneurship curriculum, teaching methodologies, university environment and entrepreneurial intention, each with nine (9) items. These are representing the components of curriculum implementation practices. In this study, both descriptive and inferential statistics were employed to analyse the collected data by utilising the statistical package for the Social Science (SPSS) version 25. Descriptive statistics were the first statistical technique used to describe and summarise the properties of the respondents' demographic characteristics using means, frequencies, and standard deviations of the responses.

FINDINGS

Generally, findings on this research have demonstrated two major issues according to the research questions, respectively. One, difference exist between the Malaysian and Nigerian university students' perceived views on the effectiveness of entrepreneurship curriculum content, teaching strategies, and university environment. Second, Entrepreneurial curriculum content, and teaching strategies have significant effect on students' entrepreneurial intention among students in Nigeria. While for students in Malaysia only the curriculum content has significant effect on the students' intention. These are explicitly described below:

Malaysian and Nigerian university students' perceived views on the effectiveness of entrepreneurship curriculum content, teaching strategies, and university environment.

In testing of Independent Samples *t-test* statistics was used, as the data was reported to have met all the basic assumption necessary for conducting Independent Samples *t-test*. Table 1 below shows the output results as obtained using SPSS 25.

Table I.

Testing difference between the Malaysian and Nigerian university students' perceived views on the effectiveness of Entrepreneurship Curriculum Content (ECC), Entrepreneurship Teaching Strategies (ETS), and Entrepreneurship University Environment (EUE).

Variable	Group	n	Mean	Std. Dev.	S	d	f	p
ECC	Nigerian	387	4.13	0.64	579	-	4.784	0.000
	Malaysian	194	3.86	0.66				
ETS	Nigerian	387	3.81	0.71	579	1.045	0.296	
	Malaysian	194	3.88	0.59				
EUE	Nigerian	387	3.72	0.82	579	2.533	0.012	
	Malaysian	194	3.89	0.66				

From the results in Table I, it can be observed that the differences between the Malaysian and Nigerian university students' perceived views on the effectiveness of entrepreneurship curriculum content, teaching strategies, and university environment were $t = 4.784$ ($p = 0.00$), $t = 1.045$ ($p = 0.296$), and $t = 2.533$ ($p = 0.012$) respectively. Based on these results, it can be deduced that significant differences exist between the Nigerian and Malaysian university students' perceived views on the effectiveness of entrepreneurship curriculum content, and university environment, but not on their perceived views on teaching strategies. This is based on the values obtained in the results ($p < 0.05$). Therefore, the researcher concluded that the stated null hypothesis

that "There is no significant difference between the Malaysian and Nigerian university students' perceived views on the effectiveness of entrepreneurship curriculum content, teaching strategies, and university environment" was rejected with regards to students' perceived views on the effectiveness of entrepreneurship curriculum content, and university environment, while it was retained with regards to entrepreneurship teaching strategies.

The influence of entrepreneurial curriculum content, teaching strategies, and university environment on students' entrepreneurial intention. Multiple regression analysis was used, as the data met all the basic assumption necessary for conducting multiple regression analysis. The analysis in the

model explains the effect of Entrepreneurial curriculum content, teaching strategies, and university

environment on students' entrepreneurial intention. The results were summarised and presented in Tables 2, 3, and 4.

Table II: Model Summary

Country	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Nigeria	1	.391 ^a	.153	.146	.49326
Malaysia	1	.606 ^a	.367	.357	.63357

a. Predictors: (Constant), ECC, ETS, EUE.

b. Dependent Variable: SEI

From the model summary in Table II, in the case of Nigeria, the observed R value was 0.391 (a fair correlation), and the observed *R-Square* was 0.153. This coefficient of determination shows that the predictors (ECC, ETS, and EUE) account for 15.3% of variation in the dependant variable (SEI), with a standard error estimate of 0.49326. This percentage was good enough to determine the goodness of fit for the model (i.e. regression equation). The adjusted *R-Square* yielded 14.6% variation, which was fairly significant in this analysis. On the other hand, in the

case of Malaysia, the observed R value was 0.606 (a strong correlation), and the observed *R-Square* was 0.367. This coefficient of determination shows that the predictors (ECC, ETS, and EUE) account for 36.7% of variation in the dependant variable (SEI), with a standard error estimate of 0.63357. This percentage was very good enough to determine the goodness of fit for the model (i.e. regression equation). The adjusted *R-Square* yielded 35.7% variation, which was moderately significant in this analysis.

Table III:

ANOVA for the Whole Model

Country	Model	Sum of Squares	df	Mean Square	F	Sig.
Nigeria	1 Regression	16.777	3	5.592	22.985	.000 ^b
	Residual	93.186	383	.243		
	Total	109.963	386			
Malaysia	1 Regression	44.151	3	14.717	36.663	.000 ^b
	Residual	76.267	190	.401		
	Total	120.418	193			

a. Dependent Variable: SEI

b. Predictors: (Constant), ECC, ETS, and EUE

From the analysis in Table III, in the case of Nigeria, the overall regression model was significant; $F_{(3, 383)} = 22.985$, $p = 0.000$. Now since the p-value (0.000) was less than the alpha value (0.05), it implied that the predictors (ECC, ETS, and EUE) predict the outcome variable (SEI) significantly, i.e. there exists linear positive relationship between the predictors and the outcome variable. On

the other hand, in the case of Malaysia, the overall regression model was also significant; $F_{(3, 190)} = 36.663$, $p = 0.000$. Now since the p-value (0.000) was less than the alpha value (0.05), it implied that the predictors (ECC, ETS, and EUE) predict the outcome variable (SEI) significantly, i.e., there exists linear positive relationship between the predictors and the outcome variable.

Table IV:

Standardized and Unstandardized Coefficients

Country	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
Nigeria	1 (Constant)	3.109	.168		18.475	.000
	ECC	.213	.055	.255	3.847	.000
	ETS	.120	.055	.160	2.209	.028
	EUE	.008	.042	.012	.190	.849
Malaysia	1 (Constant)	.728	.312		2.332	.021
	ECC	.727	.110	.606	6.576	.000
	ETS	-.146	.135	-.110	-1.077	.283
	EUE	.137	.106	.115	1.289	.199

a. Dependent Variable: Students' Entrepreneurial Intention

The table of coefficients (Table IV) seeks to explain the amount of unique variance contributed by the predictors (ECC, ETS, and EUE) into the model. In the case of Nigeria, only the *p-value* of the ECC and ETS predictors were significant (0.000 and 0.028 respectively), that of EUE was not significant (0.849). So, it means the amount of unique variance explained by ECC and ETS in predicting Students' Entrepreneurial Intention was statistically significant.

For unstandardized coefficients of $B = .213$, and $.120$, it means for a unit increase in ECC and ETS, the model predicts that Students' Entrepreneurial Intention will increase by 21.3%, and 12.0% respectively, when all other predictors are held constant. Similarly, for standardized coefficient of $Beta = .255$, and $.160$, it means for one standard deviation increase in ECC, and ETS, the model predicts that Students' Entrepreneurial Intention will increase by .255, and .160 standard deviation units respectively, when all other predictors are held constant. Therefore, the model predicts that Entrepreneurial curriculum content, and teaching strategies have significant effect on students'

entrepreneurial intention among students in Nigeria. On the other hand, in the case of Malaysia, only the *p-value* of the ECC predictor was significant (0.021), that of ETS (0.283) and EUE (0.199) were not significant. So, it means only the amount of unique variance explained by ECC in predicting Students' Entrepreneurial Intention was statistically significant.

For unstandardized coefficient of $B = .727$, it means for a unit increase in ECC the model predicts that Students' Entrepreneurial Intention will increase by 72.7%, when all other predictors are held constant. Similarly, for standardized coefficient of $Beta = .606$, it means for one standard deviation increase in ECC, the model predicts that Students' Entrepreneurial Intention will increase by .606, standard deviation units, when all other predictors are held constant. Therefore, the model predicts that only Entrepreneurial curriculum content has significant effect on students' entrepreneurial intention among students in Malaysia.

DISCUSSION

First, on the differences, it is deduced from the findings that significant differences exist between the Nigerian and Malaysian university students'

perceived views on the effectiveness of entrepreneurship curriculum content, and university environment, but not on their perceived views on teaching strategies. Therefore, it is concluded that the stated null hypothesis was rejected and consequently, alternate hypothesis is adopted. Second, on the regression aspect, regarding the first category – effect of entrepreneurial curriculum content on students’ entrepreneurial intention, the findings indicated that there is a significant effect of entrepreneurial curriculum content on students’ entrepreneurial intention, (SEI), for both students in Malaysia and Nigeria. This interaction effect result corresponds with the findings of Odewale et al., (2019), that there is a positive relationship between entrepreneurship education (communication skills, technical knowledge and innovation). This stresses that any changes in these aspects as part of entrepreneurship curriculum content, will have a significant effect on students’ intention. Equally, this finding tallies with that of (Abdullah, 2014; Singh et al., 2018), which found out that entrepreneurship education (entrepreneurial curriculum content) has a positive relationship with students’

entrepreneurial intention. Entrepreneurship: These findings show that entrepreneurially, the content is a salient factor that determines changes in students’ venture into business. Besides, there are numerous aspects of the content which empirically, found to be much influential to the entrepreneurial intention. These include exhibiting teaching about communication skills, technical knowledge, and innovation. By this, it is important to inculcate and emphasize on these realms in design the content of entrepreneurship education at the university level.

Again, the finding on the effect of entrepreneurial curriculum content concurs with that of (Adelaja & Minai, 2018; Din et al., 2016; Ramli et al., 2018), who found that entrepreneurship education strongly impacted the students’ intention to become entrepreneurs. These studies also were conducted in Malaysian context, and the construct – entrepreneurial curriculum content was measured to indicate either a broad nature of it or a linear one. For example, on the former, some referred to co-curriculum, syllabus, and pedagogy, whereas, for the latter, others considered business plan, risk thinking, and self-efficacy. It is

obvious from these to conclude that entrepreneurial curriculum content is multidimensional as well, which sometimes is interchangeably used as entrepreneurship education. Similarly, the identified dimensions of the content are good predictors for students' entrepreneurial intention in Malaysian context.

Likewise, in the context of Nigeria, there are studies that support the finding that entrepreneurial curriculum content has positive effect on students' entrepreneurial intention. These include (Aladejebi, 2018; Kalabeke, 2018; Ojotu et al., 2022). It is interesting to note that despite portraying the same result with some of Malaysian studies, still the construct of entrepreneurship education is similarly measured to refer to entrepreneurial curriculum content. However, some operationalized it this way, without specifying or indicating what feature of it, is referred. Others, passionately contextualize 'entrepreneurship education' as content of the course, which encompasses innovation, creativity, and venture creation. In addition, some called it 'content' alone, that comprises elements of entrepreneurship knowledge on

designing business plan, strategies for starting-up a business, knowledge on finance and networking. Importantly, these rationalize that entrepreneurship education, in both Malaysia and Nigeria requires a unique curriculum content to sustain its operation. To achieve this, it should exhibit features of business plan training, promoting innovativeness, building up business knowledge, developing critical thinking and emphasize on networking building. Therefore, these contributories, measured entrepreneurship curriculum content in two countries that show 'that there is a positive effect of entrepreneurship curriculum content on students' entrepreneurial intention'.

Contrarily, there are other findings that found entrepreneurship education to have a negative effect on students' entrepreneurial intention. These comprise (Fitri Ayuni, 2018; Islam et al., 2018; Ng et al., 2021; Nwambam et al., 2018; Samiono, 2018). Notably, in these studies the construct – entrepreneurship education was neither measured as the entrepreneurial curriculum content, nor it was operationalized to refer to any aspect of the multidimensional nature of the construct. In all, the authors seemed to

consider it inclusively. For such, scholars in the field expatiated that it is difficult and even unrealistic to fathom the effect of entrepreneurship education in a holistic approach. Rather, the concept has dimensions like content, (business plan, developing critical thinking, and others), teaching pedagogies, instructional material, and institutional environment. These are aspects of entrepreneurship education, and they are measurable and easy to predict their effects on students' entrepreneurial intention. Based on the foregone discussion, it can be deduced that findings on the negative effect of entrepreneurship education on intention, consequently, happen due to the failure of some authors to consider the multi-dimensional nature of the concept.

On the other hand, the entrepreneurial teaching strategies, findings from Malaysia, support the hypothesis and reveal out that entrepreneurial teaching strategies do not have significant effect on students' entrepreneurial intention. This result concurs with that (Fayomi et al., 2019). However, in the case Nigeria the finding opposes the hypothesis and affirms that entrepreneurial teaching strategies have significant effect on students'

entrepreneurial intention. This result matches with previous studies like (Malinda, 2019; Reyes & Manipol, 2015; Samsudin et al., 2019). Generally, these studies pointed out two important issues that influence results; and they are essentials for research on entrepreneurial teaching strategies. One, it is deduced that teaching strategies for entrepreneurship education are multidimensional that cannot be studied as holistic construct. Second, the strategies are categorized as traditional and non-traditional; and mostly, in research where non-traditional approaches are employed, findings tend to portray a positive effect on students' entrepreneurial intention. For instance, in the study of (Samsudin et al., 2019), students perceived the experiential approach to be most effective means and preferable method for learning entrepreneurship program. This includes, industry visit, business model activities, group assignments, interactive lecture, and innovation, action-based approach that comprises business plan creation, written report, presentation, inviting guest speaker, games, and group project and ideation activities. Similarly, (Malinda, 2019; Reyes & Manipol,

2015), both stress from the students' affirmations that presentation and discussion approaches, business competition are best teaching strategies that influenced students' entrepreneurial intention and they are efficient in enhancing entrepreneurial skills and intention. While project planning and its presentation have highest tendency in cultivating entrepreneurial intention among the students.

This study maintains the hypothesis that there is no significant interaction effect between entrepreneurial university environment and students' entrepreneurial intention, in Malaysian and Nigerian public universities. Empirically, there are few previous research that support this findings, which include (Sesen, 2013). On the other hand, majority of related research, evidently found positive interaction effect between entrepreneurial university environment and students' entrepreneurial intention. These comprise studies from Malaysia, Nigeria and globally. For example, (Abdullah, 2014; Lim, 2018; Rengiah, 2013; Yarima & Hashim, 2018); findings from these studies show that there a positive significant effect on the university environment on students'

intention. Notably, entrepreneurial university environment shares the same feature of multidimension nature, like that of entrepreneurship curriculum content, and teaching strategies. In all the above studies concerning entrepreneurial environment, the construct is distinctively operationalized to refer a conducive learning environment and support in the university that enhances students' intention and capability to become entrepreneurs. Or as provision of adequate and efficient infrastructures, mentorship – access to role model, and knowledge delivery, and establishment of networking opportunities for harnessing students' entrepreneurial skills. Therefore, it is vital for entrepreneurship researchers to consider to multidimensional nature of entrepreneurial environment as a construct of study.

CONCLUSION

The present study's findings support the idea that program implementation process and practices are very crucial in achieving the learning objectives. Specifically, entrepreneurship program at the university level, like other program has important aspects such as, entrepreneurial curriculum content,

teaching strategies, and the university environment, which their effectiveness fundamentally has effect on students' entrepreneurial intention. Positive perceived views of students on these components of the program lead to promote entrepreneurial learning and boost students' mindset to become entrepreneurs. Entrepreneurial curriculum content appears relevant to the students when it entails features like teaching risk taking, encouraging developing business plan, writing report, and developing students' confidence. Also, entrepreneurial teaching strategies are perceived effective by the students when they prove to employ much experiential activities and approaches. In addition, the entrepreneurial university environment is another central aspect of entrepreneurship training that its effectiveness has major influence on students' entrepreneurial intention.

Recommendations

Based on the conclusions drawn from the present study, below are five recommendations to enhance the effectiveness of entrepreneurship programs at the university level:

- **Enhance Curriculum Content:** Universities should regularly review

and update their entrepreneurial curriculum content to ensure it includes components that are highly relevant to students. This should involve a focus on teaching risk-taking, encouraging students to develop comprehensive business plans, requiring them to write reports, and fostering the development of students' self-confidence. The curriculum should reflect the real-world challenges and opportunities that entrepreneurs face.

- **Promote Experiential Learning:**

Entrepreneurship programs should prioritize experiential learning activities and teaching strategies. Encouraging students to engage in real-life entrepreneurial experiences, such as internships, startup projects, or simulations, can significantly enhance their understanding and readiness for entrepreneurship. Hands-on learning should be integrated into the curriculum to a greater extent.

- **Faculty Development:** Invest in faculty development programs that equip educators with the necessary skills and knowledge to effectively

teach entrepreneurship. This should include training on implementing experiential learning activities and staying updated with current trends and best practices in entrepreneurship education.

- **Create an Entrepreneurial Ecosystem:** Universities should cultivate a vibrant entrepreneurial environment on campus. This includes establishing incubators, accelerators, and networking events where students can interact with successful entrepreneurs and industry professionals. Providing access to mentorship and resources for startups

can inspire and support aspiring entrepreneurs.

- **Continuous Feedback and Assessment:** Implement a systematic feedback mechanism to gather students' perceptions about the program's effectiveness. Regularly assess the impact of the program on students' entrepreneurial intention, skills, and knowledge. Use this feedback to make continuous improvements and adjustments to the curriculum, teaching strategies, and the university environment.

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References

- Abdullah, G. (2019). UMYU Students' Statistics Report 2019. *Nagarta Magazine*, 5–8. <https://umyu.edu.ng/about-us/annual-report/>
- Abdullah, M. S. I. L. (2014). Personal Attributes, Family Influences, Entrepreneurship Education And Entrepreneurship Inclination Among University Students. *Kajian Malaysia*, Vol. 32, No.1, 2014, 119–148 *JATI*, 32(1), 119–148.
- Abiona Ibikunle, G., Orefuwa, G., Remilekun Mafo, E., & Benjamin, A. (2019). Analysis of the Causes and Effects of Unemployment in Nigeria towards a Solution for Graduate Idleness and Poverty Alleviation. *IOSR Journal Of Humanities And Social Science (IOSR-JHSS)*, 24(2), 36–44. <https://doi.org/10.9790/0837-2402023644>
- Abu Bakar, M. Z., Muhamed, A. A., Hassan, M. F., Halif, M. M., & Abd Rahim, N. N. (2022). The Moderating Role of Entrepreneurship Education on the Relationship Between Entrepreneurial Attitude and Entrepreneurship Intention. *International Journal of Academic Research in Business and Social Sciences*, 12(1). <https://doi.org/10.6007/ijarbss/v12-i1/12157>
- Adelaja, A. A., & Minai, M. S. (2018). Students entrepreneurial intention changes due to entrepreneurial education exposure: The experimental design approach. *Journal of Entrepreneurship Education*, 21(4). <https://doi.org/10.13140/RG.2.2.35573.83688>
- Afolabi, F., Yusuf, M., Social, E. I.-I. R. of, & 2014, undefined. (2014). Ameliorating the Problem of Unemployment among Graduates through Relevant Functional and Sustainable University Education in Nigeria. *Scholar.Archive.Org*, 7(2), 188–196. https://scholar.archive.org/work/zbypzir63fhxrkhclpflceqbua/access/wayback/http://www.irssh.com/yahoo_site_admin/assets/docs/19_IRSSH-852-V7N2.209143719.pdf
- Ahmad, S. Z., & Buchanan, R. F. (2015). Entrepreneurship education in Malaysian universities. *Tertiary Education and Management*, 21(4), 349–366. <https://doi.org/10.1080/13583883.2015.1106577>
- Aladejebi, D. O. (2018). The Effect of Entrepreneurship Education on Entrepreneurial Intention among Tertiary Institutions in Nigeria. *Journal of Small Business and Entrepreneurship Development*, 6(2), 1–14. <https://doi.org/10.15640/jsbed.v6n2a1>
- Amadi, E. A., & Eze, S. eze. (2019). Factors Influencing the Implementation of Entrepreneurship Education in Tertiary Institutions in Rivers State. *International Journal of Innovative Social & Science Education Research*, 7(2), 22–36.
- Amer Azlan, A. J., Wijaya, K. R., Rosle, M., & Zaiton, O. (2016). Determinants of Savings Behavior Among University Students in Sabah, Malaysia. *International Journal of Accounting, Finance and Business*, 1(1), 24–37. www.ijafb.com
- Aminu, A. (2019). Characterising Graduate Unemployment in Nigeria as Education-job Mismatch Problem. *African Journal of Economic Review*, 7(2), 113–130.
- Bell, R. (2020). Adapting to constructivist approaches to entrepreneurship education in the Chinese classroom. *Studies in Higher Education*, 45(8), 1694–1710.

- <https://doi.org/10.1080/03075079.2019.1655724>
- Contreras, F., Rosario, U. Del, Espinosa, J. C., Rosario, U. Del, Cheyne, A., Rosario, U. Del, Pulgarín, S., & Rosario, U. Del. (2020). *Entrepreneurial Intention In Business Students: The Impact Of An Art-Based Program*. *23*(6), 1–9.
- Da Wan, C., Sirat, M., & Razak, D. (2015). The Idea of a University: Rethinking the Malaysian Context. *Humanities*, *4*(3), 266–282. <https://doi.org/10.3390/h4030266>
- Din, B. H., Anuar, A. R., & Usman, M. (2016a). The Effectiveness of the Entrepreneurship Education Program in Upgrading Entrepreneurial Skills among Public University Students. *Procedia - Social and Behavioral Sciences*, *224*(August 2015), 117–123. <https://doi.org/10.1016/j.sbspro.2016.05.413>
- Din, B. H., Anuar, A. R., & Usman, M. (2016b). The Effectiveness of the Entrepreneurship Education Program in Upgrading Entrepreneurial Skills among Public University Students. *Procedia - Social and Behavioral Sciences*, *224*, 117–123. <https://doi.org/10.1016/j.sbspro.2016.05.413>
- Ezeh, P. C., Nkamnebe, A. D., & Omodafe, U. P. (2020). Determinants of entrepreneurial intention among undergraduates in a Muslim community. *Management Research Review*, *43*(8), 1013–1030. <https://doi.org/10.1108/MRR-09-2018-0348>
- Faizah, N., Lajin, M., Rahim, H. L., & Junid, J. (2022). *Nurturing Youth Entrepreneurs at Universiti Teknologi MARA*. *8*(2), 1–10.
- Fayomi, E. J., Fields, Z., Arogundade, K. K., Ojugbele, H. O., Ogundipe, F., & Ganiyu, I. O. (2019). Complementary Approach to Teaching and Learning Entrepreneurship in Nigerian Universities: A Conceptual Framework. *Universal Journal of Management*, *7*(2), 57–77. <https://doi.org/10.13189/ujm.2019.070203>
- Fitri Ayuni, R. (2018). The Role of Family Business and Education in Forming Actual Entrepreneurs. *KnE Social Sciences*, *3*(10), 329–340. <https://doi.org/10.18502/kss.v3i10.3384>
- Gautam Kumar Chaudhary. (2015). Factors affecting curriculum implementation for students. *International Journal of Applied Research*, *1*(12), 984–986.
- Islam, T., Ali, G., Aziz, A., & Niazi, K. (2018). Entrepreneurial Intentions: The Role of Entrepreneurial Education. *Journal of Research and Reflections*, *12*(1), 56–67. <http://www.ue.edu.pk/jrre>
- Kalabeke, W. (2018). Factors Affecting New Graduate Entrepreneurial Intention: An Empirical Study of the Unemployed Graduates in Nigeria. *International Journal of Multicultural and Multireligious Understanding*, *5*(2), 221. <https://doi.org/10.18415/ijmmu.v5i2.342>
- Kalar, B., & Antoncic, B. (2015). The entrepreneurial university, academic activities and technology and knowledge transfer in four European countries. *Technovation*, *36*, 1–11. <https://doi.org/10.1016/j.technovation.2014.11.002>
- King, C. J., & Berkeley, U. C. (2018). *February 2018 KERR 'S THINKING AND VALUES* (Issue January, pp. 1–7).
- Lim, W. L. (2018). The effects of academic environment through self-efficacy on entrepreneurial intention: SEM-PLS approach. *Journal of Social Sciences*

- Research*, 2018(Special Issue 6), 664–669.
<https://doi.org/10.32861/jssr.spi6.664.669>
- Malinda, M. (2019). Learning methods of business plan subject to increase entrepreneurial skill, entrepreneurial intention and entrepreneurial spirit of students. *International Journal of Information and Education Technology*, 9(11), 810–814.
<https://doi.org/10.18178/ijiet.2019.9.11.1309>
- Mawonedzo, A., Tanga, M., Luggya, S., & Nsubuga, Y. (2021). Implementing strategies of entrepreneurship education in Zimbabwe. *Education and Training*, 63(1), 85–100.
<https://doi.org/10.1108/ET-03-2020-0068>
- Ng, H. S., Hung Kee, D. M., & Khan, M. J. (2021). Effects of personality, education and opportunities on entrepreneurial intentions. *Education and Training*, 63(7–8), 992–1014.
<https://doi.org/10.1108/ET-02-2019-0040>
- Ngoc Khuong, M., & Huu An, N. (2016). The Factors Affecting Entrepreneurial Intention of the Students of Vietnam National University — A Mediation Analysis of Perception toward Entrepreneurship. *Journal of Economics, Business and Management*, 4(2), 104–111.
<https://doi.org/10.7763/joebm.2016.v4.375>
- Nowiński, W., Haddoud, M. Y., Lančarič, D., Egerová, D., & Czeglédi, C. (2019). The impact of entrepreneurship education, entrepreneurial self-efficacy and gender on entrepreneurial intentions of university students in the Visegrad countries. *Studies in Higher Education*, 44(2), 361–379.
<https://doi.org/10.1080/03075079.2017.1365359>
- Nwambam, A. S., Nnennaya, O. O., & Nwankpu, I. S. (2018). Evaluating the entrepreneurship education programme in Nigerian universities for sustainable development. *Journal of Entrepreneurship Education*, 21(1), 2651.
- Nwekeaku, C. (2013). *Entrepreneurship Education and Challenges to Nigerian Universities*. 4(3), 51–56.
- Odewale, G. T., Hani, S. H. A., Migiro, S. O., & Adeyeye, P. O. (2019). Entrepreneurship education and students' views on self-employment among international postgraduate students in universiti utara malaysia. *Journal of Entrepreneurship Education*, 22(1), 496–501.
- Ojotu, E. L., Tsetim, J. T., & Kenneth, O. M. (2022). Entrepreneurship Education and Entrepreneurial Intention of University Undergraduate Students in Benue State Nigeria. *International Journal of Innovation in ...*, 4(2), 30–40.
<https://ijie.ir/index.php/ijie/article/view/52%0Ahttps://ijie.ir/index.php/ijie/article/download/52/72>
- Rahim, H. L., Rosly, H. E., & Abidin, Z. Z. (2016). Entrepreneurship Education Effectiveness in Higher Learning Institution: A Study on Universiti Teknologi MARA. *Aej*, 2(1), 21–30.
- Ramli, A., Basbeth, F., Campus, C., & Chepa, P. (2018). *Careers in Entrepreneurship : Is Education Enough ?* 2, 285–291.
- Rengiah, P. (2013). *Effectiveness of entrepreneurship education in developing entrepreneurial intentions among Malaysian university students* Publication details Rengiah, P 2013, 'Effectiveness of entrepreneurship education in developing entrepreneurial intentions among Malay.
- Reyes, G. U., & Manipol, N. E. P. (2015).

- Impact of various Teaching Methodologies on the Entrepreneurial awareness and intention of Students at the University of the Philippines Los Banos. *International Journal of Academic Research in Business and Social Sciences*, 5(7), 350–362. <https://doi.org/10.6007/ijarbss/v5-i7/1746>
- Samiono, B. E. (2018). The Effect of Entrepreneurship Education on Entrepreneurship Intention of Students of Private Islamic Universities in Jakarta. *Journal of Business and Behavioural Entrepreneurship*, 2(2), 94–102. <https://doi.org/10.21009/jobbe.002.2.05>
- Samsudin, N., Abas, B., Rosdi, S. A., & Razak, A. Z. A. A. (2019). The Suitable Teaching Methods in Entrepreneurship Education from the Perspective of Undergraduate Students. *International Journal of Academic Research in Business and Social Sciences*, 9(2), 818–825. <https://doi.org/10.6007/ijarbss/v9-i2/5618>
- Saraih, U. N., Ibnu Ruslan, R., Ali, M. A., & Mohd Suffian, M. S. Z. (2019). The impacts of entrepreneurial education and entrepreneurial implementation on entrepreneurial intention: Evidences from public university in the Northern Malaysia. *International Journal of Engineering and Advanced Technology*, 8(5), 354–358. <https://doi.org/10.35940/ijeat.E1050.0585C19>
- Sesen, H. (2013). Personality or environment? A comprehensive study on the entrepreneurial intentions of university students. *Education + Training*, 55(7), 624–640. <https://doi.org/10.1108/ET-05-2012-0059>
- Singh, H., Ululhilmi, M., Darmawi, A., Naha, N., Mansor, A., Singh, S., & Mahmood, Z. (2018). Unemployment Among University Graduates and Entrepreneurial Intentions. *The Turkish Online Journal of Design, Art and Communication-TOJDAC*, September, 3040–3053. <https://doi.org/10.7456/1080SSE/381>
- Undiyaundeye, F., & Otu, E. A. (2015). Entrepreneurship Skills Acquisition and the Benefits amongst the Undergraduate Students in Nigeria. *European Journal of Social Sciences Education and Research*, 4(1), 9. <https://doi.org/10.26417/ejser.v4i1.p9-14>
- Willness, C., & Bruni-Bossio, V. (2017). The curriculum innovation Canvas: A design thinking framework for the engaged educational entrepreneur. *Journal of Higher Education Outreach and Engagement*, 21(1), 134–164.
- Yarima, Y. A., & Hashim, N. B. (2018). The impact of supportive environment and entrepreneurial skills on students' entrepreneurial inclination. *Journal of Business and Entrepreneurship*, 29(2), 87–104.