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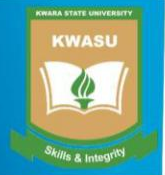
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IMPACT OF GOOGLE SEARCH ENGINE ON STUDENT'S LEARNING ABILITY AMONG BUSINESS EDUCATION STUDENTS IN FEDERAL COLLEGE OF EDUCATION, ZARIA, NIGERIA

By
SHEHU MUHAMMED PHD
DEPARTMENT OF EDUCATIONAL FOUNDATION AND CURRICULUM
AHMADU BELLO UNIVERSITY ZARIA
07068184222

Abstract

This study assessed the impact of Google search engine on student's learning ability among business education students in Federal college of education, Zaria, the study was guide with by one objective and one research question. Quantitative research approach was employed and the targeted population for this study is 692 comprising the NCE students (411) and the B.Ed. students (281) of Business Education Department, Federal College of Education, Zaria. The sample size of the study was 70 this comprises of NCE (42) and B.Ed (28) students serving as the respondents. The sampling techniques used for the study was purposive sampling techniques, taking 10%. The sampling size of each student (NCE and B.Ed) as respondents. The instrument used to collect data for this study is structured questionnaire in gathering information from the students of Business Education Department, Federal College of Education, Zaria. The study makes used of SPSS as a statistical tool and to analyze data generated from the respondents mean and standard deviation was used. The findings of the study revealed that majority of respondents do use the Google search engine for academic purpose. It was concluded that Business Education students at FCE Zaria needed to use the Google search engine for academic purpose frequently as this will help majority of them to know to use the Google search engine for academic purpose. The study recommends that educational technologists and College management needed to encourage each and every department not only Business Education students at FCE Zaria on the use the Google search engine for academic purpose.

Key word; google search engine, ICT, challenges, business education and students

Introduction

Google Search engine is a software system that is designed to search for information on the World Wide Web (WWW). It is an information retrieval system designed to help find information

stored on computer system, such as internet, inside a corporate or proprietary network. It is a kind of information retrieval program and it has two major tasks: Searching through the billions of keywords recorded in the index to find information that match the query sent by the user and ranking retrieved records in order of importance so that the user can choose the most relevant. Search engines serve as source of information to researchers particularly students in higher institutions of learning. They are the vehicles through which researchers can access past and current research publications and help to narrow and refine a search for tracing relevant information. Students can also access information on various courses in the institution through these search engines. This will make them have different information resources and materials for their lectures and research work. Search engines also provide easy access to some reference materials like: gazettes, journals, conference proceeding, magazines and newspapers. Search engines provide e-print in details and other types of digital works by authors in an academic department, schools or institutions which comprise of electronic thesis and dissertations and presentations by authors of different institutions.

The aim of Google search engines according to Renwick (2005) is to search and circumnavigate, meaning that a successful search engine should sustain its users in an efficient search for contents, and bring detailed information resources with ease to various students. Okiki (2012) stated that the search engines obtainable are very many but due to lack of awareness, researchers do not exploit them. Internet and the various search engines have brought information explosion, which means that there is large scale, rapid and spectacular expansion of information. The information explosion may confuse researchers on the information to use (Okella-obura & Ikoja-odogbo, 2010).

Information retrieval is a field concerned with the structure, analysis, organization, storage, searching, and retrieval of information. It is a well-established discipline in Computer Science since the 1950s. It has however recently enjoyed increased significance because of the information explosion caused by the internet WWW and its related technologies. Not only the absolute amount of information, but also new types of information formats have drawn attention to this field (Nnamdi, 2008). While information retrieval used to be a restricted field with specialized users like librarians and information professionals, today millions of people use IR every day to search the web or search their email, resulting in the need for new user interfaces and query languages (Manning, 2012; 2011; Joe, 2011).

According to Goyal (2010), information retrieval "deals with the representation, storage, organization of, and access to information items". IR is finding material (e.g. documents) of an unstructured nature (usually text) that satisfies an information need from within large collections (usually stored on computers)." The most common task in IR is informally ad hoc retrieval: a user expresses an information need by submitting a query to the system, which tries to return documents relevant to this query. Other tasks in IR include support of users in browsing or filtering document collections, text classification, text clustering, cross-language retrieval, and multimedia retrieval (Manning 2012; Cabero, 2001; Roul & Sahay, 2012).

The research is hope to measure the adequacy or otherwise the problems associated with the awareness and use of search engines for information retrieval by students in Federal College of Education, Zaria, which if successfully conducted will no doubt fill in the gap in the area of research and add to the existing body of knowledge in the area of information retrieval. It is also hope that, the study will be significant value to the researchers, more especially the lecturers in enhancing the search engines for information retrieval and to promote their use for research and other scholarly activities.

The problem of this study is the inability of the students to use Google search engine to retrieve information. How does the frequent use of Google for academic purposes affect students' critical thinking and analytical skills, Are students becoming overly reliant on Google as a primary source of information, potentially hindering their ability to seek knowledge through alternative means.

In view of those afore stated problems, Business Education students have now turned their attention to the use of internet (Google search engine for the purpose of studying, conducting research and obtaining general information. This study therefore seeks to know the impact of internet on students learning ability.

Objective of the Study

The following objectives guide the study:

To examine the Impact of Google Search Engine Usage on Information Retrieval and Knowledge Acquisition, critical thinking and research for Academic Purpose

Research Questions

What are the Impact of Google Search Engine Usage on Information Retrieval and Knowledge Acquisition, critical thinking and research for Academic Purpose?

Empirical Review

Search Engine: This is considered a primary activity, such as email and other general activities over the internet. Hence, the search engines are considered a concierge for the digital network ecology (Dijck, 2010). The recent search engines have excellent access to colossal information. The first proto of the search engine was started in 1990 by the students of McGill of Montreal University, who have created a script-oriented content accumulating program that could download various from the FTP directory. Later, the same concept with a few more technical; advancements are being done to reach an enormous database with a huge index of web pages by the advent of technology Google, Yahoo, MSN, etc. are few majorly browsed search engines (Dijck, 2010). A web search engine is designed to search for information on the World Wide Web and FTP servers. The search engine is a service that allows internet users to search for content via the World Wide Web (Dijck, 2010). A user enters keywords or key phrases into a search engine and receives a list of web content.

Internet usage has been tremendously increased in recent days with the easy-to-use search engines like Google, Bing and Yahoo search engines are classified into the following four categories based on how it works, namely crawler-based search engines, human-powered directories, hybrid search engines and other special search engines.

Use of Google Search Engines for Information Retrieval in Institutions of Higher Learning

The internet search engines have positively affected all the social and economic aspects of human development by improving work performance and productivity. According to Cabero (2001), "the flexibilization time-space accounted for by the integration of Internet search engines into teaching and research processes contributes to increase the interaction and reception of information. Such possibilities suggest changes in the communication models and the teaching and research methods used by academics, giving way to new scenarios which favour both individual and collaborative learning". The use of internet search engines in educational settings, by itself acts as a catalyst for change in this domain. Search engines by their very nature are software applications that encourage and support independent teaching and research. Lecturers using search engines for teaching and research purposes become engrossed in the process of teaching and research as more and more academics use computers as information sources and cognitive tools (Reeves & Jonassen, 1996), the influence of the internet search engines on supporting how academics come up with journals articles, conference proceedings and text books will continue to increase. Internet search engines increases the

flexibility of delivery of education so that learners can access knowledge anytime and from anywhere. This in turn would better prepare the academics for lifelong research as well as to improve the quality of teaching. One of the most vital contributions of Internet search engines in the field of education is Easy Access to Learning. With the help of search engines, academics can now browse through e-books, e-journals etc. and can also have an easy access to research resources all over the world.

ICT Infrastructures to Support the Use of Search Engines in Institutions of Higher Learning

According to Vanderlinde and Van Braak (2010), ICT infrastructure measures the perceived availability and suitability of the ICT tools such as hardware, software and peripheral equipment provided in the universities. In Pelgrum's (2001) study, ICT infrastructure refers to the availability of equipment, software, Internet access and other similar resources in the institution of higher learning. Additionally, resources and facilities in universities are designed and enabled in the direction of supporting continuous transformation and use of various search engines to retrieve vast information that will assist lecturer in effective delivery of learning and research (Anderson & Van Weert, 2002). In the year 1998, Krysa conducted a research to determine and examine regularly occurring factors that affect the implementation of the technology among the university lecturers. A qualitative study among four university lecturers was carried out to identify the factors. Based on the findings, it was reported by one of the lecturers that the outmoded hardware limits the use of search engines in the institution of higher learning (Krysa, 1998). The lecturer was not able to effectively use search engines to retrieve information due to the old and outdated hardware. Conversely, one of the informants stated that limited software act as one of the antecedents that prevents the use of search engines as a means of accessing information (Krysa, 1998).

Impact of Google Search Engine on Students Learning Abilities

Ngoumandjoka (2012) categorized internet users into heavy and light users. In his view, academic work is the main reason students use the internet on campus. Students who were classified as heavy users were found to use the internet more for recreational purpose than the light internet users. His study further argued that the more the internet is used for academic work the more it is perceived to exert a positive influence on academic grades. A number of authors (Torres, 2016) equally agreed that internet use has a positive impact on academic performance. They opined that students who tend to use the internet more on educational materials are less likely to fail their examinations. Therefore, the disadvantages of lack of access to internet surpass the advantages.

Internet has become a daily commodity in most people's lives. However, the addictive-like features of the internet make any individual who excessively use it a potential victim of its negative effects. Some of its negative effects include impaired sleeping patterns, social relationships break-ups, job losses, mental and physical health as well as poor academic performance.

Psychological issues ranging from mood swings to altered behavior, withdrawn attitude and loneliness have been reported by (Torres, 2016) to be the main effect of using the internet mainly for social networking and mailing. This is because they remain in some sort of virtual world of the net. (Torres, 2016) found in their study that as academic performance of students deemed successfully increases, their internet addiction average decrease. This implies that, internet addiction has an effect on the academic performance of students.

Similarly results have been obtained by Austin mentioned by Torres (2016) in their study that categorized internet users into light, moderate and intense users respectively. They discovered that students that use the internet at school and at home (moderate use) produce higher grades than those that do not use the internet. The influence of Google search engine on students' learning abilities can be both positive and negative.

1. Google search engine provides students with easy access to a vast amount of information and resources. It enables them to quickly find answers to their questions, explore different perspectives, and expand their knowledge on various subjects. This can greatly enhance their learning experience and improve their ability to gather information efficiently.
2. Google search engine allows students to explore different formats of information such as text, images, videos, and more. This can cater to different learning styles and preferences, making it easier for students to grasp concepts and understand complex ideas.
3. Google search engine can have some negative effects on students' learning abilities. It may lead to a lack of critical thinking and independent research skills. Students may become reliant on the first few search results presented to them, without critically evaluating the credibility and accuracy of the information they find.
4. The vast amount of information available through Google search engine can be overwhelming for students. They may struggle to filter through the results and identify the most relevant and reliable sources. This can result in students wasting time on irrelevant or inaccurate information.
5. Additionally, the ease of access to information may discourage deep learning and thorough understanding of concepts. Students might be tempted to settle for superficial knowledge instead of delving deeper into a subject. This surface-level understanding can hinder the development of critical thinking and analytical skills.

Challenges Facing in Accessing the Google Search Engine

Manning (2012) and Nnamdi, (2008) outlined the following challenges in assessing Google search engine.

1. **Technical Issues and poor internet connection:** Many students are not provided with the high bandwidth or the strong internet connection that online courses require, and thus fail to catch up with their virtual course mates: Their weak monitors make it hard to follow the Course Management System and their learning experience becomes a problem. Adaptability Struggle Switching from traditional classroom and face to face lecturing online makes the learning experience entirely different for students. While passive listening and notes taking are expected in a traditional classroom, online discussions or creating a web page demand springing into action. Students with a "traditional" mindset find it difficult to adapt Computer Literacy.
2. **Lack of computer literacy is a major issue among students today:** Many of them cannot operate basic programs such as Microsoft Word and PowerPoint and therefore are not able to handle their files. Furthermore, many students find fixing basic computer problems troublesome, as they have no information in this area.
3. **Time Management:** Time management is a difficult task for students, as online research requires a lot of time and intensive work. Students turn out to be addicted to the internet as they do their regular research on it and also the news on social media can keep students on the internet the whole day thereby causing them to decline in their learning outcomes.
4. **High cost of subscription and Self-Motivation:** The cost involved in subscribing internet packages is quiet expensive, leading to frustration in accessing the internet for learning. Though the internet allows students to learn or access education irrespective of their location however some students lack self-motivation in eLearning essential requirement. After enrolling in distance learning courses, many learners fall behind and nurture the idea of giving up, as difficulties in handling a technological medium.

Methodology

Expo-facto approach was employed and the targeted population for this study is 692 comprising the NCE students (411) and the B.Ed. students (281) of Business Education Department, Federal College of Education, Zaria. The sample size of the study was 70 this comprises of NCE (42) and B.Ed (28) students serving as the respondents. The sampling techniques used for the study was purposive sampling techniques, taking 10%. This is because the student are available or willing or easy to asses on a practical level and its require less resources and time then most traditional method. The sampling size of each student (NCE and B.Ed) as respondents, the instrument used to collect data for this study is structured questionnaire in gathering information from the students of Business Education Department, Federal College of Education, Zaria. The study makes used of SPSS as a statistical tool and to analyze data generated from the respondents mean and standard deviation was used.

Result and Discussion

Table 1: Opinion of respondent on impact of Google Search Engine Usage on Information Retrieval and Knowledge Acquisition, critical thinking and research for Academic Purpose

S/N	Items	\bar{x}	Std. Dev.	Remark
1.	How frequently do you use the Google search engine for academic purpose?	3.06	1.75	Frequently
2.	Using the Google search engine help find relevant information for my academic assignment.	3.08	1.77	Agreed
3.	The Google search engine has improved my ability to acquire knowledge in my study field.	2.23	1.31	Disagreed
4.	Using the Google search engine encourages me to think critically when evaluating information.	2.86	1.69	Agreed
5.	I have developed better research skills due to my use of the Google search engine.	2.19	1.27	Disagreed

Table 1: shows on the Impact of Google Search Engine Usage on Information Retrieval and Knowledge Acquisition, critical thinking and research for Academic Purpose. The table shows that majority of the respondents were of the opinion on how often do you use the Google search engine for academic purpose, this has the highest mean response of 3.06 and standard deviation of 1.75. This implies that the number of respondent do use the Google search engine for academic purpose. The table also shows that majority of the respondents were of the opinion that they use Google search engine help find relevant information for my academic assignment, as this statement attracted the highest mean response of 3.08 with 1.77 as its standard deveiation. This means that use Google search engine help find relevant information for my academic assignment. From the table also, the least number of respondents were of the opinion that Google search engine has improved my ability to acquire knowledge in my study field, the statement attracted the lowest mean response of 2.23 with 1.31 standard deviation. This implies that they use Google search engine has improved my ability to acquire knowledge in my study field. The table shows that majority of the respondents were of the opinion that they use the Google search engine encourages us to think critically when evaluating

information, as this statement attracted the highest mean response of 2.86 with 1.69 as its standard deviation. From the table also, the least number of respondents were of the opinion on the developed better research skills due to my use of the Google search engine as this statement attracted the lowest mean response of 2.19 with 1.27 as its standard deviation. The result implies that despite that they developed better research skills due to the use of the Google search engine has improved students ability to acquire knowledge in various fields of study.

Discussion of findings

Research question shows the Impact of Google Search Engine Usage on Information Retrieval and Knowledge Acquisition, critical thinking and research for Academic Purpose, it was revealed that majority of respondents do use the Google search engine for academic purpose. This is in line with the study of Okiki (2012) stated that the search engines obtainable are very many but due to lack of awareness, researchers do not exploit them. Internet and the various search engines have brought information explosion, which means that there is large scale, rapid and spectacular expansion of information. It has however recently enjoyed increased significance because of the information explosion caused by the internet and its related technologies. Not only the absolute amount of information, but also new types of information formats have drawn attention to this field (Nnamdi, 2008). Conveniently this shows negative impact of Google search engine, making student to be lazy in the class room as most of them even miss lectures.

It was revealed that majority of respondents disagreed that use of Google search engine has improved my ability to acquire knowledge in my study field. This is according to the study of Reeves & Jonassen, (1996), the influence of the internet search engines on supporting how academics come up with journals articles, conference proceedings and text books will continue to increase. Internet search engines increases the flexibility of delivery of education so that learners can access knowledge anytime and from anywhere. This in turn would better prepare the academics for lifelong research as well as to improve the quality of teaching. One of the most vital contributions of Internet search engines in the field of education is - Easy Access to Learning. It was revealed that majority of respondents agreed that they developed better research skills due to my use of the Google search engine. This also goes in line with the review on the study of Ngoumandjoka (2012) categorized internet users into heavy and light users. In his view, academic work is the main reason students use the internet on campus. Students who were classified as heavy users were found to use the internet more for recreational purpose than the light internet users. His study further argued that the more the internet is used for academic work the more it is perceived to exert a positive influence on academic grades. A number of authors (Torres, 2016) equally agreed that internet use has a positive impact on academic performance. It was observed that majority of respondents encountered many challenges and drawback when relying heavily on the Google search engine for academic research and learning processes. It was also noted that these challenges and drawbacks affect their academic performance and overall learning experience. This is in accordance with the study of Krysa (1998), the lecturer was not able to effectively use search engines to retrieve information due to the old and outdated hardware. Conversely, one of the informants stated that limited software act as one of the antecedents that prevents the use of search engines as a means of accessing information. It is however easy to understand that in this study some of the respondents agree to the items in the table as they were taught with ICT in the lecture room while other disagreed as they understand nothing in terms of ICT due to over crowdedness in the lecture room.

Conclusion

The study concludes that Business Education students at FCE Zaria needed to use the Google search engine for academic purpose frequently as this will help majority of them to know to use the Google search engine for academic purpose. Google search engine be provided by the college to improve students ability to acquire knowledge, Google search engine needs to be one of the ICT programme that will make students developed better research skills. So also learning through Google search needed to be a mandatory course so as for students not to encountered challenges and drawback in learning processes.

Recommendations

The study recommends that:

- Educational technologists and College management needed to encourage each and every department not only Business Education students at FCE Zaria on the use the Google search engine for academic purpose.
- Google search engine should be provided by the college management so as to improve student's ability to acquire more knowledge for academic pursuit.
- Department and schools should in one way or the other encourage the use of Google search engine and inclusion of ICT programme in their course outline as this will make students developed better research skills.
- Students should be encourage researching through Google search engine and it should be a mandatory course for students so as to know their way out on challenges and drawback in learning processes.

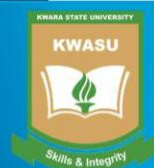
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TEACHERS' PERCEPTION OF THE INTEGRATION OF INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) IN MATHEMATICS AMONG SECONDARY SCHOOLS TEACHERS IN KADUNA STATE, NIGERIA

By

SHEHU MUHAMMED PHD
DEPARMENT OF EDUCATONAL FOUNDATION AND CURRICULUM
AHMADU BELLO UNIVERSITY ZARIA
07068184222

Abstract

The use of ICT has facilitated the movement from traditional pedagogical methods of teaching to innovative technological based teaching. ICT facilitates communication, it increases students' access to learning and motivate both teachers and students to learn. It has become an indispensable part of the contemporary world. ICT has impacted greatly on the quality of teaching, learning and research in traditional and distance education institutions. This research studied the perception of the integration of ICT in mathematics among secondary schools teachers in Kaduna state, Nigeria. The study employed survey research. The target population consists of all the secondary school teachers in Kaduna State. A total population of five hundred (500) teachers with ICT compliance in Kaduna metropolis was used for the study. The sample size for this study of 50 teachers were purposely selected from all schools. The instruments tagged mathematics teachers skills in ict was use for data collection. A four Likert scale, ten item questionnaire was designed by the researcher to gather the information needed for the study. The researcher developed a 10 item questionnaire on teachers' perspective on the use of ICT to teach mathematics in secondary schools. The questionnaire was validated by two mathematics experts. The reliability coefficient is 0.80. The findings of the research revealed that the respondent have positive responses towards the use of ICT in mathematics teaching and learning. Based on the findings of this study, it is concluded that the introduction of ICT in mathematics teaching and learning in secondary schools will make the subject learners centered, increases students understanding of mathematical concept and also improve students' performance. The paper recommended that secondary school students should be introduced to the use of some learning technologies to solve mathematical problems, teachers should be trained on how to integrate ICT into mathematics lessons and mathematics laboratories in secondary schools should be equipped with computer system and internet facilities should be provided for both the student and teachers.

Keywords: *ICT, mathematics, and secondary school teachers*

Introduction

The science behind mathematics forms a fundamental part of human thought and logic. It is integral to our understanding of the world and us. Mathematics is not just about numerical values, theorems and quadratic equation. It is an effective way of mental discipline, logical reasoning and mental rigor. Mathematics is needed for students to engage in society, especially with an increase in technology and digitalization. Mathematics is a fundamental part of school curriculum. It is an instrument for the development of all other sciences. Mathematics is a unique subject, it is unique because it is not subjective, every question has a clear answer and when you solve it you can either be right or wrong. Mathematics helps strengthen reasoning skills and critical thinking. It helps us think analytically about the world and also reason logically. When we use mathematics, we are able to identify relationships, comprehend pattern and make future predictions. It is the basis of everything, from money, buildings, food production, hospitals and lots more. It helps us carry out a variety of important daily tasks. Aminu (2011), defined mathematics as a method or technique of acquiring knowledge and skills to solve practical problem.

Teaching methods are the broader techniques used to help students achieve learning outcomes, while activities are the different ways of implementing these methods. Teaching methods help students master the content of the course, learn how to apply the content in particular contexts. Studies have shown that some teaching methods affect students' performance, motivation and attitude towards learning. The teaching of mathematics in African schools has been cited as among the worst compared to the Western and Asian countries (Muharam et al, 2010). Verbalizing the mathematical formulas and rules and presenting examples and solutions on the board have resulted in unsatisfactory performance (Jamilu & Umar, 2014)

Concept of ICT

ICT is an abbreviation for Information and Communication Technology. It is a modern way of processing and distributing data using computer hardware, software, telecommunications and digital electronics. Advanced Learners Dictionary defined Information Technology as the study or process of storing, retrieving and sending information of all kinds. ICT consists of the hardware, software, networks and media for the collection, storage, processing, transmission and presentation of information. Chinien (2001), explained that ICT deals with digital data and ways of storing, retrieving and transmitting information. Nigeria started implementing its ICT policy in April 2001, after the Federal Executive Council approved it by establishing the National Information Technology Digital Agency (NITDA). Below are the objectives of ICT as stated by the Nigeria National Policy for Information Technology (IT).

- i To ensure that ICT resource are readily available to promote effective national development.
- ii To guaranty that the country benefit maximally and contributes meaningfully by providing the global solutions to challenges of the information age.
- iii To establish and develop ICT infrastructure and minimize its use nationwide.
- iv To empower the youth with ICT skills and prepare them for global competitiveness.
- v To integrate ICT into the mainstream of education and training.
- vi To create ICT awareness and ensure universal access in promoting ICT diffusion in all sectors of national life.
- vii To develop human capital with emphasis on creating and supporting a knowledge-based society.
- viii To build a mass pool of ICT literate manpower using the NYSC, NDE and other platforms as a train the trainer scheme for capacity building. (Nigeria National Policy for Information Technology).

The use of ICT is fast gaining prominence and becoming one of the most important elements defining the basic competencies in education system (Apreala, 2013). The use of ICT has facilitated the movement from traditional pedagogical methods of teaching to innovative technological based teaching. ICT facilitates communication, it increases students' access to learning and motivate both teachers and students to learn. It has become an indispensable part of the contemporary world. ICT has impacted greatly on the quality of teaching, learning and research in traditional and distance education institutions. Through the use of ICT, schools communicate with one another, institutions organize internal and external examinations and students

communicate with their teachers through E mail, Matching lists, Chat rooms and Short Messages Services (SMS).

Role of ICT in Mathematics Teaching and Learning

From time immemorial education has become a symbol of civilization and development, and providing and acquiring it is one of the characteristics that set human beings apart from other living things. For advanced knowledge people are continually improving their teaching and learning tools and strategies. ICT is an engine of innovation in education (Kaushik 2019). ICT is a tool that supports the learning process and holds the promise of new solutions to all the challenges that education is facing. The use of ICT in teaching and learning helps the learner to focus on reflection, verification, decision making and problem solving. The arrival of ICT has helped people tremendously and secondary school students are not left out. ICT affect teaching and learning in different ways, it helps the teacher in preparing good lecture notes and also facilitates students' understanding. Under the influence of ICT, teaching and learning occurs in a changed situation, it makes the lesson learner-centered. Nwalado & Obro (2014) stated that ICT is becoming increasingly important in our daily lives as well as in educational systems and there is need for educational institutions to introduce ICT in teaching some special skills and knowledge that learners need to achieve their educational goals. The constant evolution of the environment denotes a need for educational system to keep in tune with changes brought by ICT, (Modum 2001). As a result of the rapid spread of technology, expectations regarding the use of technology in the teaching environment has increased, today, the concept of teaching has shifted from classical teaching to teaching supported by modern technology, for instance in our classrooms today, we use whiteboard, projectors etc, all these are product of technology. The importance of ICT in teaching and learning process as stated by Chatterjee (2021) are:

- i ICT can bring the existing educational system in alignment with the knowledge-based, information-rich society by providing services of sophisticated tools, technique and methods at its disposal.
- ii Use of ICT can bring about a paradigm shift in traditional views and methods of teaching-learning process.
- iii ICT prepare teachers to meet challenges of the teaching and learning task of modern age.
- iv It helps teachers in proper execution of their multi-dimensional responsibilities in various areas of education.

ICT can be beneficial not only to teachers for their own education and training, but also to use it creatively for accelerating the educational growth of their students. The prospect of ICT is a promising practice in mathematics classroom, but its success depends on several issues like teachers' perception of ICT skills, teachers' attitude towards ICT contribution to mathematics teaching and teachers' perception of ICT contribution to students' achievement in mathematics. Integrating technology into the classroom has become essential to successful teaching and learning. It has rapidly changed and revolutionized the nature, content and scope of instructions at all levels of education.

The main purpose of mathematics teaching is the formation of students' knowledge, creative thinking, scientific attitude and activity, development of independent learning skills, targeted, systematic use of special pedagogical methods. For all these to be achieved, there is need for integration of ICT into mathematics teaching and learning. ICT provides great support in a mathematics classroom, it give educators the chance to take advantage of the notion that it can help students in visualizing mathematical ideas and concepts. The method used by the teacher is an important and essential factor as far as mathematics teaching is concerned. Teacher-centered teaching method that do not give room for students' involvement have been identified as a major cause of students' learning difficulties in mathematics. Integrating ICT into mathematics classroom has become essential for a successful teaching and learning.

There are many ways in which ICT can be used in mathematics teaching and learning, these include, the use of calculators to solve problem, use of search engine (Google), presentation packages (power points), drill and practice software, spreadsheet (MS Excel), databases and online interaction resources. With the introduction of ICT, doing simple mathematical calculations on computer will be easier and interesting. Integrating ICT in

mathematics classroom facilitates inclusion of all the students in the learning of mathematical concepts as technology presents the information in a variety of ways according to the size of audience and the special needs of particular individuals.

The use of ICT provides teachers with opportunities to capitalize on the idea that it can help students visualize mathematical ideas and concepts. It provides both the teacher and student with the resources to help them concentrate on the learning objectives within the national curriculum and not getting bogged down with other issues. With the availability of technological instrument, teachers of mathematics will have an ample opportunity at their disposal using ICT in the classroom teaching (Jamilu& Umar, 2014). ICT can make the school more efficient and productive, thereby engendering a variety of tools to facilitate teachers' professional activities. The use of ICT tools in the classroom plays a significant role. Technology is not only inclusive in that it can present information in a variety of ways, but also makes creating your own attractive, stimulating resources in relatively straight forward task. Das (2019), believe that using technology in mathematics classes with appropriate pedagogy will improve students' academic performance, he is of the opinion that deep conceptual learning can become a reality when mathematics is viewed as problem-solving and thoughtfully combined with technology. When ICT's are used properly to complement a teacher's existing pedagogical philosophies, it provides knowledge based system that includes knowledge acquisition, knowledge incubation, knowledge strengthening and knowledge spreading. ICT is a key resource which permeates teaching, learning, research and publishing. Integration of ICT into mathematics teaching will increase students' motivation and performance, arouse students' interest and also facilitate positive interaction and motivation.

Review of Related Literature

Adewoye, Salau & Salau (2021), carried out a research on the impact of ICT on teaching and learning, the research was carried out in three universities in the southwest, questionnaire were shared to three hundred respondent out of which two hundred and thirty four were returned, the study revealed a positive relationship between ICT and teaching and learning in Nigerian universities, the researchers also found out that ICT offers a great opportunity for teaching and learning to solve teaching and learning problems.

Egenti and Obumse (2021), in a study that was carried out in Anambra state on the topic Basic information and communication technology (ICT) competencies required for occupational efficiency of guidance and counseling lecturers in tertiary institutions in southeast found out that the acquisition and the possession of the identified basic ICT competencies by lecturer will greatly improve their occupational efficiency. Chong, Sharaf & Jacob (2005), studied the use of ICT in mathematics teaching in Malaysia and found out that the use of ICT in teaching mathematics can make the teaching process more effective as well as enhance the students' capabilities in understanding basic concepts. Kaushik (2019), in his work titled 'Role of ICT for Better Mathematics Teaching' concluded that ICT integration in mathematics education has positive impact on both the teaching and learning process.

Farida, Assel, Gulzhan and Mynzhassarova (2021), evaluated teachers view on the use of learning technologies in mathematics lesson in preprimary and primary schools in Kazakhstan and found out that the rate of teachers that prefer classical methods in education is much higher than those that prefer the new methods and techniques. Areye (2022), in a research work that was carried out in Niger Delta on teachers' perspective of the drivers and constraints of ICT integration into mathematics education, found out that ICT is hardly used in the Niger Delta due to some constraints and that the teachers indicated high knowledge about the usefulness of ICT but only used ICT for sourcing lesson materials.

This paper therefore seeks to investigate teachers' perspective on the use of ICT in mathematics teaching in Katsina State. The research work seeks to answer the following questions:

- i Will the use of ICT improve students' performance in mathematics?
- ii Will the use of ICT make mathematics lesson learners-centered?

Methodology

The study employed survey research. The target population consists of all the secondary school teachers in Kaduna State. A total population of five hundred (500) teachers with ICT compliance in Kaduna metropolis was used for the study. The sample size for this study of 50 teachers were purposely selected from all schools.

The instruments tagged mathematics teachers skills in ict was use for data collection. A four Likert scale, ten item questionnaire was designed by the researcher to gather the information needed for the study. The instrument was validated by two mathematics experts and the reliability coefficient was 0.80. The questionnaire were in two parts, A and B. Part A contained the respondents' personal information and part B contained the ten questions to be answered by the respondent.

Results

Table 1.0 Perception of Secondary school teachers on the integration of ICT into mathematics teaching

S/No	Item	SA	A	D	SD
1	The use of ICT will increase students' understanding of mathematics	25 (50%)	10 (20%)	10 (20%)	5 (10%)
2	The use of ICT will reduce the time of explaining mathematics concept to student	18 (36%)	10 (20%)	12 (24%)	10 (20%)
3	Students performance in test and examination will improve when ICT is used	25 (50%)	10 (20%)	10 (20%)	5 (10%)
4	Difficult task will be made simple with the use of ICT	20 (40%)	10 (20%)	5 (10%)	15 (30%)
5	Mathematics classroom will not be boring when ICT is used	20 (40%)	9 (18%)	9 (18%)	12(24%)
6	Mathematics classroom will be more interesting when ICT is used	35 (70%)	5 (10%)	5 (10%)	5 (10%)
7	The use of ICT can help to change students' attitude towards mathematics learning	39 (78%)	10 (20%)	1 (2%)	0 (0%)
8	The use of ICT will make the lesson learners centered	30 (60%)	10 (20%)	4 (8%)	6 (12%)
9	Students taught using ICT will be independent	29 (58%)	10 (20%)	7 (14%)	4 (8%)
10	I prefer using ICT to teach mathematics	18 (36%)	14 (28%)	10 (20%)	8 (16%)

From the table above 70% of the respondent agreed that the use of ICT will increase students' understanding of mathematics, while 30% disagreed. 56% of the respondent agreed that the time of explaining mathematics concept will be reduced with the use of ICT, while 44% disagreed. 70% of the respondent agreed that the use of ICT can improve students' performance in test and examination, while 30% disagreed. 60% of the respondent agreed that the use of ICT can simplify difficult task in mathematics, while 40% disagreed. 58% of the respondent agreed that mathematics classroom will not be boring when the teacher uses ICT, while 42% disagreed. 80% of the respondent agreed that the use of ICT will make mathematics classroom more interesting, while 20% disagreed. 98% of the respondent agreed that the use of ICT can change students' attitude towards the learning of mathematics, while 2% disagreed. 80% of the respondent agreed that the use of ICT can make mathematics lesson learners centered, while 20% disagreed. 78% of the respondent agreed that students taught using ICT will be independent, while 22% disagreed. 64% of the respondent positively preferred to the use of

ICT in a mathematics class, while 36% are of contrary opinion that is they negatively disagree with the use of ICT in mathematics class.

Discussion

This study was designed to investigate the perception of secondary school teachers on the integration of ICT in the teaching and learning of mathematics. The responses from items 1, 2, 3 and 4 shows that 70%, 56%, 70% & 60% were of the opinion that the use of ICT will increase students', it will reduce the time spent by the teacher in explaining mathematics concepts, use of ICT will increase students' performance in test and examination and also difficult task will be made simple when ICT is used to teach mathematics performance in mathematics, this answered the first research question on 'if the use of ICT can improve students' performance in mathematics. The responses from items 5, 6, 7, 8, 9 and 10 shows that 58%, 80%, 98%, 80% and 78% of the respondent were of the opinion that mathematics classroom will not be boring when ICT is used, the use of ICT will make the classroom more interesting, it can positively change students' attitude, it will make the lesson learners-centered and make the students independent, this answered the second research question on if the use of ICT can make the class learners-centered. The findings from this study revealed that the respondent have positive responses towards the use of ICT in mathematics teaching and learning. This is in line with the work of Areye (2022) and Chong, Sharaff and Jacob (2005). They maintained that use of ICT in Mathematics enhance mathematic achievement in the classroom, hence student develop more interest in learning mathematics

Conclusion and Recommendations

Based on the findings of this study, it is concluded that the introduction of ICT in mathematics teaching and learning in secondary schools will make the subject learners centered, increases students understanding of mathematical concept and also improve students' performance. The study hereby makes the following recommendations.

- i Secondary school students should be introduced to the use of some learning technologies to solve mathematical problems.
- ii Secondary school teachers should be trained on how to integrate ICT into mathematics lessons.
- iii Mathematics laboratories in secondary schools should be equipped with computer system and internet facilities should be provided for both the student and teachers.

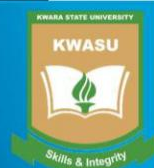
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TEACHER CHARACTERISTICS, AND STUDENTS' ACADEMIC PERFORMANCE IN SECONDARY SCHOOLS IN ILORIN SOUTH LOCAL GOVERNMENT AREA, KWARA STATE

By

Sheriffdeen Omotayo, FOLORUNSHO

Department of Education management,
Faculty of Education,
Kwara State University, Malete
talabawudu1989@gmail.com

Olayiwola G. OLORISADE, Ph.D.

Department of Education management,
Faculty of Education,
Kwara State University, Malete
olayiwola.olorisade@kwasu.edu.ng

Abdullahi A. BAKARE, Ph.D.

Department of Library and Information Science,
Faculty of Information and Communication Technology,
Kwara State University, Malete,
tobayan1@yahoo.com

Professor Stephen O. AFOLABI

Department of Education management,
Faculty of Education,
Kwara State University, Malete
stephen.afolabi@kwasu.edu.ng

Abstract

Poor academic performance in internal and external examinations remains a major concern for educators, parents, and stakeholders in the education sector. This study examined the relationship between teacher characteristics and students' academic performance in secondary schools in Ilorin South Local Government Area, Kwara State. A correlational survey design was adopted, guided by

five research questions and four null hypotheses. The study was anchored on Albert Bandura's Social Learning Theory (1977). The population comprised 3,500 teachers from 40 public senior secondary schools, with a sample of 345 respondents selected using Krejcie and Morgan's (1970) Table and purposive sampling. Data were collected using a structured questionnaire (TCQ) and Senior Secondary School Certificate Examination (SSCE) results from 2020–2023. Instruments validity was ensured by experts, and reliability was confirmed with Cronbach's Alpha (0.90 and 0.88). Data were analyzed using mean ratings, standard deviation, Pearson Correlation, and multiple regression at a 0.05 significance level. Findings revealed that teachers in public senior secondary schools were qualified ($\bar{x}=3.08$; $SD=0.60$) and experienced ($\bar{x}=3.87$; $SD=1.16$). A significant relationship existed between teacher characteristics and students' academic performance ($R=0.674$, $R^2=0.454$, $F=200.642$, $p<0.05$). It was concluded that teacher qualifications, lesson presentation, and discipline significantly influence academic success.

Keywords: Teacher characteristics, Academic performance, Secondary education, Correlational study, Teacher qualifications

Introduction

Education is essential for promoting economic progress and national success and is regarded as the most effective means for sustainable human development. The capacity to read and write, learn new competencies, progress technologically, and use a nation's natural resources effectively originates from a robust educational foundation, which subsequently underpins development. As a result, the world will become a better, safer, wealthier, and more ecologically sustainable place. The Federal Republic of Nigeria (2013) posits that education is a foundation for establishing a free and democratic society, a fair and equitable community, a robust and unified country, and a dynamic and productive economy.

Secondary schools are tasked with delivering quality instruction aimed at fulfilling national objectives, which include instilling respect for individual worth and dignity, fostering rational decision-making, promoting moral and spiritual values in interpersonal relationships, and encouraging shared responsibility for the common good of society, among other goals (Federal Republic of Nigeria, 2013). Educators are regarded as the essential catalyst for the efficacy of the educational system and the achievement of national educational objectives.

Baringa (2017) asserts that educators represent an educational system's most significant and essential component. The quality of educators is a crucial metric of the efficacy of the educational system. Teachers are supposed to cultivate people with valuable knowledge, practical skills, and appropriate value orientation in executing their responsibilities. In contemporary civilizations, educational institutions significantly impact child socialization, with the teacher playing a pivotal role (Agbatogun, 2019).

Teacher characteristics denote attributes that may be quantified or inferred from their academic or professional credentials. The attitudes of instructors strongly influence student attentiveness in classrooms (Kosgil et al., 2013; Denessen et al., 2022), whereas students' attitudes are associated with teacher features (Adesoji & Olatunbosun, 2008; Jarl et al., 2021). Teachers' attributes significantly influence pupils' academic achievement in Senior High Schools (Audu & Olatundun, 2008; Jarl et al., 2021). Olaleye (2019) said that a correlation exists between instructor traits and student performance, these factors including personal attributes such as background, teaching experience, topic competence, and teachers' credentials.

The teachers' credentials, including degrees, certificates, and specialized training, are crucial to student achievement. Research evidence indicates that highly skilled educators may equip students with material mastery and pedagogical expertise to successfully convey complex subjects. They may also discern several pupils' requirements and modify diverse instructional tactics for enhanced learning. The gap in teacher credentials, particularly between public and private schools, sustains the imbalance in student accomplishment in Nigeria. This necessitates ongoing professional development to improve teachers' competencies, hence enhancing learning outcomes in all schools.

A significant component influencing teachers' performance is experience. The research indicates that an experienced educator cultivates sophisticated teaching methods, enhances classroom management, and improves responsiveness to student issues. Experienced educators can tailor courses for diverse learners, fostering academic engagement and improved performance. Research indicates that the direction of seasoned educators and the mentoring of less experienced colleagues facilitate sustained student performance, hence promoting consistent academic development, as seen in Kwara State (Onyebuchi et al., 2023).

Discipline concerning instructors' professionalism and classroom behaviour management is a crucial aspect of creating an optimal learning environment. These proficient educators exemplify professionalism by timeliness, readiness, and dedication, serving as positive role models for their pupils. Classroom management tactics establish order by setting expectations and reinforcing good behaviour, so minimising disturbances and maintaining student engagement in learning activities. Simultaneously, stringent disciplinary measures engender antagonism, hence diminishing student motivation and success, as noted by Ekmekci and Serrano (2022).

Student academic performance includes several measurable outcomes, such as examination scores, ongoing assessments, and grade point averages. It reflects both the intellectual capabilities of pupils and the effectiveness of educators, the educational environment, and several external influences. A multitude of difficulties impacts the academic achievement of kids in Nigeria. The primary issues include inadequate school infrastructure, classroom congestion, and a deficiency of instructors (Alabi 2023). It is important to recognise that enhancements in teacher quality factors such as qualifications, experience, and discipline will alleviate most issues related to underdeveloped academic outcomes. Institutions that adopt teacher training, professional conduct, and effective classroom management exhibit enhanced student engagement and superior achievement in national assessments like the WASSCE.

This study is imperative, especially at this time when the clamour about the falling standard of education and moral decadence is the concern of all Nigerians. Given the foregoing, this study investigated the relationship between teachers' characteristics, classroom management strategies and students' academic performance in secondary schools in Ilorin South Local Government Area of Kwara State.

Statement of the Problem

The academic performance of students in secondary schools is influenced by various factors, among which teacher characteristics play a significant role. In Ilorin South Local Government Area, Kwara State, there is a growing concern about the declining academic performance of students in public examinations. While several factors may contribute to this trend, the role of teacher characteristics—such as qualifications, teaching experience, teaching methods, and classroom management skills—remains underexplored in this context.

Despite the importance of teachers in shaping students' learning outcomes, there is limited empirical evidence on how specific teacher characteristics impact academic performance in Ilorin

South. This gap in knowledge hinders the development of targeted interventions to improve educational quality. Therefore, this study seeks to investigate the relationship between teacher characteristics and students' academic performance in secondary schools within Ilorin South Local Government Area of Kwara State, with the aim of providing insights that can inform policy and practice.

Research Questions

The following research questions were raised to guide the study:

1. What is the level of teachers' qualification in secondary schools in Ilorin South Local Government Area of Kwara State?
2. What is the level of the teachers' working experience in secondary schools in Ilorin south Local Government Area of Kwara State
3. What are the lesson presentation strategies employed in secondary schools in Ilorin South Local Government Area of Kwara State?
4. What is the level of students' academic performance in secondary schools in Ilorin South Local Government Area of Kwara State?

Research Hypotheses

The following hypotheses were formulated for the study and tested at 0.05 level of significance:

H₀₁: There is no significant relationship between teacher's qualifications and students' academic performance in secondary schools in Ilorin South Local Government Area, Kwara State.

H₀₂: There is no significant relationship between teachers' work experience and students' academic performance in secondary schools in Ilorin South Local Government Area, Kwara State.

H₀₃: There is no significant relationship between teachers' lesson presentation strategies and students' academic performance in secondary schools in Ilorin South Local Government Area, Kwara State.

Methodology

The study employed a correlational survey research design to investigate the relationship between teacher characteristics and students' academic performance in secondary schools in Ilorin South Local Government Area, Kwara State. The teachers' characteristics in this study are teachers' qualifications, work experience and lesson presentation strategies. The target population comprised 3,500 teachers from 40 public senior secondary schools, with a sample size of 345 teachers determined using Krejcie and Morgan's (1970) sample size table. A purposive sampling technique was used to select schools, ensuring the inclusion of relevant participants.

Data were collected using two instruments: the Teachers' Characteristics Questionnaire (TCQ) and the Students' Academic Performance Proforma (SAPA). The TCQ gathered demographic and teacher-related data, such as qualifications, teaching experience, and gender, while the SAPA collected students' academic performance records from the West African Examination Council (WAEC) for Mathematics and English Language between 2020 and 2023. The instruments were validated by three experts in Educational Research, Measurement, and Evaluation, and their reliability was confirmed through a pilot study, with Cronbach Alpha coefficients of 0.90 for the TCQ and 0.88 for the SAPA.

Data collection was conducted over two weeks, with the assistance of three trained research assistants. Ethical approval was obtained, and participants were assured of confidentiality. Data analysis involved descriptive statistics (frequency, percentage, mean, and standard deviation) for demographic variables and research questions, while inferential statistics (Pearson Product Moment Correlation and multiple regression) were used to test hypotheses at 0.05 significance level. The

decision rule for research questions was based on a four-point Likert scale whereby highest and lowest expected mean range from 4 to 1. Thus, from 3.26 to 4.00 is considered (Very high), 2.51-3.25 (High), 1.76-2.50 (Low), and 1.00-1.75 (Very low). Hypotheses were accepted or rejected based on the p-value threshold of 0.05. This methodology provided a robust framework for examining the impact of teacher characteristics on students' academic performance.

Results

Research Question 1

What is the level of teachers' qualification in secondary schools in Ilorin South Local Government Area of Kwara State?

Table 1: Mean responses of the respondents on the level of teachers' qualification in secondary schools

S/N	Statement	Mean	SD	Remarks
1	The educators at my institution have the requisite academic credentials for their respective disciplines.	3.09	0.55	High
2	All educators at my institution possess legitimate teaching credentials that the relevant educational authorities acknowledge.	3.00	0.59	High
3	The educators at my institution consistently engage in professional development initiatives to improve their pedagogical abilities.	2.43	0.61	Low
4	I believe that the instructors at my school have sufficient teaching expertise to teach their courses properly.	3.19	0.68	High
5	The educators have a profound comprehension of their disciplines and can proficiently impart information to pupils.	3.32	0.55	Very high
6	Educators actively include students in the educational process, establishing a constructive and engaging classroom atmosphere.	3.44	0.63	Very high
Grand Mean		3.08	0.60	High

Field survey, 2022

Data in Table 1 reveals the mean response of the respondents regarding the level of teachers' qualification in secondary schools in Ilorin South Local Government Area of Kwara State. Results indicated that the statement that educators in the selected secondary schools actively included students in the educational process, while establishing a constructive and engaging classroom atmosphere recorded highest mean response ($\bar{x} = 3.44$; $SD = 0.63$), followed by the statement that the educators have a profound comprehension of their disciplines and can proficiently impart information to pupils ($\bar{x} = 3.32$; $SD = 0.55$). However, mean rating ($\bar{x} = 2.43$; $SD = 0.61$) for the statement that educators in the studied institutions consistently engaged in professional development initiatives to improve their pedagogical abilities was low.

In summary, the overall response indicated that the teachers in the studied public senior secondary schools in Ilorin South Local Government Area, Kwara state, are qualified, with their responses supported by a grand weighted mean and standard deviation of ($\bar{x} = 3.08$; $SD = 0.60$).

Research Question 2

What is the level of the teachers' work experience in secondary schools in Ilorin South Local Government Area of Kwara State?

Table 2: Mean responses of the respondents on the level of teachers' work experience in secondary schools

S/N	Statement	Mean	SD	Remarks
1	Most teachers in my school have several years of teaching experience in their respective subjects.	3.74	1.23	Very High
2	Teachers demonstrate effective classroom management skills developed through years of experience.	3.91	0.90	Very High
3	Teachers effectively manage students from diverse backgrounds, utilizing their experience to foster inclusive learning.	3.67	1.29	Very High
4	Experienced teachers in my school easily adapt to new curricula and teaching standards.	3.76	0.94	Very High
5	Teachers in my school exhibit confidence and competence when delivering lessons, reflecting their teaching experience.	3.55	1.35	Very High
Grand Mean		3.73	1.14	Very High level

Field survey, 2022

Data in Table 2 reveals the mean response of the respondents regarding the level of teachers' work experience in secondary schools in Ilorin South Local Government Area of Kwara State. All the statements regarding teachers' work experience had their mean rating within the mean interval of 3.26 to 4.00 (Very high). However, the statement that read: 'Teachers demonstrate effective classroom management skills developed through years of experience' recorded the highest mean ($\bar{x} = 3.91$; $SD = 0.90$), while the one that read, 'Experienced teachers in my school easily adapt to new curricula and teaching standards' ($\bar{x} = 3.76$; $SD = 0.94$) closely followed.

The overall response mean score indicated that the teachers in public senior secondary schools in Ilorin South Local Government Area, Kwara state were highly experienced, with their responses supported by grand weighted mean and standard deviation ($\bar{x} = 3.87$; $SD = 1.16$) falling within the threshold.

Research Question 3

What are the lesson presentation strategies employed by teachers in senior secondary schools in Ilorin South Local Government Area of Kwara State?

Table 3: Mean responses of the respondents on lesson presentation strategies employed in secondary schools

S/N	Statement	Mean	SD	Remark
1	Teachers always use collaborative learning to explore questions in the classroom	3.02	1.16	Agreed
2	Teachers always use group work in the classroom	3.86	1.14	Strongly Agreed
3	Teachers always use inquiry-based learning in the classroom	3.10	1.09	Agreed
4	Teachers firmly redirect students back to the topic when they get off task	3.17	1.03	Agreed
5	Teachers always adjust instruction in response to individual students' needs	3.65	1.27	Strongly Agreed
6	Teachers always use a teaching strategy that encourage interaction among students	3.02	1.16	Agreed
Grand Mean		3.43	1.20	Strongly Agreed

Field survey, 2022

Data in Table 3 reveals the mean response of the respondents regarding the lesson presentation strategies employed by teachers in teaching secondary schools in Ilorin South Local Government Area of Kwara State. All the statements made in this regard were agreed to since the mean ratings for them fell within interval 2.51-3.25 (High), with the exception of both statements: teachers always use group work in the classroom (\bar{x} =3.86; SD = 1.14); and teachers always adjust instruction in response to individual students' needs (\bar{x} =3.65; SD = 1.27) being strongly agreed to. Therefore, the overall response indicated that the teachers teaching in public senior secondary schools in Ilorin South Local Government Area, Kwara state employed diverse teaching strategies, with their high level of agreement supported by grand weighted mean and standard deviation of (\bar{x} =3.43; SD = 1.20).

Research Question 4

What is the level of students' academic Performance in Secondary Schools in Ilorin South Local Government Area, Kwara State?

Table 4: Frequency distribution table showing the level of students' academic performance

Grade	Equivalent	Aggregate	Frequency	Mean	Std.	Decision
F9	0	0-39	21	2.3304	1.35496	Low
E8	1	40-44	56	2.4673	1.45322	Low
D7	2	45-49	73	2.0121	1.54333	Low
C6	3	50-54	23	4.1237	1.64100	High
C5	4	55-59	46	4.6789	1.08671	High
C4	5	60-64	13	4.0980	1.02521	High
B3	6	65-69	31	4.7863	1.26510	High
B2	7	70-74	16	4.4521	1.53333	High
A1	8	75-100	05	4.9678	1.87654	High
Grand mean				3.7685	1.4199	High

Field survey, 2022

The result, as reviewed in Table 4, shows that the level of students' academic Performance in secondary schools in Ilorin South Local Government Area, Kwara State. With a grand mean of 3. 7685, a grade with a mean of less than three is for low, while a grade with a mean above 3 is for high. Consequently, mean value was high for all the number of students with A1, B3, C5, B2, C6 and C4 in the order from ($\bar{x} = 4.9678$; $SD = 1.87654$) to ($\bar{x} = 4.0980$; $SD = 1.02521$) respectively. On the other hand, mean response rate was low for students with E8 ($\bar{x} = 4.9678$; $SD = 1.87654$), followed by F9 ($\bar{x} = 2.3304$; $SD = 1.35496$) and lowest for students with D7 ($\bar{x} = 2.0121$; $SD = 1.54333$). Overall, the level of students' academic performance in secondary schools in Ilorin South Local Government Area, Kwara State was high with the grand mean of ($\bar{x} = 3.7685$; $SD = 1.4199$).

Test of Hypotheses

The three hypotheses generated for the study were tested and the results were presented in tables 5-7.

H₀₁: There is no significant relationship between teacher's qualifications and students' academic performance in secondary schools in Ilorin South Local Government Area, Kwara State.

Table 5: Pearson correlation of teachers' qualifications and students' academic performance in secondary schools

Variables	No of cases	Mean	SD	DF	Calculated R-value	Critical R-value	Decision
Teacher qualifications	345	1.98	0.50				
				344	.996	.000	Ho rejected
Students' academic performance	345	11.80	16.39				

Field survey, 2022

Table 5 shows the test results between teachers' academic qualifications and students' academic performance. It shows that the $r = 0.996$, $n = 345$, $p < 0.05$. Therefore, the null hypothesis, which states that no significant relationship exists between teachers' academic qualifications and students' academic performance, is rejected. This means a statistically significant relationship exists between teachers' academic qualifications and students' academic performance in secondary schools in Ilorin south local government.

H₀₂: There is no significant relationship between teachers' work experience and students' academic performance in secondary schools in Ilorin South Local Government Area, Kwara State.

Table 6: Pearson correlation of teachers' work experience and students' academic performance in secondary schools

Variables	No of cases	Mean	SD	DF	Calculated R-value	Critical R-value	Decision
Teacher experience	345	1.96	0.45				
				344	.659	.000	Ho rejected
Students' academic performance	345	11.80	16.39				

Field survey, 2022

Table 6 shows the result of the test between teachers' experience and students' academic performance. It shows that the $r = 0.659$, $n = 345$, $p < 0.05$. Hence, the null hypothesis, which states that no significant relationship exists between teachers' experience and students' academic performance, is rejected. This means a statistically significant relationship exists between teachers' experience and students' academic performance in secondary schools in Ilorin South local government.

H₀₃: There is no significant relationship between teacher's lesson presentation strategies and students' academic performance in Secondary Schools in Ilorin South Local Government, Kwara State.

Table 7: Pearson correlation of teachers' lesson presentation strategies and students' academic performance in secondary schools

Variables	No of cases	Mean	SD	DF	Calculated R-value	Critical R-value	Decision
Teacher Lesson Presentation strategies	345	1.86	0.42	344	.670	.000	Ho rejected
Students' academic performance	345	11.80	16.39				

Table 7 shows the result of the test between teachers' lesson presentation strategies and students' academic performance. It shows that the $r = 0.670$, $n = 345$, $p < 0.05$. Thus, the null hypothesis, which states that no significant relationship exists between teachers' lesson presentation strategies and students' academic performance, is rejected. This indicates that a statistically significant relationship exists between teachers' lesson presentation and students' academic performance in secondary schools in Ilorin South local government.

Discussion of Findings

The findings of this study provide valuable insights into the relationship among teachers' qualifications, teachers' experience, lesson presentation strategies and students' academic performance in secondary schools in Ilorin South Local Government Area, Kwara State.

Findings on the research question one revealed that the level of teachers' qualification was high in secondary schools in Ilorin South Local Government Area of Kwara State. In other words, teachers in the studied public senior secondary schools in Ilorin South Local Government Area, Kwara state, were found to be highly qualified. This finding is supported by Gimba (2016), who opined that educators with advanced educational qualifications are more successful than those with lesser credentials and that trained teachers with additional competencies display more productivity than their less skilled colleagues. Huang et al. (2019) also contended that teachers' qualifications accounted for around 40 to 60 per cent of the variability in average student performance on evaluations.

Findings on research question two indicated a high level of work experience among teachers in secondary schools in Ilorin South Local Government Area of Kwara State. This finding is consisted with a previous study by Kayode (2016) which demonstrated that a teacher's years of experience directly influence pupils' academic performance. This suggests that educators with more years of experience instruct more proficiently than those with less expertise.

Research question three sought to find out about the lesson presentation strategies employed by teachers in teaching secondary schools in Ilorin South Local Government Area of Kwara State. Overall findings indicated that the teachers teaching in public senior secondary schools in Ilorin South Local Government Area, Kwara state employed diverse lesson presentation strategies, such as always using group work in the classroom and always adjusting instruction in response to individual students' needs among others. This is in accord with Obot (2010) and Gordon and Espinoza (2020) who emphasised

the importance of strategies such as instructional supervision involving moving through the classroom to closely observe students, engaging them in academic activities, asking questions, and employing both verbal and non-verbal teaching methods to ensure students remain attentive and achieve a deeper comprehension of the lesson beyond superficial facts.

The fourth research question, which examined the academic performance of students in secondary schools, revealed a high level of academic performance among the selected students of secondary schools in Kwara State. This finding aligns with Darling-Hammond's (2000) assertion that teachers' commitment and expertise are critical components of the educational system for improving students' academic outcomes.

The first hypothesis tested the relationship between teacher qualifications and students' academic performance. The results revealed a significant correlation indicating that teacher qualifications significantly influence students' academic performance. This finding is supported by Olutola (2017) and Ojera (2016), who emphasized that teachers' intellectual qualifications significantly impact the quality of education. Darling-Hammond (2006) and Maphoso and Mahlo (2015) also highlighted that teachers' subject matter expertise, pedagogical knowledge, and certification status as strongly associated with students' academic success.

The second hypothesis examined the relationship between teacher experience and students' academic performance. The results showed a significant correlation, which suggests that teachers' experiences positively influence students' academic performance. Teachers with years of experience are more likely to employ effective teaching strategies and manage classroom dynamics better, leading to improved student outcomes. This finding aligns with studies by Commeyras (2003), Ijaiya (2000), and Ogundare (2001), which emphasized the importance of experienced teachers in enhancing teaching effectiveness and student learning.

The third hypothesis explored the relationship between teacher lesson presentation strategies and students' academic performance. The results revealed a significant correlation, which indicates that lesson delivery strategies by teachers positively impacts students' academic performance. Teachers who prepare thoroughly and present lessons clearly are more likely to engage students and facilitate better understanding. This finding is consistent with studies by Masor et al. (2023) and Awofala (2017), which highlighted that effective lesson presentation sustains student engagement and improves learning outcomes.

Conclusion

The findings of this study revealed a significant positive relationship among the teachers' qualifications, work experience, lesson presentation strategies, and academic performance of secondary school students in the Ilorin South local government area of Kwara State. The study concluded that the success of an academic program is largely determined by the relationship between the teachers' characteristics, classroom management and students' academic performance. Therefore, a lack of these variables might contribute immensely to teachers' poor performance and, hence, students' consistent failures in their examinations.

Recommendations

- Based on the findings and conclusion of the study the following recommendations were made:
1. Teachers should have minimum teaching qualifications before they are employed to teach at the senior secondary schools.
 2. Secondary school teachers should be well versed and experience in the pedagogy of teaching as a profession to improve students' academic performance.

3. Seminars, workshops and conferences should be periodically organized for teachers who are not fully informed or aware about the principles of lesson presentation to enhance students' academic performance.

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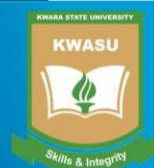
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EFFECT OF PHONICS METHOD ON PUBLIC SCHOOL PUPILS' READING ABILITY IN ILORIN EAST LOCAL GOVERNMENT AREA OF KWARA STATE

By

Barakat Abiola SHUAIB

barakatshuaib4@gmail.com

08147123646

Dr. Kayode Ezechael OBAFEMI

08035101541

Dr. Hafees Tosin SULYMAN

htsulyman@gmail.com

08063105607

Abstract

The researcher examined the effect of phonics method on public school pupils' reading ability in Ilorin East Local Government Area, Kwara State. Researcher adopted quasi-experimental research design. A factorial design of 2X2 was adopted to test the hypotheses. The population comprised all pupils in public primary schools in Ilorin East Local Government Area, Kwara State. Sample size for this study comprised 85 pupils. Multistage sampling was used for data collection. Three research hypotheses were formulated to guide this study. Instruments were subjected to face and content validity by some lecturers in the Department of Early Childhood and Primary Education and Faculty of Education, Kwara State University, Malete. Test-retest method was adopted to ascertain the reliability of the instrument which was 0.85. Hypotheses formulated were tested, using Analysis of Covariance (ANCOVA). Findings showed that there was significant main effect of phonics method on public school pupils' reading ability ($F(2; 85) = 78.759; P < 0.05$), there was no significant effect of gender on public school pupils' reading ability ($F(2; 85) = 1.206; P > 0.05$) and there was no significant interaction effect of phonics based on gender on public school pupils' reading ability ($F(2; 85) = .729; P > 0.05$). It was recommended, among others, that pupils should be groomed using phonics method for adequate improvement on their reading ability. Also, periodic training should be organised for teachers on phonics method to enhance their efficacy in teaching.

Keywords: phonics method, public school pupils, reading ability

Introduction

Reading is the foundation of academic success, yet many pupils face reading challenges; the benefits of reading go beyond education, it equipped individuals with the information and abilities they need for everyday living. Contrary to traditional views of reading as a passive activity, it demands active participation, as readers create meaning from words and sentences, reading has been shown to have transformative effect on language learning, with consistent practice and understanding leading to improved fluency. Reading challenges are pervasive issue in Nigerian public schools, where many pupils struggle to develop the literacy skills to succeed academically and in everyday life. The consequences of poor reading ability are far-reaching, limiting opportunities for social mobility, economic growth, and civic engagement.

This problem is particularly pressing in public schools, where limited resources, inadequate teaching methods, and poor learning environments often hinder pupils' ability to learn and practice reading effectively. Preliminary study revealed a disparity in the methods used between private and public schools. Private schools predominantly employed phonics method whereas public schools relied heavily on whole word or sight word method. This divergence in instructional methods prompted the researcher to focus on public schools, where the need for alternative methods was more pressing.

Reading is always known as a multifaceted, cognitively demanding process which requires active interaction between reader, text, and reading strategies (Grabe & Stoller, 2014) Effective reading involves not only decoding words, but also understanding the narrative structure and content. This requires learners to identify the main ideas, gist, and specific details, as well as make inferences about the text (Touch-type Read & Spell, 2019). Additionally, reading speed is a common challenge, and as pupils read more, they are increasingly exposed to unfamiliar vocabulary. Fortunately, the context in which these new words appear often provides sufficient clues for pupils to infer their meanings (Sulyman et al., 2021). These less skilled readers are deemed to have difficulties in using comprehension and activating their background knowledge to approach the text given as well as recognising the text structure (Yeung et al., 2013). Consequently, learning to read seems to be the most frustrating activity for learners, and thus results in their lower reading proficiency particularly in comprehension.

However, learning to read is a daunting task as Sousa (2014) asserts that it is a long and complicated process which seems difficult for some pupils resulting to poor reading ability. Reading for children may differ from adults. Pupils reading ability cannot be effectively developed when all the components of reading are not well consolidated to attain proficient and functional reading ability, pupils must acquire and consolidate the fundamental components of reading. Once these components are securely in place, pupils will be able to read with greater ease and effectiveness, ultimately leading to improved academic and overall success (Nunan, 2013).

In the survey of national literacy, it was discovered that learners that have good reading ability performs better than learners with poor reading ability using the ability of the learners to comprehend and interpret the text as standard (Bricker et al., 2017). Poor reading ability could be described as the inability to interact with written or printed text effectively during reading activities. Grabe and Stoller (2014) considered reading to be a key to educational achievement. In other words, a child who has been exposed to the knowledge of print and has acquired the necessary basic reading ability is expected to make wonderful achievements in different school subjects, a child who is deficient in basic reading ability is not likely to succeed in other subjects. Without a basic foundation in reading, it may be difficult for children to access a rich and diverse curriculum provided in the educational system (Grabe & Stoller, 2014).

Teaching reading is a fundamental aspect of education that empowers pupils to acquire the essential skills of literacy, enabling them to read, comprehend, and respond to various texts, and ultimately, to succeed academically and beyond. Ekpo et al. (2017) point out that pupils with poor reading ability always find it difficult to perform excellently in literacy, because it is believed that one of the main functions of literacy is to teach or develop pupils reading ability. Reading poses a significant challenge for numerous pupils, with reasons such as being intimidated by the thickness of a book or feeling overwhelmed by the sheer volume of text (Liu, 2017). Reading plays a very important role in education and makes learning other subjects possible since it pervades through the entire school curriculum (Shahin, 2019). Hence, it is important that schools provide opportunities for pupils to develop their reading ability, the teachers may use many strategies and teaching techniques to accomplish this.

Phonics is a method that teaches pupils to read by associating sounds with letters, enabling them to decode words effectively. This method helps pupils to develop phonological awareness, recognizing the distinct sounds within words and connecting them to corresponding letters. By doing so, phonics fosters a deeper understanding of the relationship between sounds (phonemes) and letters (graphemes). In contrast, rote learning can lead to superficial reading ability, whereas phonics encourages children to become aware of individual sounds, ultimately reducing the risk of reading difficulties and promoting a better understanding of language (Sulyman et al., 2021). The common problem associated with the teaching and learning of language which makes it difficult for pupils to identify words and pronounce the words correctly are due to the wrong method of teaching and inadequate use of teaching and learning materials (Oxford, 2016). According to Eshiet (2016), phonics is a method of reading and spelling based on the phonetic interpretation of ordinary spelling

Teaching phonics involves more than just instructing pupils on the alphabet and letter names; it also encompasses teaching the various sounds created by letter combinations, such as the "sion" sound in "expression", as well as the sounds of letters that deviate from their typical pronunciation, like the "o" in "to" (Sulyman et al., 2021). Phonics gives pupils the knowledge of the letter-sound combinations in the English language without which, pupils will lack sufficient strategy for pronouncing new words, if pupils cannot even decode what the word on the page says, they stand even less chance of understanding it. The more letter-sound combinations the pupils know, the more they can make connections in their mind when approaching new words that they have not seen before (Sulyman et al., 2021).

The Manual for the Training of Federal Teachers Scheme (2022) describes the phonics method as a method of introducing the sounds of the language to pupils through words that can be related to such sounds. The phonics method teaches pupils to "sound out" new words. In most cases, they first learn what a letter stands for, and then learn to associate the sound and the letter to specific words (Ehri, 2022). Phonics method not only aids in reading acquisition but also supports broader cognitive development, according to research by Castles, Rastle, and Nation (2021), learning to decode words through phonics engages various cognitive processes, including auditory processing, memory, and attention. This multifaceted engagement can enhance pupils overall cognitive development, providing them with a strong foundation for future academic success.

According to Ashcroft (2017), gender is not only a psychological experience but also a socio-cultural construct that defines the distinct roles and responsibilities of males and females within a specific societal context. This concept of gender has significant implications, as it dictates the roles individuals play within society's broader political, cultural, social, and economic systems. However, Clark (2010) challenges the notion that biological differences between males and females imply inherent differences

in intelligence or learning abilities. In reality, research suggests that there are no significant differences in intelligence between males and females that can be attributed to gender differences.

Statement of the Problem

The poor reading ability of public school pupils in Nigeria has been a persistent problem that has attracted the attention of stakeholders. Despite the efforts of teachers and educators to improve reading instruction, many public school pupils continue to struggle with reading, leading to poor academic performance, low self-esteem, and limited opportunities for future success. One of the major challenges facing public school pupils in Nigeria is the inadequate reading instruction they receive in school.

Furthermore, while phonics method is more prevalent in private schools, the conventional method used in many public schools often focus on whole word or read at sight method, rather than providing pupils with the skills they need to become proficient readers. Many studies have investigated the effect of phonics methods on reading ability, but few have focused specifically on public school pupils in Nigeria. With this in mind, the present study investigated the effect of phonics method on the reading ability of public school pupils in Ilorin East Local Government Area, Kwara State.

Research Hypotheses

The following research hypotheses were formulated

H₀₁: there is no significant effect of phonics on public school pupils' reading ability in Ilorin East Local Government Area of Kwara State.

H₀₂: there is no significant effect of gender on public school pupils' reading ability in Ilorin East Local Government Area of Kwara State.

H₀₃: there is no significant interaction effect of phonics and gender on public school pupils' reading ability in Ilorin East Local Government Area of Kwara State.

Methodology

The researcher adopted quasi-experimental design. The design was considered suitable for establishing a possible cause and effect relationship. A factorial design of 2X2 was adopted for this study. The population comprised all public schools in Ilorin East Local Government Area of Kwara State. Sample size consisted 85 participants. Multistage sampling was employed to select the participants. The first stage involved the use of stratified sampling to select four public primary schools from the population. These schools were stratified into two strata from which simple random sampling was used to select four schools as the experimental and control groups. Purposive sampling was used to select primary four pupils from the selected schools, because they were matured enough to carry out the instructions given. Pupils Reading Ability Performance Test" (PRAPT), "Instructional Guide on Phonics Method" and (IGPM), "Instructional Guide on Conventional Teaching Method" (IGCTM). Instruments were given face and content validity by some lecturers in the Department of Early Childhood and Primary Education and Faculty of Education, Kwara State University, Malete. 25 copies of the validated instruments were administered twice to primary four pupils outside the study location within an interval of two weeks. Pearson Product Moment Correlation (PPMC) was used to establish reliability coefficient of the instrument and the result yielded the reliability index of 0.85. The data were analysed using descriptive and inferential statistics.

Results

Research Hypothesis one: There is no significant main effect of phonics on public school pupils' reading ability

Table 9: Showing summary of Analysis of Co-variance (ANCOVA) on effect of phonics on public school pupils' reading ability

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	6334.456 ^a	8	791.807	21.417	.000
Intercept	1697.479	1	1697.479	45.914	.000
Pretest	28.391	1	28.391	.768	.386
Treatment	5198.373	1	5198.373	140.607	.000
Gender	1.877	1	1.877	.051	.823
Treatment * Gender	112.864	1	112.864	3.053	.087
Error	1663.693	45	36.971		
Total	203600.000	54			
Corrected Total	7998.148	53			

Table 1 shows the effect of phonics method on public school pupils' reading ability. There was significant effect of phonics method on public school pupils' reading ability ($F_{(1; 45)} = 140.607$, $P < 0.05$). The hypothesis is therefore rejected in the light of the result since the significant value (.000) is less than 0.05. This implies that phonics method had significant effect on public school pupils' reading ability

Table 2: Summary of Bonferroni's Post Hoc pairwise Comparison of the scores within the three Groups

Treatment	Mean Score	Experimental	Control Group
Phonics Method	70.232	*	
Conventional Method	50.772		*

Table 2 reveals that the significant main effect exposed by table 1 is as a result of the significant difference between: phonics method and conventional method, phonics is referred to experimental group and Conventional Method is known as control group. This implies that those taught with phonics method performed better than those taught with conventional method.

Hypothesis Two: There was no significant effect of gender on public school pupils' reading ability in Ilorin East Local Government Area of Kwara State ($F_{(1; 45)} = 3.053$; $P > 0.05$).

Hypothesis Three: There was no significant interaction effect of phonics, gender on public school pupils' reading ability in Ilorin East Local Government Area of Kwara State ($F_{(1; 45)} = .408$; $P > 0.05$).

Discussion of findings

The findings revealed that there was significant main effect of phonics method on public school pupils' reading ability. This implies that the phonics method significantly improve public school pupils' reading ability. The finding was in support of Meling (2018) who showed that phonics approach was significantly effective in teaching reading for the seventh graders of SMP. The study was in line with Mngumber and El-Yakubu (2019) which revealed that the phonics method has a significant and positive influence on the reading fluency and vocabulary development of pupils.

The result also showed that there was no significant effect of gender on public school pupils reading ability. The study examined evidence of gender equity in pupils' ability.

The study also revealed that there was no significant interaction effect of phonics method and gender on public school pupils' reading ability. This implies that phonics and gender had no significant effect on public school pupil's reading ability. The finding is in conflict with the submission of Ekong (2022) which revealed experimental group achieved better in word recognition using phonics than the control group using whole language and that phonics reading strategy favored male pupils in word recognition than their female counterpart.

Conclusion

The study concluded that phonics are effective teaching methods for improving reading ability among public school pupils in Kwara State. The results highlight the advantages of the method by showing notable gains in reading ability. Notably, the study shows that the efficacy of phonics is not substantially impacted by gender. This implies that with proper implementation, the method can virtually eliminate the disparities in reading ability among public school pupils.

Recommendations

1. To maximize the benefits of phonics, a comprehensive and systematic phonics method should be fully implemented in public schools in Ilorin East Local Government Area, rather than a partial one.
2. Other variables other than gender, that may impact reading ability should be explored, such as socio-economic status, parental involvement, and teaching quality, to identify areas for improvement.
3. Ministry of Education should implement phonics method uniformly for both male and female pupils in public schools as the benefits of phonics appear to be consistent across genders.

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INFLUENCE OF SOCIO-CULTURAL FACTORS ON PURDAH WOMEN VENTURE CREATION IN NIGERIA

Prof. Lawrence Femi. Ademiluyi

Department of Business and Entrepreneurship Education,
Faculty of Education, Kwara State University, Malete
femiluyi44@gmail.com

&

Sikiru Issa, Nuhu

Department of Business and Entrepreneurship Education,
Faculty of Education, Kwara State University, Malete.
sikiru.issa@kwasu.edu.ng

Abstract

Purdah women constitute a significant segment of society, especially in some parts of southwestern and northern Nigeria. However, their capacity to engage in entrepreneurial activities appears to be inhibited by social-cultural factors which, if addressed, may enable Society to benefit from their skills and entrepreneurial possibilities to the benefit of their personal growth and national development}. Entrepreneurship drives growth, but socio-cultural misconceptions limit purdah women's participation in entrepreneurial activities. This paper examined the influence of socio-cultural factors on purdah women's venture creation in Nigeria, using an explanatory mixed-method design (QUAN + Qual). It targeted purdah women in North Central (Kwara, Niger) and Southwest (Oyo, Osun) Nigeria. A sample size of 400 was determined using the Taro Yamane formula, with 40 participants purposively selected for qualitative data. Stratified random sampling ensured representation across geography, ethnicity, and regions. Data were collected using a structured questionnaire and interviews. Instrument validity was verified by experts, and a pilot study yielded a reliability coefficient of 0.89 (Cronbach Alpha). Data analysis using mean and standard deviation revealed that religious beliefs (mean = 2.75, SD = 1.05) and education (mean = 2.80, SD = 1.04) positively influenced venture creation among purdah women. The study concluded that socio-cultural factors significantly affect purdah women's involvement in venture creation. It was recommended that religious organizations, local governments,

and stakeholders should create supportive environments through advocacy aligned with purdah beliefs. Educational institutions and vocational training centers should offer flexible, culturally sensitive programs, including online options and local workshops, to address purdah women's constraints. These initiatives should equip them with skills to thrive in venture creation while respecting their lifestyle needs.

Keywords: Socio-cultural, Venture Creation, Purdah Women, Religious belief, Education

Introduction

Education is considered as a fundamental element for both individual and national advancement. It equips individuals with a comprehensive understanding of their surroundings and cultivates an appreciation for diverse viewpoints. Although no legislation in Nigeria explicitly prohibits females from obtaining quality education, certain regions persist in encountering obstacles to achieving equitable access. Furthermore, Nigeria has not fully implemented laws that require all citizens, irrespective of gender, to attain at least secondary education, with violations largely going unpunished. The level of education an individual attains significantly impacts his personal development and social interactions. Entrepreneurial endeavors act as a crucial catalyst for economic growth, poverty reduction, and personal empowerment worldwide.

Entrepreneurship is widely recognized as a fundamental instrument for the development of both individuals and nations. However, the extent to which different demographics engage in entrepreneurship often depends on socio-cultural dynamics. In societies where cultural or religious practices shape gender roles and mobility, the entrepreneurial involvement of women becomes a unique subject of analysis. Entrepreneurship creates new economic opportunities for society and contributes to the overall growth and departure from poverty. It has emerged as a global concept and contributed to the economic development of the country (Balogun & Zhang, 2019).

Operating a small business needs complete dedication and involvement to provide financial stability for the entrepreneur. Conversely, venture formation encompasses the initiation and development of a company, which require active engagement in commercial operations. Participating in a company differs significantly from establishing a venture; a person may participate in entrepreneurship without being the developer or founder of the firm. Female entrepreneurs are women or groups who recognize a market need, develop a company plan, collect resources, and engage in a commercial endeavour. Several women who choose entrepreneurship participate in micro, small, and medium businesses (MSMEs) to enhance their family's economic status and benefit society. Empowered and equipped women in any community will likely enhance productivity and contribute to economic growth, particularly at the grassroots level (Metu & Okeyika, 2018). Nonetheless, several obstacles impede women's engagement in entrepreneurship and venture formation, limiting their potentials and contributions to economic growth. Also noted women in many regions of the developing world, including Nigeria, continue to encounter numerous challenges and constraints that restrict their opportunities to realize their full potentials, consequently impacting their pursuit of entrepreneurial success. Women's entrepreneurial endeavours have been acknowledged as a catalyst for economic growth, job creation, and poverty reduction, especially in developing economies. This implies that when women are involved and empowered, they significantly contribute to their communities and society.

Lumpkin and Dess (2016) contend that the fundamental act of entrepreneurship is a new entry. Early scholars in entrepreneurship asserted that creating new ventures is central to the field (Gartner et

al., 2019). This research evaluates the association between new venture formation and its characteristics. The definition of new ventures encompasses any company firm under five years old. The fundamental act of entrepreneurship is establishing new commercial enterprises. Lumpkin and Dess (2016) defined new entry as entering new or existing markets with new or existing products or services. Numerous studies demonstrate a positive correlation between new venture establishment, business sustainability, and technological advancements. Scholars do not concur on the determinants that propel an individual to entrepreneurship.

The field of entrepreneurship is fundamentally dependent on the establishment of new ventures, however, numerous factors that differentiate entrepreneurs from their non-entrepreneurial counterparts have been identified in prior research. Lumpkin and Dess (2016) argue that the introduction of new ventures is the fundamental component of entrepreneurship. The establishment of new enterprises was considered to be a fundamental aspect of the discipline of entrepreneurship by the early researchers (Gartner et al., 2019). The term "new ventures" denotes any business enterprise that has been in operation for less than five years. Entrepreneurship is fundamentally defined as the process of establishing new business ventures. Lumpkin and Dess (2016) defined new entry as the process of expanding into new or established markets with either pre-existing or novel products or services. A significant amount of research suggests that there is a positive correlation between the establishment of new ventures, the longevity of firms, and technological advancements. There is no consensus among researchers regarding the factors that contribute to an individual's ascent to the position of entrepreneur.

Socio-cultural aspects encompass the social structure and the culture of a population; they pertain mostly to human-generated intangible components that influence behavior, relationships, perceptions, lifestyles, survival, and existence. Social-cultural factors consist of all elements, conditions, and influences that shape an individual's personality and potentially affect his attitude, disposition, behaviour, decisions, and activities. Such aspects include ideas, values, attitudes, habits, behaviours, and lifestyles of individuals as evolved from cultural, religious, educational, and social conditioning (Adeleke et al., 2013). Fundamentally, People exist inside certain cultural frameworks, societal ideas, and values that shape their lives. From an entrepreneurial perspective, sociocultural values can be defined as encompassing all elements of the social system that positively and negatively influence the motivation to pursue entrepreneurial endeavours. Cultural or religious beliefs may not seclude Purdah women from participating in entrepreneurial activities; measures or strategies may need to be introduced if true engagement in venture creation is required. Ademiluyi, Nuhu, and Sangodapo (2023) state that strategies, like the business model for purdah women, incubation, idea generation, and mentorship programs, can be designed or adapted to promote purdah participation in entrepreneurship. Nevertheless, numerous academics have contended that the Purdah system does not have to impede women's entrepreneurial endeavours. According to them, Islam has its own entrepreneurial culture and governing principles based on the Al-Quran and Hadith to guide business operations (Ullah, Mahmud & Yousuf, 2013). Zakaria (2016) notes that even though Muslim women who are rigorously sequestered are rarely found in factories, they continue to contribute to the economy by engaging in the concealed informal economy. Abdullahi and Suleiman (2017) assert unequivocally that religion could be impetus to drive entrepreneurship. They emphasize that religion has a role in determining whether the individual in a specific society becomes an entrepreneur.

The level of education one is exposed to significantly impacts one's life and dealing with others. Based on the researcher's observation, Purdah women's seclusion from venture creation is not the only problem they face, as they also lack access to quality education. One out of ten who manage to acquire a Western education mostly ends up not using the certificate to work, which has limited them in

developing skills for an independent lifestyle and gainful entrepreneurship skills. The growth of female entrepreneurship in developing countries has also been affected over the years, as many opportunities are more available to males than females (Otunaiya et al., 2016). Certain sociocultural factors, which include education, serve as impediments and limit women with entrepreneurial aspirations from actualizing their dreams, which largely accounts for the feminization of poverty in Nigeria. Aramoon (2019) submits that the level of education of close family members, entrepreneur perceptions, and personality significantly affect women's venture creation. Studies have also shown that women entrepreneurs face obstacles in accessing training, networks, and information (Koko et al., 2017). The society where female entrepreneurs find themselves also influences their engagements and business sustainability.

Purdah refers to the practice of seclusion from males outside one's immediate family and the covering of the body, particularly in public settings. Practitioners typically don garments that obscure their faces and entire bodies. While some aspects of religion or society link this practice to religious principles, others view it as conventional attire. Nonetheless, purdah women remain integral to society, and their perspectives, attitudes, and behaviors are essential for achieving inclusivity. They have largely been marginalized as a distinct group within the female population. For instance, Yusuf (2013) characterizes the purdah system as a stringent Islamic religious requirement that mandates the seclusion of married women from public life, implying a limitation on their engagement in economic activities.

It is the considered opinion of the researchers that if social cultural concerns which inhibit their engagement in economic activities are addressed, Purdah women may contribute more vigorously to the productive economic activities of their households. This would not only help to address the entrepreneurship gender gap which is largely responsible for the feminization of poverty in some sections of Nigeria but would also be salutary to national development.

Statement of the Problem

The low level of participation of women in entrepreneurship, as observed by the researchers, is disheartening. The purdah system has inhibited purdah women from venturing into business activities, relegating them to the role of housewives primarily responsible for child-rearing and household management. In certain regions globally, purdah merely represents a mode of dress devoid of religious or cultural connotations; however, in northern and western Nigeria, the context is markedly different. Purdah women are expected to remain confined to the homes, focusing on domestic responsibilities. In educational settings where entrepreneurial knowledge is prioritized, the representation of purdah women is significantly lower compared to their non-purdah female counterparts. Despite the contributions of women entrepreneurs to socio-economic development among nations, being an entrepreneur has been largely seen as a male-gendered enterprise (Achtenhagen & Welter, 2013). Women are significantly hindered by socio-cultural obstacles that impede their capacity for company formation, despite some having access to education and skill development. In other cases, lack of skills, family support, gender discrimination and religious beliefs are obvious constraints to entrepreneurial engagement, especially among women in purdah. In order to achieve significant economic growth and reduce

household poverty, all women, including those in the purdah system, need to be encouraged to engage actively in entrepreneurship in ways that do not injure their communities' religious sensibilities and cultural ethics. To the best knowledge of the researchers, no study on this concern has recently been undertaken in southwestern and northcentral Nigeria, hence the need for this study.

Research Questions

The following research questions were raised to guide this study.

1. To what extent do religious beliefs influence venture creation among purdah women?
2. To what extent does education influence venture creation among purdah women?

Methodology

The study employed an explanatory mixed method research approach; QUAN + Qual mixed design (quantitative driven simultaneous design). The core component was the quantitative, while the supplemental component was qualitative. According to Merriam (2018), the integration of quantitative and qualitative technique offers a more thorough analysis and comprehensive representation of the study problem. When a quantitative method cannot fully convey the focus on salient points that the study requires, a mixed method approach is the best option, and it is utilized to improve quantitative results. To determine the study population area, a preliminary survey was earlier carried out to identify the geographical locations where these women are predominantly found. The entire purdah women in North central (Kwara & Niger) and Southwest (Oyo & Osun) constituted the population for this study. However, there was no official data as to the number of purdah women in the areas covered, therefore the population was unknown. The sample of the study was 400 purdah women which was determined using the Taro Yamane (1967) infinite formula. The sample size of 400 was proportionately distributed among the geographical locations. A stratified random sampling technique was used to select 100 sample representatives from each of population strata, and the strata were made up of geographical locations, ethnicity, and regions. However, for the qualitative aspect of the study, a purposive sampling technique was adopted in selecting a total of 40 purdah which means ten from each of the study area in the two regions (North central and Southwest). Out of the 40 purposively selected for the interview session, only 33 granted the interview.

Data were collected using a researcher-designed structured questionnaire, for illiterate respondents, the research assistants explained the questionnaire to them in the language they understood to fill them out appropriately. Questionnaire items were developed with response categories as follows: High Extent (HE) 4-point, Moderate Extent (ME) 3-point, Low Extent (LE) 2-point, and Very Low Extent (VLE) 1-point. An interview guide which contains eight questions designed by the researcher was also made available to the interviewees. The interviews were conducted face-to-face with the help of research assistants in the study area, and the medium of communication was the best language the respondents were comfortable with through the help of research assistants. Ethical considerations such as voluntary participation, readiness and confidentiality were duly observed. The privacy of the respondents was respected and only the same gender with similar characteristics (language and purdah) were used as research assistants to allow free and ease of communication. The respondents were assured of confidentiality and privacy of their data, as it would be used strictly for the purpose of the study.

The instrument was validated and subjected to a reliability test using Cronbach alpha given reliability coefficient of 0.89. This affirm that the instrument was reliable for this study, this is in line with Umoru (2022) who stated that every instrument designed for the purpose of gathering data must be tested for reliability and for such an instrument to be adjudged reliable and stable, its coefficient must be above 0.75. The demographic data for the respondents were analyzed using frequency and percentage, while the research questions were answered using mean and standard deviation. The level of acceptance or rejection of each questionnaire item was determined based on the mean ratings of

items interpreted relative to real limits of numbers as follows:

Response Category	Rating	Real Number Limits
High Extent	4	3.25 – 4.00
Moderate Extent	3	2.50 – 3.24
Low Extent	2	1.75 – 2.49
Very Low Extent	1	1.00 – 1.74

The taped recorded interviews were transcribed and used as the qualitative data which were profiled, and content analyzed. The qualitative data collected through the interview was comprehensively discussed and was used to give more insight to areas not captured from the quantitative data.

Findings

Research Question 1: To what extent do religious beliefs influence venture creation among purdah women?

Table 1: Mean and standard deviation of responses on the extent of religious beliefs influence venture creation among purdah women

S/N	Item Statements	\bar{X}	SD	Remark
1.	Principles and practices of religious belief guides purdah women involvement in venture creation.	2.90	1.16	High extent
2.	Tradition in religious belief dictates purdah women engagements in venture creation.	2.46	0.89	Low extent
3.	The spirituality of the purdah women in religious belief justifies their engagements in venture creation.	2.36	1.05	Low extent
4.	The scripture of religious belief binds purdah women towards venture creation.	2.57	1.03	High extent
5.	Teaching and knowledge of religious doctrines impacts purdah women engagements in venture creation.	3.15	1.06	High extent
6.	Morals developed in religious beliefs dictates purdah women engagements in venture creation.	2.70	1.18	High extent
7.	Faith developed in religious beliefs dictates purdah women engagements in venture creation	2.95	0.81	High extent
8.	Societal practices and religious beliefs towards purdah women impacts their engagements in venture creation.	2.97	1.16	High extent
9.	Seclusion and marginalization through religious belief impacts purdah women in engagements in venture creation.	3.08	1.05	High extent
10.	Religious belief and ideologies of purdah women impacts their involvement in venture creation.	2.38	1.15	Low extent
Weighted average		2.75	1.05	High extent

The data in Table 1 show the mean and standard deviation of responses on the extent to which religious beliefs influence venture creation among purdah women. The table reveals that the respondents indicated that principles and practices of religious beliefs guide purdah women's involvement in venture creation the same way the scripture of religious beliefs largely binds purdah women towards venture creation to a great extent. Mean scores of 2.90 and 2.57 supported these. The respondents also indicated that teaching and knowledge of religious doctrines impact Purdah women's

engagement in venture creation and morals largely developed in religious beliefs dictate Purdah women's engagement in venture creation to a great extent. Mean scores of 3.15 and 2.70 also supported these. In addition, the respondents indicated that faith developed in religious beliefs dictates Purdah women's engagements in venture creation to a great extent; in the same way, societal practices and religious beliefs towards purdah women impact their engagements in venture creation to a great extent, as well as seclusion and marginalization through religious belief impacts purdah women in engagements in venture creation to a great extent. Mean scores of 2.95, 2.97, and 3.08 supported these.

Table 1 also reveals that the respondents indicated that tradition in religious belief dictates purdah women's engagements in venture creation to a low extent, the same way the spirituality of the purdah women in religious belief justifies their engagements in venture creation to a low extent and religious belief, as well as ideologies of purdah women, impacts their involvement in venture creation to a low extent. These were supported by mean scores of 2.46, 2.36, and 2.38. All the 10 constructed items have a standard deviation ranging from 0.81 to 1.18. This means the respondents' responses are not widespread, as they are close to their respective mean scores. The table has a weighted average mean and standard deviation score of 2.75 and 1.05, respectively. This implies that religious beliefs influenced venture creation among purdah women to a high extent (mean = 2.75, SD = 1.05).

Research Question 2: To what extent does education influence venture creation among purdah women?

Table 2: Mean and standard deviation of responses on the extent of education's influence on venture creation among purdah women

S/N	Item Statements	\bar{X}	SD	Remark
11.	The high interest of purdah women in education influences their engagements in venture creation.	2.72	1.20	High extent
12.	Understanding business management through knowledge actualization by Purdah women impacts their involvement in venture creation.	2.69	1.02	High extent
13.	The readiness of purdah women in education influences their engagement in venture creation.	3.26	1.08	Very high extent
14.	Knowledge of Idea/market opportunities available for purdah women assists their engagements in venture creation.	2.75	1.13	High extent
15.	Understanding customer segmentation through education by purdah women influence their engagements in venture creation.	2.95	0.81	High extent
16.	Knowledge about entrepreneurial skills required by purdah women justifies their level of engagement in venture creation.	3.10	1.12	High extent
17.	Society orientation educates Purdah women's involvement in venture creation.	2.27	0.94	Low extent
18.	Behaviour modification impacts purdah women's education on venture creation.	2.28	0.97	Low extent
19.	Attending formal school setting to acquire relevant skills and knowledge has impacts on purdah women engagements in venture creation.	3.27	0.94	Very high extent
20.	Purdah women's ideologies and views about education have a significant impact on engagements in venture creation.	2.72	1.23	High extent
Weighted average		2.80	1.04	High extent

The data in Table 2 show the mean and standard deviation of responses on how much education influences venture creation among Purdah women. The table reveals that the respondents indicated that

the high interest of Purdah women in education influences their engagements in venture creation to a great extent, and understanding business management through knowledge actualization by Purdah women impacts their involvement in venture creation to a great extent. Mean scores of 2.72 and 2.69 supported these. The respondents also indicated that the readiness of purdah women in education influences their engagements in venture creation to a great extent, in the same way, knowledge of idea/market opportunities available for purdah women assists their engagements in venture creation to a great extent. Mean scores of 3.26 and 2.75 also supported these. In addition, the respondents indicated that understanding customer segmentation through education by purdah women influences their engagement in venture creation to a great extent, and knowledge about entrepreneurial skills required by purdah women justifies their level of engagement in venture creation to a great extent. Mean scores of 2.95 and 3.10 supported these. Also, the respondents indicated that attending a formal school setting to acquire relevant skills and knowledge has an impact on Purdah women's engagements in venture creation to a great extent; in the same way, Purdah women's ideologies and views about education have a significant impact on engagements in venture creation to a great extent. These were supported by mean scores of 3.27 and 2.72

Table 2 also reveals that the respondents indicated that society orientation educates purdah women's involvement in venture creation to a low extent, behaviour modification impacts purdah women's education in venture creation to a low extent. Mean scores of 2.27 and 2.28 supported these. All the 10 constructed items have a standard deviation ranging from 0.81 to 1.23. This means the respondents' responses are not widespread, as they are close to their respective mean scores. The table has a weighted average mean and standard deviation score of 2.80 and 1.04, respectively. This implies that education influenced venture creation among purdah women to a high extent (mean = 2.80, SD = 1.04).

Qualitative Analysis

Data collected from the interview parts were analyzed around the theme and findings were presented to reflect how each interview questions were answered.

Interview Question One: What is your perception on the influence of religious belief on purdah women venture creation?

Responses:

An interview was conducted with 33 purdah women about their perception of the influence of religious beliefs on venture creation. About 66.5% of respondents said religious belief, particularly within Islam, plays a significant role in shaping purdah women's venture creation. They emphasized that Islam permits women to engage in business and adds a unique dimension to their entrepreneurial activities. The values instilled by their faith, such as honesty, integrity, and modesty, naturally manifest in their ventures, making these businesses stand out in both practice and ethics. They also agreed that the religious principles they adhere to ensure that their businesses operate in a manner that reflects their faith, making their entrepreneurial journey distinct from others.

Meanwhile, 33.5% of respondents highlighted that religious beliefs do not hinder purdah women from starting their businesses. However, they stressed that certain measures must be followed to protect the values associated with purdah. These guidelines ensure that while women engage in entrepreneurship, they do not compromise on the religious and cultural principles they uphold.

Additionally, their religious beliefs guide how they grow their ventures, from maintaining ethical practices to sourcing capital that aligns with Islamic principles, such as avoiding interest-based

loans. This demonstrates that religious beliefs, rather than being a limitation, serve as a guiding framework for purdah women in business. This was how some of the purdah women responded:

PW13: My religion does not forbid starting a business

PW14: with my knowledge and practice of Islam, I know their measures to follow in starting a business as purdah women.

PW15: I think religious beliefs also guide on doing good business and doing it right.

PW18: I do not think religion forbids business oh, I know there is limit to how I can go about it.

Interview Question Two: In your own opinion, how has education influenced purdah women venture creation?

Responses:

The interview conducted on 33 purdah women revealed that formal and informal education significantly impact purdah women's decision to start a business, representing 100% of the respondents. The knowledge they acquire through traditional schooling or life experiences equips them with the necessary skills and understanding for venture creation. Education broadens their perspectives and helps them identify the ventures they can successfully pursue. They also stressed that having specific knowledge about the industry or venture is vital, as no knowledge is ever wasted because Islam encourages lifelong learning, from the cradle to the grave, further reinforcing the value of education in the lives of Purdah women. As a result, education serves as a driving force behind their entrepreneurial aspirations. However, the type and scale of the business they create often depend on their level of education; with more educated purdah, women are likely to pursue more complex ventures. This was how some of the purdah women responded:

PW8: I did not attend formal education, but I know it would have assisted me more if I did.

PW9: We all know why we should be educated, one of the reasons my children are in school

PW10: If I have more knowledge I know starting and getting support won't be hard.

PW11: No future without education. I started my tailoring business because I learnt it.

PW12: Left to me, no business can be done without knowing it or someone to guide you. Unless you want to waste resources.

PW14: I know what my level of education has done for me and my business, even among known Purdah.

Discussion of Findings

Findings from research question one shows that religious beliefs have a significant influence on venture creation among purdah women. Religious values, such as honesty, hard work, and community service, often inspire purdah women to start businesses that align with their faith. This is consistent with the findings of Cader and Al Tenaiji (2016), who argue that religious values can provide a moral framework that guides entrepreneurial ventures. However, strict religious interpretations can also constrain business activities. For example, businesses involving certain products or services deemed inappropriate under Islamic law may be avoided, limiting the scope of venture creation. This restriction is highlighted in a study by Altinay and Altinay (2018), who found that religious regulations could restrict purdah women business choices. Critics suggest that a more dynamic interpretation of religious principles could foster more diverse entrepreneurial activities. As noted by Basu and Virick (2016), there is potential for reinterpretation of religious texts to encourage broader business engagements while still adhering to faith-based values.

The findings from the qualitative data through the interview conducted on 33 purdah women also noted the significant influence on religious beliefs on purdah women venture creation. The findings revealed that religious beliefs do not present any barriers to purdah women starting their own businesses. However, it was stressed that there are certain measures that need to be followed to protect the values associated with purdah. These guidelines ensure that while women engage in entrepreneurship, they do not compromise on the religious and cultural principles they uphold. Additionally, their religious beliefs guide how they grow their ventures, from maintaining ethical practices to sourcing capital in ways that align with Islamic principles, such as avoiding interest-based loans. This demonstrates that religious beliefs, rather than being a limitation, serve as a guiding framework for purdah women in business.

The findings from research question two shows that education positively influences venture creation among purdah women, providing them with the skills and knowledge necessary to navigate the complexities of starting and running a business. Education equips purdah women with business management skills, financial literacy, and market research capabilities, all of which are critical for successful venture creation. This finding is supported by Minniti and Naudé (2016), who argue that education is a key driver of entrepreneurial activity. However, the impact of education is uneven across different regions and socio-economic groups. Women in urban areas or from affluent backgrounds tend to have better educational opportunities, which translates into more successful ventures. Critics like Olaniyan and Okemakinde (2018) argue that without addressing systemic inequalities in educational access, the potential for education to drive venture creation remains limited. This shows that purdah women also certain level of educational attainment to ascertain kinds of venture to be created and how to manage it.

The findings from the qualitative data through the interview conducted on 33 purdah women also noted the significant influence education on purdah women venture creation. It was revealed from the findings that the knowledge they acquire through traditional schooling or life experiences equips them with the necessary skills and understanding for venture creation. The respondents further added that education not only broadens their perspectives but also helps them identify the types of ventures they can successfully pursue. They also stressed that having specific knowledge about the industry or venture is vital, as no knowledge is ever wasted because Islam itself encourages lifelong learning, from cradle to grave, further reinforcing the value of education in the lives of purdah women. As a result, education serves as a driving force behind their entrepreneurial aspirations. The type and scale of the business they create often depend on their level of education, with more educated purdah women are likely to pursue more complex ventures and contribute more to economic development.

Conclusion

The study concluded that socio cultural factors significantly influence purdah women entrepreneurial engagements. This shows that religious beliefs serve not only as a source of motivation but also provide a supportive framework that legitimizes entrepreneurial activities within this unique cultural group. Education, on the other hand, empowers purdah women by equipping them with the skills and knowledge necessary to navigate the complexities of the business environment. This combination of religious and educational support significantly enhances their ability to engage in entrepreneurial ventures.

Recommendations

The following recommendations were made in line with the findings of the study

1. Religious organizations, local government agencies, and other relevant stakeholders should take an active role in creating an enabling environment for Purdah women entrepreneurs through religious advocacies that will not affect their beliefs and support Purdah women's venture creation.
2. Educational institutions and vocational training centers should offer flexible and culturally sensitive training programs for purdah women. These programs should accommodate the time and mobility constraints often faced by these women by providing online options or local workshops in accessible locations that align with their lifestyle needs and provide them with the skills necessary to thrive in venture creation.

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CAUSES AND POSSIBLE SOLUTIONS TO RISKY SEXUAL BEHAVIOUR AMONG HEARING IMPAIRED LEARNERS AT FEDERAL COLLEGE OF EDUCATION (SP) OYO

OLUBUKOLA CHRISTIANAH DADA(Ph.D)
Department of Special Education
Kwara State University, Malete

ADEDAYO ADESOKAN(Ph.D)
Department of Special Education
Kwara State University, Malete
adedayo.adesokan@kwasu.edu.ng

COMFORT OLUKEMI ADEAGBO
Directorate of Sign Language Interpreting
Federal College of Education (sp), Oyo.
fajinmicomfortolukemi@gmail.com

Abstract

Man is rational. It is only an insane that will behave without having any reason behind his/her behavior. Sexual satisfaction is one of the basic needs of a complete man. This is being triggered by man's sexual urge in particular. Hearing impaired learners are also human beings with sexual urge. It is believed that the urge to satisfy sexual desire is prevalent among the group of learners identified at Federal College of Education (Sp) Oyo. Satisfaction of sexual desire involves the two genders. Men crave for sex the same way women crave for sex. Learners in higher institutions are said to be matured. Hence, they engage in sexual relationship not minding the consequences. As a result of this background phenomenal which underscores the prevalence of risky sexual behavior among hearing impaired learners, this paper tries to examine the causes of the unruly practice of sexual behavior among the hearing impaired learners. The research relied on the results obtained from the reaction of the learners identified for this work. The perception of the stakeholders were equally sought through structured questionnaires. The research discovered that hearing impaired learners opt for risky sexual behavior for monetary gain and for sexual satisfaction among others. The paper therefore recommended that the parents and other stakeholders attend to the needs of the hearing impaired learners as one of the possible solutions. Sexual education was also recommended to stall this undesirable practice among hearing impaired learners.

Key Words: Causes, Hearing Impaired, Perception, Prevalence, Risky Sexual Behaviour

Introduction

One of the attributes of man and animal is the ability to procreate. This is only possible through sexual intercourse. While animal have sex in order to procreate, human beings engage in sexual intercourse for the purpose of sexual satisfaction. This is one of the reasons man gets married. Marriage is a legal union through which man and woman come together to have sex legally. Today, youths engage in sexual behavior without getting married to each other. As a result of this, the youths are exposed to risky sexual behavior.

As one of the man's psychological needs, human beings experience sexuality as a fundamental aspect of their lives from infancy to old age. Lucas and Fox (2022) opined that human Sexuality is one of the fundamental drives behind everyone's feelings, thoughts, and behaviours and that human sexuality defines the means of biological reproduction, describes psychological and sociological representations of self, and orients a person's attraction to others. This means that human sexuality starts from uterus and it will last with human existence, and that it is a milestone that is innate; it is processed in the brain and thoughts and exhibited in actions especially among students with hearing impairment. It has to be stressed that, hearing impaired learners have the ability to process their thoughts and exhibit their actions like every other human being. They have sexual urge and they also process their thoughts to satisfy their urge. The group sexual impaired learners identified for this research comprises of young learners who may be careless about their sexual activities. This may expose them to sexually transmitted diseases like gonorrhea, syphilis, human immune virus (HIV) or even Acquired Immune Deficiency Syndrome (AIDS).

Schissel (2021) explained that students with hearing impairment are learners who cannot hear at all nor has very little hearing ability while hard of hearing students are learners who can usually hear some level of sound but may struggle to hear certain volumes, pitches or frequency. This means that students with hearing impairment are learners whose hearing levels fall below 20 decibel (db) which makes hearing level to be mild, moderate or profound. The density of the hearing makes these students with hearing impairment not to hear any meaning sounds or hear faintly. These students are human being that experience same innate tendencies and can engage in risky sexual behaviour (Schissel, 2021). This research work aims at investigating the stakeholders' causes of sexual behaviour among students with hearing impairment in FCEs Oyo, Oyo state in order to proffer possible solutions.

Statement of the Problem

The undue desire to satisfy sexual urge among youths especially among hearing impaired learners at Federal College of Education (Sp) Oyo, is the major problem identified in this research work. This has been leading to indiscriminate sexual practices among them. This practices have adverse effects on their present and future lives. Youths and adults engage in risky sexual behaviour freely not minding the consequences of their actions. This unsafe practices is common among students. This study intends to investigate the stakeholders' perceptions, prevalence and causes of risky sexual behaviour among students with hearing impairment in FCES Oyo, Oyo State.

Purpose of the Study

The main purpose of the study is to examine the causes and proffer possible solutions to risky sexual behavior among students with hearing impairment in FCES Oyo, Oyo State by:

- i. investigating the causes of risky sexual behaviour among students with hearing impairment based on gender
- ii. proffering possible solutions to risky sexual behaviour among students with hearing impairment based on gender

Research questions

The following research questions guided the study:

1. What are the perceived causes of risky sexual behavior among students with hearing impairment in Federal college of Education (special) Oyo, Oyo State?
2. What are the possible solutions to risky sexual behavior among students with hearing impairment in Federal college of Education (special) Oyo, Oyo State?

Hypotheses

The following hypotheses were formulated for this study and were tested at 0.05 level of significance

1. Ho1. There is no significant difference in the perception of stakeholders about the risky sexual behaviour among students with hearing impairment in Federal college of Education (special) Oyo, Oyo State based on gender.

Ho2. There is no significant difference on the prevalence of the risky sexual behaviour among students with hearing impairment based on gender

Ho3. There is no significant difference on the causes of stakeholders about the risky sexual behaviour among students with hearing impairment based on gender.

Significance of the Study

This study is of social and long-term significance. It is socially geared towards raising an awareness on overlooked issues of prevalence, perception and causes of sexual behavior among learners of hearing impaired at Federal College of Education (Sp) Oyo. If the result is applied, it would improve the social well-being of the learners as a whole and hearing impaired students in particular. It would help the parents, the teachers and the students to understand their various roles in solving problems of risky sexual behaviours among hearing impaired learners. The long-term significance hinges on the fact that the findings can be replicated in other context i.e. findings and solutions could be adapted to solve similar problems among other categories of learners.

Research Design

This research is exploratory in nature. It relies on the use of questionnaires which are typically experimental to test cause-and-effect relationships. The questionnaires are used to gather preliminary data from the respondents. The research was given the direction through the formulation of three null hypotheses which were later rejected or accepted after each analysis which was guided by the t-test.

Data Analysis and Results

Data Analysis

Table 1: Distribution of respondents based on gender.

SN	ITEMS	SA	A	D	SD	MEAN	STD
1	It is acceptable to have unprotected sex with a partner if they seem healthy.	51(51.0)	41(41.0)	2(2.0)	6(6.0)	3.4	0.79
2	Engaging in sexual activities under the influence of alcohol is not risky.	23(23.0)	23(23.0)	34(34.0)	20(20.0)	2.5	1.06
3	It is normal to have casual sex with multiple partners during college years.	34(34.0)	34(34.0)	13(13.0)	19(19.0)	2.8	1.10
4	Using condoms during sex is not always necessary.	58(58.0)	32(32.0)	8(8.0)	10(10.0)	3.2	0.97
5	It is fine to have sex with someone you just met	46(46.0)	36(36.0)	14(14.0)	4(4.0)	3.4	0.84
6	Having sex without knowing your partners sexual history is not a big deal.	18(18.0)	17(17.0)	35(35.0)	30(30.0)	2.2	1.0
7	It is safe to rely on the morning after pill as regular contraceptive	16(16.0)	8(8.0)	28(28.0)	48(48.0)	1.9	1.10
8	Sex with someone who has had multiple partners is not risky if they look clean.	15(15.0)	23(23.0)	25(25.0)	37(37.0)	2.2	1.09
9	It is ok to skip STI testing if you use condoms most of time	34(34.0)	39(39.0)	19(19.0)	8(8.0)	3.0	0.93
10	Exchanging sex for favour or gift is acceptable in college	48(48.0)	37(37.0)	9(9.0)	6(6.0)	3.3	0.86
Weighted mean is 2.8							

Note: The figures in parentheses are in percentages

Table 1 shows that : It is acceptable to have unprotected sex with a partner if they seem healthy (3.4), Engaging in sexual activities under the influence of alcohol is not risky (2.4), It is normal to have casual sex with multiple partners during college years (2.8), Using condoms during sex is not always necessary (3.2), It is fine to have sex with someone you just met (3.4), having sex without knowing your partners sexual history is not a big deal (2.2), It is safe to rely on the morning after pill as regular contraceptive (1.9), Sex with someone who has had multiple partners is not risky if they look clean (2.2), It is ok to skip STI testing if you use condoms most of time (3.0) and exchanging sex for favour or gift is acceptable in college (3.3). The weighted average was 2.8 which is greater than 2.50, this shows the stakeholders' perception on risky sexual behavior among students with hearing impairment in Federal College of Education (Special) Oyo is high. The weighted average was 2.8 which is greater

than 2.50, this shows that the stakeholders' perception on risky sexual behavior among students with hearing impairment in Federal College of Education (Special) Oyo is positive.

Research Question 2: What are the possible solutions to risky sexual behavior among students with hearing impairment in Federal college of Education (special) Oyo, Oyo State?

Table 2: Table showing the percentage and mean distribution of prevalence risky sexual behavior among students with hearing impairment in federal college of education (special) Oyo, Oyo state.

SN	Item	Always	Usually	Sometimes	Never	Mean	STD
1	I engage in sexual activities without discussing STI status with my partner	19(19.0)	35(35.0)	29(29.0)	17(17.0)	2.6	0.99
2	I have sex without using contraception	18(18.0)	17(17.0)	40(40.0)	25(25.0)	2.3	1.04
3	I have sex with someone who is already in a relationship with another person	17(17.0)	25(25.0)	38(38.0)	20(20.0)	2.4	0.99
4	I have experience unwanted sexual advance while under the influence of substance	49(49.0)	44(44.0)	4(4.0)	3(3.0)	3.4	0.71
5	I have sex with someone who is under legal age of consent	44(44.0)	46(46.0)	6(6.0)	4(4.0)	3.3	0.76
6	I engage in sexual activities while being emotional or mentally distress	53(53.00)	35(35.00)	6(6.0)	6(6.0)	3.4	0.85
7	I have sex with someone whose name I do not know	51(51.0)	36(36.0)	3(3.0)	10(10.0)	3.3	0.93
8	I experience pressure to engage in sexual activities from peers or partner	12(12.0)	13(13.0)	35(35.0)	40(40.0)	2.0	1.00
9	I have experience regret after engaging in sexual activities	47(47.0)	35(35.00)	11(11.0)	7(7.0)	3.2	0.91
10	I have sexually active why being underage	44(44.0)	25(25.0)	19(19.0)	12(12.0)	3.0	1.05
Weighted mean 2.9							

Note: The figures in parentheses are in percentages

Table 3 shows the level of prevalence risky sexual behavior among students with hearing impairment in federal college of education (special) Oyo, Oyo. The following shows the level of prevalence risky sexual behavior among students with hearing impairment in federal college of education (special) Oyo, Oyo as follows: they engage in sexual activities without discussing STI status with my partner (2.6), they disagree that they have sex without using contraception (2.3), have sex with someone who is already in a relationship with another person (2.4), they have experienced unwanted sexual advance while under the influence of substance (3.4), they have sex with someone who is under legal age of consent (3.3), they engage in sexual activities while being emotional or mentally distress (3.4), they have sex with someone whose name they do not know (3.2), they experience pressure to engage in

sexual activities from peers or partner (2.2), they have experienced regret after engaging in sexual activities (3.2), and they have sexually active why being underage (3.0). The weighted average was 2.9 which is greater than 2.50, this shows the prevalence risky sexual behavior among students with hearing impairment in federal college of education (special) Oyo, Oyo is high.

Research Question 3: what are the perceive causes of risky sexual behaviour among students with hearing impairment in Federal College of Education (Special) Oyo, Oyo State.

Table 4: Table showing the percentage and mean distribution of perceive causes of risky sexual behaviour among students with hearing impairment in Federal College of Education (Special) Oyo, Oyo State.

SN	Item	SA	A	D	SD	Mean	Rank
1	Inconsistent condom use.	39(39.0)	43(43.0)	13(13.0)	5(5.00)	3.2	1 st
2	Alcohol use.	22(22.0)	40(40.0)	16(16.0)	22(22.0)	2.6	6 th
3	Poly substance abuse.	31(31.0)	31(31.0)	17(17.0)	21(21.0)	2.7	5 th
4	Residing with a partner.	38(38.0)	37(37.0)	11(11.0)	14(14.0)	3.0	3 rd
5	Childhood sexual abuse	36(36.0)	40(40.0)	13(13.0)	11(11.0)	3.0	3 rd
6	Exposure to intimate partner violence	25(25.0)	23(23.0)	18(18.0)	34(34.0)	2.3	8 th
7	Depression	24(24.0)	4(4.0)	20(20.0)	52(52.0)	2.0	9 th
8	Lack of social support.	13(13.0)	13(13.0)	29(29.0)	45(45.0)	1.9	10 th
9	Recent incarceration	15(15.0)	39(39.0)	25(25.0)	21(21.0)	2.5	7 th
10	Monetary gain	35(35.0)	45(45.0)	13(13.0)	7(7.0)	3.1	2 nd

Note: The figures in parentheses are in percentages

Table 4 shows the perceived causes of risky sexual behaviour among students with hearing impairment in Federal College of Education (Special) Oyo, Oyo State. The following shows the perceived causes of risky sexual behaviour among students with hearing impairment in Federal College of Education (Special) Oyo, Oyo State as follows: they agreed that inconsistent condom use causes risky sexual behaviour among students with hearing impairment in Oyo, Oyo State (3.2), alcohol use (2.6), poly substance abuse (2.7), residing with a partner (3.0), childhood sexual abuse (3.0), they disagree that exposure to inmate partner causes risky sexual behaviour (2.3), they also disagree that depression causes risky sexual behaviour (2.0), they disagree that lack of social support causes risky sexual behaviour among students with hearing impairment (1.9), they agree that recent incarceration (2.5), and they agreed that monetary gains causes risky sexual behaviour among students with hearing impairment in Federal College of Education (Special) Oyo, Oyo State. This table reveals that the use of condom, monetary reason, consumption of alcohol and poly substance, residing with a partner, sexual abuse are practices that underscore risky sexual behavior.

Research Hypothesis One: there is no significant difference in the perception of stakeholders about the risky sexual behaviour among students with hearing impairment based on gender.

Table 5: T-test showing the significant difference in the perception of stakeholders about the risky sexual behaviour among students with hearing impairment based on gender

	Gender	N	Mean	Std Deviation	T	F	Df	Sig	Decision
Perception	Male	44	25.95	3.22					
	Female	56	27.86	4.63	-2.32	4.38	98	0.039	Sig

Table 5 showed the summary of t-test results showing the significant difference in the perception of stakeholders about the risky sexual behaviour among students with hearing impairment based on gender. It was revealed that male had mean score 25.95 and standard deviation 3.22 while female had mean score 27.86 and standard deviation 4.63, the t was -2.32, degree of freedom 98, F was 4.38 and significant level of 0.039 ($P < 0.05$). This implies that there was significant difference in the perception of stakeholders about the risky sexual behaviour among students with hearing impairment based on gender. Therefore, the null hypothesis that states that there is no significant difference in the perception of stakeholders about the risky sexual behaviour among students with hearing impairment based on gender was rejected. Female hearing impaired learners engage more in risky sexual behavior.

Research Hypothesis two: there is no significant difference on the prevalence of the risky sexual behaviour among students with hearing impairment based on gender

Table 6: T-test showing the significant difference in the prevalence risky sexual behaviour among students with hearing impairment based on gender

	Gender	N	Mean	Std Deviation	T	F	Df	Sig	Decision
Prevalence	Male	44	28.61	3.41					
	Female	56	30.18	3.84	-2.13	2.78	98	0.099	Not Sig

Table 6 showed the summary of t-test results showing the significant difference in the prevalence of stakeholders about the risky sexual behaviour among students with hearing impairment based on gender. It was revealed that male had mean score 28.61 and standard deviation 3.41 while female had mean score 30.18 and standard deviation 3.84, the t was -2.13, degree of freedom 98, F was 2.78 and significant level of 0.099 ($P > 0.05$). This implies that there was no significant difference in the prevalence of the risky sexual behaviour among students with hearing impairment based on gender. Therefore, the null hypothesis that states that there is no significant difference in the prevalence of stakeholders about the risky sexual behaviour among students with hearing impairment based on gender was not rejected.

Research Hypothesis three: there is no significant difference on the causes of stakeholders about the risky sexual behaviour among students with hearing impairment based on gender.

Table 7: T-test showing the significant difference on the causes of stakeholders about the risky sexual behaviour among students with hearing impairment based on gender

	Gender	N	Mean	Std Deviation	T	F	Df	Sig	Decision
Causes	Male	44	29.41	4.62	3.09	3.69	98	0.003	Sig
	Female	56	26.89	3.99					

Table 5 showed the summary of t-test results showing the significant difference on the causes of stakeholders about the risky sexual behaviour among students with hearing impairment based on gender. It was revealed that male had mean score 29.41 and standard deviation 4.62 while female had mean score 26.89 and standard deviation 3.99, the t was 3.09, degree of freedom 98, F was 3.69 and significant level of 0.003 ($P < 0.05$). This implies that there was significant difference on the causes of stakeholders about the risky sexual behaviour among students with hearing impairment based on gender. Therefore, the null hypothesis that states that there is the significant difference on the causes of stakeholders about the risky sexual behaviour among students with hearing impairment based on gender was rejected.

Discussion of the findings

It was established that there is abnormal engagement in sex and sexual activities among hearing impaired learners at Federal College of Education (Special), Oyo. For clarity of expression, the findings would be discussed under three main sub-topics as identifiable in the research:

Perception: the research carried out revealed that there is significance difference between male and female hearing impaired learners engagement in risky sexual behavior. The reason is that the female genders have the tendency to raise money through sex while in most cases the act is being paid for by the male genders. This is the reason the null hypothesis was rejected.

Prevalence: the findings revealed that the act is prevalent among the male and female genders. There was no significance difference between the two genders at the level of prevalence. This underscores the saying that both sexes see risky and unruly sexual behavior as a means of satisfying their sexual satisfaction even though not legally married.

Causes: it was discovered that inconsistent condom use, alcohol consumption, poly substance abuse, residing with opposite sex, while in school, childhood sexual abuse, monetary gains underscore the risky sexual behaviour among students with hearing impairment in Federal College of Education (Special) Oyo, Oyo State.

Conclusion

Sexual activity is an inborn tendencies in all human, students with hearing impairment inclusive, students with hearing impairment are active sexually and they engage in different types of risky sexual behaviours without cautions. The study concludes that risky sexual behaviors are caused by the level of ignorance of the hearing impaired learners.

Recommendations

Based on the findings, the following recommendations are made:

- **Comprehensive Sexual Education should be** implemented at all level of education. This would help learners to understand the consequences of risky sexual behavior.
- **Government should** come out with strict punishment for adult that are taking the advantage of these poor learners. This would also stop female learners from having sex for money.
- **Parents should** always try to provide for the needs of their hearing impaired children. By this, they will not have any reason to sell their bodies for money.

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UTILIZATION OF INNOVATIVE SCIENCE TEACHING STRATEGIES BY BIOLOGY TEACHERS IN SENIOR SECONDARY SCHOOLS IN SOUTH WEST, NIGERIA

By

¹O.O. Kayode, ²D. A. Gbighbadua ³B. O. Mustapha

Department of Arts and Science Education, Kwara State University, Malete

Abstract

Teachers have created a number of innovative teaching techniques that, when applied, have been shown to improve students' academic performance. Unfortunately, biology students continue to perform below expectations, which leads to the belief that teachers are not utilizing a variety of teaching strategies to address the challenges involved in teaching and learning the subject. This study looked into how senior biology teachers in South-West Nigerian schools used a few innovative teaching techniques. The study aimed to ascertain the extent to which biology classrooms employ innovative teaching practices. The objectives of the study was to determine the level of utilization of innovative teaching strategies in biology classrooms. A survey-style descriptive research design was employed. All senior secondary school science instructors in the southwest of Nigeria made up the population. Six hundred and Sixty-two (662) biology teachers from the southwest form the sample, while the target population consisted of all biology teachers in senior secondary schools in the southwest of Nigeria. A researcher-designed questionnaire with a reliability coefficient of 0.84 was used to collect the data. The Result indicated that there was little use of creative teaching techniques by biology instructors. This suggests that the advantages of using cutting-edge teaching techniques won't be available to the biology students. The study concluded among others, that encouraging the use of creative teaching techniques was a good idea.

Keywords: biology teachers, utilization, innovative strategies, senior schools

Introduction

The fundamental objective of education is to make individuals of any society self-reliant, literate, and expand their understanding as well as their capacity to think critically. Biology, which is studied in senior secondary schools, is a natural science focusing on life and living organisms, including how organisms evolve, their distribution, structures, how their body parts function, growth, features, and taxonomy. There has been widespread criticism about the clear variance in the quality of science teaching at the secondary school level in Nigeria. Gbadamosi (2014), Obikezie, Okpala and Amobi (2022) all argued that there are various challenges related with the teaching of science, especially biology, some of which are: inactivity, misrepresentation, passive learning, over-reliance of students on teachers, internet and texts, these factors continually lead to inadequate performance in the student's academics, their lack of skills, and correct scientific attitude, falling enthusiasm and declining enrollment in science.

There are numerous factors that is attributed to the above predicament, the most fundamental of which is that science is taught dogmatically in several schools with disjointed facts and concepts that students struggle to apply to real-life situations. Innovation in the biology classroom would bring changes to both the approach and the subject matter. This alteration has an impact on the nature and manner in which learning activities are carried out. This adjustment must be monitored and evaluated to ensure that it is meeting the objectives outlined in Nigeria's National Policy on Education (FRN, 2015).

Teaching strategies are the methods that teachers use to attain the objectives outlined in their lesson plans. A strategy can be a technique, method, or a collection of meticulously planned interactions in the classroom that can be painstakingly followed to teach a topic, concept, idea, or how the teacher decides to apply curriculum goals (Darda, 2014).

Kayode, Ogundokun, Mohammed, and Olorundare (2020), Oyelekan, Igbokwe, and Olorundare (2017) as well as Khurshid and Zahur (2013) highlighted many instructional methods that can be used in the classroom to impact knowledge. These include the lecture technique, demonstration method, project method, method, field trips, discussion method, discovery method, inquiry method, play-way and cooperative method, competitive method, and computer-assisted instruction laboratory investigation. Other creative teaching methods for science include inquiry-based learning, quick response (QR) codes, project-based learning, well-managed classroom technology, jigsaw, team teaching, and collaborative learning strategies, among others.

Purpose Of The Study.

The purpose of the research work was to investigate the level of biology teachers' usage of innovative scientific instructional strategies in senior secondary schools in southwest Nigeria.

Research Questions

This study intended to address the following question:

1. How often do biology teachers utilize innovative science teaching strategies in their classes?

Methodology

The study was a descriptive survey-based study. The study included all biology teachers from public senior secondary schools in South-west Nigeria. The multi-stage sampling technique was used throughout the investigation. In the first stage, a simple random sample procedure was employed to select four of the six states in the South-west zone. Proportionate sampling techniques were adopted to choose 20% of the total number of public senior secondary schools in each of the sampled states. In total, 322 schools were chosen among 1706 public senior high schools in the four states to participate in the study. The public secondary schools were chosen based on the availability of biology instructors.

The purposeful selection strategy was used to pick just biology teachers, while the convenient sampling technique was utilized to select biology teachers who were present in each of the selected senior high schools. In total, 662 biology teachers were sampled. The study's research instrument was a questionnaire designed by the researcher titled "Biology Teachers' Utilization of Innovative Teaching Strategies" (BTUITS). The questionnaire was sectioned into sections A and B. Section A elicits the biology teacher's personal information, including their school type, gender, subject area, teaching experience, and educational qualifications. Section B elicited information on the extent to which biology teachers used twenty (20) specified innovative teaching strategies. It featured four response modes: frequently used, occasionally used, seldom used, and never used. Three professors from the Department of Science Education at the University of Ilorin, Nigeria, evaluated the instrument's content and face validity. The dependability of the instrument was tested by administering it to twenty (20) biology teachers in Kwara state. These teachers were not included in the study's sample, although they share features with those who were. The Cronbach Alpha formula was used to analyze the data acquired using the Statistical Package for the Social Sciences at the 0.05 level of significance, and the value was calculated to be 0.86. After the researcher had obtained permission from the selected schools' principals and discussed the purpose of the study as well as the level of involvement in the study to the instructors, questionnaires were administered to them with the help of the research assistants. Percentage, frequency, and charts were employed to answer study questions. While ANOVA and t-tests were employed to test hypotheses at the 0.05 level of significance.

Results

The data gotten from the research question is presented and described as follows:

Research Question

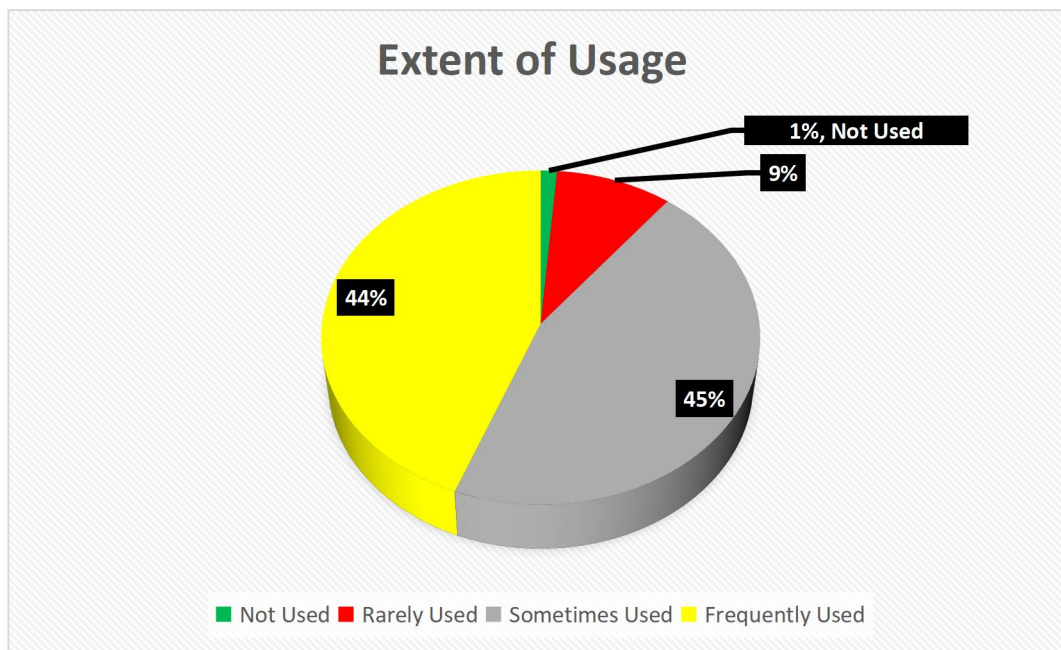
How often do biology teachers utilize innovative science teaching strategies in their classes?

Table 1 reveals the level of utilization of the innovative science teaching strategies by biology teachers. The table reveals that 44.10% of the participants frequently used the science teaching strategies, 45.30% sometimes used the teaching strategies, and 9.30% of the respondents rarely used the teaching strategies while only 1.30% of the respondents do not use any of the strategies.

Table 1:

Frequency and percentages of Biology teachers' level of utilization of the selected innovative teaching strategies

Level of Utilization	Frequency	Percentage (%)
Not used	8	1.30
Rarely used	58	9.30
Sometimes used	282	45.30
Frequently used	274	44.10
Total	622	100.00



Discussion

The findings from this study reveals that biology teachers used just 44.0% of the 20 recommended innovative scientific teaching strategies on a regular basis. Forty-five percent (45%) of the instructional tactics were occasionally used, ten percent (10%) were rarely used, and one percent (1%) were never used. A sense of humor, well-managed classroom technology, activity-based instructional strategy, and mastery learning / instructional strategy were all frequently employed teaching tactics. Instructional tactics such as think-pair-share, online virtual laboratory, and peer tutoring, which alleviate anxiety and stress when dealing with difficult concepts and boost class attendance, are only employed occasionally in biology classrooms. The least used scientific teaching tactics were the Z-A approach, the Jigsaw

teamwork educational strategy, the Mnemonic-word-Words approach, and the Mind map. This implies biology students will be repeatedly denied benefits such as self-motivation, divergent thinking, improvement in the learner's psychomotor, cognitive, and affective domains, and many more, which are related with the application of most of these creative teaching methodologies.

The findings of this study also demonstrate that biology teachers (respondents) did not fully utilize all of these new teaching tactics that piqued students' interest and allowed learners to develop their own knowledge. This finding is consistent with previous research by Oludipe and Oludipe (2010), Yusuf and Adedeji (2010), Jiya (2011), Nwagbo and Chukelu (2011), and Ukala (2018) who found that while many teachers were aware of various innovative teaching strategies, only a small number of these strategies were effectively implemented. This study refuted Gbadamosi's (2014) prior study, which found that most biology teachers employ a variety of ways to deal with obstacles in teaching biology. The substantial disparity between the findings of the current study and those of Gbadamosi (2014) could be attributable to differences in geographical location as well as the novelty of the new teaching methodologies explored in the current study.

Recommendations

The study's findings led to the following recommendations:

1. State governments, professional bodies (e.g., TRCN, NERDC, STAN), and schools should regularly organize workshops, seminars, and conferences for in-service biology teachers to promote innovative teaching strategies. Inter-state programs and trainings should be organized by state ministries of education to keep teachers up to date on instructional strategies that may be new to them. Biology teachers should also become familiar with the internet in order to stay current on innovative teaching strategies.
2. Governments and non-governmental organizations should equip schools with new instructional resources, such as computer labs and interactive devices. Teachers should be instructed on how to use such materials so that they can integrate innovative ideas into the biology classroom, thereby motivating students to learn.
3. Biology textbook authors should incorporate novel teaching tactics and demonstrate their effectiveness, particularly for rarely utilized ones.

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EXPLORING THE IMPACT OF EDUCATIONAL TECHNOLOGY MANAGEMENT ON OPERATIONAL DELIVERY: CHALLENGES AND SOLUTIONS.

**Dr. Grace Eboh. Texas Southern University,
Houston, Texas, USA**

Abstract

Focusing on the higher education sector in the UK, this paper investigates how the management of educational technology affects operational delivery inside educational institutions. Examining four case studies, two further education colleges, and two East Midlands universities—this study looks at how operational efficiency is affected by educational technology management practices, points up important issues and their remedies, and assesses the general effect on educational quality. The results show that using better academic assistance, simplified administrative procedures, and enhanced accessibility for different student populations, efficient educational technology management greatly improves operational delivery. However, institutions have several difficulties, including limited resources, opposition to reform, and inadequate professional growth. Through planned professional development programs, successful change management strategies, and cooperative stakeholder involvement, the study suggests a framework for overcoming these obstacles. By offering practical insights for education managers and legislators trying to maximize technology integration in educational environments, this study adds to the increasing corpus of knowledge on educational technology management.

Introduction

Educational institutions today face increasing pressure to integrate technology effectively into their operations while confronting significant resource limitations, organizational resistance, and rapidly evolving technological landscapes. Despite substantial investments in educational technologies, many institutions struggle with implementation challenges that prevent them from realizing the full potential of these tools to enhance teaching, learning, and administrative efficiency. The disconnect between technology acquisition and successful integration represents a critical problem in educational settings,

where poor technology management can lead to underutilized resources, frustrated stakeholders, and compromised educational outcomes. This research addresses this problem by examining how educational technology management impacts operational delivery across different educational contexts, with a particular focus on identifying effective strategies for overcoming common implementation barriers and maximizing the benefits of technology integration.

This research focuses on the higher education (HE) sector in the UK as a case study, exploring the implications of educational technology management for operational delivery. There is a need to understand the various internal and external pressures that influence how educational technologies are managed and the subsequent impact on the ability to deliver effective educational experiences. Practitioners operating “on the ground” are often caught in the middle of these dynamics and face very specific challenges in balancing diverse and sometimes conflicting priorities.

The issues considered here may be equally relevant across other education sectors, but the contextual differences significantly influence how these issues play out. Therefore, it is important to explicitly outline the context within which the study is situated to set the scene for the subsequent analysis. In response to the questions posed earlier, these concerns are addressed by considering the management of educational technologies through the lens of strategy. It is argued that a clearer understanding of how technologies are managed through a strategic approach to decision-making will better illuminate the implications for operational delivery. This study focuses on educational technology management as an area of professional practice important for understanding these dynamics.

1.1. Background and Rationale

Over the last 50 years, educational technology management has evolved into a professionalized field of practice. A variety of terms and interpretations have shaped the current field of educational technology management, including educational technology, instructional technology, instructional design, teaching with technology, eLearning, and, more recently, blended learning. Subjected to a wide variety of interpretations and elaborations, terms like technology and educational technology have continuously resulted in a substantial discussion on what these terms encompass (Selwyn, N. 2016). At one end of the spectrum, educational technology is described as a design-based discipline, focusing on the systematic design, development, implementation, and evaluation of learning environments. In a more comprehensive context, educational technology encompasses processes, human interactions, images, tools, and environments that are used to mediate the construction of knowledge, individually or in collaboration with others (Januszewski & Molenda (2013). This discussion has also led to a variety of professional aspirations. Currently, four types of professional roles can be distinguished: technology-as-missionary, technology-as-critique, technology-as-meaning-making, and technology-as-instruments.

The rationale for this study stems from a concern for public higher education institutions currently facing a complex array of internal and external challenges (Marshall, 2018). Technological advancements and the accompanying possibilities for the management and delivery of technology-mediated learning at public higher education institutions are both opportune and challenging. With a plethora of possibilities, sensitivity, thoughtfulness, and deliberation are prerequisites for applying technology in education, particularly in striving to achieve optimal delivery on the operational front. Accordingly, it is essential to understand what shapes and informs educational technology management and operational delivery, which will be elaborated on below (Ranbir, Dr. 2024). A secondary aim of this section is to establish a theoretical foundation for the research by outlining the key elements that underpin and drive the current discourse on educational technology management. Subsequent sections initiate the process of dissecting the intricate layers of educational technology

management, thereby laying the groundwork for a more comprehensive exploration of the topic in subsequent sections (Beckman, Henderson, Heinrich & Ochoa 2022)

1.2. Research Aim and Objectives

The primary aim of this research is to investigate how educational technology management impacts operational delivery within educational establishments. In recent decades, the exponential growth of new and emerging technologies has provided educators with opportunities to enhance the experience and delivery of learning. The proliferation of laptops, tablets, smartphones, clickers, virtual learning environments, and cloud computing, to name but a few, has irrevocably transformed the educational landscape. As institutions strive to keep pace with technological advancements, administrators are charged with challenging operational issues relating to procurement, training, implementation, technical support, and maintenance. Educational technology management endeavors to provide the direction, alignment, and control of technology resources to address such challenges, although it is a relatively recent phenomenon that remains in its infancy. This study focused on educational technology management from the perspective of operational delivery. Four case studies based in the East Midlands region of the UK, comprising two further education colleges and two universities, were critiqued. The core objectives of the study were to examine how educational technology management was practiced in terms of operational delivery, assess the challenges and solutions encountered, and evaluate the impact on the quality of educational technology management. By focusing on these specific areas of interest, it was hoped that a clearer and more comprehensive understanding of key issues would be drawn out, as well as a more thorough examination of how they related to one another. Moreover, the objectives sought to generate insights that were actionable and relevant to the needs of educators and administrators. Educational establishments were recognized as complex systems with multi-layered hierarchies and numerous disciplinary domains. As such, a singular focus on one objective ensured that research findings were practical and useful rather than abstract and academic.

2. Educational Technology Management: An Overview

Educational technology management is defined, and its scope is described as a vital field within education that varies in meaning and practice in different educational contexts (Mishra & Koehler, 2021). Current trends and innovations that have influenced educational technology management are highlighted in a discussion on what technology means today and how it can play a multifaceted role in improving educational experiences. A simple model illustrates how good technology management can directly benefit education through enhanced academic quality, an improved working environment, increased institutional prestige, and so on. The challenges and implications of poor management in technology are also deliberated upon to provide a balanced view of educational technology management. Overall, an understanding of educational technology management is indispensable in today's world if education is to be delivered properly (Agalo & Oluoch, 2014). Thus, a brief overview of the concept, scope, and current trends of educational technology management is discussed. Educational technology management can be described as the planning, organizing, directing, controlling, and evaluating the technology resources of a particular educational setup with a view to achieving optimal educational service delivery. At the heart of this definition lie the terms technology and educational technology, which must be explained. The term technology has, in fact, a vast and variegated meaning. In its simplest form, technology can be regarded as a tool or medium intended to enhance the working efficiency of a user(s). In a more detailed context, technology can be understood as comprising three key components: the hardware, which refers to the physical devices (including tools, machines, equipment, or objects); the software, which represents the non-physical elements that

enable the hardware to function and introduce structure to the system (such as rules, procedures, and instructions); and the environmental settings, which encompass the context that influences the technology's effectiveness (including social, cultural, economic, and political factors) (Håkansson Lindqvist & Pettersson, 2019).

2.1. Definition and Scope

Educational technology management encompasses a set of critical elements, components, and actions, all centered around the deliberate selection and integration of technologies to improve educational quality. At its core, educational technology management involves carefully choosing and blending various technologies—ranging from learning environments, media, and hardware to software and resource management—with corresponding techniques, including planning, development, application, implementation, and assessment (Castañeda & Selwyn 2018). These technologies and their associated management methodologies serve to enhance the educational process. Additionally, it is essential to distinguish between technology types, as different educational technologies necessitate distinct management practices. However, the management of technological advances and resources alone does not constitute "educational technology management." Simply pouring educational technologies into a system will not naturally yield an improvement in educational quality. Therefore, it becomes critical to align the management of these technologies with the educational goals being pursued (Tondeur, Howard, & Yang, 2021). To clarify the scope of management practices, it is important to explore the frameworks and models addressing educational technologies, both from a management perspective and a broader educational viewpoint. Within this discourse, stakeholders involved in technology management practices will be identified alongside the scope of their tenure. It is also acknowledged that the educational setting—be it formal, non-formal, or informal—will invariably influence the application of management strategies. Understanding the nuances of these definitions and scopes will assist in the effective implementation of technology management practices. Thus, this groundwork lays the foundation for discussing the challenges and impacts of technology management in the following sections.

2.2. Importance in Modern Education

Education, in its broadest sense, is the doorway to opportunity, progress, and change. Consequently, it is imperative that education, teaching, and learning evolve according to societal changes. At present, technology pervades nearly every aspect of life and is gradually finding its way into teaching and learning in education (Zawacki-Richter et al., 2019). It is increasingly anticipated that, like other social developments, education will harness the potential of technology to reshape teaching and learning in order to ensure broader access to education and enhanced quality.

Technologies have the potential to make teaching and learning processes more effective and efficient. In an educational context, technology can take on multiple roles, including that of an enabler, which alters the nature of instruction and learning. When technology is integrated into education, it is hoped that not only will it improve educational quality and productivity, but it will also ensure equal access to good education for all. Thus, from an educational perspective, technology should be managed in such a way that it becomes an effective vehicle for delivering education while keeping in mind the diversity and different requirements of stakeholders (Agalo & Oluoch, 2014).

Educational institutions can exploit technology to enhance the operational delivery of education. Technology can smoothen the processes undertaken by educational institutions in dealing with learners, service providers, regulators, other educational institutions, etc. Furthermore, technology can

lessen the burden on human resources by automating processes, thereby reducing the potential for human mistakes. The careful management of technology in this regard can also yield economic benefits, particularly in times of rising costs and budget restraints. In this context, the management of educational technology becomes crucial for educational institutions. Simply put, educational technology management can minimize the drawbacks and maximize the positive outcomes associated with educational technology (Adedoyin & Soykan, 2020).

3. Operational Delivery in Education

Essential to the viability of any educational institution, at any level, is an understanding of operational delivery. Whether large or small, state-funded or privately owned, a university or a primary school, there are certain key components and processes that underpin successful operational delivery. An appreciation of these fundamentals is critical, not just for top-level decision makers but also for anyone involved in the day-to-day running of an institution, particularly those involved in the planning and implementation of educational strategies (Moore & Fodrey, 2018). At the heart of an institution's operational delivery are the activities that actually deliver the educational product. These are undertaken by a combination of educators, students and technology, and the resultant interaction shapes the design and character of the institution. Each different type of institution establishes its own patterns and approaches to these operational activities, determined by a mix of vision, purpose, philosophy, policy and context. However, similar challenges are faced in delivering these operations. Often the strategic vision and plans of an institution are not fully realised at the operational delivery stage. A good strategy often fails because the operational delivery is inadequate. Resource limitations – whether concerning funds, personnel, time or equipment – skew what can be realistically achieved. Bureaucratic complexity and inflexibility can hinder responsiveness to emerging opportunities or problems. This is often compounded by an excessive concentration on – or reliance upon – the strategic and financial sides of management at the expense of delivery. These various challenges can stifle the effective operational delivery of otherwise robust educational strategies, and for many institutions the desired educational vision remains persistently out of reach. Good education and training have little impact if poorly delivered. For this reason, it is vital that a clear understanding of the landscape of operational delivery is established. Indeed, much of the prevailing educational management literature focuses on institutional strategy and planning, often overlooking the importance of operational delivery. Where attention is paid to delivery, it is invariably in regard to the management of just one element rather than recognising the overall framework within which management of these elements sits (Agalo & Oluoch, 2014). The effects of such omission can be clearly seen. Considerable effort and attention may go into designing exemplary educational strategies, with the best of intentions, but unless parallel attention is paid to how these strategies will be operationally delivered, the impact will invariably be minimal. Therefore, the focus should be on establishing how the impact of educational strategies is maximised through effective operational delivery, using suitable case studies to illustrate the issues involved and the possible solutions. Beginning with an overview of operational delivery in education, attention then turns to the challenges faced and how these are best tackled. Such an understanding will provide a solid grounding before discussing the issues of technology management in more detail.

3.1. Key Components and Processes

A successful operational delivery is built on a few components. At its most fundamental, it can be thought of as a collection of components and processes that must be in place for proper delivery. In educational settings, these components include: • the determination of what is to be taught and how (curriculum design); • the specification of constituent roles and the allocation of resources to these

tasks (staffing, room booking, and others). • communicating specifications to staff and systems that perform constituent roles, schedules, and timetables, among other things; • monitoring (and, if necessary, adjusting) component performance (class observation, tracking attendance, and so on); and recording and maintaining outputs such as coursework results and others. Each of these components is critical to enabling the successful delivery of the educational outcomes stated at the outset, and their interactions can be viewed as defining the overall operational delivery systems' efficiency (L. Moore & B. Fodrey, 2018).

There are a number of processes that underpin operational delivery in educational settings. Most of these are straightforward, but some are complicated and require careful thought and management. A simple model (and associated terminology) that captures the essential components of operational delivery is outlined. This model can then be used to categorize and understand the most likely barriers to effective operational delivery (again, using simple terminology). In most cases, these barriers arise because the component is absent or underdeveloped, often due to a lack of training opportunities or resources devoted to that component. There is also a tendency for severely disadvantaged institutions to adopt simpler or more primitive solutions across the board, leading to imbalances in the development of educational technology systems. By understanding the components of operational delivery, a clearer basis for addressing these challenges is provided. With this framework in place, an assessment of how a number relevant challenges are being or can be met in a particular case is discussed (Adekola et al., 2023).

3.2. Challenges Faced in Operational Delivery

Encountered in operational delivery within educational institutions, a brief overview of these challenges will be given, drawing on the findings of recently published research. Common obstacles include inefficient processes, insufficient resources, lack of relevant training and inadequate training material for the pedagogical delivery method in question. Regardless of the setting, the impact of these identified challenges is common to all involved in education, whether they be educators or learners, and can be detrimental to educational outcomes. Compounding these challenges is the increasing use of a blended or fully technology reliant approach to educational technologies. This integration adds complexity to the challenges already faced, with this complexity possibly exacerbating existing challenges or introducing new barriers to effective educational delivery (Bond et al., 2022). It is critical to understand what these challenges are prior to exploring the proposed solutions and best practices. This review aims to provide context for the subsequent critical examination of what constitutes a thorough education technology management approach. The research presented is a summation of the review of peer-reviewed journal articles focusing on challenges faced in operational delivery and educational technology management. Ultimately, future sections will explore how these challenges can be effectively navigated through implemented strategies and best practices as informed by the research reviewed. Based on the widening participation policy, the higher education (HE) academic environment in the United Kingdom (UK) is rapidly changing, with increasing responsibilities for teaching staff and student populations becoming larger and more diverse. A natural consequence is that some teaching needs to be delivered on a mass scale. Unfortunately, previous attempts to implement effective mass education publicly using educational technologies have failed (Jaffer et al., 2007). Findings from a study of operational delivery in two case study UK higher education institutions (HEIs) illustrate how challenges similar to those faced in massive public open online courses (MOOCs) and online delivery environments more generally persist in the classroom environment. Insights are drawn from the real-life experiences of academic staff addressing these challenges. Implementing particular strategies and technologies may help navigate these challenges, and further research would benefit from collaboration across institutions.

4. The Impact of Educational Technology Management on Operational Delivery

The focus is on educational technology management and its impact on the successful operational delivery of technology in educational environments. The objective is to assess the transformative impact of educational technology management on operational delivery. It will explore how effectively managed technology management initiatives can lead to greater efficiency and effectiveness of the educational delivery process, whether these technology management applications are now being applied in the educational environment, and consideration of case studies and examples where technology management has been successfully applied to an environment similar to education (Williamson & Eynon, 2023)

Educational technology is often seen as just another addition to the educational environment rather than a strategic approach. Thus, with technology mismanaged, often the opposite effect is experienced and educational environments are filled with ‘toys’ that detract from the delivery rather than facilitate it. Therefore, an initial exploration into the impact of educational technology management on operational delivery is warranted. A review of the literature will provide a basis to explore the impacts and open up a wider discussion on the challenges and possible solutions to the educational technology management approach (Agalo & Oluoch, 2014).

There are many definitions of technology and many of its derivatives from add-on applications to infrastructure and hardware encompassing considerable expense and often subject to mismanagement. However, for the purpose of this discussion technology will be defined as any object that extends a person's natural capability. Therefore, educational technology is anything that extends a person's natural capability to teach or learn. From this definition purely passive technology such as textbooks would qualify. However, technology is more commonly thought of as some type of educational technology add-on that usually requires an operator to function such as a computer, network, or camera (Tsai & Chai, 2013).

That then leads to the definition of educational technology management, which for the purpose of this discussion will be defined as the strategic approach that ensures educational technology initiatives are evaluated, designed, planned, implemented and assessed in a way that maximizes their impact on the effectiveness of the educational delivery process. With educational technology management applied, education environments have the potential to enhance access, inclusivity, and most importantly the effectiveness of the educational delivery process.

4.1. Enhancing Efficiency and Effectiveness

Technology management can enhance the efficiency and effectiveness of how education is delivered. With the right tools and strategies in place, processes can be streamlined and communication improved among all stakeholders — students and parents, teachers, management, and external service providers. Various technological tools make it possible to manage processes more easily, record and track information, and minimize potentially costly mistakes. Resulting efficiencies allow employees to engage in more productive work that better delivers on educational promises. This improves the experience for student end-users and can lead to improved educational outcomes. Furthermore, through the sharing of successful case studies, the positive effect technology management can have on operational delivery is illustrated, along with some best practices that have developed and could be adopted by other educational institutions faced with their own challenges (Agalo & Oluoch, 2014). To be successful, education technology management needs to be constantly assessed, monitored, and improved where necessary. Otherwise, improvements may become outdated or ineffective. New challenges will always arise, particularly where technology integration is concerned. Therefore, highlighting these efficiencies is important to encourage management and other stakeholders to pursue

comprehensive and strategic integration of technology to support education delivery. Proponents may also need to push back against negative perceptions that unforeseen challenges could derail initiatives, either entirely or in part. Ultimately, the net effect of technology management is a significant positive gain that should be embraced. Education delivery is a complex process with many moving parts, but effective technology management can make challenges easier to overcome, good processes even better, and produce significant efficiencies.

4.2. Improving Access and Inclusivity

Role of educational technology management in improving access and inclusivity within education is discussed. Technology can be harnessed to create equitable learning environments for all students, especially those with disabilities (Watling, 2011). Outside of the more normative discourse surrounding the role of technology in education, there are questions of what technology is most effective and how its affordances can be best and most appropriately exploited for the benefit of all learners. The effectiveness of a range of digital tools and resources for supporting a diverse range of learners and ensuring they are able to participate fully in a shared learning experience is examined. Access and inclusivity are complex and multifaceted concepts, so it is important to clarify how they are understood here and in relation to educational technology management. Access is concerned with removing barriers to learning so that all students can fully engage with and benefit from it, whilst inclusivity refers to implementing practices that ensure all students can successfully participate in learning. Managing educational technology should be accompanied by efforts to implement the inclusive practices being supported by that technology. Discussing the potential of technology to overcome geographic and socioeconomic barriers to education is simple and commonly used to illustrate the promise technology holds in fostering an equitable educational landscape. The flip-side consideration here is of access issues in relation to some countries' problematic technology implementation, as well as wider concerns about the digital divide. Access is considered a challenge facing educational technology management, bringing issues of resources and training as knowledge gaps inhibiting effective technological implementation. Access here refers to access to technology as a resource. Access to the necessary infrastructure and training to utilize technology effectively is a related concern. Recognizing the particular complexities of access and inclusivity in different contexts is critical and by understanding how technology can be harnessed to promote inclusivity, educators are better able to implement suitable solutions. Questions of how and why technology introduces new barriers to learning as well as supporting inclusivity are naturally brought to the foreground by an awareness of the disabled access issues that have arisen within otherwise inclusively designed digital spaces (Czerniewicz et al., 2020).

5. Challenges in Implementing Educational Technology Management

The purpose of this research is to investigate the impact of educational technology management on the effective operational delivery of educational institutions. Educational technology is defined as hardware and software systems deployed as a delivery mechanism for education, training, assessment, and support of learners. The management of educational technology refers to the procurement, implementation, support, evaluation, and strategic assessment of technology systems in educational environments. A good technology system can support the effective operational delivery of education, while a poorly managed system can hinder it. This research focuses on challenges associated with educational technology management and potential solutions developed through action research that has been implemented in practice (Carter & Youssef-Morgan 2022).

To set the context for this research, it is essential first to explain what is meant by the terms educational technology and the management of educational technology. There are many definitions of technology, but broadly, it refers to any instrument used to perform a task. Educational technology can be interpreted as hardware and software systems deployed as a delivery mechanism for education, training, assessment, and support of learners. Examples include computers, networks, audio-visual equipment, and multimedia resources. The management of educational technology refers to the procurement, implementation, support, evaluation, and strategic assessment of technology systems in educational environments (Ludvigsen et al., 2021). It is possible to consider educational technology management at various levels, including government, institutional, department, and individual academic levels. This research focuses on the institutional level, where technology systems are delivered across the whole institution to support departments and activities such as teaching, learning, and assessment.

The effective operational delivery of an educational institution refers to its ability to fulfil its goals and objectives to the required quality standards. This generally involves the design and implementation of educational processes, including course and curriculum design, scheduling, resource allocation, assessment strategy design, learner engagement, and support (academic and pastoral). The technology systems in use impact most of these processes. The introduction of a good technology system can enhance and support effective educational processes, while a poor, unwieldy, or unsuitable technology system can hinder and prevent processes from being conducted effectively. The aim of this research is to explore the impact of educational technology management on the effective operational delivery of educational institutions.

5.1. Resource Constraints

Resource constraints are often cited as the most significant impediment to effective educational technology management. A tight financial climate and limited access to resources, personnel and infrastructure have been acknowledged as critical challenges (Erlandson, 1999). Beyond general budget cuts, specific financial limitations include a lack of funds for new equipment and software subscriptions, difficulties in securing external funding, and an inability to redirect existing budgets towards educational technology provision. Additional hurdles include insufficient staff to manage technology effectively, a lack of internal staff dedicated to educational technology support, difficulty in recruiting appropriate staff, and inadequate infrastructure such as unreliable access to computers and Wi-Fi. Joint incapacity on the part of institutions to address infrastructural challenges and the very lack of outside support can severely limit the effectiveness of any program designed to promote technology use or manage related resources. As with many other institutions, internal management and support programs tend to be reactive rather than proactive, reliant on a specific resource becoming available after a problem has already occurred. Increasing the effectiveness of any program therefore requires a careful understanding of the associated resource challenges; otherwise, efforts are likely to become increasingly pointless. Beyond failing to adequately meet institution needs, scarcity in key resources can exacerbate wider inequities in access to technology across educators and students alike, ensuring that only the relatively privileged enjoy its benefits. Where resources are scarce but still effective technology use is desired, attention must focus on how best to manage what is available, allocating resources in the most effective manner possible. Often this involves simply prioritizing some areas of educational technology use over others. Though approaches may vary, institutions in similar positions can share experiences, successes, and failures, highlighting options worth emulating. Higher education institutions in particular have made advances in addressing overlapping resource constraints and achieving relative success by being simply more strategic in how existing resources are managed (Jaffer et al., 2007). It is important to remember that by definition a strategy is only a means

to an end, and any approach will thus differ in effectiveness depending on the desired outcome. Before elaborating effective strategies, it is therefore important to be aware of what relative resource constraints exist and how these shape what is deemed a desirable outcome, educational technology management in this case. In other words, one must understand the strategies being driven by a specific resource limitation before being able to implement them.

5.2. Resistance to Change

Change is a natural part of life. However, change can also cause hesitance, particularly to those outside the initiators of that change. This is especially relevant in education, where even well-laid technology strategies can falter at the first hurdle because of resistance from educators and/or administrators (Ramnarain & Schuster, 2014). Resistance to change is a well-documented phenomenon that strikes even the best efforts to implement technological solutions. In a rapidly advancing world, such hesitance can often be a barrier to simply keeping up (Sood et al., 2022). Many factors are at play when examining why a group may resist a proposed change, particularly psychological and cultural factors. Considering the implications such resistance has on the successful implementation of technology strategies is key. In past case studies, initiatives have stalled or outright derailed due to such resistance to change.

Most commonly, the technology provider's perspective is considered in implementation plans. This often leads to failure, as those outside that perspective are not considered, nor their positions addressed (Oreg & Berson, 2019). There are ways to tackle and ameliorate such resistance, fostering a culture of acceptance and readiness for change (Ferreira, Goncalves, & Parker, 2023). After all, it is imperative to realize that the hesitance is not with the technology itself, but rather how it relates to the existing customs and practices of the resisting group (Watling 2011). The strategy should thus center on finding a way for the new to fit in with the old. However, prior to strategy formulation, an understanding of what this resistance entails must be reached. Addressing the attitudes and perceptions of the change, from the viewpoint of those affected, is vital (Van der Merwe & Bozalek, 2022). Most importantly, the need for effective communication about the change is paramount, as is the active involvement of all stakeholders in the change process (Hofmann & Wilson, 2022). Building trust and understanding to hold open dialogue about the change is essential, as it provides adequate support to address the fears of those who will be affected by the change (Adekola et al., 2023). Finally, it must be understood that while resistance to change can often take on a negative connotation, it does not always stem from a desire to maintain the status quo. Resistance can take many forms that will affect how things need to be addressed (Granić, 2022).

Solutions and Best Practices

To address the challenges identified, various solutions and best practices are suggested. Firstly, it is important to recognize that many of these challenges are not unique to a single institution but are part of a wider issue in the education system (Henderson et al., 2017). Awareness of this helps focus attention on finding solutions. It is also critical to learn from institutions that have successfully adopted the suggested best practices (Martin et al., 2024). Finally, the emphasis is on the need for these practices to improve educational outcomes rather than operational delivery alone. Each institution can adapt the suggestions based on its context.

Professional development and training for educators are essential for enhancing technology integration in teaching and learning activities. There is a clear need for time-intensive technology training, ideally attended by all relevant staff. Technical workshops should emphasize the pedagogical rationale behind adopting particular technologies so that educators can choose appropriate technologies in the future. Trainers should have educational backgrounds and understand how technologies enrich pedagogy.

Access to technology training should be broad, including online resources containing best practices to inspire educators (Niederhauser et al., 2018).

There are various approaches to change management, but three overall strategies are highlighted, promoting a systematic approach to technology initiatives. Firstly, it is crucial to align technology initiatives with institutional strategic goals and priorities. Change that is not part of a longer-term vision and commitment is often short-lived. Secondly, it is important to balance top-down and bottom-up approaches to change management. While it is essential to have a clear implementation plan and designated teams to oversee it, other staff should also feel ownership of the change and have a say in shaping it. Thirdly, it is vital to identify “quick wins” for technology initiatives. Educators are often overloaded and skeptical about adopting new practices unless they see clear benefits (Ghavifekr et al., 2013).

Collaboration among all stakeholders is important to build a shared vision and collective action. This collaboration should start with a broad consultation process with all stakeholders to identify their views and needs (Chugh, Turnbull, Cowcerv et al., 2023). Educators should be involved in designing responses to those needs (Chugh, R., Turnbull, D., Cowling, M.A. et al. 2023). During implementation, working groups comprising various stakeholders should monitor the process (Jobst et al., 2012). Communication is vital throughout and should include regular forums where stakeholders can share feedback and suggestions (Kotter, 2012). Whenever possible, education technology initiatives should be piloted in various departments and then rolled out more widely. A “champion” could also be leading the change from an influential position but still advocating for it rather than imposing it (Kvernbekk & Jarvis, 2023).

Institutions that have successfully adopted most of the suggested best practices include the University of Cape Town, University of Groningen, and the University of Hong Kong, illustrating the diversity of contexts (Brown et al., 2022). Acknowledging that addressing the challenges will require effort and resources and that these resources may be limited is essential. However, it is also crucial to recognize that technology has great potential to enhance educational practices (Greenhow & Lewin, 2021). A persistent effort is vital to fully utilize this potential. All educational technologies and their pedagogical applications need to be continually assessed and understood, and feedback loops built into processes and practices involving educational technologies (Williamson & Eynon, 2020). Continuous assessment must consider the broad impact of educational technologies (Facer & Selwyn 2021).

6.1. Professional Development and Training

Professional Development and Training The successful implementation of educational technology management rests primarily on professional development and training. A variety of training programs have been developed for schools and universities, ranging from intensive workshops to semester courses designed to enhance educators’ technology skills and confidence in integrating new technologies into their teaching. These initiatives often lead to more successful integration of technology into teaching and learning. However, in order to be effective, training programs need to be tailored to meet the specific needs of faculty and staff (Giandelone Broussard, 2006). A wide range of technology training options exist, from introductory workshops on basic computer skills and programs used on campus to one-on-one consultations with technology specialists focusing on specific needs within a particular course.

Whatever the format, there is a critical need for ongoing support and resources after the initial training to ensure that faculty and staff are able to adequately use what they learned and effectively integrate new technologies into their teaching. Without this support, initial training efforts are likely to be ineffective and wasted. Offering a range of services allows faculty and staff to choose what is best

for them. The case studies also illustrate that when professional development is targeted to the needs of faculty, departments or schools can create positive outcomes. Training that emphasizes practical use and focuses on a specific educational context is more beneficial than general training. Potentially effective strategies for professional development include a peer mentoring model and creating opportunities for collaborative learning.

In addition to initial training, the importance of ongoing support is paramount. Training alone is not sufficient; it needs to be part of a larger support network. Without this, there is a danger that new technologies will be under-utilized or ignored altogether. Educational institutions need to create a culture of continuous learning. The work undertaken shows that effective professional development can support educational technology management. By examining how professional development is implemented at three universities, four different models of professional development training are identified. Research has shown that training focused on the particular educational context is more effective than general training (Blackmon, 2013).

6.2. Effective Change Management Strategies

Effective change management strategies are necessary for the successful implementation of educational technology for operational delivery. It is important for leaders to recognize that change management is required as their institutions take steps towards educational technology integration. Despite the risks, some still progress blindly without the necessary precautions. Throughout decades of dealing with educational change, it has been noted that the majority of failures are not due to a lack of vision or good ideas, but because insufficient attention was paid to the complexities of implementing changes in practice involving people (Ghavifekr et al., 2012). In addition to a compelling vision and strong rationale for undertaking change, there needs to be clear communication about what changes will mean for those involved, as well as plans for how to involve them and support them through the change process. Transparency is vital concerning what is expected of staff and students during transitions, as well as acknowledging that things may go wrong and outlining plans to manage this.

While robust planning and the establishment of goals is something that most academic leaders now take as imperative, it needs to be noted that effective change management strategies additionally involve ensuring that all members of staff are included in the planning process, including those in non-academic roles (Kezar, 2018). Given that change involves shifting people from one set of practices to another, it is important to ensure that those with expertise in existing practices help shape plans for new ones (Fullan, 2016). If not invited to participate, academic staff may feel undervalued or anxious about their role during transitions, potentially resulting in counter-productive behavior (Brown, 2020). Convening cross-department committees to formulate plans involving officeholders representing the full spectrum of non-academic roles can ensure that all voices are heard and help foster unit-wide ownership of plans (Bolman & Deal, 2017).

There is a significant body of literature dealing with various frameworks and models to assist leaders in shaping successful change initiatives in educational contexts (Levin & Fullan, 2008). As a starting point, it is often useful to think of educational change in terms of four components: the contexts, the participants, the processes, and the outcomes. For the purposes of this discussion, strategies regarding processes are the focus, as these concern the steps taken to implement change and are essential to addressing resistance. Various authors have proposed different models regarding the processes involved in educational change; they include at least some of the following key aspects: • Establishing a sense of urgency • Formulating a strategic vision and initiatives • Implementing change • Communicating the change vision • Generating short-term wins • Anchoring changes in the organization's culture

Particularly with regard to large, high-stakes transitions, strategies for addressing and easing resistance during educational technology change processes are detailed. A consideration of these will help leaders develop best practices to mitigate the possible pitfalls relating to resistance that have been experienced elsewhere. Resistance is a natural and common part of any process of organizational change that involves new technology, and therefore educational leaders need to proactively manage it. While some level of resistance may be deemed unacceptable and thus mitigated, in certain respects it can even be a positive force, and leaders need to recognize that it is inappropriate to try to eliminate it entirely. Therefore, the focus here is on outlining strategies for dealing with resistance effectively rather than eliminating it. Efforts to address resistance are more likely to prove successful if adequate resources and support for all involved are provided throughout the change process. This is a general tenet of change management that is particularly important when implementing technologies. However, maximize the likelihood that the necessary technical resources will be made available if requirements are anticipated and clearly articulated in planning documents. Ideally, principles and practices developed over many years in formulating and implementing technology management plans should be followed, which can help ensure appropriate funding is acquired and applied (Bates & Sangrà, 2011). In terms of staffing, it is crucial to ensure that the necessary time, expertise, and support are available for staff undertaking new technological initiatives (Chugh et al 2023). Institutions that have successfully employed effective change management strategies are cited as illuminating examples of best practices, which educational leaders would be prudent to heed in order to facilitate smoother transitions (Smith 2022). The scenarios, while diverse in many ways, share common characteristics that had a significant impact on their successful implementation of educational technology change strategies. First, they had leaders who took an active and visible role in the change processes (Vaughan et al., 2023). Second, robust change management strategies were established at the outset to guide planning and implementation (Kotter, 2007). Third, they ensured that appropriate technical and human resources were available and actively engaged in providing staff support throughout transitions (Johnson & Adams, 2014). By drawing on the experiences of these institutions, it is hoped that practitioners will be better placed to anticipate and avoid potential pitfalls (Sulecio de Alvarez, & Dickson-Deane, 2018).

7. Conclusion

The synthesis of the research findings emphasizes the impact of educational technology management on operational delivery. The study identified challenges arising from educational technology management, which remain pertinent to educational institutions today. When effectively managed, technology management serves as a facilitator for improving educational results. The insights gained from the research can contribute to future practices and better decision-making. Recognizing the diversity of educational contexts, this research offers a perspective for policy and strategic planning. It may assist decision-makers at various levels, from global institutions to local schools, in considering some aspects of technology management that may have been overlooked. It is important to highlight that although the research identifies good practices and provides recommendations, the intention is not to prescribe universal solutions. There is an acknowledgment that some gaps still exist, and challenges persist. Consequently, continued attention to educational technology management as a key element of educational success is crucial. Considering the challenges uncovered and questions answered, an overview of the entire research effort is presented, beginning with the context and objectives of the study. The methodology employed is briefly described. The main findings are outlined, followed by deliberations on their significance and recommendations for further research (Bond et al., 2023).

7.1. Summary of Findings

This section provides a succinct summary of the key findings that have emerged from the research. The fundamental insights acquired concerning educational technology management's impact on operational delivery are encapsulated, including the relationship between effective technology management and improved educational outcomes. Furthermore, the challenges that have been encountered and the resolutions that have been identified are reflected upon. Recommendations arising from the findings, intended to guide future practices for educators and administrators, are also discussed. Finally, the importance of continued research in this area is acknowledged, highlighting opportunities for further examination. Overall, this summary reiterates the research's overarching themes, ensuring clarity and focus on its most critical takeaways. Throughout the conducted research, it has become evident that many institutions invest heavily in educational technologies without a comprehensive understanding of how these technologies will be managed or their impact on operational delivery. Through interviews, it was determined that those responsible for educational technology management often possess little to no formal training in technology management and that their institutions lack policies concerning the management of educational technologies. While there are a number of degrees and courses available, many interviewed felt that the management of educational technologies was a niche area of educational technology management that was simply overlooked or forgotten by both academia and industry. Without appropriate education and training concerning the management of educational technologies, institutions could find themselves either sunk by unnecessary costs or overly reliant on technologies that could fail at any moment. As such, it is vital that this area of educational technology management be explored further (Ribeiro, 2017). Through this research, a framework that comprehensively outlines the areas and challenges educational technology management impacts on operational delivery has been produced. When piloted, institutions found that the framework not only highlighted challenges they had faced for years but also challenges they were unaware of. It is hoped that this framework will serve as a stepping-stone for further exploration into the niche area of educational technology management.

7.2. Implications for Practice and Future Research

This section addresses the implications of the research findings for present educational practices and opportunities for future research. It discusses the practical applications of the insights obtained through the research, outlining how they could be used to improve the management of educational technology. It emphasizes that the findings could guide the decision-making processes of those responsible for the management of educational technology in schools and help to shape a policy framework and a series of strategies aimed at managing educational technology more effectively. This section also highlights the need for ongoing evaluation of the effectiveness of educational technology and the initiatives implemented to introduce new technologies, as well as for continued adaptation to address emerging challenges (Niederhauser et al., 2018).

Following this introductory overview, the discussion moves on to consider possible avenues for future research that would enhance understanding of issues, such as those that have not been fully explored by this research, as well as new issues that have emerged from it. It suggests how research could be conducted in these areas and, in doing so, seeks to demonstrate that there remains a need for research into educational technology both within the contemporary educational context and as educational contexts evolve (Castañeda & Selwyn, 2024).

By setting out these implications for practice and avenues for future research, stakeholders involved in the management of educational technology are provided with guidance on how to draw on the insights derived from this research. Essentially, it outlines how the findings of the research could

help in the pursuit of effective management of educational technology, while also acknowledging that there is still much to learn about the management of educational technology.

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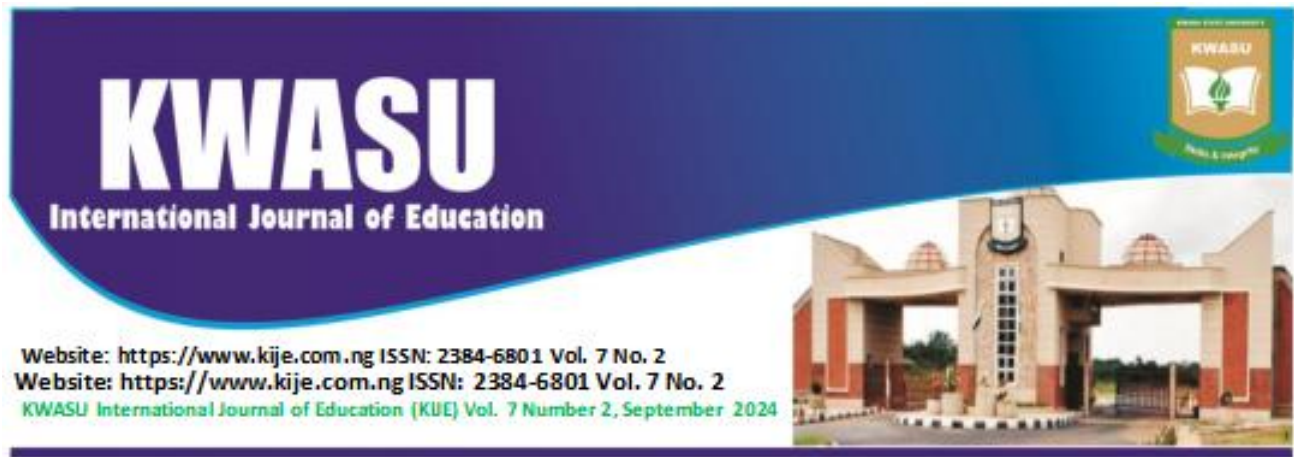
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DIGITAL LITERACY, ACADEMIC PERFORMANCE AND SKILL ACQUISITION OF BUSINESS EDUCATION STUDENTS IN TERTIARY INSTITUTIONS IN KADUNA STATE, NIGERIA

Dr. J. S. Mamman, M. A. JIMOH

Abstract

Skill acquisition has been a major challenge in the 21st century for business education students to an extent that employers are complaining that graduates do not possess requisite skills to make them functional. It is in line with that this study was conducted to examine digital literacy, academic performance and skill acquisition of business education students in tertiary institutions in Kaduna State, Nigeria. The study stated two specific purposes which are to determine the extent of influence of digital literacy on Business Education Students' academic performance, and communication skills. Two research questions and two null hypotheses were formulated to guide the study. The study adopted descriptive survey research design. The population of the study comprised 1,161 lecturers and students in Business education departments in the tertiary institutions in Kaduna State. The Research Advisor Table was used to select a sample of 290 respondents. The proportionate sampling technique was used to select the respondents. Influence of Digital Literacy on Business Education Students Academic Performance and Skill Acquisition Questionnaire (IDLBESAPSAQ) contained 20 items was used to collect data. The instrument was validated by three experts and a Cronbach alpha reliability co-efficient of 0.87 was calculated for the instrument. Mean and standard deviation were used to answer the research questions while independent samples t-test statistic was the tool used to test the null hypotheses at 0.05 level of significance. The findings revealed that there was no significant difference between lecturers and students' responses regarding academic performance

($t=1.753$; $df=288$; $p>0.05$) and communication skills ($t=1.930$; $df=288$; $p>0.05$). The study concludes that digital literacy has significant influence on academic performance and skill acquisition. Based on the findings and conclusions of the study it was recommended that the management of tertiary institutions should promote and encourage teachers and students to use relevant digital technologies to acquire communication skills.

Introduction

Institutions of higher education are considered as the dominant agents of development in the society. The main goal of tertiary institutions is to help in the growth of the nation by providing high and skillful human resources which is compulsory for the development of the country. These goals can be achieved through programs of education, research, and communal studying. This places tertiary education at the upper level in the rank of the educational system as outlined for accommodating knowledge, obtaining, and making discoveries. In general, education as a critical component of a country's human capital increases the efficiency of each worker and helps economies to move up the value chain beyond manual tasks or simple production processes. Human capital has long been considered the most distinctive feature of the economic system and further empirical work has proven the impact of education on productivity.

In a fast-changing world shaped by the advancement of information and communication technology (ICT), it has become imperative to learn, acquire, and utilize new skills to effectively harness available opportunities and contribute meaningfully to any chosen field of endeavor. This is an obvious reality for 21st-century undergraduate students of any academic discipline in general and Business Education, in particular. This fact builds on the premise that effective education is no longer measured by the literacy of reading and writing, but indisputably a blend of other literacy including information literacy, digital literacy, and many other competencies. This has led to the use of several different terms, such as skills, competence, literacy, knowledge, and fluency, to refer to digital abilities. Over the last two decades, educational researchers and Higher Education institutions have explored how digital literacy could support teaching and learning, allowing students to meet 21st century challenges. Digital literacy could be defined as the knowledge, skills, and dispositions needed for the use of technology in the context of a discipline or subject.

Digital literacy refers to the ability to process information using digital technology in a multi-modal environment. More specifically, digital literacy can be defined as “the capacity to consume and comprehend media (text, sound, and images), replicate data and visuals through digital modification, and assess and use new information obtained from digital settings.” (Kaeophanuek, Na-Songkhla & Nilsook, 2018: 2).

Academic performance is a multidimensional construct comprising the skills, attitudes, and behavior of a learner that contribute to academic success in the classroom. Academic performance by students has always been a subject of interest to every educational institution. Whereas there is a consensus that schools should play a major role in this process, there seems to be disagreement about what exactly that role should be. While some believe that the primary focus of schools should be the academic preparation of students, others believe that efforts of schools should be integrated with other social institutions such as family and community towards educating children (Hutt, 2017). Heads of educational institutions, teachers, and parents are primarily responsible for students' academic performance. Academic performance refers to how

students deal with their studies and how they cope with or accomplish different tasks given to them by their teachers (Kirschner & Karpinski, 2010). Digital literacy can therefore have important effects on academic, skills acquisition, and labor market outcomes. Quite surprisingly, however, while there is abundant evidence about the effects on educational outcomes of computer ownership or computer use, relatively little evidence is available about the effects of digital literacy. The influence of digital technology on our educational system cannot be overemphasized. Hardly can any undergraduate student survive in a tertiary institution without basic skills and knowledge of digital technology. The composite skill required for a student to fit into a digital environment in achieving his/her academic pursuit is digital literacy skill.

Academic instruction is arguably the primary business of education. To this end, schools are expected to influence students' learning, socialization, and even vocational preparedness. Despite the attention paid to a broad definition of educational outcomes, however, academic performance remains central. Students' academic performance is a term that appears frequently in higher education discourse. Academic performance is a multifaceted concept consisting of a learner's abilities, attitudes, and behaviors that support academic achievement in the classroom. It is a satisfactory and superior level of performance for students as they progress through and complete their school experience. Students of higher institutions cannot achieve higher academic excellence without effective communication and effective communication cannot be achieved without having the skill for communicating with others.

Communication skills are those skills needed to speak and write properly. Effective speaking is typically defined as being able to communicate effectively while maintaining eye contact with the audience, using a wide variety of terminology, and articulating speech to meet the needs of that audience (Odu, 2018). Similarly, an effective writer should be able to use written words in various styles and techniques to communicate his/her message and ideas to the readers. One should have the ability to listen carefully and write and speak clearly in any situation. Therefore, good reading, writing, speaking, and listening skills are essential for effective communication.

There is little doubt that the level of performance that can be achieved when acquiring skills is closely related to the extent to which a person practices the skill. Researchers often use retention or transfer tests to determine whether the changes in performance caused by practice are temporary or permanent. In educational institutions, academic performance is the outcome of educational goals that are achieved either by students or the teacher, which is how well a student meets standards set out by local authority or the institution itself.

Debates about students' gender-related performance in business education have taken place globally, although the results have been disputed (Stoet & Geary, 2013). Gender is a variable to be tested in this study. It has been observed that male students outperform their female counterparts in business education. The greatest difference in performance between male and female students was exhibited in digital literacy reasoning and skill acquisition; this follows because male students display greater confidence in their reasoning skills, which is a strong predictor of literacy performance. Thorough studies such as Else-Quest, Hyde, and Linn (2010) and Linderberg, Hyde, Petersen, and Linn (2014) reported that gender disparities are decreasing, as both men and women perform comparably. This view is supported by the American Psychological Association (APA) (2014) and Alex and Mammen (2015) who claimed that there is no appreciable statistical difference between male and female students' performance in business education globally. Yet, gender differences in business education and other social sciences continue to exist in some countries like Ghana, Kenya, and South Africa. Cases where

females dominate their male counterparts in terms of performance in business education are rare. Many factors (not fully discussed in this study) given by researchers are reported to be responsible for the dominance of males in business education including gender imbalance, task difficulty, cognitive competence, and perceived negative attitude toward female students by their teacher among others.

Technology and educational materials can be used by lecturers to improve skill acquisition. To give students more opportunities to practice and hone their skills, teachers can combine multimedia presentations, online tutorials, interactive software, virtual simulations, and educational websites. Lecturers can assist students in making the most of these tools to enhance their education (Sharpe, 2010). It is known that they are either false or, more generally, don't include enough information (Litt, 2013). It is against this background that the study was conducted to determine the perceived influence of digital literacy on business education students' academic performance and skill acquisition in tertiary institutions.

Statement of Problem

Digital literacy skills are fundamental skills for high academic performance and professional effectiveness in today's global academic system. It eases the difficulties associated with accessing and utilizing electronic information resources, which have become a preference for successful learning and research in educational institutions in developed countries of the world. The opposite is nearly true in poor nations like Nigeria, where the use of ICT in the teaching and learning process is still in its infancy and lecturers have little to no digital literacy expertise (Ebele, Ejedafiru & Oghenetega, 2013). This is having an adverse effect on the overall educational development of tertiary institution students as higher education is the apex educational level in building a literate individual that will in-turn transform the society into a literate society.

Despite the immense value of digital literacy, a majority of business education students in Nigeria lack the necessary skills since there is still a dearth of access to and adoption of digital tools at many of the country's tertiary institutions, this is in the view of the researcher. Most Nigerian educational institutions' curricula continue to place greater emphasis on analog or traditional teaching methods than on digital technology applications (Asanbe, Zamani & Aiyedogun 2008). Most students of Business Education do not have access to digital technology gadgets like computer systems, networks, and the internet, among others.

From the researchers' view, some students of Business Education do not show serious interest in digital technology-related courses, which will facilitate their digital literacy skills. This often is due to some ineffective teaching styles by some IT instructors/lecturers. The most disheartening scenarios in many Nigerian tertiary institutions that are observed to hamper students of Business Education for digital literacy skills in utilizing electronic information resources include lack of internet facilities, epileptic power supply, and non-functional or unusable digital tools such as computers in the tertiary institution's libraries. Additionally, most students of Business Education are technophobic in their approach to digital technology applications for academic dealings. Overall, the absence of a study on the influence of digital literacy on Business education students' academic performance would impede students understanding, hinder curriculum development, limit guidance for educators, and potentially leave students unprepared for the digital demands of the business world. It is crucial to conduct research in this area to elevate educational practices and ensure students receive the necessary digital literacy skills to succeed. There are a few studies on digital literacy, but to the best knowledge of the researcher, no study focused on digital literacy with communication skills.

This becomes the gap that this study filled with empirical evidence of the perceived influence of digital literacy on business education students' academic performance and skill acquisition in tertiary institutions.

Research Questions

The following research questions guided the study:

- i. What is the extent of the influence of digital literacy on Business Education Students' academic performance?
- ii. What is the extent of influence of digital literacy on Business Education Students' communication skills?

Research Hypotheses

The following null hypotheses were formulated for this study and was tested at 0.05 level of significance:

H₀₁: There is no significant difference between the mean response scores of male and female respondents regarding the influence of digital literacy on business education students' academic performance in tertiary institutions.

H₀₂: There is no significant difference between the mean response scores of lecturers and students regarding the perceived influence of digital literacy on business education students' communication skills in tertiary institutions.

Methodology

This study adopted a descriptive survey research design. The population of this study comprised undergraduate students of business education departments and lecturers from tertiary institutions located in Kaduna State Nigeria. The total population of both students and lecturers is 1,161 (Source: Departmental Office of each Institution (2024)). Proportionate sampling technique and Research Advisor (2006) were employed to obtain the sample size of two hundred and ninety (290) respondents. The instrument for data collection was a 20 item-structured questionnaire titled "Influence of Digital Literacy on Business Education Students Academic Performance and Skill Acquisition Questionnaire (IDLBESAPSAQ)". The instrument provided response to the two research questions. Item 1-10 dealt with research question one, and item 11 – 20 dealt with research question 2 in a 4-point rating scale of 'Very High Extent (4), High Extent (3), Low Extent (2), and Very Low Extent (1). To establish the validity of the instrument, the questionnaire was subjected to face and content validity by three experts, two from the Department of Business and Entrepreneurship Education, and one Professor from Department of Educational Management, Kwara State University, Malete. To ensure the consistency of the instrument, the Cronbach Alpha method of reliability was adopted in establishing a reliability coefficient of 0.87. Out of the 333 copies of questionnaires that were administered only 316 were retrieved and used for the study. Mean and standard deviation were used to answer the research questions, while the independent sample t-test statistics was used to test the hypotheses at 0.05 level of significance. The mean score of 1 Very Low Extent: 1.00 – 1.74, Low Extent: 1.75 – 2.49, High Extent: 2.50 – 3.24, Very High Extent: 3.25 – 4.00. Also, the decision rules for the hypotheses was that when the observed probability value is greater than or equal to 0.05 level of significance, the hypothesis was rejected and if it's value is less than the Table value, the hypothesis is accepted.

Results

Analysis of Data to Answer the Research Questions:

Analysis of data to answer the research questions are presented in Table 5 to 9 as follows:

Research Question One: What is the extent of the influence of digital literacy on business education students' academic performance in tertiary Institution in Kaduna State?

Table 1: Mean and standard deviation of responses on digital literacy and Business Education Students' academic performance in tertiary Institutions

S/N	STATEMENT	\bar{X}	SD	Remark
1.	Digital resources such as online databases and e-books positively influence students' academic performance in business education courses.	1.73	.461	Low Extent
2.	Proficiency in digital tools have improve students research skills and positively impacted their academic achievements in business education.	1.73	.461	Low Extent
3.	Integrating digital literacy skills into the curriculum for business education students is crucial to enhancing overall academic performance.	1.72	.448	Low Extent
4.	Students engage frequently in online networking for professional development activities related to field of business education.	1.91	.672	Low Extent
5.	Digital literacy skills provide students with a competitive advantage in accessing and applying industry-relevant information in my coursework.	1.96	.722	Low Extent
6.	Students proficiency in digital presentation tools (e.g., PowerPoint) positively influences their success in delivering presentations for business education courses.	1.77	.424	Low Extent
7.	Digital literacy has significantly impacted students ability to critically evaluate information from online sources for academic assignments.	1.87	.553	Low Extent
8.	Engaging in online discussions or forums related to my business education coursework is beneficial to students academic performance.	1.78	.457	Low Extent
9.	Digital literacy, including email and virtual meetings, contribute to effective collaboration with peers and instructors in my business education program.	1.75	.520	Low Extent
10.	Students feel confident in using business-related software for academic tasks, such as accounting software and project management tools.	1.86	.635	Low Extent
Weighted Average		1.81	.540	Low Extent

Analysis of data in Table 1 shows the mean and standard deviation of responses on the extent of the influence of the digital literacy on Business Education Students' academic performance in tertiary institution. The Table reveals that the respondents indicate that digital resources such as online databases and e-books positively influence students' academic performance in business education courses is to a low extent (Mean= 1.73). In addition,

proficiency in digital tools have improved students research skills and positively impacted their academic achievements in business education, integrating digital literacy skills into the curriculum for business education students is crucial to enhancing overall academic performance are to a low extent (mean = 1.73 and 1.72 respectively). Also, students engage frequently in online networking for professional development activities related to field of business education, students proficiency in digital presentation tool (e.g. PowerPoint) positively influences their success in delivering presentations for business education courses are to a low extent (mean = 1.91, 1.96 and 1.77 respectively). Additionally, Digital literacy has significantly impacted students' ability to critically evaluate information from online sources for academic assignments, engaging in online discussions or forums related to business education coursework is beneficial to students' academic performance, digital literacy, including email and virtual meetings, (mean = 1.87, 1.78, 1.75, and 1.86 respectively). All the ten item constructs have standard deviation ranging from .461, .448, .672, .722, .424, .553, .457, .520, .635 and .540. This means that the responses of the respondents are widespread as they are not close to the mean. Table 3 shows a grand total calculated weighted mean and standard deviation of 1.81 and .540. All the constructs in Table 1 indicate that digital literacy has no influence on business education male and female respondents' academic performance are to a low extent (mean = 1.81, SD = .540).

Research Question Two: What is the extent of the influence of the digital literacy on Business Education Students Communication skills in tertiary institution in Kaduna State?

Table 2: Mean and standard deviation of responses on digital literacy and Business Education Students Communication skills in tertiary institutions

S/N	STATEMENT	\bar{X}	SD	Remark
1.	Students proficiency in digital tools has enhanced their effectiveness in digital communication (e.g., emails, virtual meetings) for academic purposes.	1.90	.696	Low Extent
2.	Digital literacy skills contribute to effective collaboration with peers and instructors in their business education program.	1.88	.576	Low Extent
3.	Students digital literacy has significantly influenced the quality of their written communication in academic assignments and reports.	1.87	.687	Low Extent
4.	Digital literacy has positively influenced students verbal communication skills, including participation in class discussions and presentations.	1.89	.642	Low Extent
5.	Digital literacy has increased students confidence in participating in digital communication activities for academic purposes.	1.90	.701	Low Extent
6.	Engaging in online discussions or forums related to business education coursework is beneficial to students communication skills.	1.84	.524	Low Extent
7.	Digital literacy significantly influences students ability to communicate professionally, both in academic and future professional contexts.	1.84	.639	Low Extent
8.	Digital literacy skills positively impact students ability to	1.83	.590	Low Extent

	work effectively in virtual teams for academic projects.			
9	Students proficiency in digital presentation tools (e.g., PowerPoint) has enhanced their skills in delivering academic presentations.	1.70	.528	Low Extent
10	Student digital literacy skills have significantly contributed to the improvement of their written/ oral communication skills in my business education studies.	1.81	.539	Low Extent
Weighted Average		1.85	.612	Low Extent

Analysis of data in Table 2 shows the mean and standard deviation of responses on the extent of the influence of the digital literacy on Business Education Students' communication skills in tertiary institution. The Table reveals that the respondents indicate that digital resources such as online databases and e-books positively influence students' proficiency in digital tools has enhanced their effectiveness in digital communication (e.g. emails and virtual meetings) for academic purposes, digital literacy skills contribute to effective collaboration with peers and instructors in business education program are to a low extent (Mean= 1.90 and 1.88 respectively). In addition, students' digital literacy has significantly influenced the quality of written communication in academic assignments and reports, digital literacy has positively influenced students' verbal communication skills including participation in class discussions and presentations, digital literacy increased students' confidence in participating in digital communication activities for academic purposes are to a low extent (mean = 1.87, 1.89 and 1.90 respectively). Also, students engage in online discussions or forums related to business education coursework being beneficial to students' communication skills, students' proficiency in digital presentation tools (e.g. Powerpoint) has enhanced their skills in delivering academic presentations and student digital literacy skills have significantly contributed to the improvement of written and oral communication skills in business education studies are to a low extent (mean = 1.84, 1.84, 1.83, 1.70 and 1.81 respectively). All the ten item constructs have standard deviation ranging from .696, .576, .687, .642, .701, .524, .639, .590, .528, and .539. This means that the responses of the respondents are widespread as they are not close to the mean. Table 2 shows a grand total calculated weighted mean and standard deviation of 1.84 and .612. All the constructs in Table 6 indicate that digital literacy has no influence on business education lecturers and students' communication skills and are to a low extent (mean = 1.84, SD = .612).

Testing Hypotheses

Research Hypothesis One: There is no significant difference between the mean response scores of male and female respondents regarding the influence of digital literacy on business education students' academic performance in tertiary institutions in Kaduna State.

Table 3: Summary of t-test Analysis on the significant difference between the mean response scores of male and female respondents regarding the influence of digital literacy on business education students' academic performance

Gender	n	Mean	Std. Deviation	T	Df	Sig.	Remark
Male	109	18.73	4.451	1.753	288	.081	Not Significant
Female	181	17.68	5.244				

Source: Field Survey 2024

Data in Table 3 shows significance difference between the mean response scores of male and female respondents regarding the influence of digital literacy on business education students' academic performance in tertiary institutions in Kaduna State. The finding revealed that there was no significant difference ($t = 1.753$; $df = 288$; $P > 0.05$). The hypothesis was therefore not rejected in the light of the result since the significant value is less than 0.05. This implies that there was no significant difference between the mean response scores of male and female respondents regarding the influence of digital literacy on business education students' academic performance in tertiary institutions in Kaduna State.

Research Hypothesis Two: There is no significant difference between the mean response scores of lecturers and students regarding the perceived influence of digital literacy on business education students' communication skills in tertiary institutions in Kaduna State.

Table 4: Summary of t-test Analysis on the significant difference between the mean response scores of lecturers and students regarding the perceived influence of digital literacy on business education students' communication skills

Respondents	n	Mean	Std. Deviation	T	Df	Sig.	Remark
Male	109	19.31	5.410	1.930	288	.055	Not Significant
Female	181	17.97	5.942				

Source: Field Survey 2024

Data in Table 4 shows there was no significance difference between the mean response scores of lecturers and students regarding the perceived influence of digital literacy on business education students' communication skills in tertiary institutions in Kaduna State. The finding revealed that there was no significant difference ($t = 1.930$; $df = 288$; $P > 0.05$). The hypothesis was therefore not rejected in the light of the result since the significant value is greater than 0.05. This implies that there was no significant difference between the mean response scores of male and female regarding the perceived influence of digital literacy on business education students' communication skills in tertiary institutions in Kaduna State.

Discussion of Findings

The study focused on the perceived influence of digital literacy on business education students' academic performance and skill acquisition in tertiary institutions in Kaduna State. The result of the analysis in Table 1 revealed that the influence of digital literacy on Business Education Students academic performance in tertiary institution is to a low extent as the weighted mean of 1.81 was given. The result of the first research hypothesis revealed that there was no significant difference between the mean response scores of male and female respondents regarding the influence of digital literacy on business education students' academic performance in tertiary institutions in Kaduna State ($t = 1.753$; $df = 288$; $P > 0.05$). These findings have supported the results of previous research by Hasanah and Setiaji (2019) that digital literacy on entrepreneurial intentions has a positive effect. Likewise with the results of Stoke's (2008) study which states that digital literacy is the knowledge and skills to utilize a variety of digital resources to support their activities as learners. Also, Negi and Sain (2023) stated that Digital literacy is essential for the well-being of students in today's technologically advanced environment. Students must be educated properly so that they have the necessary skills to successfully complete their higher education learning journey. The finding is also in line with Eliaet al. (2020) stated that the ability to use technology would propel students to be able to innovate their business ideas.

The result of the study as shown in Table 2 shows a weighted mean of 1.85, indicating that the influence of digital literacy on Business Education Students Communication skills in tertiary institution is to a very low extent. The second research hypothesis shows that there was no significant difference between the mean response scores of lecturers and students regarding the perceived influence of digital literacy on business education students' communication skills in tertiary institutions ($t = 1.930$; $df = 288$; $P > 0.05$). This finding indicated that the possession of digital communication skills will increase the entrepreneurial desires of business education students. This finding is in line with Lifintsev et al. (2022) who reported that students' digital communication skills could impact their entrepreneurial intentions. In the same vein, Seroka-Stolka and Tomski (2014) stated that digital communication offers significant tools that help aspiring entrepreneurs connect with both domestic and international contacts and quickly obtain the information they need.

Conclusion

Based on the findings of the study, it was therefore concluded that digital literacy has significant influence on academic performance and skill acquisition. This means that when students are digital literate chances are that they will perform well and they will acquire the necessary skills and if this is the case, it means that teaching without digital technologies will not help these students continuous teaching without digital literacy means that our students will continue to go about with poor academic performance and lack of skills which also means that we will just be turning out half-baked graduates who will find it difficult to get job or to be self employed. By actively using digital tools, students develop proficiency in navigating technology, utilizing digital resources, and effectively leveraging digital tools for various business purposes. Students gain hands-on experience in using data analysis software, project management platforms, digital marketing tools, and other digital resources commonly used in the workplace. This proficiency enables students to be more efficient, productive, and adaptable in their future

careers. By developing digital literacy skills, students gain proficiency in utilizing digital tools, navigating online resources, and effectively engaging with digital technologies.

Recommendations

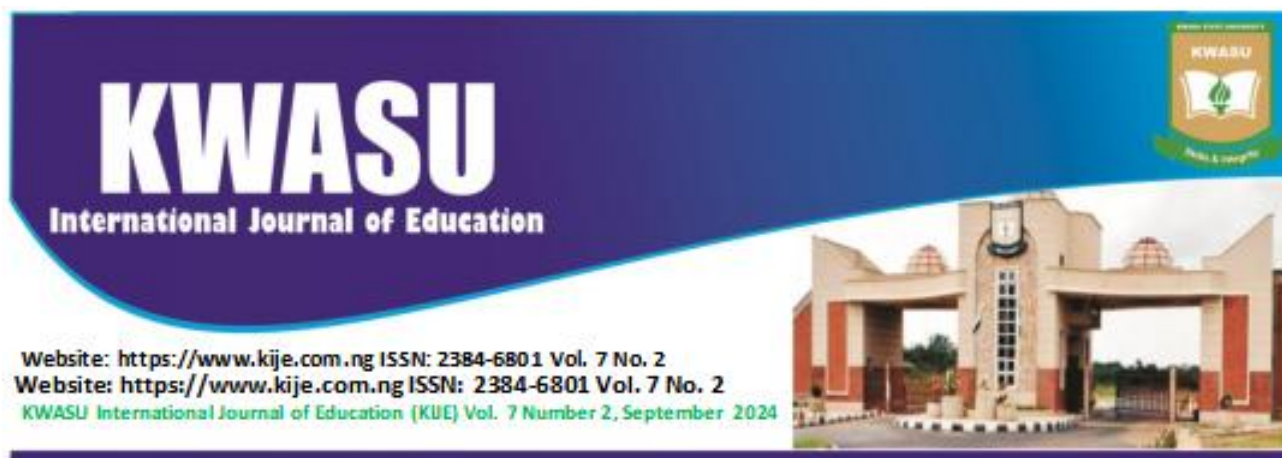
Based on the findings of the study, the following recommendations are made:

1. The Management of the tertiary institutions should promote the use of digital resources like android phones, laptops, palmtops, tablets and tools among teachers and students so that they will be digital literate which will in turn improve their academic performance.
2. The Management of the tertiary institutions should promote and encourage teachers and students to use relevant digital technologies to acquire communication skills.

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THE ROLE OF EDUCATION IN EFFECTIVE MANAGEMENT OF COMMUNAL CONFLICTS INVOLVING NOMADIC PASTORALISTS IN NIGERIA

By

ABUBAKAR USMAN

Department of Educational Administration and Planning

Federal University of Education, Zaria

Email: abubakarshika1978@gmail.com

Phone: 08066018195

&

SHEHU MOHAMMED

Department of Educational Foundations and Curriculum

Faculty of Education

Ahmadu Bello University, Zaria

Phone: 07068184222

Abstract

The paper examined communal conflicts involved nomadic pastoralists and the role that education can play in effective management of these conflicts. From the conflict perspective, the paper viewed communal conflict involved nomadic pastoralists as emanating from group struggle with nomads, who believed to be oppressed, marginalized and alienated. The concepts of conflict, communal conflicts and conflict management were clarified from scholarly viewed points in the paper. Also, the role of education towards effective conflict management were highlighted. The paper however concluded that many programs introduced to educate nomadic pastoralists were associated with challenges which make access to education for them still difficult and illiteracy rate very high. Therefore, the paper suggested among other things the need for adequate funding of education because underfunding has been identified as the major reason why the laudable objectives of nomadic education were not achieved as well as adequate and continuous mobilization and sensitization programs.

Keywords: Nomadic Pastoralist, RUGA, Conflict, Conflict Management, Nomadic Education

Introduction

Since Nigeria's attainment of independence in 1960, efforts towards building a united, strong and economically self-reliant nation has been hampered by different obstacles; prominent among these are conflicts and violence of different dimension. These conflicts which include electoral conflict, ethnic conflict, religious conflict, herdsman-farmer conflict, communal conflict, and indigene/settler conflict have become brazen characteristics of developments in Nigeria especially in democratic dispensations.

Among these conflicts, communal conflict involving pastoralists in northern Nigeria have persisted for decades. While farmers accuse pastoralists of illegal encroachment into their farmlands, the pastoralists are angered by the decision to turn Grazing Reserves into farmlands therefore the major causes of conflicts involving nomadic pastoralists and farmers include disputes over land use and competition over resource.

It is pertinent to note that government had employed diversified strategies to cushion the effect of clashes between herdsmen and farmers, but because of certain leakages in those strategies, the target has not been achieved. For instance, the formation of the National Commission for Nomadic Education that began its activities in 1990 introduced mobile schools for the children of nomads as well as the system of 'Radio and Television Education'. But despite the huge amount expended for the program (NCNE had spent over 72,930,000 to produce text books for only one session in 1991), no laudable achievement was recorded. Iro, (2004). According to him, although the government has spent millions of naira in nomadic education program, the measure of educational attainment among the Fulani remains low. The quality of education among them is mediocre at best. The nomadic education is, therefore, yet to lift the literacy and standard of living of the Fulani. Iro, (2004).

There is yet the issue of the establishment of Rural Grazing Areas (RUGA) by virtually all the northern states to avail the nomadic pastoralist's adequate grazing reserves (Burtali) for their animals. This was carved out of the grazing reserve act of 1964 to suppress the continuous conflict involving nomads. But when it was introduced into national policy, it faced criticisms from various angles especially in the southern part of Nigeria. Alugbele, (2021) believed that the major reason for the total rejection of the Federal Government proposal to implement the Grazing Reserves Law of 1964, by way of establishing Rural Grazing Area (RUGA) is that it was an attempt to grant unmerited right to the Fulani herdsmen over the indigenous people and host communities across the various states of the Federation. Both farmers and herdsmen are in private business and none of the parties must be given preferential treatment. Alugbele, (2021).

Whatever the causes, it is the belief of the paper that functional education to pastoralists can prove effective in efforts to manage conflicts involving pastoralists. This is endorsed by Babatunde (2006) the integration of the ethnic nationalities in Nigeria requires a transformation of attitudes and values. Indeed, education ensures promotion of desirable attitudes that can pave way for effective management of communal conflicts.

Conceptual Clarification

The concept of conflict has been defined in different ways by different scholars. According to Brosché and Elfversson in Torbjonsson (2016), Conflict refers to "A social situation in which a minimum of two actors strive to acquire at the same moment in time an available set of scarce resources". Here, the actors may be farmers, herders, villagers or self-defense militias, but the common factor remains that they are organized through common identity.

Communal conflict is a social conflict that relates to a group or groups in a society. Oboh and Hyande (2006) described communal conflict as involving two or more communities engaging themselves in disagreement or act of violence over issues such as claims for land ownership, religious and political difference leading to loss of lives and destruction of properties. This was also supported by Brosche and Elfversson in Torbjornsson (2016) who argued that communal conflict is a social situation in which a minimum of two actors strive to acquire at the same moment in time an available set of scarce resources. Communal conflicts involving pastoralists are reported from virtually all the states in Nigeria. According to Tuki, (2023), over 2,000 conflicts (eighty three percent of them were categorized as violent conflicts) were reported across the 36 states and FCT in Nigeria from 1997 to 2021 as postulated by Armed Conflicts Location and Events Data (ACLED). Although some states had lesser conflicts in the previous years as stated in the table below:

Distribution of pastoral conflicts across Nigeria's States (1997-2021)

State	Frequency	Percent	Cumulative
Abia	6	0.27	0.27
Adamawa	93	4.23	4.51
Akwa Ibom	5	0.23	4.74
Anambra	20	0.91	5.65
Bauchi	8	0.36	6.01
Bayelsa	3	0.14	6.15
Benue	352	16.03	22.18
Borno	19	0.87	23.04
Cross River	4	0.18	23.22
Delta	87	3.96	27.19
Ebonyi	12	0.55	27.73
Edo	24	1.09	28.83
Ekiti	13	0.59	29.42
Enugu	36	1.64	31.06
Federal Capital Territory	21	0.96	32.01
Gombe	4	0.18	32.19
Imo	11	0.50	32.70
Jigawa	27	1.23	33.93
Kaduna	257	11.70	45.63
Kano	3	0.14	45.77
Katsina	55	2.50	48.27
Kebbi	10	0.46	48.72
Kogi	48	2.19	50.91
Kwara	23	1.05	51.96
Lagos	7	0.32	52.28
Nassarawa	133	6.06	58.33
Niger	46	2.09	60.43
Ogun	40	1.82	62.25
Ondo	38	1.73	63.98

Osun	12	0.55	64.53
Oyo	49	2.23	66.76
Plateau	365	16.62	83.38
Rivers	7	0.32	83.70
Sokoto	17	0.77	84.47
Taraba	146	6.65	91.12
Zamfara	195	8.88	100.00
Total	2,196	100.00	

Note: Based on ACLED data Raleigh et al. in Tuki (2023).

On the basis of these definitions, the conflict over grazing lands between farmers and nomadic pastoralists that is common in many communities in Nigeria as clearly shown in the above table can be considered as communal conflict hence, the need to design strategic plans of managing those conflicts.

Conflict management can be referred to as the strategies employed in identifying, addressing and amicably resolving conflicts in the society. It is a situation where two conflicting parties reach a certain agreeable decision through internal or external intervention. This is in line with Tuki (2023), who posited that if intergroup trust is to be fostered, policymakers first need to be aware of how perceptions vary across cultural groups. In the short term, the government could take concrete steps towards improving the security situation in the state because “when culprits are not brought to book, it erodes institutional trust, prompting people to take the law into their own hands”. Tuki (2023). In Nigeria, approaches to conflict management and peace building involve institutions and structures established by government either on its own or in collaboration with other peace actors such as community leaders and non-governmental organizations NGOs. Community leaders are probably the most important such are local mechanisms that bring together different stakeholders to work with government agencies, including those in charge of law enforcement and security to spearhead conflict management and peace-building initiatives through elaborate networks at the community level that provide a basis for early warning and rapid response. However, in managing the pastoral conflict, leaders of nomadic pastoralists should be part and parcel of the decision-making process, dialogue, relevant policy formulation and policy implementation.

Education is considered by different scholars as an essential agent for conflict management. Education can be defined as the acquisition of knowledge and skills in order to be useful in the society. It places people into acquisition of right type of values which enables them to live in harmony with one another within the society. According to Koenig in Julia, (2015), education is the process whereby society seeks to transmit its traditions, its customs and its skills to its young members. Similarly, Durkheim in Julia, (2015) also defined education as “the influence exercised by adult generations on those that are not yet ready for social life. Its object is to arouse and to develop in the child a certain number of physical, intellectual and moral states which are demanded of him by both the political society as a whole and special milieu for which he is specially destined”.

Consequently, some conflicts between pastoralists and farmers can be managed effectively through inculcation of the right type of values which is among the purpose of education.

Theoretical frame work

The paper lends support on conflict theory whose major exponent is Karl Marx. The central theme of the theory is that society is in continuum struggle leading to conflict among the different strata based on differential positions they occupy in the productive hierarchy and the cause of conflict in the society is embedded in the economic system, that the economic system in society is the most fundamental institution. Thus, when the economic institution is affected all other super-structures like family, political organization, legal systems would be affected as a matter of fact. According to Julia (2015), Marx believes that economy is the primary foundation or infrastructure and that the exploitation of one party over the other would lead to conflict and struggle between the two parties ending in a bloody fight and violent overthrow.... Julia, (2015)

The theory can however be used to explain the subject under investigation This class division and use of power by the dominant class is not without consequences to the human society because the exploitation, alienation and oppression of the lower class sometimes let them with no alternative other than to conflict as means of struggle to change the status quo for their betterment. On the basis of this, the decision to turn grazing lands into farmlands, the denial of quality basic education to the school aged children of the nomads, the rustling of cattle and the lacking of most basic amenities associated with pastoralists can be considered in this discussion as part of the marginalization and alienation which pastoralists suffer in the society and is the reason behind their involvement in some conflicts.

The Plight of Nomadic Pastoralists and its implication

For time immemorial, there were established routes, grazing reserves, and watering points for animals however, a challenge is posed to herding in the contemporary times. With urbanization and increase in population, the resultant demand for residential and business spaces have pushed development to the outskirts of cities, taking over grazing areas and turning them to expanses of concrete and metal structures. Animals now compete with human beings and vehicles on the roads which most often than not, exposes animals vulnerable to road accidents. Such development explains why some Fulani accept nomadic life as inevitabilities of fate. Jibrin (2000) lamented that “the insidious nature of their settlement has regrettably robbed them into contiguous homelands. In the meantime, population explosion, violent crime and greater pressure on pastures make nomads a difficult life. In addition, this lifestyle makes them at the disadvantage lacking in most basic amenities such as education, portable drinking water, and electricity among others in spite of their immense contribution to the national development.

In recent times, the rising cases of cattle rustling are threatening herding in northern Nigeria. For instance, in an interview with BBC radio Hausa service the then Governor of Katsina State, Aminu Bello Masari decried that in 2015 alone (between January to August) about 3000 pastoralists’ cows were reported stolen in the state. Similarly, as cited in the Leadership Newspaper, the Adamawa state factional scribe of the state chapter of Miyetti Allah Cattle Breeders Association (MACBAN) Mallam Usman Liman Demsa lamented that no fewer than 1,500 cattle have been lost to thieves in the last one year alone, costing millions of naira.

The alienation and marginalization or absence of basic necessities of life to nomadic pastoralists as Adeniran, Olugbuyi and Balogun (2013) pointed out can also make them to cause violence in the society or may lead to conflict or war that can destroy lives and properties. This is because violence is often a response when grievances are not adequately addressed by a stakeholder concerned. Consequently, without serious commitment by the government to protect

their animals and their grazing areas, nomadic pastoralists decide to engage in taking laws into their hands in many different ways among which are:

Communal Conflicts Suspected to Involve Nomadic Pastoralists

29th December, 2018: Armed bandits and cattle-rustlers attack communities of Malikawa, Gidan Haliliu, and Gidan Kaka in Maradun and Birnin Magaji LGAs, Zamfara State where 64 community members were killed and hundreds of cattle rustled.

9th July, 2015: A large group of suspected well- armed cattle rustlers numbering about 50 attacked Cigama and Kokiya communities of Birnin Magaji LGA, Zamfara State.

3rd Nov, 2014: Unknown gunmen suspected to be cattle rustlers launched coordinated attacks against three Local Governments areas. First, they allegedly destroyed about 30,000 hectares of farmland in Gurbin Baure, Farara, Shinfida and Garin Maiwuya among others all along Zamfara/Katsina neighboring forest reserve.

The Role of Education in Effective Management of Communal Conflicts Involving Pastoralists

Education is any type of training aimed at balanced growth of the total personality of man. Aside from imparting of knowledge and skills, education also inculcates in an individual, fundamental dispositions such as attitudes, values and norms of the society. This encompasses values of unity, tolerance, honesty and cooperation. By reaching out to and injecting these in nomadic pastoralists, education is facilitating effective management of communal conflicts.

In line with this, Jibril, (2000) observes that Education equips the nomadic pastoralists with the necessary attitudes and the skills that helps to increase their productivity. Greater productivity by nomadic herdsmen means for high food for the country (p 71).

This therefore means that provision of education to the nomads will change their attitude towards accepting the right types of values which the society cherishes and by so doing increase their productivity for their own benefit and the nation in general. It will also equip the necessary knowledge on how to properly channel their grievances in an appropriate manner.

In view of the value attached to education in transformation of individual and society for the better, commitment was shown by government to give nomads access to education through the establishment of National Commission for Nomadic Education (NCNE) which was established by the decree 41 of 12 December, 1989. The objectives of commission are as follows:

1. Formulate policies and issue guidelines in all matters relating to nomadic education in Nigeria.
2. Provide fund for:
 - i- Research and personal development for the improvement of the nomadic education in Nigeria,
 - ii- The development of programs on nomadic education,
 - iii- Equipment, other instructional materials (including teaching aids and amenities), construction of classrooms and other facilities relating to nomadic education.
3. Arrange effective monitoring and evaluation of the activities of agencies concerned with nomadic education.
4. Establish, manage and maintain primary schools for nomadic children.
5. Determine standards of skills to be attained in nomadic education.
6. Collate, analyze and publish information relating to nomadic education in Nigeria.
7. Prepare reliable statistics of nomads and their children of school aged.

8. Act as agency for channeling all external aids to nomadic schools in Nigeria

Since its establishment and subsequent formation of these objectives, the commission introduced various programs and policies in order to provide basic education to nomadic pastoralists; children and adults through provision of adult extension education. In view of their unique lifestyle of nomadic, special education programs contrary to conventional were introduced to suit their lifestyle. Some of these strategies include mobile school system, radio programs, and distance learning strategies through the use of advance technologies among others. To achieve that, government allocated funds for the execution of those program. For instance, it was reported that the commission in 1990 only, expended N72, 930,000 in the production of textbooks for the nomadic education, and millions were expended in producing mobile schools. Iro, (1994).

However, in spite of the huge resources said to have been invested in the implementation, these and other programs introduced, access to education among both nomadic pastoralist adults and their children is not forthcoming and thus illiteracy rates remain very high. Part of the reasons according to Jibrin (2000) the distance learning strategy of teaching in nomadic education is faulty because it uses advance technology which is very difficult for the nomadic children who live in very remotest villages or *Rugga*. Similarly, Finding teachers who can adapt to mobile lifestyle become difficult and therefore employing adequate teachers remain out of the question, let alone securing the services of qualified teachers which even the conventional schools are lacking.

Conclusion

Effective management of communal conflicts involving nomadic pastoralists is of paramount importance because apart from loss of lives of both farmers and herdsmen, national food security in particular and national economy at large are at great risk as foodstuff and livestock supplies are negatively affected due to cattle rustling and grazing of agricultural products. Conflict begets conflict, and crime begets crime when not controlled. It was observed that the current situation of banditry suffered in some parts of northern Nigeria emanated from communal conflicts involving herdsmen and farmers which was undermanaged or, to some extent being neglected. This is in line with Marxist theory that postulates that the exploitation of one party over the other would lead to conflict and struggle between the two parties ending in a bloody fight and violent overthrow. Julia, (2015)

Functional education is a means of inculcating desirable values, attitudes and skills that can discourage individual from engaging into any act of violence. However, access to education to both nomadic pastoralist's adults and their children is not adequate due to ineffectiveness of various programs introduced to educate them.

Suggestions

From what was discussed on the communal conflicts involving nomadic pastoralists, the following recommendations were put forward:

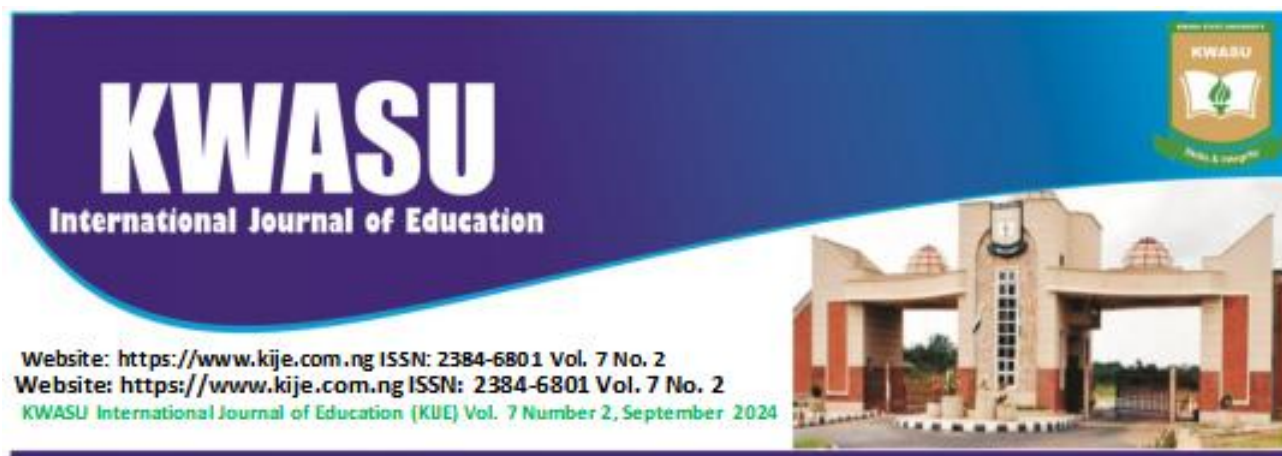
- i. There is need for more proactive measures in tackling challenges facing some of the strategies and programs initially introduced to educate nomadic pastoralists such as mobile school systems, radio programs among others. The gatekeepers of the nomadic pastoralists like MACBAN should be carried along in the decision making.

- ii. Similarly, the programs and strategies introduced to educate nomadic pastoralists need to be made more suitable to their lifestyle for them to acquire education. This is because it is believed that education inculcates the right type of values and attitudes for the survival of individual and the society; an educated person is never expected to take laws in his hand.
- iii. There is need for adequate sensitization campaigns on value of education as well as need for peaceful co-existence between the nomadic pastoralists and other communities. This should be carried out by stakeholders that must include their representatives.
- iv. Government should make sure that all the identified stakeholders are brought together under a common forum and included in the decision making and allowed to participate actively in the planning process. The adoption of a participatory planning process that involves all stakeholders (herdsmen and crop growers) in the dispute resolution mechanism will help to promote consensus instead of conflict.
- v. There should be adequate funding of education. This is because underfunding has been identified as the major reason why most laudable objectives of nomadic education are not achieved.
- vi. There is need for Pastoralists to be ready to respect the laws of the land. To do this, the issue of cattle tax (Jangali) needs to be revisited. This however, can only be possible when the pastoralists avail themselves to be known, registered and their movement monitored before any reasonable planning for the livestock sector would be possible.
- vii. Nomadic Education Delivery has to be forged not necessarily for Nomads but WITH them. When the program initiated is community-based and community-owned, nomadic pastoralists education can be sustained and make do with even little financial contribution from the federal and states governments.
- viii. Another vital area of integral concern to Nigeria policy makers concerning nomadic pastoralist's education delivery for conflict management has to do with the use of land. A comprehensive approach and viable solution should be adopted to deal with the question over rights to grazing areas, cattle paths, and routes which have been a major source of herders-farmers conflict leading to destruction of nomadic structures. Similarly, the re-thinking process has to take into cognizance the need to revitalize the grazing reserves established by previous governments by bringing back life to their moribund facilities as well as provide the much-needed social amenities like schools and clinics for pastoralists.

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ALIGNING TEACHERS' BELIEFS AND INSTRUCTIONAL PRACTICES FOR EFFECTIVE SCIENCE TEACHING

Imam Bashirat Titilope

**Department of Science Education, Faculty of Education, University of Ilorin, Ilorin,
Nigeria**

Abstract

Meaningful learning is assumed to be fundamentally dependent on effective instructional practices. Studies have reported that teachers' beliefs about the nature of knowledge influence their pedagogical practices. Hence, this research explored the interplay between teachers' epistemic beliefs and their instructional practices, particularly in the context of science teaching. This research also provided insights into the importance of sophisticated epistemological beliefs and their influence on teachers' pedagogical practices. Factors shaping these beliefs such as experience, reflection, and professional development were discussed. The research highlighted effective strategies, to help teachers align their beliefs with their instructional practices. In conclusion, it was established that an understanding of the alignment of teachers' epistemological beliefs with their practices helps in assisting teachers to better engage their students during classroom instruction. This belief helps teachers to select pedagogical approaches that drives their classroom discourse carefully. Specific suggestions, such as participating in professional development programs and engaging in reflective practices, were recommended as tools for overcoming challenges associated with achieving consistency between teachers' beliefs and their instructional practices.

Keywords: Epistemology; Beliefs; Science teaching; Instructional practices.

Introduction

Belief is a fundamental characteristic of teachers that significantly influences how they act in the classroom. It is a multifaceted domain that reflects the personal and professional views teachers hold about pedagogical practices. As opined by Bice and Tang (2022), an investigation of beliefs that underlie classroom practices could bring about the necessary change required to enhance meaningful learning among students. Therefore, an understanding of teachers' belief is essential for improving educational processes. Teachers' belief can include a wide range of issues which includes belief about; themselves and their role as teachers; culture, students' ability; learning; nature of knowledge; effective teaching strategies; and incorporating technology into teaching and learning (Guerra & Wubbena, 2017). These variant of beliefs in turn influences teachers' instructional practices.

Instructional practices encompass the strategies and methods that teachers employ to support students learning. For instance, in an interactive instruction, teachers can engage in the use of simulations, scaffolding, and group discussion among others to help students gain meaningfully from contents of instruction. These practices of teachers, depends largely on what they bring to the classroom such as their belief (OECD, 2009). Teachers are reflective professional practitioners whose effectiveness is driven by their beliefs. However, in some cases, there are discrepancies between what teachers say they believe in and what they practice in the classroom. In cases where there is a significant gap between teachers' beliefs and their practices in classroom instruction, students may receive conflicting information from their teachers, leading to complications in the learning process (Guerra & Wubbena, 2017). It is, therefore, important that teachers align their beliefs with their instructional practices to enhance effective classroom discourse.

Aligning teachers' beliefs and practices is crucial for student learning as teachers' beliefs often shape their instructional practices. Studies have shown that teachers with innovation-oriented beliefs tend to implement inquiry-based practices that support meaningful student learning. In furtherance to this, teachers' beliefs can influence engagement in specific actions and practices, leading to changes in their instructional approaches. Similarly, teachers' sense of responsibility for students' learning also plays a role in aligning their beliefs and practices (Michelle & Beck, n.d.). Hence, aligning teachers' beliefs and practices is essential for creating a positive and effective classroom environment that fosters student learning. This suggests that research should be concerned about epistemological beliefs, i.e beliefs individuals hold about how one comes to know, how knowledge can be justified, and how theories and beliefs influence individuals' cognitive processes. Just like other arrays of beliefs, epistemological beliefs that teachers hold has direct influence on their instructional practices.

Meaning and Dimensions of Epistemological Beliefs

Epistemology is a branch of philosophy that is concerned with the nature, origin, limits and validation of human knowledge. Epistemological beliefs otherwise referred to as epistemic beliefs refer to an individual's underlying beliefs about the nature of knowledge, knowledge acquisition, knowledge construction, justification of knowledge and limits of knowledge (Mohamed & El-Habbal, 2013). It is a subset of the larger belief system, referred to be one's

conceptions about the nature of knowledge and learning (Schommer, 1990). Hence, epistemology addresses questions about the nature of human knowledge and justification of knowing. Teachers' epistemological beliefs have a significant impact on their teaching practices. For instance, teachers who hold teacher-centred beliefs for helping students to learn, tend to create teaching practices that promote teacher-centred instructions while those with learner-centred belief promotes inquiry-based teaching. These beliefs are core to teaching practices and can inform them (Schraw & Olafson, 2003).

Epistemological belief constitutes a subsystem within one's belief system and are considered to have multiple dimensions. Schommer (1990) hypothesized five dimensions of epistemological beliefs including: certainty of knowledge (tentative to unchanging), structure of knowledge (isolated to integrated), source of knowledge (authority to observation and reason), speed of learning (quick or gradual), and control of learning (fixed at birth or lifelong improvement). Each of the dimensions of beliefs were characterized along the ends of a continuum ranging from naïve to sophisticated beliefs. A person who holds naïve epistemological beliefs, believes that knowledge is certain, that is comprised of isolated pieces, handed down by authority, that the process of learning is quick, and the ability to learn is fixed and innate. However, a person who holds a contrary belief is considered to have "sophisticated" beliefs as presented in Table 1.

Table 1

S/No	Dimensions	Unsophisticated Beliefs	Sophisticated Beliefs
1	Stability of Knowledge	Knowledge is definite and static	Knowledge is tentative and changeable
2	Source of Knowledge	Knowledge is given by experts	Knowledge is created by reasoning
3	Structure of knowledge	Knowledge is simple and absolute	Knowledge is multifaceted
4	Ability to Learn	Ability to learn is inborn and static	Ability is altering and everybody can learn
5	Speed of learning	Learning is a quick process	Learning is a slow process of acquisition

Schommer's Epistemological Beliefs Model

Source: Khan, et. al. (2020)

In another view of dimensions of epistemic beliefs, Hofer and Pintrich (1997) suggested another model of epistemological beliefs that included dimensions related to the nature of knowledge and knowing. In this model, while the dimensions of the certainty of knowledge and the simplicity of knowledge are related to the nature of knowledge, the dimensions of the source of knowledge and the justification for knowing are related to the nature of knowing. Hofer (2000) reported several concerns with Schommer's (1990) model and claimed that Schommer's epistemological model is only related to general epistemological beliefs. Hence, it is not adequate in understanding academic knowledge beliefs and domain specific epistemological beliefs. Sequel to this, Hofer hypothesized four epistemological beliefs that individuals may hold. These are

related to (a) certainty and simplicity of knowledge, (b) justification for knowing: personal, (c) source of knowledge: authority, and (d) attainability of truth. Although the factors of certainty and simplicity of knowledge and source of knowledge already existed in Schommer's (1990) model, the factors of justification for knowing: personal and attainability of truth were new in Hofer's model. In the model, the beliefs were grouped into two domains: nature of knowledge and nature of knowing. The nature of knowledge beliefs refers to beliefs inclined to certainty and simplicity of knowledge. The certainty of knowledge refers to the degree to which one sees knowledge as fixed or more fluid while the simplicity of knowledge concerns if knowledge is viewed as the collection of separate factual information or as an amalgam of interrelated concepts (Duong & Hercz, 2022). The nature of knowing domain of beliefs include the source of knowledge and justification for knowing. The source of knowledge deal with the conceptions of knowledge as described by external authority, while justification for knowing indicate individual's evaluation of knowledge claims.

Epistemological Beliefs and its Impact in Science Education

Epistemic beliefs may apply to specific domains of learning and this is because teachers hold certain beliefs about the subject they teach. The manner a subject is taught is influenced by the teachers' belief about it. The idea that epistemic beliefs is domain specific has been validated by earlier studies. In other words, epistemological beliefs may change when disciplines are considered (Tsai, 2006; Hofer, 2000). Hence, disciplines such as science education, philosophy, and history differ in their view of epistemic beliefs. Nonetheless, others have suggested that there is a clear correlation between science learning and teachers' epistemological beliefs (Lederman et al., 2002). This belief influences how students accept, reject and revise what they are taught. Students' approaches to learning new material, knowledge construction, study technique, and reasoning abilities towards an activity or a given task is influenced by their epistemic beliefs in science education (Rosenberg, et. al., 2006). Therefore, students who can understand and make meaningful interpretation of science topics are more likely to be active learners and have advanced conceptual skills than those who are not. Therefore, epistemological beliefs should be taken into account in the learning and teaching processes of science courses.

In science education, emphasis has been placed on how to teach science content to enhance meaningful learning, effective methods to teach specific scientific concepts, helping students understand this content, and master scientific practice. It therefore becomes crucial to understand both psychological and learning processes as well as the social communication processes in the classroom context (Siegel, 2014). For instance, Hofer, (2001) examine how epistemological beliefs affect students in questioning and structuring scientific information. It was posited that epistemological beliefs are crucial components of lifelong learning and interferes with individual's process of acquiring and constructing knowledge. Furthermore, it was stated that individuals' perspectives on scientific knowledge, their degree of involvement in the course, their academic success, and motivation are all influenced by their epistemological beliefs. For instance, scientific argumentation when combined with constructivist epistemic beliefs leads to better learning of science concepts (Nussbaum, et. al., 2008). Additionally, it is agreed upon that epistemological beliefs start to develop during the early school years of individuals (Chen, Chen, and Liu, 2022). Hence, it is believed that students with sophisticated epistemological views will construct in depth, and comprehensive thoughts compared to those with naïve beliefs (Cano &

Cardelle-Elawar, 2004). Therefore, high-level thinking abilities including learning, reasoning, decision-making, problem-solving, and creativity are influenced by students' scientific epistemological beliefs.

Conley et. al. (2004) opined that in the domain of science, beliefs about the certainty, development, source, and justification of knowledge are regarded as central epistemic beliefs. The certainty dimension reflects beliefs about the stability of knowledge and it covers a wide spectrum of positions. This position ranges from those that hold a strong conviction that knowledge is unchanging to those that acknowledges that scientific knowledge can change and that multiple solution to complex problems can exist. The development dimension is associated with beliefs acknowledging science as a dynamic discipline. It ranges from the notion that scientific knowledge is static to claims that science is always evolving based on new evidence. The source dimension addresses beliefs about the knowledge that resides in external authorities. Stances vary from strict beliefs in authorities (e.g., teachers) to a recognition of the value of critical evaluation, questioning authorities, and the capacity to generate knowledge independently of others. Finally, the justification dimension pertains to the role of experiments and evaluation of claims by students. It ranges from accepting that knowledge is justified by a variety of thinking technique, experiments, and observations to rejecting the necessity of data to support arguments.

The beliefs are situated at opposite ends of a continuum that spans from naïve to sophisticated beliefs. A person who can be characterized as sophisticated according to Conley et al.'s (2004), does not strictly or always believe in external authorities, recognize the variability of answers in science, see knowledge as an evolving construct, or value evidence and experimentation in the process of acquiring new knowledge. This highlights the significance of gathering evidence and applying critical thinking to (external) sources of knowledge, the importance of not blindly trusting experts, and the significance of one's own abilities and scientific reasoning.

Aligning Beliefs and Teachers' Instructional Practices

Teachers' belief is part of a larger system that guides their instructional practices. It plays an important role in guiding instructional decisions, and influences teachers' enactment. Scientific epistemic beliefs are reported to strongly predict science teaching beliefs and science- specific pedagogical content knowledge (Wu & Tsai, 2022). For instance, a teacher who believes in tentative nature of knowledge would practically, teach students to engage in critical thinking by fostering critical evaluation of information. Such teacher emphasizes evidence based learning and open mindedness which positively influences learning outcomes. While beliefs have been found to influence practice, studies have also found inconsistencies between espoused beliefs and practices. Schoenfeld (2010) explained that the belief systems of teachers' and the ability to implement corresponding practices are slow to change and frequently co-develop over time. According to Northcote (2009), the strength of the relationship between beliefs-practice as traced from existing literature have implications for course design processes, as well as teaching and learning practices. Hence, it was suggested that:

1. in terms of course design, the beliefs-practice nexus should be addressed by placing practical skill development alongside activities which encourage students to regularly reflect on their educational beliefs.
2. teachers' practical experiences can influence their beliefs in general ways, which can in turn impact how they approach their teaching strategies and techniques.
3. teachers' beliefs inform their use of specific instructional strategies that, in turn, impact on the quality of students learning. This relationship highlights the importance of teachers continually reflecting on their beliefs and practices in order to best support students learning.
4. teachers' practical approaches to teaching and their teaching intentions were directly influenced by their conceptions of teaching, which ultimately impact the learning experiences of their students.
5. students' educational beliefs impact on their own learning practices, which in turn can shape their academic success.

Roehrig, et. al (2009) noted that alignment of teachers' belief and instructional practices varies across domains of beliefs, content areas, and teachers' abilities. A number of factors are responsible for aligning teachers' belief with their instructional practices. Some of which include:

1. lack of knowledge in incorporating their beliefs into their instructional practices: while most teachers believe that constructivist approach is helpful in attaining meaningful learning, teachers may not be able to incorporate it into their instruction due to lack of knowledge in implementing it.
2. Lack of self-awareness: lack of self-awareness could be in two folds; when teachers involve in instructional practices without knowing they do or not engaging in instructional practices with a belief of doing so. For instance, a teacher does not believe in scaffolding practices could be found using elements of scaffolding during classroom instruction without having knowledge of doing so. This highlights instances where teachers contribute more to classroom discourse than they realize. Contrarily, a teacher that believes in student centred approach to instruction could be found using a mid-way approach to teaching and still hold the belief of utilizing a student-centred approach to instruction. This occurs when teachers are not doing up to what they think they do.
3. Contextual factors: this is related to school/classroom context or policy context. classroom situations and educational policy can impact a teacher's choice of what to put into practice. Contextual factors in the school/classroom include level of support from administration classroom management and routines, differences in abilities of students and their learning styles, textbooks, students' social and emotional differences, teacher-student respect and relationships. The policy context includes the influence of high-stakes standardized testing on the narrowing of academic content and teacher classroom practices.

Development of Sophisticated Epistemological Beliefs

Teachers' epistemological belief plays an important role in their instructional practices. This belief has tendency to evolve over time through experience, reflection and professional development. As people's beliefs are liable to change, so is their personal epistemic belief.

Cultural context, age, sex and educational qualifications have been ascribed as factors that shapes the development of sophisticated epistemological beliefs of teachers (Letina, 2022; Sengul, 2024). Individual's development of epistemological beliefs can range from simple to complex. As opined by Kuhn & Weinstock (2002) developments in personal epistemology demonstrated a particular trajectory ranging from absolutist – subjectivist – evaluativist. In their view, individuals can be seen as moving from simplistic(absolutist) to a more complex (evaluativist) view of knowledge. The absolute views of knowledge refer to viewing knowledge from a lens where there is little reflective cognitive behaviour and issues are seen as they are presented. This stage develops through an understanding that personal opinions have a bearing not only on understanding but knowledge itself, whilst to some degree a personal construction, is received and largely unexamined. The evaluative stage is characterised by an understanding that some knowledge is better than others and thus any claims to knowledge need to be made after evaluating a range of different theories and perspectives and tentative conclusions made as to the best understanding and its concomitant response. Pintrich (2002) points out that the terms commonly used by the research community to label these different epistemologies are naïve and sophisticated. Hence, the categorization of epistemic beliefs is usually situated in the two ends of a continuum of naïve and sophisticated beliefs.

Teachers who hold sophisticated belief are most likely to use teacher centred approach to engage students in active learning, problem solving and critical thinking. They are more likely to adapt teaching to meet the needs of the learners and create opportunities for discussion and collaboration during the learning process. They possess likelihood of demonstrating high efficacy and confidence in their ability to teach (Dorsah, et al., 2020). Teachers who hold a naïve belief has contrary approach to instruction. Teacher education programmes has significant role to play in improving the epistemological beliefs of teachers. For instance, preservice teachers should be allowed to develop a greater understanding of their own view of knowledge and learning by introducing them to theories that enable them to think ontologically and epistemologically. Similarly, teacher educators should initiate and sustain adoption of reflective and discursive practices throughout the length of teacher training courses (Sfhea, 2016). Therefore, the more sophisticated the epistemological belief of pre-service teachers, the more appropriate the learning strategies used and the more effective the learning.

Challenges and Prospects of Aligning Teachers' Beliefs with Instructional Practices

Aligning teachers' beliefs with their practice can be challenging. Some of the challenges include:

1. teachers' inconsistent belief and practices due to cognitive dissonance,
2. contextual factors such as school and policy context, which can influence the beliefs and practices that are prioritized and enacted.
3. heterogeneous beliefs held by teachers which may be inconsistent and affect their enactment.
4. Lack of awareness or inconsistencies between teachers' belief and their instructional practices.

Based on the foregoing, the following strategies are suggested for helping teachers to align their beliefs with their instructional practices:

1. Teachers should participate in professional development programmes that focuses on assisting them to align their beliefs with their classroom practices.
2. Teachers can engage in micro-teaching activities that will help them to gradually develop more sophisticated epistemological beliefs and align such with their instructional practices.
3. Teachers should engage in reflective practices about their classroom discourse and students' learning to help them improve their epistemological beliefs and instructional practices over time.
4. Through engagement in training on cognitive dissonance, teachers can better align their beliefs with their classroom practices by adding a consonant element (a cognition that is consistent with another cognition). The consonant element could be; consonant cognitions, subtraction of dissonant cognitions, increase the importance of consonant cognitions, or decrease the importance of dissonant cognitions.
5. Engagement in mentoring, such as regular feedback sessions and collaborative lesson planning, and receiving support from experienced teachers who model effective alignment practices can help teachers to improve their alignment process.

Conclusion

Science teachers' epistemological belief plays a key role in shaping their instructional practices. Particularly, it provides information on how best scientific content may be to assist learners engage in meaningful learning considering the beliefs of the teacher. An understanding of alignment of teachers' epistemological belief and their practices helps in assisting teachers to better engage their students during classroom instruction. This belief helps teachers to carefully select pedagogical approaches that drives their classroom discourse. However, teachers' beliefs are likely to differ from their instructional practices. Hence, it is crucial to understand both psychological and learning processes as well as social communication processes to improve the quality of instruction. In understanding this, teachers believe about epistemology as a determinant of their discursive practices will sensitize them on the need to align their beliefs and practices for high-quality science instruction.

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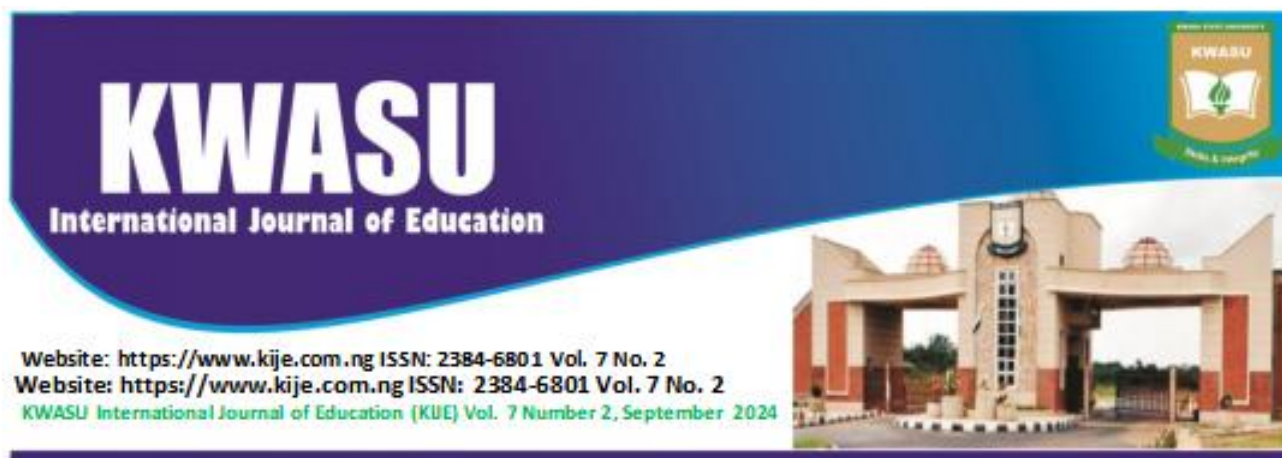
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EFFECT OF RALLY COACH ON PUPILS' ACADEMIC PERFORMANCE IN NUMERACY IN OKENE LOCAL GOVERNMENT, KOGI STATE NIGERIA

By

**Gambo Victory AGBOMEIRE, Usman Tunde SAADU, Hafees Tosin SULYMAN &
Yahaya OLAREWAJU**

Department of Early Childhood and Primary Education
Kwara State University Malete,

Correspondence: childrenmustgrow@gmail.com
08072080145

Abstract

This study examined the effect of rally coach on pupils' academic performance in numeracy in Okene Local Government Area of Kogi State. Four purposes were stated and four hypotheses were formulated to guide this study. The study employed a pre-test, posttest, control group quasi experimental design. the targeted population comprised 170 primary schools pupils. The sampled population consists of two private schools and public schools. The instruments titled Instructional Guide for Rally Coach (IGRC), Instructional Guide for Conventional Method (IGCM) and Numeracy Performance Test (NPT) were used for data collection. The instruments were subjected to face and content validity by three lecturers from Early Childhood and Primary Education and Arts and Social Sciences. The reliability index of NPT was determined using Pearson Product Moment Correlation (PPMC) and it yielded (0.75). Four research hypotheses were formulated and tested in this study at 0.05 level of significance. Inferential statistics of Analysis of Covariance (ANCOVA) was used to test the hypotheses. The findings revealed that there was a significant main effect of Rally Coach on pupils academic performance in numeracy ($F_{(1; 96)} = .010, P < 0.05$). Those exposed to Rally Coach (19.287) performed significantly higher than those exposed to conventional method (19.273). Similarly, interaction of treatment and school type had no significant effect on pupils' academic performance in numeracy in Okene Local Government Area of Kogi State. Ultimately, treatment and gender had no significant

effect on pupils' academic performance and learning retention in numeracy in Okene Local Government Area of Kogi State. In conclusion, the effect of Rally Coach on effect of Academic performance in Numeracy was high, it was recommended that Numeracy teachers in particular should adopt this strategy in delivering knowledge to the pupils and Teachers should be exposed more to the internet for more exposure on Rally Coach.

Keywords: rally Rally Coach, Academic Performance and Numeracy

Introduction

Numeracy is a core subject particularly at the primary school level that must be exposed to individuals at all levels of education specifically the primary level. This subject at the primary level of education could be considered as one which exposes pupils to the rudiment of numbers and figures. In the 21st century, the relevance of numeracy cannot be underestimated because of its connection to all fields of study. Similarly, it could be seen as a pillar on which all other subjects rely on. Numeracy in early years, if connected to a child's world in a developmentally appropriate manner could be more than getting ready for school or hastening them into fundamental or basic mathematics. Numeracy is also known as numerical literacy, ability to understand and work with numbers which is essential for everyday life and academic success. Numeracy has been a vital skill throughout human history with ancient civilization used numbers for trade architecture in the 19th and 20th centuries numeracy has become a core component of elementary education, it is crucial for problem solving, critical thinking and linked to academic achievement, economy productivity and social mobility.

The essence of primary education for the overall development of the child as slated by the National Policy on Education (NPE, 2013). It is to inculcate permanent literacy and numeracy and the ability to communicate effectively. In line with the policy, it could be said that each child at primary school level is taught simple mathematics and language skills. The skills acquired in the subject enable the pupils to effectively communicate and transact in the society (Ahmed & Lawal, 2020). Akinoso (2013) was of the opinion that numeracy is a field of Science use to solve various practical problems. Similarly, numeracy could be represented through the use of visual objects such as charts, diagrams, tables, and sketches. Purwadi, et al (2019) affirmed that presentation of numeracy topics in a simple form makes it easier for pupils to understand teaching and learning and problem-solving.

Makondo and Makondo (2020) in their study opined that despite the significance of numeracy, the academic performance of pupils, particularly in national examinations, has shown a downward trend. To buttress this point on numeracy performance among students, Saad et al. (2014) revealed that the percentage of students with five credits rose to 30.9% and continued to rise to 38.81% in 2012. Unfortunately, in 2013, the performance declined to 36.57% and further declined to 31.28% in 2014. The performance since then has not been consistent making it a major concern for researchers in the field of Education..

These statistics data calls for an immediate need to address the challenges and problems faced by pupils in numeracy, particularly in Okene Local Government Area of Kogi State. To address this pressing need of poor academic performance, there is need to know the causes. This poor academic performance could be attributed to a number of factors such as lack of school facilities, lack of qualified numeracy teachers, congested numeracy classroom, overloaded numeracy syllabus and poor instructional strategies used in teaching numeracy. Academic performance also depends on the amount of time a child is actively engaged in learning because, the time spent on studying helps pupils to retain the materials learnt which may also boost the pupil's academic

performance during test or examination. Among several previous studies conducted, Isa et al. (2020) indicated that the teaching method employed in classrooms has a significant impact on pupils' academic performance. Specifically, they posited that the use of a lecture method by certain teachers has been associated with poor academic performance in mathematics.

Efforts have been made to solve the problem of poor performance in the internal and external examinations by different stakeholders in the education industry, but evidence shows that the problems is still prevalent in our schools (Clifford, et al, 2019). In respect to this, many efforts have been explored and like other core subjects, priority attention has been given to this compulsory subject. Osikomaiya (2013) noted that pupils continue to perform very poorly in the subject at both promotional and terminal examinations to the displeasure of parents, teachers, examiners, and policy makers. This could be possible that this continuing poor performance is as a result of continuously using of conventional method, inadequate teaching facilities, unqualified teachers teaching the subject. This is because it can be observed that conventional method is still popular in Nigeria despite its obvious and numerous limitations.

Rally Coach is a comprehensive educational intervention program designed to support pupils academic development particularly in numeracy skills and it could also be a cooperative learning strategy used in education for peer collaboration and widening knowledge in it content.

Rally-Coach is a Kagan structure model that was designed in his book titled cooperative learning which referred to the learning models that involve students learning in groups or pairs. Kagan and Kagan (2015) stated that in the cooperative classroom, the teacher has learners work in pairs using Rally-Coach. Moreover, it is a learning model that allows the pupils in the classroom to give praises to their friends while solving the problem or answering the question. It gives learners the opportunity to coach their peers through problems and questions. Pupils are paired together: where one is partner A, and another is partner B. The pupils solve problems or answer questions aloud in pair. They take turns solving one of their problems or questions aloud, so their partner coaches can listen to their thinking and process. As Partner B listens, they check for accuracy, clarify any misconceptions, and "coach" Partner A as needed. The learners switch roles when the problem is correct. According to Marlina, et al (2016), rally coach is a strategy that supports learner's collaboration, communication, and subject mastery in the classroom.

Rally Coach is one of the alternative learning models which could promote pupils' numeracy ability. Ningsil et al (2017) stated that the learning steps of Rally Coach are into four stages namely; learner A tries to solve a given problem; learner B pays attention, checks and gives a reward if learner A answers correctly; learner B tries to solve a given problem then; learner A pays attention, checks and gives a reward if learner B's answer is correct. In this learning model, pupils are asked to solve some contextual problems in a small group or pair in order to minimize the existence of any sleeping partners during the discussion process.

Gender in relation to academic performance has been another area of great concern to educational stakeholders and this researcher deem it fit to consider it as one of the moderator variables in this study. Gender is a specially constructed phenomenon, which connects to the cultural attributes of males and females (Nnamani & Oyibe, 2016).

Bello and Famakinwa (2014) defined gender as the social and cultural construct, characteristics, behaviours and role which society ascribes to males and females. It is said to be one of the factors affecting students' socio-cultural and academic achievement. The physical characteristics and differences in the reproductive organs determine male or female respectively (Federal Ministry of Education, 2016).

School type could be divided into Public and private schools. They are institutions owned as the name connotes. The public schools in Nigeria have Federal, State, and Local governments as their proprietors; while private schools have individuals, associations, or organizations as their owners. Private schools vary widely, and the level of parental participation differs from one private school to the other (Olatoyo & Olasehinde, 2014).

It has however been observed that different researchers have carried out studies on different learning strategies on academic performance while few have studied the effectiveness of rally coach structure on pupils' academic performance in numeracy. Also, to the best of the researcher's knowledge it has been observed from the literature reviewed that a study of this type has never been carried out in Okene Local Government Area of Kogi State. Hence, this justifies the need to examine the effect of rally coach on pupil's academic performance in numeracy in Okene Local Government of Kogi State. Therefore, this is meant to fill the gap, requiring empirical evidence with regard to the effect of rally coach on pupil's academic performance in numeracy.

Statement of the Problem

The academic performance of pupils in primary schools have become a persistent issue in recent times. This has been a great concern for teachers, parents, education administrators, researchers and the Nigeria government as a whole. Various studies have been carried out to know the causal effect of the problem.

Some studies revealed in their findings that the low academic performance of pupils in this subject can be attributed to so many factors including teaching method and learning structures. Previous studies on the influence of these variables on academic performance are not conclusive. While some of the findings of the studies discovered that, there is a significant influence of these variables on pupils' academic performance in mathematics. Some studies equally discovered that these variables do not significantly influence pupils' academic performance in mathematics. However, the academic performance of pupils in upper level of pupils in primary school in Okene local government area of Kogi state has been consistency low with many pupils struggling to demonstrate basic numeracy skills, many primary school pupils in Okene lack the necessary skills and competence to succeed in school leading to poor academic performance in numeracy (Kogi State Ministry of Education 2019). This problem is further compounded by lack of competent numeracy teachers to improve academic performance.

Rally Coach Structure is an innovative approach that has been implemented in some schools in Nigeria to improve academic performance in Numeracy. However, the effectiveness and impacts of this structure in improving performance has not been adequately and efficiently investigated. To the best knowledge of the researcher none of the previous studies conducted focused on the effect of rally coach on pupil's academic performance in Numeracy in Okene Local Government Area of Kogi State. This is the gap which the study tried to fill.

Research Hypotheses

The following research hypotheses were postulated for this study;

- H₀₁:** There is no significant effect of rally coach on pupils' academic performance in numeracy in Okene Local Government Area of Kogi State.
- H₀₂:** There is no significant interaction effect of rally coach and gender on pupils' academic performance in numeracy in Okene Local Government Area Of Kogi State.

H₀₃: There is no significant interaction effect of rally coach and school type on pupils' academic performance in numeracy in Okene Local Government Area of Kogi State.

H₀₄: There is no significant interaction effect of rally coach, gender, and school type on pupils' academic performance in numeracy in Okene Local Government Area of Kogi State.

Methodology

The research design adopted for this study was pre-test, post-test, control group, quasi-experimental design. A factorial design of 2X2X2 was adopted to test the null hypotheses for this study. The first two levels are; one experimental group (Rally Coach) and one control group (conventional method). The second factorial level was based on gender, that is male (M) and female (F); while the third factorial level focused on school type (public and private). The population for the study comprised of all 94,276 primary school pupils in public and private schools in Okene Local Government Area of Kogi State. The target population for this study were primary three pupils in Okene Local Government Area of Kogi State. Sample size was 97 participant. Three researcher instruments designed were used to elicit relevant information for the study titled "Numeracy Performance Test (NPT), instructional guide for rally coach (IGRC), Instructional guide for conventional Method (IGCM).

Face and content validity of the instrument were ascertained by two numeracy teachers in the lower basic school, researcher's supervisors, internal examiners and two lecturers in the Department of Early Childhood and Primary Education. The reliability test was conducted using test retest, 20 copies of the test were administered two times on primary 3 pupils in another school which was not be part of the study sample and Pearson Product-Moment Correlation (PPMC) was used to determine the reliability index yielded 0.75. The data collected were analysed using both descriptive and inferential statistics. Analysis of Covariance (ANCOVA) was used to test the hypotheses at 0.05 level of significance.

Results

Testing of the Hypotheses

H₀: There is no significant main effect of rally coach on pupils' academic performance and in numeracy in Okene Local Government Area of Kogi State.

Table 1: Summary of Analysis of Covariance (ANCOVA) showing the Main Effect of Treatment on Pupils Academic performance in Numeracy

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	6.008 ^a	8	.751	1.593	.138
Intercept	230.913	1	230.913	489.924	.000
Pre_Test	4.767	1	4.767	10.114	.922
Treatment	.005	1	.005	.010	.922
Treatment * Gender	.166	2	.083	.177	.838
Treatment * School_Type	.350	2	.175	.372	.691
Treatment * Gender *	.999	2	.499	1.060	.351
School_Type					

Error	41.476	88	.471
Total	36098.000	97	
Corrected Total	47.485	96	

a. R Squared = .390 (Adjusted R Squared = .340)

Table 1 data shows the significant main effect of rally coach on pupils' academic performance in numeracy in Okene Local Government Area of Kogi State. The finding revealed that there was a significant main effect of treatment on pupils' academic performance in numeracy in Okene Local Government Area of Kogi State. ($F_{(1; 96)} = .010$, $P < 0.05$). The hypothesis was therefore rejected in light of the result since the significant value (.002) is less than 0.05. This implies that rally coach has significant effect on pupils' academic performance in numeracy in Okene Local Government, Kogi State.

Table 2: Summary of Bonferroni's Poc Hoc Pairwise Comparison of the scores within the two groups

Treatment	Mean Difference	Experimental	Control Group
Rally Coach	19.287 ^a		*
Conventional Method	19.273 ^a	*	

Data in Table 1 revealed that the significant main effect exposed by table 2 data is as a result the significant difference between rally coach and conventional method. Rally coach refers to the experimental group, while conventional method is known as the control group. This implies that those exposed to rally coach (19.287) performed significantly higher than those exposed to conventional method (19.273).

H₀₁: There was a significant main effect of treatment on pupils' academic performance in numeracy in Okene Local Government Area of Kogi State. ($F_{(1; 96)} = .010$, $P < 0.05$).

H₀₂: There was no significant interaction effect of rally coach and gender on pupils' academic performance in numeracy in Okene Local Government Area of Kogi State. ($F_{(1; 96)} = .177$; $P > 0.05$).

H₀₃: There was no significant interaction effect of treatment and school type on pupils' academic performance in numeracy in Okene Local Government Area of Kogi State ($F_{(1; 96)} = .372$; $P > 0.05$).

H₀₄: There was no significant interaction effect of treatment, gender, and school type on pupils' academic performance in numeracy in Okene Local Government Area of Kogi State ($F_{(1; 96)} = 1.060$; $P > 0.05$).

Discussion of Findings

The study was carried out with the aim to determine the difference between the academic performance of pupils taught numeracy using rally coach and those taught with conventional method in primary schools in Okene Local Government, Kogi State. Different studies confirmed the relationship between rally coach and academic performance of pupils.

Findings of this study among others revealed that there was a significant effect of Rally Coach on pupils' academic performance in numeracy in Okene Local Government Area of Kogi State. This implies that pupils taught numeracy using rally coach performed significantly higher than their counterparts taught with conventional method. This is line with the study of Obafemi et al., (2024). Which revealed that treatment had a significant effect on pupils' academic performance in mathematics. Similarly, it corroborates with the study of Ajayi, Hammed and Obafemi (2022) that revealed that there was significant main effect of treatment on pupils' academic performance in numeracy. This is also in line with the study of Akinlande and Jacob (2020) whose study revealed that there was significant main effect of treatment on pupils' academic performance in numeracy.

Another finding of the study revealed that treatment and gender had no significant effect on pupils' academic performance in numeracy in Okene Local Government Area of Kogi State. Research has indicated that there are minimal cognitive differences between genders in terms of numeracy skills in early education. This similarity could explain why both male and female pupils performed equally well under the treatment. This is in line with the study of Basila and Jajua, (2019). Which revealed that there is no significant difference in the academic performance of students taught using demonstration and discussion strategies based on gender. However, this negates the study of Amedu (2015), which showed that male students had greater mean score than their female counterparts when taught with jigsaw strategy.

The findings also revealed that treatment, gender and school type had no significant effect on pupils' academic performance in numeracy in Okene Local Government Area of Kogi State. This contradicts the study of Vanda (2023) which revealed that a significant difference was recorded in students' scores based on their gender and school type. Also, it is against the study of Sulyman, Saadu and Olosunde (2022), whose findings of the study revealed that the type of school had a significant impact on students' academic performance. Findings of this study further revealed that there was a significant effect of treatment on pupils' academic performance in numeracy in Okene Local Government Area of Kogi State. This implies that pupils taught numeracy using rally coach performed significantly higher than their counterparts taught with conventional method. This is line with the study of Obafemi et al., (2024). revealed that treatment had a significant effect on pupils' academic performance in mathematics. Similarly, it corroborates with the study of Ajayi, Hammed and Obafemi (2022) whose study examined the effects of concrete-representational-abstract on pupils' academic performance in numeracy One of the findings of the study revealed that there was significant main effect of treatment on pupils' academic performance in numeracy. Another findings of the study revealed that treatment and gender had no significant effect on pupils' academic performance in numeracy in Okene Local Government Area of Kogi State. This is in line with the study of Basila and Jajua, (2019). Their study revealed that there is no significant difference in the academic performance of students taught using demonstration and discussion strategies based on gender. However, this negates the study of Amedu (2015) who carried out a study on performance of male and female students taught using jigsaw instructional strategy.

This study also examined the interactive effect of treatment, gender and school type on pupils' academic performance numeracy in Okene Local Government Area of Kogi State. This contradicts the study of Vanda (2023) which revealed that a significant difference was recorded in students' scores based on their gender and school type. Also, it is against the study of Sulyman,

et al (2022), whose findings of the study revealed that the type of school had a significant impact on students' academic performance.

Conclusion

From the findings of the study, it is evident and clear that rally coach has effect on the academic performance of pupils in Numeracy. This teaching pedagogy can bring about improvement in the academic performance of pupils in numeracy regardless of gender and the school they attend.

Recommendations

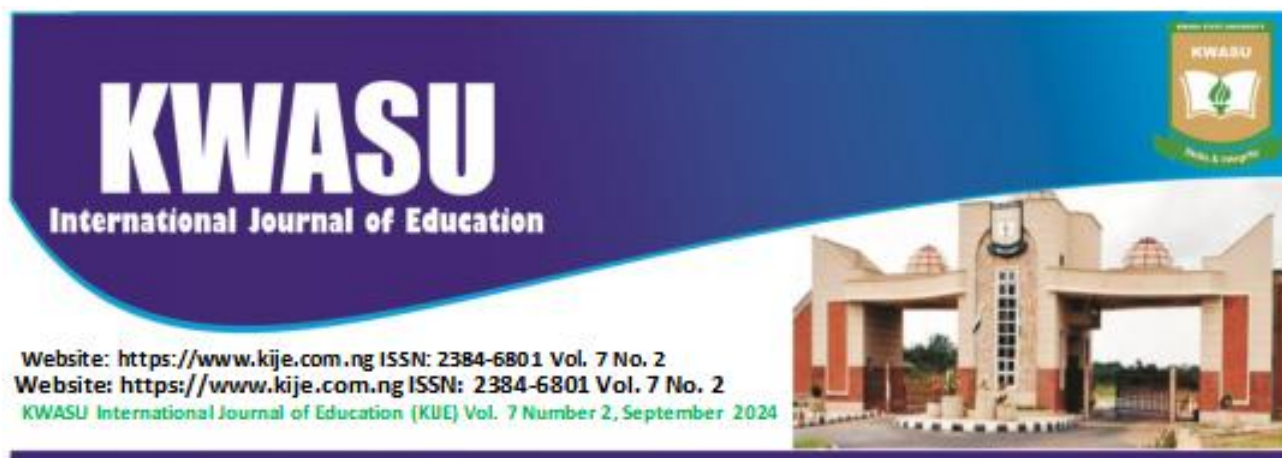
Based on the findings, the following recommendations were made:

1. Teachers of numeracy should adopt rally coach in delivering knowledge to the pupils.
2. Seminars, workshops, conferences and training programs should be organized periodically for teachers to get acquainted with the use rally coach to enhance pupils' learning outcomes.
3. There is need for the Ministry of Education to start periodic training sessions for teachers who are already in the field to be retrained on recent discovery regarding the use of rally coach in teaching numeracy in primary schools.
4. Teachers should not restrict their knowledge to what they were taught while in training they should be updated by sourcing for information on the internet to find out various methods to improve individual pupils' performance in the classrooms. .

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ASSESSMENT OF THE INFLUENCE OF TRANSFORMATIONAL LEADERSHIP STYLE ON TEACHERS PERFORMANCE IN GOVERNMENT SECONDARY SCHOOLS, GIWA ZONE, KADUNA STATE, NIGERIA

BY

ABUBAKAR USMAN

Department of Educational Administration and Planning

Federal University of Education, Zaria

Email: abubakarshika1978@gmail.com

Phone: 08066018195

Abstract

This study assessed the influence of transformational leadership style on teachers' performance in Government Secondary Schools, Giwa Zone, Kaduna State, Nigeria. A random sampling was used in selecting (50) respondents from six Senior Secondary Schools in Giwa Zone, Kaduna State. One research question was set to guide the study, and questionnaire was also used as a research instrument. Likert rating scale / option "Strongly Agreed, Agreed, Disagreed and Strongly Disagreed" were also used for data collection. Data obtained were analyzed using mean score and standard deviation techniques on Standard Package for Social Science (SSPS) 16.0, software. The study revealed that majority of the respondents agreed that they had responsible leadership in their school and their leaders were providing them with adequate working materials for teaching learning process. Also, their Leadership influenced relationship between the management, teachers and students. It also revealed that the leadership encouraged staff development for additional qualification which attracts a good SSCE Result in their schools. The study recommended that government should encourage appointing transformational leaders with a zeal to encourage innovation and creativity in an educational institutions by organizing symposium, seminar, and workshop etc. as well as encouraging leaders of secondary schools to carry everyone along for staff and managerial development.

Key words: Transformational Leadership, Leadership Style, Teachers Performance

Introduction

Leadership theory and research have focused on different leadership styles such as the autocratic, democratic and laissez-faire. The challenges confronting modern organizations to achieve a higher performance, better job-satisfaction, increased morale and productivity in subordinates have led to the demand for better quality of leadership. Prominent among new leadership models proposed are the transformational and transactional leadership styles (Avolio & Bass, 2004). Nakpodia, (2011), defines leadership style as a manner and approach of providing direction, implementing plans, and motivating people or followers. As seen by the employees, it includes the total pattern of explicit and implicit actions performed by their leader. Rose, Gloria and Tanya, (2016) refer to leadership style as the approaches employed to motivate followers. Leadership is not a “one size fits all” phenomenon. Leadership style should be selected and adapted to fit organizations, situations, groups, and individuals. It is thus useful to possess a thorough understanding of the different styles as such knowledge increases the tools available to lead effectively. Basically, Cemaloglu, (2007) view leadership styles a leader's characteristic behaviour when directing, motivating, guiding and managing groups of people towards an organizational goals. Therefore, great/effective leaders can inspire political appointments and social change in society. They can also motivate others to perform, create and innovate. Therefore, managers are requiring to grow and develop the future and to motivate the organizational members to achieve the dreams and to improve their performance (Iqbal, 2015). Consequently, leadership styles can be view as the combination of skills, qualities, characteristics, and behaviours that managers used when relating with their subordinates in organizations (Jeremy, 2012).

Basically, Talat, (2015) considered Leadership style as the most effective driving force in any organization. Consequently, effective managers provide guidance that encourages subordinates to think outside the box to solve organizational problems, and to make decisions that can improve the performance of the organization (Bernett, 2009). In fact, leadership is essential for all organizations to achieve goals. Since leadership style is a key basis of the success or failure of any organization (Bizhan, 2013). Northouse (2010) suggested that leadership style consists of the behaviour pattern of a person who attempts to influence others. It includes both directive (task) behaviours and supportive (relationship) behaviours.

Leadership is all about organizational improvement; more specifically, it is about establishing agreed-upon and worthwhile directions for the organization in question, and doing whatever it takes to prod and support people to move in those direction (Ogunleye, 2015). The importance of leadership styles of school teachers cannot be overstated. In fact, research has shown that leadership is second only to classroom instruction with respect to all school-related factors which add to what students learn in school (Leithwood, Louis, Anderson & Wahlstrong, 2004). It is reported that the effects of leadership styles on students’ learning is much greater in schools that are in difficult situations. It implies that before a troubled school is turned around, it needs strong or powerful leader who some experts would describe as a catalyst (Leithwood et al, 2004). Most effective school leaders focus their attention on the work in the school by developing a clear mission or purpose for the school. They communicate the purpose or the goals in transparent and clear terms so that the key players in the institution apprise themselves of what is expected of them (Vincent & Gloria 2016).

According to Belonio (2012), leadership styles can either motivate or discourage teachers, which in return can cause teacher's increase or decrease in their level of performance. Efficiency in resources mobilization, allocation, utilization and enhancement of organizational performance depends, to a large extent, on leadership style, among other factors (Timothy, 2011). Lack of appropriate leadership style and motivation are some of the factors that exert negative effect on teacher's performance in Nigeria (Vincent & Gloria 2016). Businesses and organizations are always striving to find great leaders that can lead them to success; much effort has been put forth into finding out how they operate since businesses are trying to identify the characteristics and behaviors associated with the best leaders (Tanya, 2016).

Transformational leaders are those who stimulate and inspire followers to achieve extraordinary outcomes and in the process, develop their own leadership capacity. Transformational leaders' help followers grow and develop into leaders by responding to individual followers' needs, empowering them, and aligning the objectives and goals of the individual followers, the leader, the group, and the larger organization (Barbuto, 2005). Transformational leadership styles focus on team-building, motivation and collaboration with employees at different levels of an organization to accomplish change for the better. Transformational leaders set goals and incentives to push their subordinates to higher performance levels, while providing opportunities for personal and professional growth for each employee (David, 2009).

Transformational leaders elevate people from low levels of need, focused on survival (following Maslow's hierarchy), to higher levels (Kelly, 2003). They may also motivate followers to transcend their own interests for some other collective purpose (Feinberg, 2005) but typically help followers satisfy as many of their individual human needs as possible, appealing notably to higher order needs (e.g. to love, to learn, and to leave a legacy). Transformational leaders are the type of leader who engenders trust, admiration, loyalty and respect among their followers (Barbuto, 2005). This form of leadership requires that leaders engage with followers as 'whole' people, rather than simply as an 'employee' for example. In effect, the leader emphasizes the actualization of followers. Transformational leadership is also based on self-reflective changing of values and beliefs by the leader and their followers. From this emerges a key characteristic of transformational leadership. It is said to involve leaders and followers raising one another's achievements, morality and motivations to levels that might otherwise have been impossible (Barnett, 2009).

Charon (2003) opined that transformational leadership goes beyond just monitoring the performance of the followers and being reactive (providing negative feedback and corrective action when noticing an issue), but also puts a great emphasis on being proactive, establishing long term goals, facilitating change, seeking continuous improvement, and giving the followers an opportunity to learn from their mistakes.

Transformational leadership as a leadership paradigm to promote organizational performance by ability to motivate workers and develop organizational culture in which ethical procedures are considered as a behavioral norm put efforts to predict environmental changes. By developing new ideas and visions, transformational leadership introduce a new path of growth and development and promise performance improvement of organizations. Organizations have adjustable, effectively working leaders and workers who constantly improve systems and processes (Mehdi, 2014). Transformational leadership style is more focused to build the relationship between employees and employers and transactions are more to task orientation

where completing task is more important (Limsila & Ogunalana, 2007). Transformational leader's emphasis on team building encourages employees or teachers to perform by giving their own ideas, encourage their creativity, contribute their personal knowledge, but transactions take more attention in understanding how organization process is functioning, the level of the organization, and does not consider employees' or teachers' learning ability (Vera & Crossan, 2004). According to Northouse (2009), Transformational leadership is more to create a relationship that can raise the teachers' or employees' motivation and morality, leaders in transformational styles is more to help employees to show their full potential.

Performance is associated with quantity of output, quality of output, timeliness of output, presence/ attendance on the job, efficiency of the work completed and effectiveness of work completed by teacher or employee" (Mathis & Jackson 2009). Nadia and Catalin (2003) see teachers performance as a success, achievement, action, constant effort perform by teacher in achieving learning process. "Performance is what the organization hires one to do, and do well" (Chris, 2016). According to Jumare (2015), there is no doubt that every head teacher's dream is to get his school ranked among the best in national examinations results. Good results determine good teaching performance of a teacher.

The quality of leadership makes the difference between the success and failure of a school. Further, research and inspection clarify the extent to which the quality of leadership is crucial to improvement of a school. In highly effective schools, as well as schools which have reversed a trend of poor performance and declining achievement the head teacher sets the pace, leading and motivating pupils and staff to perform to their highest potential. Jumare (2015) identified Five (5) performance areas/ skills a principal must demonstrate to effectively lead a school in improving students and staff achievements. These are; promoting collaborative problem solving and open communication; collecting, analyzing, and using data to identify school needs; using data to identify and plan for needed changes in the instructional program; implementing and monitoring the school improvement plan; using systems thinking to establish a clear focus on attaining student achievement goals. These five performance areas identified by Jumare are not a chronology of what a principal must do first, second, and third, but rather are cyclical in nature and must be demonstrated continuously throughout the school improvement process. The end product of this process is the school improvement plan, whereas the end goal for the process is improved student achievement.

Statement of the Problem

Many organizations spend considerable huge amount on solving managerial problems. Besides, research on management's leadership style and teachers or employees' performance are limited and personnel do not know enough about leadership style and the organizational productivity. Several institutions / organizations today have a problem of leadership and the style to be adopted in leading employees (Chris, 2016). The absence of effective leadership is a serious problem in many institutions / organizations and the resultant outcomes are poor performance, absence of motivation, poor growth and development of the organization (Chris, 2016). Various organizations / institutions need transformational leadership style that stimulates teachers' performance. Some secondary schools in Giwa Zone are faced with these problems of poor innovation, absence of motivation, low productivity and inability to meet performance targets. These problems are due to lack of strategic interventions of transformational leadership style to a particular situation.

This study sets out to assess the influence of transformational leadership style on teachers' performance in some secondary schools, Giwa Zone, Kaduna State and also to discover the level of transformational leadership behaviors that school leaders demonstrate during their administrative practices on daily basis and how it affects the teacher's performance.

Purpose of the Study

1. To assess the influence of transformational leadership style on teacher's performance in Secondary Schools, Giwa Zone, Kaduna state.

Research Question

Q1. What are the influences of transformational leadership style on teacher's performance in Senior Secondary School, Giwa Zone, KaSduna State?

Methodology

The researcher employed a descriptive survey design to assess the influence of transformational leadership style on teachers' performance in Secondary schools, Giwa Zonal Areas of Kaduna State. A Structured questionnaire was used for data collection in the study, and administered with the help of research assistant after informed consent was obtained from the Zonal Management. Fifty copies of the questionnaire were distributed to teachers at their respective school and all the questionnaires were returned. Likert rating scale / options, i.e. "Strongly Agreed, Agreed, Disagreed and Strongly Disagreed" were also used in data collection, effectively. This helped the researcher in getting good and adequate result in the study.

The Population of the study comprised 250 teachers of Government Secondary Schools, Giwa Zone. The study was carried out in Giwa Zone, Kaduna state, covering the 6 Secondary Schools respectively. Thus: Government Secondary School Giwa, Government Secondary School Shika, Government Secondary School Kaya, Government Secondary School Hunkuyi, Government Secondary School Kudan, and Government Secondary School Doka.

Simple random sampling was used for selecting 50 teachers from 6 Government Secondary Schools, Giwa zone, Kaduna State. Below were the number of teachers selected in each school.

S/N	Name of Schools	Teachers Selected Per School
1.	Government Secondary School Giwa,	9 teachers
2.	Government Secondary School Shika,	10 teachers
3.	Government Secondary School Kaya,	7 teachers
4.	Government Secondary School Hunkuyi,	10 teachers
5.	Government Secondary School Kudan,	7 teachers
6.	Government Secondary School Doka,	7 teachers
Total		50 teachers

The teachers were randomly selected based on the number of teachers in the school selected.

Result and Discussion

Research question one: What are the influences of transformational leadership style on teacher's performance in Government Secondary schools, Giwa Zone, Kaduna state?

Table 1. Teachers' responses on the influence of transformational leadership style on teachers' performance in Government Secondary School Giwa Zone, Kaduna state.

S/N	ITEMS	Response categories					Rank
		SA	A	D	SD	Mean	
1.	I have responsible leadership in your school	33	7	5	5	3.360	2
2.	Leadership of my school provide adequate teaching learning materials	31	11	4	4	3.380	1
3.	There are fairness and motivation from the leadership of my school	28	12	3	7	3.220	4
4.	Leadership of my collaborate in problem solving between teachers, management and students	26	14	6	4	3.240	3
5.	Leadership of my engaged in frequent supervision of teachers in the class rooms	27	7	6	10	3.020	7
6.	My school provides allowances for ad-hoc responsibilities	5	5	12	28	1.740	15
7.	My also school expertized in organizing lesson for students	10	4	26	10	2.280	12
8.	Teachers are Monitored for regular attendance in the classroom	24	6	8	12	2.840	13
9.	My school Leadership influenced relationship between management, teachers and students.	27	13	4	6	3.220	5
10.	Performance and teaching quality attract good SSCE Result in my school	15	20	10	5	2.900	11
11.	The school leadership provide me with adequate instructional materials	20	15	8	7	2.960	10
12.	The students are appreciating the present	27	8	7	5	3.180	6

	leadership of the school						
13.	My present school leader encourages staff development for additional qualification	24	11	8	7	3.040	8
14.	I have gotten scholarship from the school leadership	10	7	13	20	2.140	14
15.	Leadership of my School provides infrastructural development	22	11	10	7	2.960	9
	Cumulative					2.898	
	Mean						
	2.898						
Decision/thresh hold mean = 2.500							

The influence of transformational leadership style on teacher's performance in Secondary Schools Giwa Zone, Kaduna state, is great and adequately positive. This is because the cumulative mean of 2.898 is above the 2.50 decision/ thresh hold mean. Specifically, Leadership of my school provide adequate teaching learning materials, as this view attracted the highest mean of 3.380 as a total of 42 agreed and the rest of 8 respondents disagreed. Also, most asserted that they have responsible leadership in their schools as this view attracted the second highest mean of 3.360 as a total of 40 respondents agreed and the rest of 10 respondents disagreed. In the same vein most believe that Leadership of my school collaborate in problem solving between teachers, management and students, as this view had the third highest mean of 3.240 as details showed that while a total of 40 respondents agreed the remaining of 10 respondents agreed. etc

Discussion of Findings

The findings shown that transformational leadership style has an influence on teacher's performance in Government Secondary Schools, Giwa Zone, Kaduna State. Idealized influence has significant and positive role on teachers' performance in many institutions of learning. The findings show that Transformational leadership idea influence, motivate and increases teacher's performance. Therefore, the finding is supported by Mehdi (2014), respectively.

However, Intellectual stimulation has a significant impact on teachers' performance in educational institutions; hence, the study shows that leaders of Secondary Schools under study used their intellectual ability to increase and motivate teachers performance and boosted their morals through the provision of adequate instructional materials, infrastructural development, allowed them to staff training and development, as well as frequent supervision, monitoring and evaluation. The finding is in consistence with Jumare (2020).

The study also revealed that the teachers in the study area have a responsible leadership, fairness and motivation. They were engaged and Collaborative problem solving between management, teachers, students and school based management committee. Motivation and good leadership in the study area encouraged teachers to attend their lesson regularly in the classroom which attract the high scores in SSCE result in their schools. This is in line with submission by Jumare (2020).

From the analysis of data in the table above, it was revealed that item 1, 2, 3, 4,5, 8,9,10, 11, 12, 13, and 15 were agreed and accepted by the respondents, this implies that, teachers has adequate trust and good relationship with the leaders of their schools. Adequate teaching materials, effective monitoring and evaluation for teachers to discharge their responsibility are considered by their leaders. On the other hand, the item 7, 8, and 14 were disagreed and rejected by the respondents. These shows that the result the findings are highly positive and attractive.

Conclusion

In conclusion, The influence of transformational leadership style on teachers performance in Secondary Schools Giwa Zone, Kaduna state, is great, especially, as most respondents believed that Leadership of their schools provide adequate teaching learning materials and that they have responsible leadership in their schools that can manage their resources, interact with staff and solve school managerial issues.

Recommendations

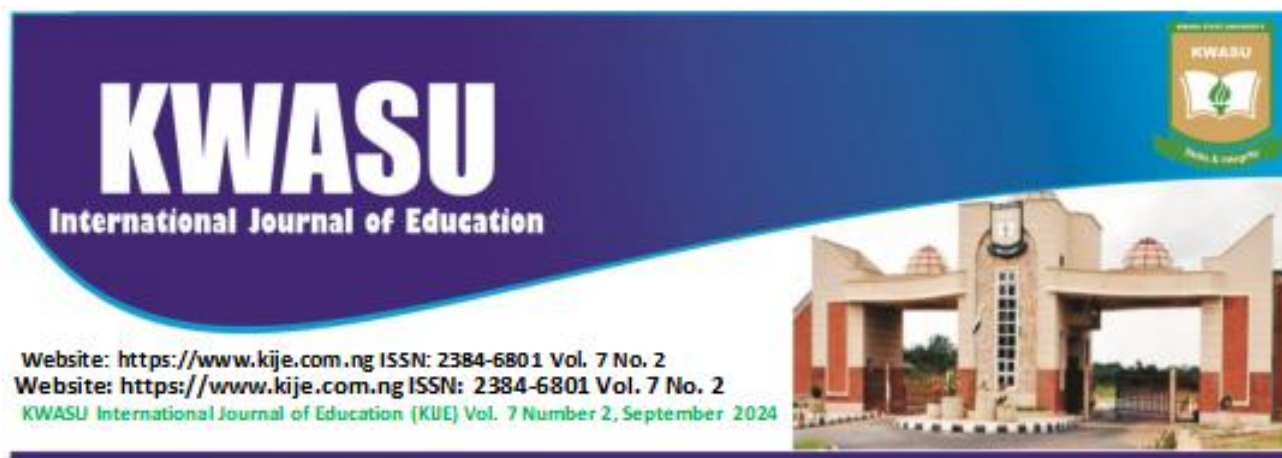
1. Leaders / principals should be role models to their teachers/ staff so as to improved performance toward the achievement of predetermined objectives. Ministry of Education should adopt and encourage transformational leadership style by organizing seminars, workshops, symposium that inculcate those qualities into mind of the staff so as to induce teachers' performance in their respective schools particularly in Giwa Zone and Kaduna State in general.

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ASSESSMENT OF THE AWARENESS OF SEXUALLY TRANSMITTED DISEASES IN NIGER STATE, NIGERIA

By

KINTA MUHAMMED PHD & YUNUSA UMARU, Ph.D.

DEPARTMENT OF PHYSICAL AND HEALTH EDUCATION

FEDERAL UNIVERSITY OF EDUCATION KOTANGORA

Kintasnr2006@yahoo.com

08036263411

Abstract

The study employed survey design in investigating the awareness of sexual transmitted diseases STDs in Niger State, Nigeria. A Sample of 500 SS II students made of up 250 girls and 250 boys was used. Four research questions and two null hypotheses were formulated. Statistical means was used to answer the research questions and t-test was used in testing the null hypotheses. The results showed that: students know very little about the forms of STDs, the students have moderate knowledge of the signs and symptom of various STDs, their of mode of transmission., the students have poor awareness of the control measures toward STDs, there is however, significant differences exist between the boys and girls awareness of the forms and symptoms of STDs. Based on the above findings recommendations were made among which are: School Psychologists, counselors should continuously sensitize the students, and organize group guidance programme in the secondary school on personal health and risky behavior, and there should be synergy between health twisters, school administrators and parents in creativity awareness among students on the risk factors, symptom and control of STDs, and voluntary HIV test before marriage, poverty alleviation programme among others were made.

Introduction

AIDS – Acquired Immune Deficiency Syndrome – is a serious and deadly disease caused by the virus that attacks and destroys the body defense system, thereby leading the body defenseless (Unachukwu, 2003, Adegboye et al, 2022; & WHO, 2022). The body becomes open to infection and diseases which the body could normally fight off, it is becoming obvious that AIDS possesses a serious health problems in Africa. Obekeze (1997) state that AIDS is the greatest scourge of modern times, thus it is the most important new threat to the world health body and has no cure Since its discovery in the early 1980s, HIV/AIDS has become a pandemic on a global scale. It is no longer only health issue but a substantial threat to economic growth and development, imposing a heavy burden first on families, then on communities and eventually economics. The impact of the pandemic is already being felt in most countries of the world. An estimate of 11 persons became pandemic is already minute representing some 15,000 new infections every day or more than 5.4 million for the entire year (WHO, 2020). Similarly, the Joint United Nations Programme on HIV/AIDS (UNAIDS) estimated that as at 2003, about 38 million persons were HIV positive worldwide and almost 26 million were workers between 15 and 49 years, and of the 2.9 million HIV/AIDS related deaths in 2003, 2.2 million were from Sub-Saharan Africa. While the Sub-Saharan Africa region contain only 10 percent of the world's population, it accounts for 60 percent of the worldwide HIV/AIDS cases (UNAIDS Africa Fact Sheet, 2004, & WHO, 2022). This implies that the most productive age group is mostly affected and this has implications for families and economics in terms of income, employment and labour market changes. Acquired Immunodeficiency Syndrome (AIDS) caused by Human Immunodeficiency Virus (HIV) poses a severe challenge to healthcare and is a significant public health issue worldwide. So far, HIV has claimed almost 33 million lives; however, off lately, increasing access to HIV prevention, diagnosis, treatment, and care has enabled people living with HIV to lead a long and healthy life¹. By the end of 2019, an estimated 38 million people were living with HIV¹. More so, new infections fell by 39 percent, and HIV-related deaths fell by almost 51 percent between 2000 and 2019 (WHO, 2020). Despite all the positive news related to HIV, the success story is not the same everywhere; HIV varies between region, country, and population, where not everyone is able to access HIV testing and treatment and care¹. HIV/AIDS holds back economic growth by destroying human capital by predominantly affecting adolescents and young adults Nigeria, the most populous country in Africa with a population estimate of about 140 million in 2006 (NPC, 2007), is fast gaining its share of the HIV/AIDS scourge. Nigeria has the highest prevalence rate in West African Sub-region and the third highest prevalence of any country in the world with a five percent population prevalence rate, that is, over 3.6 million people (WHO, 2020). The widespread and rising HIV/AIDS is a problem that could be affecting the growth of the Nigerian economy which, led to compounding poverty, low standard of living, low productivity, increased unemployment, morbidity and mortality rates and ultimately obstruct development efforts. Thus, with the alarming growth of the disease within the country, the study is concern with the possible effects of HIV/AIDS on economic growth in Nigeria and the extent to which various policies can alter them (Maijama'a and Muhammad, 2013).

However, the situation in developing countries shows that the diseases occur predominantly in the heterosexual populations, and therefore, heterosexual contact in these areas is considered a major risk factor of infection. Besides, the disease has been observed in intravenous drug abusers, hemophiliacs, and recipients of blood transfusion or blood products.

Some cases of AIDS originating from organ transplantation have been recorded. For Achalu (1993) and WHO (2022) AIDS is a group of diseases that result from the infection with the AIDS virus. In Nigeria, the prevalence of HIV among young people is estimated to be 3.5%, the highest among countries in West and Central Africa (WHO, 2022). The 2018 Nigeria Demographic and Health Survey (NDHS) reported that 89.5% of girls and 89.3% of boys aged 15–19 had heard of AIDS. On HIV prevention measures, 51.6% of girls, relative to 63% of boys, knew that consistency in condom use could reduce the risk of HIV infection (WHO, 2022). The 2020 condom accessibility and use in Nigeria poll conducted by the National Agency for the Control of AIDS and AIDS Healthcare Foundation reported that about one in three Nigerians used a condom during sex, and only one in four uses condoms for protection against sexually transmitted diseases (STDs) (WHO, 2022). Evidence from the Nigeria HIV/AIDS Indicator and Impact Survey (NAIIS) shows Nigeria could not achieve the 90-90-90 targets (WHO, 2022). The Integrated Biological and Behavioural Surveillance (IBBS) Survey report revealed some key populations with a high prevalence of HIV. These included men who have sex with men (MSM) (22.9%), women who sell sex (19.4%) and people who inject drugs (3.4%) (WHO, 2022).

The traditional values among Nigerian for sanctity of sex and sex for procreation have been overthrown in favour of liberal sexual behaviors. There is evidence of high risk of sexual behaviour and premarital sexual involvement among Nigerian adolescents (WHO 2020.). The commonest STDs include HIV/AIDS, Trichomoniasis, General Warts, Syphilis, Herpes, Genital Tinea Cruris, Scabies and Gardnerella Vaginalis. Others are Herpesvirus, Chancroid and Veneral Syphilis (Nnankwo, 2003 & WHO, 2022). The tragedy of the premarital sexuality among adolescents is that they engage in frequent sexual activities without proper knowledge of what is involved (Troop-Gordon, 2017). Tiwari et al (2020) maintained that, those who engage in high risk behaviors such as indiscriminate sex with many partners or those who take partners from the streets have increased chance of being infected. Bago and Lompo (2019) emphasized that, sexual practices such as anal intercourse, oral intercourse, homosexuality and deep kisses are associated with high risks of contracting these diseases especially the Virus that causes AIDS. Furthermore, Owolabi (1985) noted that some of the prevalence of STDs in Nigeria is due to sexual promiscuity, prostitution, and homosexuality, lack of sex education, self-medication and drug abuse among others. Adolescents especially those in secondary schools are among the most sexually active segment of the population. They are also more likely to engage in risky sexual practices that increase the chances of infections (Hopkins, 1998). AIDS has caused a number of complications including abortions, premature birth, blindness, infertility, heart and mental diseases, bone disorders, and so on. Effort to reduce the problem in controlling the diseases among patients who do not go to doctors at the early stage of the diseases due to stigma attached to the disorder related to sex organ. In spite of the modern medicine, STDs have become very difficult to control largely because people seem not to know the truth about them.

Unachukwu (2003) Adegboye et al, (2022) maintained that, the level of awareness on the aetiology, and clinical pictures of HIV/AIDS among adolescents. The research was carried out in Anambra State. The population was about 20 thousand students in the secondary schools in the urban and rural locations in the State. Then, 2500 SS1 and SS2 adolescents were used as sample. They were selected through multiphase sample techniques. Their schools were selected through simple random sampling, while 100 students were used from each of the 25 selected schools. They were however, chosen from SS1 and SS2 classes. The instruction for data collection was QAAECA. Direct approach was used in their administration by the help of research assistants.

Statistical mean was used in answering the research questions. The finding showed that the adolescents are lacking the knowledge of the etiology, epidemiology and clinical pictures of HIV/AIDS.

Nwachukwu (2003) investigated that the knowledge and attitude of secondary school students towards sexually transmitted disease in Anambra State. A sample of 2500 SSII students made up of 1450 girls and 1050 boys was used. A questionnaire titled QSKATSTD was developed, structured and validated. Four research questions and two null hypotheses were formulated for the study. Statistical weighted mean was used to answer the research questions and t-test was adopted in testing the null hypotheses. The result showed that: the students know very little about the forms of STDs, the students have poor knowledge of the signs and symptoms of various STDs, the students know little about the modes and of control of transmission, the students have very poor attitude towards STDs, there is, however, significant difference in the boys and girls knowledge and attitude towards STDs,

Maijama'a and Muhammad (2013) and Alem ,etal 2021 and Carey etal (2021) investigated that, the impact of HIV/AIDS on economic growth and development in Nigeria using primary and time series data. It also looked at the effect of the epidemic on savings and standard of living. To obtain the primary data, a total of 360 respondents comprising 180 persons infected with HIV/AIDS and 180 uninfected persons were selected sing stratified sampling technique. The primary data was analyzed using frequencies, percentages and chi-square test. In analyzing the time series data, a Solow-type growth model is extended to incorporate some of the macroeconomic consequences of HIV/AIDS. Using this model, co integration and error correction modeling techniques were adopted to examine the relationship between the variables. The findings show that HIV/AIDS prevalence is widely spreading and rapidly rising and has a negative impact on Real GDP growth in Nigeria. Also, recurrent health expenditure does not appear to be growth augmenting during the period HIV/AIDS was also found to adversely affect savings and standard of living of infected persons.

Anagbogu (2003) investigated that, examined adolescents' perception of HIV/AIDS symptoms as sources of early death among Nigerian youths. A total of 100 male and female students were randomly chosen from ten schools located at old Oyi local government area of Anambra State. A questionnaire on HIV/AIDS symptoms was administered. The findings of the study indicated that the adolescents do not associate high death rate of youths with HIV/AIDS symptoms. The study further showed that the youths associate high death rate with witchcraft and evil practice in the Nigerian society. Unfortunately, the youths are the view that HIV/AIDS is one of the techniques with witchcraft society utilized in destroying the Nigeria youths.

Evidence has shown that most individual focus on the pleasure associated with sex while paying little attention to the negative consequences of sex. The fact is that sex does not only include the pleasure and happiness, but also bitterness, disappointment and tragedy. The study therefore, sought to investigate, the Awareness of Sexuality Transmitted Diseases in Niger State, Nigeria.

Research Questions

The following research questions guided the study:

- What is the level of awareness of different forms of STDS by the students?

- To what extent do students know the signs and symptoms of STDs?
- What is the mode of transmission of STDs as perceived by the students?
- What are students' level of knowledge of control measures of STDs?

Research Hypotheses

The following null hypotheses were stated for the study:

- Male and Female students will not differ significantly on their measures of awareness of various forms of STDs.
- Male and Female students will not differ significantly on their mean score of Symptoms and Sign of STDs.

Methodology

The study is a survey design meant to seek data on the awareness of the sexually transmitted diseases (STDs). A sample of 500 students (250 females and 250 males) in senior secondary school two (SS II) in Niger State were used for the study. Simple random sampling technique was used in selecting the subjects.

The researcher made use of questionnaire tagged Students Awareness of forms, symptoms, mode of transmission and control (FSTC) of STDs. It was structured on four (4) point Likert scale items and divided into four sections A, B, C, D and was validated by three experts in Psychology, Medicine and Measurement and Evaluation. Their contribution led to the dropping and addition of some items. Also to determine the reliability of the instrument, it was given to 50 students in SS II in secondary schools in Kaduna State, Cronbach alpha was used in the analyses. Which yielded the coefficient alpha for the four sections was 0.86, 0.73, 0.82 and 0.80 respectively.

The researcher employed the service of research assistants in collecting the data which was done through direct delivery approach. The data collected were collated and analyzed, using statistical means for the research question and t-test to test the null hypotheses. A cut-off point of 2.50 indicate acceptance level while below indicate rejection of the items by the respondent.

Results

The results of the study were presented in tables based on the research questions and the null hypotheses formulated to guide this study.

Table 1: Students' awareness of different forms of STDs.

STDs	Male		Female	
	– X	SD	– X	SD
1. HIV/AIDS is an STD	3.50	0.51	3.86	0.54
2. Herpes simplex is an STD	2.03	0.98	1.99	1.12
3. Candidiasis is an STD	2.11	0.81	2.48	0.99
4. Gonorrhea is STD	3.01	0.77	3.27	0.91
5. Granuloma inguinale is an STD	2.64	0.91	3.46	0.74
6. Genital Warts and Pubic Lice are STDs	2.64	0.91	2.93	0.62
7. Molluscum Contagiosum is STD	2.01	0.67	1.96	0.88
8. Condylomas is infectious	2.03	0.51	1.96	0.59
9. Syphilis is infectious	1.88	0.46	2.50	1.24

10	Chancroid is infectious	3.61	0.54	3.83	0.99
Grand mean		25.46	7.15	28.24	8.62

In table 1, it was observed that the adolescents do not know most of the sexually transmitted diseases (STDs). The male are aware of five out of ten (10) STDs as presented while the female are aware of six (6) of the ten (10) STDs.

Table 2: Students' knowledge of the Signs and Symptoms of Some STDs

S/N	STDs	Signs and symptoms	X
1.	Ghonrrhea	Burning sensation	1.99
		Pain during urination	2.20
		Milk or yellowish discharge	2.53
		Increased frequency of urination	2.68
		Pain and swelling in the scrotum	2.71
2.	Gental Herppes simplex	Appearance of small blisters	1.99
		Pain around genitals	2.04
		Inner tights	2.11
		Swollen glands	3.02
3.	Syphilis	Shows painless pimple like sores around the genitals	2.63
		Shows skin rashes around the palm and soles	3.01
		Comes with fever, headache, sore-throat, sore mouth	2.60
4.	Genital warts		2.00
		Shows painless out growth on the genitals.	2.14
5.	Chancroid		2.34
		Small red spot appear	2.10
		Pimple like structure appear	1.99
		Open sore full of pus appear	
6.	Candidiasis		2.04
		Swelling of the external genitals	2.99
		Lesions on the male reproductive organ	2.00
		White thin and watery discharge among females	2.71
		Show intense itching in the female reproductive organ	
7.	Trichomoniasis		2.64
			2.10
		Pain during intercourse	2.61
		Female experience foul smelling	
8.	Lymphogranulomax venereum (LGV)	Greenish gray discharge	2.10
		Pimple-like sores small in nature appears on the Genitals	

Table 2 above shows that, the students are aware of only very few signs and symptoms of the venereal diseases of STDs. Out of the 25 signs and symptoms of seven STDs presented, they indicate that they are aware of 10 only.

Table 3: students' awareness of the modes of transmissions of STDs.

S/N	Items	X
1.	Sexually transmitted diseases (STDs) are spread mostly through sexual contact	3.87
2.	Some infected persons show no signs of symptoms	2.37
3.	One a person has had STDs, he/she cannot be infected again	2.54
4.	STDs can be transmitted through oral or anal sex	2.93
5.	Through contaminated fingers	2.47
6.	Through bathroom equipment	2.41
7.	Through Deep kissing	2.04
8.	Form infected mothers to the unborn child	2.51
9.	Through infected persons clothes, linens or under-wears	2.38
10.	Through toilette sit	2.41

Table 3 above reveals that the secondary school students are slightly aware of the modes of transmission of STDs. The worst is that they believed that once a person has had STDs, he/she cannot be infected again. They are only aware of 5 out 10 modes of transmitting STDs.

Table 4: Students' awareness of the control measures of STDs.

S/N	Items	X
1.	Condom could be used to prevent infection	3.68
2.	Sticking to one sexual partner could reduce the spread of STDs	3.44
3.	Personal Hygiene can prevent the contact of STDs	2.64
4.	Abstainness can prevent STDs.	3.00
5.	Abstainness from using sharp object can reduce STDs e.g. nail cutter.	2.00

Table 4 above reveals that students are aware of only 4 ways of controlling STD but rejected item 5.

Hypotheses:**Table 5: T-test Statistics of male and female students' scores on various forms of STDs.**

Sources of variation	N	X	SD	DF	Cal. T	Crit. T	Decision
Male	250	25.46	7.15	498	3.92	1.96	S
Female	250	28.24	8.62				

(P≤.05, 498df)

Table 5 above, it was observed that at 5 percent level of significance and 498 degree of freedom the calculated t 3.92 is greater than the critical t 1.96. Therefore, the first null hypothesis is upheld in which states that no significant difference exists on the various forms of STDs among male and female students.

Table 6: t-test Statistics on signs, symptoms of STDs among male and female students

Sources of variation	N	X	SD	DF	Cal. t	Crit. T	Decision
Male	250	21.85	6.63	498	4.006	1.96	S
Female	250	24.41	7.63				

(P≤.05, 498df)

Table 6 above shows that at 5 percent significant level and 498 df, the calculated t 4.006 is greater than the critical t 1.96. Therefore, the second null hypothesis is upheld. That is, no significant difference exist on the awareness of Sign, Symptoms among male and female students.

Discussion

The finding reveals that most of the various forms of STDs, signs and symptoms, mode of transmission and control were not known by the respondents, and that significant difference does not exist between male and female students on the awareness of the Forms, Signs, and Symptoms of STDs.

Evidence has shown that most students continue to regard STDs wrongly as a moral rather than medical problem. The psychological nature of the disease and the fact that these STDs are contact mainly through intimate sexual contacts with infected individuals has made it one of the most feared diseases known to man. But the attitudes towards sex and the wide spread ignorance about STDs, the rate of the spread has become a syndrome (Hopkins, 1998 & Myles 2001). The commonest STDs include HIV/AIDS, Trichomoniasis, General Warts, Syphilis, Herpes, Genitalia Tinea Cruris, Scabies and Gardnerella Vaginalis. Others are Hypphogrammatoma, Verruca, Chancroid and Veneral Syphilis (Nnankwo, 2003 & WHO, 2022). The tragedy of the premarital sexuality among adolescents is that they engage in frequent sexual activities without proper knowledge of what is involved (Troop-Gordon, 2017). Tiwari et al (2020) maintained that, those who engage in high risk behaviors such as indiscriminate sex with many partners or those who take partners from the streets have increased chance of being infected. Bago and Lompo (2019) emphasized that, sexual practices such as anal intercourse, oral intercourse, homosexuality and deep kisses are associated with high risks of contracting these diseases especially the Virus that causes AIDS.

Furthermore, Owolabi (1985) noted that some of the prevalence of STDS in Nigeria is due to sexual promiscuity, prostitution, and homosexuality, lack of sex education, self-medication and drug abuse among others. Adolescents especially those in secondary schools are among the most sexually active segment of the population. They are also more likely to engage in risky sexual practices that increase the chances of infections. This could be the more reason why the present day adolescents have more liberal and permissive attitudes and behaviors towards premarital sex. Achalu (1996) and Adebawale-Tambe (2023) emphasize those who engage in high risk behaviors such as indiscriminate sex with many partners or those who take partners from the streets have increased chances of being infected (Hopkins, 1998).

STDs are not just health related problems, but constitute social problems, with grave consequences to the individual and the society at large. Unackwuku and Nwanko (1988) and Adegboye, et al, (2022) maintained that the disease can lead to pains, discomfort, physical disabilities, mental and emotional suffering and in some cases, death. Young students are extremely at risk of acquiring and transmitting STDs because of the sexual behavior, which from this study lacks the full knowledge of what STDs (Nwankwo, 2003) and Alem, et al 2021 and Carey et al (2021) maintained that various measures to include proper medication, social re-orientation, proper sensitization and a change in the attitudes of the secondary school students towards STDs and sexuality related problem of students should be emphasized by Maijama'a and Muhammad, (2013) and Alem et al, (2021) and Carey et al (2021). Owolabi (1985), Unachukwu (2003).

Conclusion

Evidence from the research reveals that there is very high risk of spread of STDs among young persons in the society, but the present studies will help the students to be aware of various forms, signs, symptoms, mode of transmission and control STDs among adolescents. There is therefore, an urgent need for responsive psychological, medical and counselling services in secondary schools and the society at large.

Recommendations

Based on the findings of the study the following recommendations were offered;

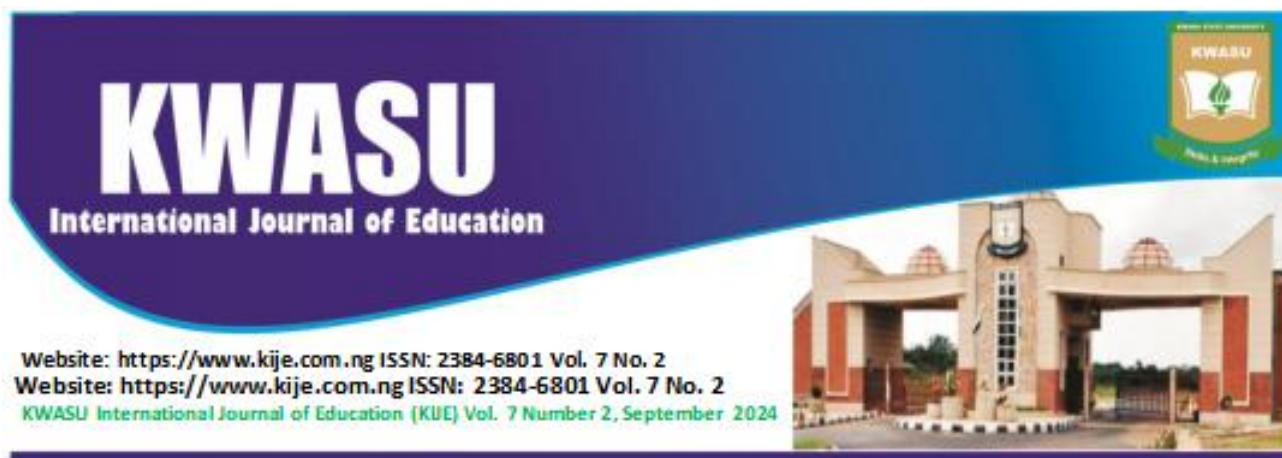
1. School Psychologist and health workers should organize group guidance programmes in the secondary school system, churches and recreational centers with the aim of educating young people about STDs. The content of the programme should be ways to reduce the risk of STDs.
2. Expansion of Anti-Retroviral Drugs (ARD) should be made available to HIV patients.
3. Government should introduce programmes to reduce poverty at individual family as well as community levels. Such programmes should include home base care for people with HIV/AIDS, foster care for AIDS orphans, food programmes for the children and support for educational experience.
4. Sex education should be built into school curriculum in senior secondary school classes (SSS I-III).
5. Psychologist and Counsellors should always organize group guidance services on healthy living where they will be educating the adolescents on the risk behavior and their consequences as well as predisposing factors.

6. Federal and state governments should assist the psychologist and Guidance and Counsellors in providing pamphlets and printed materials on STD and HIV/AIDS education. This will be made available to the target population through the churches, communities, schools and other sexual gatherings.

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**THE RELATIONSHIP BETWEEN MENTAL HEALTH, EDUCATIONAL SUPPORT
AND ACADEMIC ACHIEVEMENT AMONG MARRIED WOMEN IN KWARA
STATE COLLEGES OF EDUCATION
NORTH CENTRAL, NIGERIA**

By

**KINTA MUHAMMMED PHD
DEPARTMENT OF PHYSICAL AND HEALTH EDUCATION
FEDERAL UNIVERSITY OF EDUCATION KOTANGORA**

Kintasnr2006@yahoo. Com

Abstract

This study examined the relationship between mental health, educational support and academic achievement among married women in Colleges of Education in Kwara State, Nigeria. Three research questions, three null hypotheses were formulated and tested at 0.05 level of significance. Survey Research design was adopted. The population of the study consists of 6 Colleges of Education in Kwara State. A total population of six thousand (6,000) students was used in the study. The sample size of the study was 361 students proportionately selected from all schools. Three instruments were used for this study. The instruments are Mental health inventory (MHI), social support and students' academic achievement result (CGPA). Pearson Product Moment Correlation PPMC(r) was used to test the study hypotheses. The hypotheses were tested at a 0.05 alpha level of significance. SPSS version 25.0 was used for the analysis. The finding of this study revealed that a significant relationship exists between mental health and academic achievement ($r = 0.641$, $p = 0.001$). Finding also revealed that a significant relationship exists between social support and academic achievement ($r = 0.575$, $p = 0.002$). (5) point scale of SA, A, UND DA SDA.

Introduction

Mental health is an integral and essential component of the entirety of human health understood as a wholeness of physical, mental, and social well-being, and not merely as the absence of disease or weakness. It enables individuals to realize their potential, productivity, possible contribution to the community they live in and to adequately cope with everyday stressful situations. Various factors affect mental health, and there are periods of life when the risk of mental health issues is increased (Maglica, Ercegovic & Ljubetić, 2021). Mental health is a state of mental well-being that enables people to cope with the stresses of life, realizes their abilities, learn well and work well, and contribute to their community. It refers to an individual emotional, psychological, and social well-being. Mental health affects how an individual thinks, feels, and acts. It also helps to determine how we handle stress, relate to others, and make healthy choices. According to the World Health Organization (WHO, 2014), mental health is “a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community”. Keyes (2014) identifies three components of mental health: emotional well-being, psychological well-being and social well-being. Emotional well-being includes happiness, interest in life, and satisfaction; psychological well-being includes liking most parts of one's own personality, being good at managing the responsibilities of daily life, having good relationships with others, and being satisfied with one's own life; social well-being refers to positive functioning and involves having something to contribute to society (social contribution), feeling part of a community (social integration), believing that society is becoming a better place for all people (social actualization), and that the way society works makes sense to them (social coherence). Mental health problems can affect a student's energy level, concentration, dependability, mental ability, and optimism, hindering performance.

Mental health is an important component of the total health of person because it is both the cause and effect of other types of health (Singh & Devi, 2018). A mentally healthy person shows a homogenous organization of desirable attitudes, healthy values and righteous self-concept and the scientific perception of the world as a whole. It also presents a humanistic approach towards the understanding and assessment of the self, positive feeling and attitudes towards self and others. Mental health can be best defined as a state of continuous wellbeing, as the union of zest and peace. Mental health thus appears as an attribute of a mature human personality and as a social value to be guarded and maintained through purposeful living. Mental health may be defined as the adjustment of individual to themselves and to the world at large with a maximum of effectiveness, satisfaction, cheerfulness and socially acceptable behavior and the ability of facing and accepting the realities of life.

Educational support could be seen and regarded as positive social support in the life of an individual. Social support is important for maintaining health. Social support system provides us with emotional sustenance, tangible resources and aid for information when we are in need. When people are in social support they feel cared about, valued by others and feel a sense of self belonging to a larger extent. Positive social support helps people adjust better emotionally to stress by leading them to avoid ruminating about the stressful situation. The benefits of social support to psychological well-being are self-evident in everyday experience. Whether from family, friends and neighbors, coworkers, counselors, teachers, coaches, or therapists, people of all ages face life challenges more successfully with the support of others, and this conclusion is confirmed by extensive empirical research (Taylor, 2011). By contrast, social isolation is

associated with poorer psychological functioning. Social support is a kind of help and assistance that one gets from other people when one is there to care for you and that one is a part of the social circle where one lives and grows. The support and assistance can be in many ways like help in emotional way for example nurturance from closed ones, advice in form of the information, support in terms of finance, sense of belongingness and also on top of everything that is a personal support and advice (Kumar, Lal & Bhuchar, 2014).

The term social support can be therefore measured or valued as a source of assistance that is available and when one is helped being the part of the social group. The support that one can get includes the family, friends, neighbours, pets, and organizations, coworkers etc. (Kumar, Lal & Bhuchar, 2014). Social support is a concept that is generally understood by intuitive sense, as the help from other people in a difficult life situation. Cruza-Guet, Spokane, Caskie, Brown, and Szapocznik (2008) found that satisfaction with received social support was associated with lower levels of psychological distress. The amount of social support a person receives was found to be associated with higher levels of psychological distress, signalling that the perceived effects rather than the quantity or quality of social support is more important in deterring psychological distress. Marmot (2002) found that Social support affects health through social gradient, income, social exclusion, education, psychological status and other factors. People with lower lack of social support have lower autonomy to work, corresponding to more pressure and negative emotions. Budd, Buschman and Esch (2016). Social support was also found to affect student adjustment during adolescence. Kim, Sherman, and Taylor (2008) found that social support is one of the most effective methods to help cope with stressful life situations. The positive effect of relationships is derived from the satiation of a need for belongingness, acceptance, and caring. Social support is an important protective factor against various negative outcomes. Social support is a catch-all term for many different activities including good parenting, helping with homework, being able to talk to teachers, being allowed to attend school functions, discussing with students, being allowed to take part in school governance (Egheosase & Ugwu, 2016).

Social support is an expansive construct that describes the physical and emotional support given to individuals by their family, friends, teachers, classmates and other important persons in their lives. Social support is purported to have beneficial effects on the health and academic achievement of students and it can be generally defined as the assistance one gets through interaction with other people in the society. Broadly, social support refers to one's social relationships as buffering life's stressors, and thus promoting one's general development. An important aspect of support is that a message or communicative experience does not constitute support unless the receiver views it as such, a phenomenon the research has identified as perceived social support (Haber, Cohen, Lucas & Baltes, 2007). With regards to sources of support, this research has primarily focused on parents, teachers, friends and classmates. Akomolafe and Adesua (2016) argued that students who receive social support are expected to perform better compared to those who receive little or no social support.

Statement of the Problem

As from the researcher observation, one in ten married students in most institutions of learning are facing with issue of educational support by their spouse and family. As, it is the duty of an adult in educational setting to provide a safe environment that is capable of supporting and promoting students' dignity and development. It is on this basis the researcher deems it fit to carry out study to find out the relationship between mental health, social support and academic achievement among married women in colleges of education North Central Nigeria.

Objective(s) of the Study

- i To determine the relationship between mental health and educational support among married women in colleges of education Kwara State.
- ii To determine the relationship between mental health and academic achievement among married women in colleges of education Kwara State.
- iii To determine the relationship between educational support and academic achievement among married women in colleges of education Kwara State.

Literature Review

Mental health is an integral and essential component of the entirety of human health understood as a wholeness of physical, mental, and social well-being, and not merely as the absence of disease or weakness. It enables individuals to realize their potential, productivity, possible contribution to the community they live in and to adequately cope with everyday stressful situations. Various factors affect mental health, and there are periods of life when the risk of mental health issues is increased (Maglica, Ercegovic & Ljubetić, 2021). Mental health is a state of mental well-being that enables people to cope with the stresses of life, realizes their abilities, learn well and work well, and contribute to their community. It refers to an individual emotional, psychological, and social well-being. Mental health affects how an individual thinks, feels, and acts. It also helps to determine how we handle stress, relate to others, and make healthy choices. According to the World Health Organization (WHO, 2014), mental health is “a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community”. Keyes (2014) identifies three components of mental health: emotional well-being, psychological well-being and social well-being. Emotional well-being includes happiness, interest in life, and satisfaction; psychological well-being includes liking most parts of one's own personality, being good at managing the responsibilities of daily life, having good relationships with others, and being satisfied with one's own life; social well-being refers to positive functioning and involves having something to contribute to society (social contribution), feeling part of a community (social integration), believing that society is becoming a better place for all people (social actualization), and that the way society works makes sense to them (social coherence). Mental health problems can affect a student's energy level, concentration, dependability, mental ability, and optimism, hindering performance.

Mental health is an important component of the total health of person because it is both the cause and effect of other types of health (Singh & Devi, 2018). A mentally healthy person shows a homogenous organization of desirable attitudes, healthy values and righteous self-concept and the scientific perception of the world as a whole. It also presents a humanistic approach towards the understanding and assessment of the self, positive feeling and attitudes towards self and others. Mental health can be best defined as a state of continuous wellbeing, as the union of zest and peace. Mental health thus appears as an attribute of a mature human personality and as a social value to be guarded and maintained through purposeful living. Mental health may be defined as the adjustment of individual to themselves and to the world at large with a maximum of effectiveness, satisfaction, cheerfulness and socially acceptable behavior and the ability of facing and accepting the realities of life.

Social support is important for maintaining health. Social support system provides us with emotional sustenance, tangible resources and aid for information when we are in need. When people are in social support they feel cared about, valued by others and feel a sense of self

belonging to a larger extent. Positive social support helps people adjust better emotionally to stress by leading them to avoid ruminating about the stressful situation.

The benefits of social support to psychological well-being are self-evident in everyday experience. Whether from family, friends and neighbors, coworkers, counselors, teachers, coaches, or therapists, people of all ages face life challenges more successfully with the support of others, and this conclusion is confirmed by extensive empirical research (Taylor, 2011). By contrast, social isolation is associated with poorer psychological functioning. Social support is a kind of help and assistance that one gets from other people when one is there to care for you and that one is a part of the social circle where one lives and grows. The support and assistance can be in many ways like help in emotional way for example nurturance from closed ones, advice in form of the information, support in terms of finance, sense of belongingness and also on top of everything that is a personal support and advice (Kumar, Lal & Bhuchar, 2014).

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Academic achievement of students has been an issue to many educators, parents, guardians, curriculum planners and researchers. This concern stems from the prevailing poor achievement recorded by students almost every year at the end of their school programme. Students engaged in learning context and achieved academically when they are mentally and sufficiently supported. Education through the four walls of the school enlightens the child and

makes him/her to actualize the potentials that will enable the learner to cope more adaptively with daily stressors, challenges and setbacks in school system. This is because underachievement and disengagement have serious consequences, both at individual and societal levels (Bempechat & Shernoff, 2013). Academic achievement of students is influenced by so many factors such as society related and sub factors such as home related, student related, teacher related and school related. In his observation, Bhagat (2016), notified that academic achievement is multi-dimensional as it is intricately related to human growth and cognitive, emotional, social and physical development; it reflects to the whole child; it is not related to single instance but occurs across time and levels, through a students' life in school and on into post-secondary school years and working life. Academic achievement encompasses students' ability to prove his/her level of understanding, retention or success in the acquisition of the planned outcome.

Academic achievement is the attainment obtained by a child in the lesson taught, which may include experience, knowledge, skill and the likes. The knowledge and skill are measured in student's Cumulative Grade Point Average (CGPA); the child's good or poor performance does not depend solely on attribute the child is born with, but his family background, social contacts, teachers, overall climate in his school, and assessment procedure. Academic performance may be defined as excellence in all academic disciplines, in class as well as co-curricular activities. Cohen and Garcia (2006) define academic achievement as "knowledge attaining ability or degree of competence in school. Task usually measured by standardized test and expressed in a grade or unit based on students' performance/achievement". Cohen and Apfel (2009) refer to academic performance as "the knowledge obtained or skill developed in the school subjects usually designed by the test scores or marks assigned by the teacher". Achievement of student in the classroom takes a central role in the academic development of the students. Parents, teachers and school administrators take cognizance of the academic well-being of the students. Yardsticks are set by school authorities to measure performance, the standard set by the university will determine whether a student is performing well or not. In the assessment of performance, Pekrun and Elliot (2006) argued that achievement is the behaviour of an individual that can be directly observed by another individual. Therefore, academic achievement has been seen as a term used for student based on how well they are doing in studies and classes. Academic achievement for university student is also seen as the extent to which a student has achieved his educational goals. This means that the student's academic performance is measured by the extent to which he/she has reached the educational goal he has set for himself. The university measures academic achievement in several ways which include Continuous Assessment Test (C.A.T) and a number of standardized test and examinations (Pekrun & Perry, 2007).

Methodology

Research Design

The research design adopted for this research is correlational design. Correlational design according to McMillan and Schumacher (2010), is research design in which information on at least two variables are collected in order to investigate the relationship between the variables. In the correlational research design, the researcher will not attempt to manipulate any variables. Instead, the researcher is more concerned to determine the extent to which the multiple predictors explain the outcome variable, but does not necessarily conclude that one variable causes the other variables (Schmidt & Brown, 2009). As noted, a correlational research design is used to establish the statistical association between two or more variables. The variables in this study are psychological abuse, social support and academic achievement.

Population

The population of the study consists of 6 Colleges of Education in Kwara State. A total population of six thousand (6,800) students in the population of the study. The sample size for this study will be 361 students proportionately selected from all schools. Three instruments were used for this study. The instruments are mental health inventory (MHI), social support and students' academic achievement result. Pearson Product Moment Correlation PPMC(r) was used to test the study hypotheses. The hypotheses were tested at a 0.05 alpha level of significance. SPSS version 25.0 was used for the analysis.

The instrument will be weighted on five (5) point scale of SA, A, UND DA SDA. The instrument will be validated by experts in the field of counselling from North Central Nigeria. Simple percentage and PPMC (r) will be used to analyze the hypotheses. The questionnaire will be divided into three sections (A, B and C). Section A will be for collection of information on personal data of the respondents while Section B will consist of Social support inventory (SSI) and Mental Health Inventory (MHI) that elicited responses from the respondents on the relationship between social support and mental health. Section C contains information on the relationship between social support and academic achievement among married women in the colleges of education Kwara State. The section B and C will have response options scored thus: Strongly Agree (SA) =5, Agree (A) = 4 Undecided = 3 Disagree (D) =2 and Strongly Disagree (SD) = 1. Simple percentage and PPMC(r) will be used to analyze the hypotheses.

Results

Hypothesis One: There is no significant relationship between mental health and academic achievement among married women in the colleges of education Kwara State.

Table 1: r value between mental health and academic achievement among married women in the Colleges of Education Kwara State

Variables P	N	Mean	Standard Deviation	Df	Correlation index	r
Mental Health	361	30.7451	3.516056	359	0.60171	
Academic Achievement	361	7.02216	8.97896			

Correlation is significant at the 0.05 level (2-tailed).

Results of the Pearson Product Moment Correlation (PPMC) statistics above revealed that significant positive relationship exists between mental health and academic achievement among married women in the Colleges of Education Kwara State, reason being that the calculated p value of 0.001 is lower than the 0.05 alpha level of significance and the computed correlation index r value of 0.60171 at 359 df. Therefore, the null hypothesis, which states that there is no significant relationship between mental health and academic achievement among married women in the colleges of education Kwara State., is rejected.

Hypothesis Two: There is no significant relationship between social support and academic achievement among married women in the colleges of education Kwara State.

Table 2: r value between educational support and academic achievement among married women

Variables	N	Mean	Standard Deviation	Df	Correlation index
Home background	361	37.6759	3.146021	359	0.7774
Academic Performance	361	67.02216	8.97896		

Correlation is significant at the 0.05 level (2-tailed).

Results of the Pearson Product Moment Correlation (PPMC) statistics above revealed that significant positive relationship exists between social support and academic achievement among married women in the colleges of education Kwara State, reason being that the calculated p value of 0.000 is lower than the 0.05 alpha level of significance and the computed correlation index r value of 0.60171 at 359 df. Therefore, the null hypothesis which states that there is no significant relationship between educational support and academic achievement among married women in the colleges of education Kwara State is rejected.

Discussion of Findings

The finding of this study revealed that significant positive relationship exists between mental health and academic achievement among married women in the colleges of education Kwara State. The finding proved that mental predicts academic achievement. The finding of this study is in line with that of Bas (2020), mental health problems make adolescents face with a decline in academic achievement, which in turn results in school absence, poor grades, and even repeating a grade in school.

The finding of this study revealed that significant positive relationship exists between educational support and academic achievement among married women in the colleges of education Kwara State. This finding agrees with that of Okesina (2018), affirmed that academic performance of the child could be traced to the home he comes from. Finding also collaborates with that of Synder (2000), claimed that the family environment is the most powerful influence in determining the child's academic performance. It is obvious that substantial influence on a child's academic performance. Moreover, the finding tallies with that of Abiriri (2010), education is seen as an instrument per excellence for development and as such it is the engine that promotes development. Aside from the intellectual capacity of the child, the academic performance of the child is also largely determined by the family social status.

Conclusion

Based on the findings of this study, it is concluded that mental health predicts students' academic achievement. It is also established social support have a significant relationship with students' academic achievement. Although people married to different social economic background, which is why some married students have good academic achievement while some on the other hand have poor academic achievement.

Recommendations

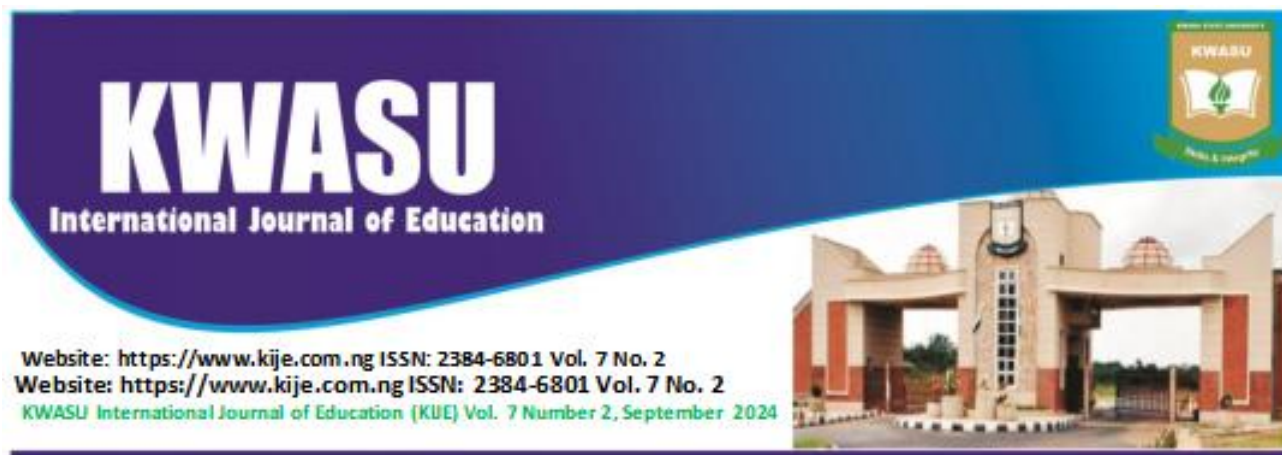
The following are recommended based on this study:

1. Counsellors should consider the importance of good mental health in their counselling encounters and help individuals to attain it, especially married students that are lacking social support in their educational attainment.
2. Parents as a matter of importance should provide social support to the married children in school irrespective of their gender so as to influence their academic performance.
3. The state government should as a matter of urgency train more guidance counsellors who shall play the role of counselling at different spheres of life in the school or outside the school system.

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LECTURERS' QUALITIES AS CORRELATES OF ACADEMIC PERFORMANCE OF OFFICE TECHNOLOGY AND MANAGEMENT STUDENTS IN OYO STATE COLLEGES OF EDUCATION

BY

Joshua S. MAMMAN PhD, Prof. Lawrence F. ADEMILUYI & F. B. LASISI

^{1&2}Department of Business and Entrepreneurship Education

Kwara State University, Malete

¹joshua.mamman@kwasu.edu.ng

¹<https://orcid.org/0000-0003-3872-2247>

²lawrence.ademiluyi@kwasu.edu.ng

Abstract

Office Technology and Management is a practical way of developing knowledge, ability and skills in learners. As such this study therefore, investigated lecturers' qualities and skills as correlates of academic performance of Office Technology and Management in Colleges of Education, Oyo State. The specific purposes are to determine the level of the knowledge of the subject matter, lecturers' qualifications, teaching strategies on students academic performances. The population of the study was 71 OTM lecturers and 410 NCE III students. The study sample consisted of 46 OTM lecturers and 300 NCE III students. The instrument used for data collection was a structured questionnaire titled Lecturers Qualities and Skills as Correlates of Academic Performance of Office Technology and Management (LQSCAPOTM). The instrument was validated by three expert lecturers and reliability coefficient of 0.83 was obtained for the instrument using Kuder Richason reliability method. Mean and standard deviation was employed to answer the research questions. The two null hypotheses were tested using Persons Product Moment Correlation Coefficient statistics at 0.05 level of significance. The findings revealed that

there was significant correlation between the mean responses of lecturers' knowledge of the subject matter and academic performance ($r(344) = .064 (.625) p > 0.05$, between lecturers qualifications $r(344) = .134 (.308) p > 0.05$, lecturers teaching strategies $r(344) = .130 (.321) p > 0.05$. The study concludes that lecturers' qualities of knowledge of subject matter and qualifications would help improve the students' academic performance. The study among others recommended that lecturer's qualities should be enhanced through training established for enhancing academic performance and promotion of quality teaching and learning in OTM programme.

Keywords: Lecturers' Qualities, Academic Performance, Office Technology and Management

Introduction

Education is a major determinant that brings about the development of any nation. The successes of an education programme and improvement in education standard depend on the quality and effectiveness of lecturers. Lecturers translate the aims and objectives of the education into action in the classroom. The success of any human endeavor is closely related to the quality of skills the person who performs the task demonstrates, hence, it could be said that the quality of education is a reflection of her lecturers.

Lecturers' quality has been of interest to the policy makers, educators and parents. The qualities are measured by students' academic performance in both internal and external examinations. It is generally believed that students' academic performance in an examination depends on the lecturers' qualities and skills acquisition. Research so far has shown that lecturers' qualities have influence on the students' academic attainment (Afe, 2014). Locally, it is so because lecturers are the facilitators in the teaching and learning process. There is no doubt that the future of Office Technology and Management as disciplines depend on the readiness of Office Technologist and Managers. Lecturers to impart the knowledge and skills of technology into Office Technology and Management students. The need for Office Technology and Management lecturers to acquire modern office technology skills is therefore, indispensable if lecturers are to impart these skills to the students so that they would be adequately prepared for the demands of the current technological innovations in business offices (Omeje, 2018).

Lecturers interpret the theory into practice during interaction with the students. The Office Technology and Management lecturers are increasingly becoming the focus of interest because of the key role they play in the delivery of quality teaching and skills to the learners (Tang, 2018). This seems to suggest that lecturers in Office Technology and Management are agents of change from old secretarial studies to Office Technology and Management and such are critical in students' academic performance.

It is the responsibility of lecturers to impart knowledge, skills and encourage student's social development. This is strengthened in the employment contract and explicitly defined in their job description. In addition to cultivating knowledge and skills and attitudes, lecturers are expected to help the students to identify and develop their potentials. Azih and Ama (2019) asserted that lecturer of Office Technology and Management plays a critical role in helping the students to direct their potentials to achieve their destiny. Office Technology and Management students need to be prepared for these challenges of industry experience, proficiency in technology and add various value change in economic development of the nation. This is secured in the idea that our world need a generation of lecturers who aim to develop learners to become

independent (Learning to Learned) to avail learners to acquire skills, knowledge and competencies that could make them self-reliant and self-sustaining.

Lecturers of Office Technology and Management used several techniques to assist students improve their achievement; they evaluate, assess and provide for students with special needs. Lecturers are evaluators at classroom level for quality and standard. Lecturers attend to students work during lessons, provide tutorial, mark students' homework and give feedback. This builds students' competencies, and academic performance improves. In addition, lecturers evaluate the curriculum, materials, equipment, education programmes that are in place for the sustainability of students learning Office Technology and Management. Federal Republic of Nigeria in the National Policy on Education (NPE, 2013) summed up to produce highly motivated lecturers who are efficient and creative and can fit into the larger society and to provide lecturers with the intellectual and professional background adequate for their assignment and to make them adaptable to changing situation. It then implies that lecturers' education program must be fashioned to include the content and method of teaching for effective delivery of Office Technology and Management in this era of digitalization.

Oladejo (2020) asserted that lecturers' qualities are the overall characteristics of the lecturers in terms of communication skills, qualifications, teaching strategies, pedagogy, experience, emotions and intelligence. He described lecturer qualities as the ability to raise students' performance in tests as well as skills and relate cordially with school management for the purpose of raising the performance of the students. Lecturers' qualities entail effective and excellent teaching to improve students learning and satisfaction. It also ensures that learners possess adequate knowledge, skills and competences that are appropriate for their areas of responsibility that would meet the needs of labour workforce. A quality lecturer in other words means a lecturer who masters the subject he teaches and how to teach it to the students, has good communication skills, is emotionally stable, possesses required qualification, understands how students learn and what to do when they are having difficulties and should be able to use effective teaching methods for those who have special needs. To produce higher academic performance in Office Technology and Management, lecturer qualities and skill acquisition are germane. In the view of Komolafe and Agani (2012), Office Technology and Management is a work-oriented education programme that aims at skill acquisition in order to enhance academic performance of Office Technology and Management students.

Academic performance is the extent to which a student, lecturer or institution has achieved their short or long term educational goals. Cumulative grade point average and completion of educational benchmarks such as secondary, certificates, diplomas and bachelor's degrees represent academic performance. Academic performance is commonly measured through continuous assessment and examinations which is one of the major goals and objectives of an institution. The outcome indicates the extent to which a person has accomplished specific goals that were focus of activities in instructional environment, specifically in Schools, Colleges, Polytechnics and Universities. Agwi and Ogwueleka (2018). Academic performance which is measured by the examination results is one of the major goals of a school. Academic performance represents outcome that indicates the extent to which a person has accomplished specific goals that were focus of activities in instructional environment, specifically in schools, colleges and universities. Nju (2017) asserted that academic performance of students can only be achieved through lecturer's mastery of the subject matter. Several literature agreed mastery of the subject matter is the most singular variable affecting student's academic performance.

Subject mastery is the possession or display of great skill, technique or knowledge that makes one a master of a subject. Subject mastery is the lecturer's knowledge of his subject. The mastery of subject matter empowers the lecturer with knowledge for critical thinking and the capacity to help their learners to grasp the appropriate knowledge, skills, attitudes and values. The lecturer's knowledge of the subject matter should go beyond the limits of the curriculum for them to be able to explain to the learners. According to Edokpolor and Owenublugie (2017), it is of necessity that lecturers master the subject matter before imparting it to learners since it enables the lecturers to adequately prepare for content delivery.

Statement of the Problem

In this era of 21st century of global competition, Office Technology and Management requires manipulation of skills and knowledge through internet connectivity to enhance academic performance, graduates employability and self reliant prowess. It is widely known that good academic performance will provide opportunities to secure meaningful job and enhance self employment upon graduation. It is also widely acknowledged that graduates especially Office Technology and Management without good academic performance in the college may not be able to solve employment tasks by applying required knowledge and qualities in the work place environment. However, inability to acquire requisite knowledge and qualities in Office Technology and Management has been blamed on the ineffective and inefficient delivery system of the lecturers required of the program of the study. Consequently, products of the programme according to the findings of Adebayo (2021), Umoru (2019) and Ademiluyi (2022) are ill-equipped and short of the necessary needed skills for self realization and national development. Also, relevant records and literatures consulted showed that academic performance of Office Technology and Management students are not encouraging as evident in the rate at which Office Technology and Management students failed in Colleges of Education, hence becoming a serious concern to stakeholders. This questions the essence of the programme among stakeholders. For instance, the Cumulative Grade Point Average (CGPA) of various Colleges of Education Southwest Nigeria under study in 2023/2024 academic session among Office Technology and Management students shown in Appendix I revealed that most of the students scores in Cumulative Grade Point was between 2.00 to 1.00 which indicated that the academic performance in skills courses were below the average which also rubb on other courses culminating in students not graduating and obtain NCE certificate in Office Technology and Management at record time of three years.

The poor academic performance has become a challenge because it would hinder their ability to perform well in the real world of work. Regrettably, parents, policy makers and educational stakeholders usually shift the blame of poor academic performance on lecturers' qualities, skills and methods of teaching. To stem the trend, lecturers in Colleges of Education have stepped-up to acquire Ph.D, M.Sc. M. Ed. TETFUND sponsorship to improve their qualities and teaching techniques in order enhance academic performance of their students. They equally attend seminars, workshops, conferences to enhance their service delivery, yet poor academic performance and mass failure are still unabated.

Researcher's personal experience during the interaction with students on the field of Office Technology and Management courses show that most students believe they do not acquire enough knowledge and skills to perform well academically and grossly unprepared for the real world of work. Specifically, students complain that most courses of Office Technology and

Management that involve practical skills were taught theoretically which made the class to be dull, boring, not interesting, and unattractive. Although, many studies have been carried out on reasons for poor academic performance in Accounting and Marketing options of Business Education, few empirical studies are also available on lecturers qualities and skills as correlates of academic performance of Office Technology and Management students in Southwest Nigeria, to the best knowledge of the researcher.

The question now is, what is the correlation between lecturers' qualities and academic performance of Office Technology and Management students in Colleges of Education in Oyo State, Nigeria. Therefore, the study investigated the lecturers' qualities as correlates of academic performance of Office Technology and Management students in Oyo State, Nigeria

Purpose of the Study

The main purpose of this study was to examine lecturers' qualities as correlates of academic performance of Office Technology and Management students. Specifically, the study examined;

1. Lecturers' knowledge of the subject matter as correlates of academic performance of Office Technology and Management in Colleges of Education, Oyo State, Nigeria.
2. Lecturers' qualifications as correlates of academic performance of Office Technology and Management in Colleges of Education, Oyo State, Nigeria

Research Questions

The following research questions guided the study;

1. What is the level of knowledge of subject matter of lecturers teaching Office Technology and Management in Colleges of Education in Oyo State, Nigeria?
2. What are the qualifications of lecturers' teaching Office Technology and Management students in Colleges of Education, Oyo State, Nigeria?
3. What is the level of academic performance of Office Technology and Management students in Colleges of Education, Oyo State, Nigeria?

Research Hypotheses

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

- H₀₁:** There is no significant correlation between lecturers' knowledge of the subject matter and academic performance of Office Technology and Management students in Oyo State Colleges of Education.
- H₀₂:** There is no significant correlation between lecturers' qualification and academic performance of Office Technology and Management students in Oyo State Colleges of Education.

Methodology

Descriptive research design correlational type was adopted to determine the lecturers' qualities and skills acquisition of academic performance of Office Technology and Management Students in Oyo State Colleges of Education. Correlational research design type explores a wide variety of different relationship in the same study. It can also obtain the degree of relationship

between variables using the correlation coefficient to compare the measurement of lecturers' qualities and skills acquisition of lecturers and how it correlates the academic performance of Office Technology and Management students. This type of research design allow for a variety of methods to explore respondents to collect data and utilize various strategies of instrumentation organs. A survey involves the selection of respondents to determine and report their prediction on the way things are. This design was considered appropriate for the study as the study solved to collect data on the opinion of Office Technology and Management lecturers and students in College of Education Oyo State Nigeria on qualities and skills acquisition as correlates the academic performance of Office Technology and Management Students. The study was established the lecturers qualities and skills acquisition as correlate of academic performance of Office Technology and Management students to determine whether there is any significant correlation between the independent variables and dependent variable and to establish composite relative contributions of the independent variables (lecturers qualities and skill acquisition) in predicting dependent variable (academic performance) of Office Technology and Management students. The entire population of the study consisted of 26 Office Technology and Management lecturers and 110 NCE III students offering Office Technology and Management from three Colleges of in Oyo State

The sample size for this study was made up of the entire population because its manageable. The instrument for data collection for the study was a structured questionnaire developed by the researcher titled "lecturer Qualities Questionnaire (LQQ) and Academic Performance Test for Office Technology and Management Students (APTOTMS)". The questionnaire items were generated based on the literature reviewed and it was divided into part one and two. Part one of the instrument sought personal information of the lecturers. Part two contains 20 items divided into two sections. Section A covers research question one and consists of 10 items which were used to determine the knowledge of the subject matter, Section B covers research question two and consists of 10 items which were used to determine the lecturer's qualifications. Academic performance Test was designed by the researcher using Office Management, ICT, and Word Processing courses. Academic performance test consists 40 of multiple choice questions each question carries 1 mark given a total of 40 marks. Lecturers' qualities as correlates of academic performance of Office Technology and Management students was face and content validated by three experts in the Departments of Business and Entrepreneurship Education and Test and Measurement Kwara State University, Malete The reliability of the instrument was determined by statically analyzed data collected from the Pilot study using Kuder Richarson (KR20). The result yielded a reliability coefficient of 0.83. This coefficient is high and positive, therefore, the instrument is adjudged stable and reliable. Mean and standard deviation were used to answer two research questions that guided the study.. The two null hypotheses were tested using person's product moment correlation coefficient statistic. The Pearson Correlation coefficient was used to examine the linear correlation between two outcome varieties. All the hypotheses were tested al 0.05 level of significance.

Results

Research Question One

What is the level of lecturers' knowledge of the subject matter in teaching of Office Technology and Management students?

Table 1: Mean the level of lecturers' knowledge of the subject matter in teaching of Office Technology and Management

S/N	Items	Mean	SD	Remarks
1.	I can provide examples of how to apply the knowledge in teaching and learning	3.15	0.36	High Level
2	I can adapt my teaching to gap misconception in my students	3.40	0.49	Very High Level
3	I can rate the level of understanding of how the students learn in the course area	3.41	0.67	Very High Level
4	I use technology approach to enhance the assessments and evaluation	3.20	0.40	High Level
5	I use assessment data to provide students learning outcome	3.33	0.51	Very High Level
6	I am familiar with the major technologies and. innovations strategies	3.32	0.50	Very High Level
7	I adapt recent instance of teaching to address the knowledge gap of the students	3.38	0.49	Very High Level
8	I can analyze and apply technology and innovation concept to real life situation	3.50	0.68	Very High Level
9	I ensure that the instruction is aligned with the curriculum standard and learning objectives	3.68	0.83	Very High Level
10	I can differentiate instruction to meet the need of the .students	3.55	0.59	Very High Level
Grand Weighted Mean		3.40	0.55	Very High Level

Source: Field survey, 2024

Analysis of data in Table 8 reveals the mean and standard deviation of the respondents regarding the level of lecturers' knowledge of the subject matter in teaching of Office Technology and Management students. Their responses indicated that lecturer can provide examples of how to apply the knowledge in teaching and learning to a high level (mean = 3.15). lecturers' can adapt his teaching to gap misconception of his students to influence the teaching and learning of Office Technology and Management courses to a very high level (mean =3.40). The respondent also indicated the level of understanding of how students learn in the course areas which facilitate the acquisition of knowledge, skills and values to a very high level (mean =

3.41), also lecturers' knowledge builds the students confidence and develop understanding of the subject matter to a high level (mean = 3.20). Equally, the analysis in the Table reveals that; lecturers use several technology to enhance the assessment and evaluation to gives students the opportunity to learn how to acquire and discover new information to a very high level (mean = 3.33), lecturers' knowledge helps the students to develop the skills and value they will need to function as a free and just society (mean = 3.32). The analysis in table 5 reveals further that; lecturers' knowledge ensures and maintain higher standard in Office Technology and Management, lecturers' knowledge determine the quality of the lecturers' input and that lecturer's knowledge determines the level of adequacy of the facilities available for quality control to a very high level (mean = 3.38; 3.50 and 3.68) respectively. Their responses also indicated that lecturers' knowledge determines the effective evaluation system to a very high extent (mean = 3.55).

The standard deviations of all ten item of the construct range from 0.36 to 0.83. This indicates that the respondents' responses are not widely dispersed, as they are near their respective mean scores. The table shows a calculated weighted average mean of 3.40 and a standard deviation score of 0.55. This indicates that the respondents expressed a very high level in rating all the constructs. This implies that the lecturers teaching Office Technology and Management students possessed high level knowledge of the subject matter. (mean = 3.40, SD = 0.55)

Research Question Two

What is the qualification of lecturers teaching Office technology and Management Students?

Table 2: Mean of the level of Qualification of Lecturers Teaching Office Technology and Management

S/N	Items	Mean	SD	Remarks
11.	All lecturers in this college have academic qualifications to teach the students most OTM courses	3.33	0.57	Strongly Agreed
12	Lecturers have minimum level of academic qualifications in the field of specializations	3.53	1.11	Strongly Agreed
13	Lecturers academic qualification are determinant of their quality	3.55	0.65	Strongly Agreed
14	Lecturers with first and/or higher degrees are more effective in delivery the skill courses	3.50	0.65	Strongly Agreed
15	Lecturers receive regular training or certification in teaching and learning as well as skills in software	3.85	0.61	Agreed
16	Lecturers with professional teaching	3.22	0.90	Strongly Agreed

	qualification have better skills to impact knowledge to students			
17	Majority of the lecturers in the colleges have of at least masters degree in relevant area	3.38	0.58	Strongly Agreed
18	Lecturers with at least Ph.D can do better to disseminate knowledge to their students	3.68	0.75	Strongly Agreed
19	Male lecturers in the College of Education have better knowledge and skills than female lecturers	3.50	0.68	Disagreed
20	Lecturers qualifications enhance his delivery of the skill courses	3.47	0.72	Disagreed
Grand Weighted Mean		3.50	0.72	Strongly Agreed

Source: Field survey, 2024

Analysis of data in Table 9 reveals the mean and standard deviation of the respondents regarding the qualification of lecturers teaching Office Technology and Management students. The respondent's responses revealed that; All lecturers in this College have academic qualification to teach the student most office Technology and Management Courses to a strongly agreed (mean = 3.33), lecturers academic qualification influence the students academic achievement to a strongly agreed (mean = 3.53) and that lecturers academic qualifications are determinant or new quality was strongly agreed (mean = 3.55). The analysis in Table 9 reveals further that; lecturers with first and/or higher degree are more effective in class room not majority of lectures in the College of Education have professional teaching and teacher certificate was strongly agreed (mean = 3.50 and 3.85) respectively. Equally, their responses indicated that lecturers with professional teaching qualification have better skills or impact knowledge to student was agreed (mean = 3.22). Similarly, the respondents rated the following construct with strongly agreed: Majority of lecturers in College of Education have at least five years teaching experience, Lecturers with at least 10 years experience do better to disseminating knowledge to their students. It was disagreed most male lecturers in college of education have better knowledge and skills than female lecturers and the quality of female lecturers is reflection of academic achievement to subtends.. (mean = 2.38; 2.68 and 2.50) respectively. The respondents also rated strongly agreed that; appropriate academic achievement, award and publication have impact full knowledge and practical activities in the learner (mean = 3.47)

The standard deviations of all ten item of the construct range from 0.57 to 0.90. This indicates that the respondents' responses are not widely dispersed, as they are near their respective mean scores. The table shows a calculated weighted average mean of 3.50 and a standard deviation score of 0.72 This indicates that the respondents expressed a very high level in rating all the constructs. This implies that lecturers teaching Office Technology and Management students are highly qualified (mean = 3.50, SD = 0.72).

H₀₁: There is no significant correlation between lecturers' knowledge of the subject matter and academic performance of Office Technology and Management students in Southwest Colleges of Education.

Table 3: Pearson correlation of lecturers' knowledge of the subject matter and academic performance of Office Technology and Management students in Southwest Colleges of Education.

Variable	N	Mean	SD	r-value	Sig	Decision
Lecturers' knowledge of the subject matter	46	13.39	0.36			H₀₁
				.064	.625	Retained
Academic Performance	300	27.70	7.44			
<i>Source: Field survey, 2024</i>				$p > 0.05$		

Table 3 summarizes the Pearson correlation coefficient between lecturers' knowledge of the subject matter and academic performance of Office Technology and Management students in Southwest Colleges of Education. The result indicates a very weak positive correlation between lecturer's knowledge of subject matter and academic performance and the correlation was not significant, $r ([344]) = .064] (.625), p > 0.05$. Therefore, the null hypothesis which states that there is no significant correlation between lecturer's knowledge of subject matter and academic performance of Office Technology and Management students in Southwest Colleges of Education was retained. This further meant that there is a very weak positive correlation between lecturer's knowledge of subject matter and academic performance which is not statistically significant.

H₀₂: There is no significant correlation between lecturer's qualification and academic performance of Office Technology and Management students in Southwest Colleges of Education.

Table 4: Pearson correlation of lecturers' qualification and academic performance of Office Technology and Management students in Southwest Colleges of Education.

Variable	N	Mean	SD	r-value	Sig	Decision
Lecturers' qualification	46	13.70	0.33			H₀₂
				.134	.308	Retained
Academic Performance	300	27.70	7.44			
<i>Source: Field survey, 2024</i>				$p > 0.05$		

Table 4 reveals the Pearson correlation coefficient between lecturer's qualification and academic performance of Office Technology and Management students in Southwest Colleges of Education. The result indicates a perfect positive correlation between lecturer's qualification of subject matter and academic performance and the correlation was not significant, $r ([344]) = .134] (.308), p > 0.05$. Therefore, the null hypothesis which states that there is no significant correlation between lecturer's qualification and academic performance of Office Technology and Management students in Southwest Colleges of Education was retained. This further meant that

there is a weak positive correlation between lecturer's qualification and academic performance of Office Technology and Management students in Southwest Colleges of Education which is statistically significant.

Discussion of Findings

The finding from research question one in table 1 reveals that lecturer's knowledge of the subject matter in teaching of Office Technology and Management students in Oyo State Colleges of Education was to a very high level. This finding corroborated with the earlier findings of Olise and Ikinphan (2018) that good knowledge of the subject matter helps the lecturers to teach learners effectively; Okoro and Arejoh (2018), that the lecturers must have motivation of the subject matter motives making teaching and learning process more effective in areas of teaching. The lecturer knowledge of the subject matter is germane for the process of achieving the lessons objectives and acquisition of appropriate skills. NPE (2014) The Policy shows clearly the government intention to include the building of sufficient knowledge and qualities to enhance capacity among the citizens of the country profession. The findings on research question two in table revealed that the qualification of lecturers teaching Office Technology and Management in Southwest Colleges of Education possess the required academic qualifications to teach the skills courses in Office Technology and Management to a strongly agreed.

This finding corroborated with the findings of Voss, Kunter and Boument (2020) a well-qualified lecturer is one who is fully certified and holds the equivalent of a major degree in the field of studies being taught. Lecturers should be able to inculcate in the learners knowledge and skills needed for career opportunities in skill courses in Office Technology and Management. Akphan (2020), Adesayo (2020) Corroborated this assertion that students taught by lecturers with relevant and higher qualifications with experience performed better than students taught by lecturers with lower qualifications. Base on the opinions of expert it can be concluded that teachers with relevant higher qualifications with experience bring awareness and facilitate student's skills and ability to manipulate the skills in word processing, computer application and computer appreciation through understanding the skill concept.

Conclusion

Based on the findings of the study, it was concluded based on the findings that, lecturers' qualities of knowledge of subject matter and qualifications would help improve the students' academic performance. It can therefore be deduced that lecturer's qualities have a positive correlation with students' academic performance in colleges of education in Southwest, Nigeria. From empirical results a lecturer with the required academic qualification will be able to impart necessary skills into the students and thereby enhance their academic performance.

Recommendations

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

1. The Office Technology and Management lecturers should possess adequate knowledge of the subject matter build students' confidence and understanding of the subject matter to help them perform better.
2. Lecturers in Colleges of Education in Nigeria should possess the required academic qualifications to teach the relevant knowledge and skills in courses in Office Technology and Management which will in turn improve the academic performance of the students.

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INFLUENCE OF HUMAN RELATIONS AND PROBLEM-SOLVING SKILLS ON SELF-RELIANCE OF BUSINESS EDUCATION GRADUATES

BY

Joshua S. MAMMAN PhD, Prof. Lawrence F. ADEMILUYI & Joseph A. MAFIKUYOMI

^{1&2}Department of Business and Entrepreneurship Education
Kwara State University, Malete

¹joshua.mamman@kwasu.edu.ng

¹<https://orcid.org/0000-0003-3872-2247>
lawrence.ademiluyi@kwasu.edu.ng

Abstract

This paper examined the influence of human relations, innovation and problem-solving skills on self-reliance of business education graduates in South-West, Nigeria. The descriptive survey design was adopted for the study while the population of the study consisted of 223 postgraduate Business Education students in the Universities in South-West, Nigeria. Since the population is manageable, the entire population of 223 respondents was used as the sample size for the study. A well structured questionnaire on 4 point-scale was used as instrument for data collected and was validated by three experts from Department of Business and Entrepreneurship Education, Kwara State University, Malete while the reliability test for the instrument yielded coefficient a 0.87 using Cronbach Alpha. From the data collected frequency counts and percentage were used for demographic data, while mean and standard deviation were used to analyze the research questions. Hypotheses were tested using independent samples t-test at 0.05 level of significance. Findings revealed that the human relations skills positively influenced self-reliance (mean = 3.25, SD 0.55) of Business Education graduates. Also, human relations skills positively influenced self-reliance (mean = 3.33, SD = 0.64). In addition, problem-solving skills influenced self-reliance (mean = 3.12, SD = 0.96). Furthermore, it was found that there was a significance

difference in the mean perception of male and female respondents regarding the influence of human relations skills on Business Education graduates' self-reliance ($t_{218} = 0.01$, $P < 0.05$). There was a significant difference between the mean perception of respondents from federal and state universities regarding the influence of problem solving skills on self-reliance of Business Education graduates ($t_{218} = 0.001$, $P > 0.005$). There was also a significant difference between the mean perception of respondents from federal and state universities regarding the influence of problem-solving skills on self-reliance of Business Education graduates ($t_{218} = 0.001$; $P > 0.05$). It was concluded that no matter how efficient entrepreneurs may be in their businesses, if they lack human relations, problems-solving and innovation skills such as ability to develop new ideas to create new products and ability to open up a new market, success may still become a mirage since it will be hard to compete with competitors as well as meeting the needs of the society. It was recommended among others, that Business Education lecturers in the Universities should ensure that human relations skills needed are taught more vigorously through demonstration and practical methods to enable the graduates to open and manage small enterprises effectively. Also, Business Education graduates should as a matter of urgency enroll in business school for training in the area of human relations, innovation and problem solving skills which are needed for self-reliance.

Introduction

The Business Education programme is majorly patterned on the principles of self-reliance. It is one of the educational programmes charged with the responsibility of skills and competency development. It is also regarded as an education for, and about business, because its main focus is on career development, employment generation and self-reliance. The concept of self-survival connotes one's ability to earn a living through exhibition of valuable and necessary skills required for successful engagement in entrepreneurship. Basically, the programme prepared its recipients to play an active role in an economy and at the same time utilize the knowledge as an entrepreneur.

According to Salami (2019), an entrepreneur is an individual who gathers and coordinates other business resources for production in both the required quality and quantity for the purpose of making a profit. Entrepreneurs are also seen as people who have the ability to see and evaluate business opportunities to gather the necessary resources, to take advantage of them and to imitate appropriate action to ensure success. The author further expressed that the entrepreneur plays a negotiating role between the larger society and its economic unit. Entrepreneurial action is likely to initiate changes for both the economic unit and its environment.

According to Badi and Badi (2021), entrepreneurship is the function of seeking investment, production opportunity, organizing an enterprise to undertake new production process. Entrepreneurship means making a living by working for yourself. Badi and Badi went further to state that the person who carried out the skills and attitudes of entrepreneurship is referred to as the entrepreneur. The entrepreneur exercises authority in the effective controlling of other factors in developing and applying new methods of production and above all, he bears the risks and uncertainties associated with these functions in a dynamic world of work. Olupayimo and Ademiluyi (2021) defined entrepreneurship as the inculcation in the individuals' entrepreneurial skills, knowledge, attitudes and competences that would make such individuals live happily, successfully in the society and contribute meaningfully to its development. Entrepreneurship can,

therefore, be seen as willingness and ability to seek out an investment opportunity, establish an enterprise based on this and run it successfully.

The issue of entrepreneurship and self-reliance has become a debate among the experts all over the world. Specifically in Nigeria, thorough observations have shown that unemployment is a serious threat to peaceful coexistence in Nigeria. Promotion of entrepreneurship among the Nigerian youths, Business Education graduates inclusively, is a form of government strategy to inculcate the spirit of business ownership into the blood stream of the youths, purposely to divert their attention from being employed to become job creators. Creation requires intuitive knowledge and skills that must be well mastered for easy planning, coordination and execution of a specific entrepreneurial activity (Binuomote, 2017)

Therefore, there is the need to emphasize acquisition of skills through Business Education. Ezenwafor and Olaniyi (2017) opined that Business Education is a key agent in the development of creativity and innovation in individuals for business success. It stimulates business interest and potentials and as well promotes acquisition of relevant skills and competencies for the establishment and operation of a new profit-oriented business venture. Skills are those activities that will enable an entrepreneur to manage his own enterprise. Nnaji (2020) defined skill as the ability to do something well and is usually gained through training or experience. Nnaji further stated that skill acquisition prepares individuals for successful entrepreneurial activities.

Gana and Abdulrahman (2018) indicated that entrepreneurial skills training as a specialized training given to people to acquire the skills, ideas and the managerial abilities and capabilities for self-employment rather than being employed for pay. An entrepreneurial skill is a deliberate attempt to provide trainees with relevant knowledge, appropriate skills, competence and right attitude to effectively run or manage a business outfit. It is a programme of instruction that enables the beneficiary to be properly equipped to establish and operate a profit oriented business venture. It is done through entrepreneurship education. Therefore, Business Education undergraduates need different types of skills such as human relations skills, innovation skills, problem solving skills, marketing skills, management skills and information and communication skills to run any kind of business enterprise. Out of these skills the study adopted three which are Human Relations, Innovation and Problem Solving Skills.

Human Relations is the study of group behaviour for the purpose of improving interpersonal relationships among employees. The study of human relations can help in workplace, and as a result, assist undergraduates in achieving career success after graduation. The better their human relationship, the more likely they are to grow in their businesses (Maffo & Oyewole, 2017). In the same vein, human relation in the workplace is a major part of what makes a business work. Employees must frequently work together on projects, communicate ideas and provide motivation to get things done. Without a stable and inviting workplace culture, difficult challenges can arise in the logistics of managing employees as a key factor of production. Businesses that engage in good workplaces and accurate well-trained workforce are more likely to retain and attract qualified employees. Such an organization fosters loyalty with customers and more quickly adapt to meet the needs of a changing market situation. Olupayimo and Ademiluyi (2021) asserted that possession of good human relations skills is another success factor for self-reliance. Self-reliance can be seen to mean being able to depend on oneself, one's resources rather than those of others. It has to do with what one can do for oneself. It also means relying on one's abilities and efforts to be independent.

The desire of most developing countries including Nigeria is to have self-reliant economy capable of generating an internally self-sustaining growth. Uche (2016) affirmed this view point and submitted that no matter how hard an individual may work or whatever many brilliant ideas they may display, if they cannot connect with other people around, their professional life will suffer. Uche further stressed that, human relations entails the ability to relate well with coworkers; accept criticisms, advice and suggestions from others, exercise confidence, good judgment and bring about increased customers' satisfaction through innovation. This emphasizes the need to acquire human relations skills for entrepreneurial development.

Innovation could be explained in many ways by many authors. Hennessey and Amabile (2020) defined innovation as the successful implementation of creative ideas within an organization. Based on this view, entrepreneurs' creativity is the starting point of innovation. Innovative skills for entrepreneurial development include introduction of new products, new methods of production, opening new markets, exploring new sources of supply of raw materials and carrying out new types of organization. The acquisition of these skills will enable undergraduates of Business Education to function effectively in the current highly competitive environment and strong market forces to turn business problems into business opportunities after graduation.

A business is built on the problems of customers' needs and without which there will be no business at all. This is why problem solving skills are important tools for success in operating an enterprise. There are many definitions of problem solving skills but at a basic level, it focuses on the ability to accurately assessing a situation and arriving at a positive solution. It involves methods and skills to find the best solution to problems. Solving problems is an analytical skill that many employers look for when reviewing candidate application forms. This particular skill is not restricted to a single sector, industry or role, though employers in the engineering and legal industries in particular tend to look for proficiency (Binuomote, 2016).

Ajaero (2016) stated that problem-solving skills for entrepreneurial development involve critical thinking, understanding of the business, team spirit, decisiveness and courage. Acquisition of these skills will enable undergraduates of Business Education to identify business problems and become critical thinkers so as to turn the identified business problems into opportunities.

Problem solving skills are highly sought after by employers as many companies rely on their employees to identify and solve problems. They are among the most important skills students must have when after graduation. In the 21st century, one of the objectives of education is raising individuals who can apply the information they learn to solve problems, develop strategies, and transfer their knowledge (Emeasoba & Nwatarali, 2020). Problem solving abilities are important skills for educational area because a healthy society or a healthy nation can only maintain its existence through adapting themselves into new conditions by problem-solving abilities (Incebacat & Ersoy, 2018). It also involves ability to devise new ways of doing things that add value to the work environment, thinking critically and logically to evaluate situations, solve problems and making decisions.

Saygili (2019) noted that problem solving is a process of moving towards a goal when the path to the goal is uncertain. Saygili further explained that in order to be effective at problem solving one is likely to need some other key skills, which include: creativity, researchable skills because defining and solving problem often requires research, team work skills, emotional

intelligence, risk management and decision. Lester in Emeasoba and Nwatarali (2020) also noted that problem solving process is a complex area that requires many skills to be used together. The elements of this process include understanding the problem, choosing the necessary information among the given choices, and reaching the solution after performing the necessary operations.

Thus, Deen (2018) observed that there is growing scientific evidence that Business Education is capable of stimulating employment, productivity, and economic growth by producing students who will be versed in business world and equipped with business knowledge for self-reliance. Self-reliance is a quality of depending on oneself instead of relying on others. When people are self-reliant, they are independent and autonomous. According to Spall (2020), self-reliance is trust in one's abilities to get through the challenges of life on the back of one's resourcefulness. Spall further explained that it is the ability to provide for oneself without the need for outside help. Also, it is the ability an individual has to establish a business of his own instead of working for another person. It is the ability to do or decide things by oneself. A person who is self-employed is said to be self-reliant. It is to be independent instead of working for another person.

Umoru and Nnaji in Tony-Okeme and Umoru (2021) described self-reliance as the ability of an individual to establish a business of his own instead of working for another person. They add that, it is the ability for independent decision making.

In a nutshell, self-reliance refers to the reliance on one's capabilities; knowledge, skills, competencies abilities to improve life or an individual depending on his/her own resources, skills, competencies, knowledge, among others for economic gains instead of being an employee. Thus, a self-reliant person is an individual who relies on oneself or on one's own powers and resources, depending less on other people in the management of human and material resources. However, to be self-reliant, there is need to possess entrepreneurship skills. Self-reliance may not be sufficient for business education students in the present competitive business world because it shows the ability to stand alone which may imply work and eat and cater for personal needs.

In a competitive global economy, no nation can survive without developing a skillful and formidable workforce. This means that graduates from any discipline needed not just preparation for white collar jobs but both knowledge and skills for entrepreneurship, self-employment and self-reliance which are needed impetus for national development. As a result of this, schools are being challenged to produce students who are knowledge-producers, problem solvers and creative thinkers who can apply their skills to enrich their lives and communities. Consequently, it has become imperative for the nation to rethink her educational delivery practices in order to enhance the competitive ability of her teeming graduates. As a step in the right direction, Nigerian government introduced entrepreneurship which involves various skills for self-reliance and education as a compulsory course for all programmes in tertiary institutions. Therefore, the need for skills development by Business Educators for self-reliance cannot be over-emphasized.

Entrepreneurship success is the individual entrepreneur's distinct understanding and appraisal of the accomplishment of standards that are personally crucial to him or her. Entrepreneurship is not just about starting a business and generating profits. It involves creating employment opportunities, driving economic growth and improving the quality of life for many. To succeed, an entrepreneur needs to have a set of skills that can help them identify opportunities,

make effective decisions, turn their ideas into reality, overcome challenges and properly allocate resources to achieve goals (Robison & Brownson, 2022).

Being a successful entrepreneur means more than starting new ventures every other day. It means the right attitude towards a business and determination and gift to achieve success. A successful entrepreneur has a strong inner drive that helps to succeed in the business activities. A cursory look at the qualities of an entrepreneur will indicate the following: leadership, self-motivation, basic ethics and integrity, creativity, risk-taking, determination, perseverance, adaptability, effective communication and networking. Entrepreneurs must be able to sell themselves and their products or services. They must have a passion for their unwavering diligence. Successful entrepreneurs are opportunistic and act on them. They are resilient in the face of failure and can learn from their mistakes (Salami, 2019).

There are, however, many factors that influence an individual's readiness to become an entrepreneur. Abdulwahab (2016) expresses that some people become entrepreneurs because they are unemployed, downsized or have their jobs outsourced. They become entrepreneurs for more economic stability and to help stimulate the economy. These individuals can be driven to become entrepreneurs for the sake of independence, maintaining a family tradition of entrepreneurialism, gaining status and creating new products and services. Discrimination based on gender and race can also contribute to the desire to become an entrepreneur.

Gender is an important aspect of entrepreneurial readiness discussion. A group of studies have indicated that men have more entrepreneurial readiness and have more interest to start a business than their female counterparts. Salami, Mafikuyomi and Ogundare (2020) reported that 67% of all businesses in Sweden was started by men, 28% by women and 5% by a joint venture between men and women. Also, Chiemeka-Unogu (2020) states that entrepreneurial engagements are more related to men than to women, whereas percentage-wise men accounted for 55% of those who wished to have their personal business. In a study by Jose-Luiz (2010), women and men were reported to have similar preparedness to become entrepreneurs predicted from self-efficacy in terms of confidence in securing a new idea for a product or service, (coming up with a new idea, design a product or service that will satisfy customer needs and wants), confidence in planning (estimate customer demand for a new product or service, determine a competitive price for a new product or service, design an effective marketing/advertising campaign for a new product or service), confidence in marshalling (get others to identify with and believe in visions and plans for a new business, and network), confidence in implementing personnel management strategies (supervise, recruit and hire employees, delegate tasks and responsibilities, inspire, encourage, motivate and train employees), and confidence in implementing financial strategies.

While each individual institution is unique, they do share similarities according to their type. For some prospective students, the choice to go to a university is an obvious one, as entry into many professions (medicine and architecture, for example) requires a higher education degree that is only offered by the universities. One will find that there is some overlap in the qualifications that each institution type offers. For instance, while universities are known for offering higher education degrees with an academic focus, some also offer Vocational Education Training (VET) for students to be able to acquire necessary entrepreneurship skills for self reliance.

In 2023, there are 262 universities in Nigeria, 147 were private, federal universities amounted to 52, while state universities were 63. Some of Nigeria's oldest universities were the University of Ibadan, the University of Nigeria, Nsuka, Obafemi Awolowo University, Ile-Ife and University of Lagos. These four institutions were founded between the end of the 1940s and the beginning of the 1960's (Ubogu, 2023).

In Nigeria, a state university is one of the public universities funded by or associated with state government. Most state universities in Nigeria (including Universities of Technology, Universities of Agriculture and Universities of Education) receive at least part of their funding from the state, although many have substantial income from tuition and fees, donations (such as from alumni or philanthropists) and revenue from royalties.

Despite the large number of private, state and federal universities that we have in South West Nigeria, only four universities are running postgraduate studies in Business Education programme, namely: Tai Solarin University of Education, Ijebu Ode, Olabisi Onabanjo University, Ago Iwoye, Ekiti State University, Ado Ekiti and University of Lagos, Lagos.

The people of South West, Nigeria, engage in businesses of various forms ranging from local textile-making, crop production, poultry farming, manufacturing of soaps and detergent, manufacturing of leather footwear, pure water firms, dying of cloth, among others. South-West Zone has six states which are Ekiti, Lagos, Ogun, Ondo, Osun and Oyo. Interestingly, business activities are predominantly the occupation of the people living there. There are universities, polytechnics and colleges of education which are either owned by private individuals, states or federal government, located in rural and urban areas of South West, Nigeria, in order to cater for the educational needs of the people. The students that have graduated from these schools consist of male and female and who have spent a minimum of four years in the schools. They fall between the ages of 22 and 35 years. Also, some of these graduates are from non-business background parents, while some others are from business background homes and have acquired the prerequisite training with years of experience from their different homes. Unfortunately, most students with the business orientation despite such background have nothing to show for the knowledge acquired.

Based on the foregoing, there is a problem in training skills for business education graduates. It is against this situation that this study was conducted on the influence of human relations, innovation and problem solving skills for self-reliance among Business Education graduates in South-West, Nigeria.

Statement of the Problem

The incorporation of entrepreneurship skills in the curriculum of Business Education is based on the need for graduates to be self-reliant. This is not only to make Business Education graduates' self-reliant but also to attain entrepreneurial success. Entrepreneurial prosperity requires acquisition of skills by every individual who intends to establish a business due to the complexity of business environment, most especially in Nigeria.

It is observed by the researcher that the objective of self-reliance is very important to be attained in Business Education programme. In the first instance, instead of the recipient of the programme to become job providers, they become job seekers. In the society today, hardly do business students or graduates engage in any profitable ventures, instead they join their

colleagues claiming job scarcity. Many involve in deviant attitudes that contribute nothing to the development of the society. Igbo cited in Salami (2019) pointed out that scarcity of jobs in the country has culminated into various forms of social problems such as Boko Haram menace, Farmers/Herdsmen conflict, Political Thuggery and Yahoo Boys activities, among others. This generates concerns among stakeholders as to whether the aims and objectives of Business Education right from its inception to produce self-reliant personnel are being realized.

Business Education graduates who have gone through the undergraduate programme in higher institutions are expected to have acquired entrepreneurial skills training such as human relations skill, innovation skills and problem solving skills that will enable them own their businesses and become employers of labour. In the absence of all these, graduates roam about the streets of Nigeria looking for white collar jobs that are barely in existence. This means that Business Education programme graduates currently lack the capacity to impart and develop in students the needed skills to be functional entrepreneurs. In other words, the traditional Business Education programme is no longer sufficient to develop the skills needed for successful entrepreneurial activities and it is clearly underscored by the alarming number of unemployed Business Education graduates in the society (Binuomote 2016).

The worsening economic situation in Nigeria suggests the necessity for every Nigerian adult to seek for self-reliance. The future of Nigeria's development then depends upon the well prepared and skilled youths who can contribute meaningfully to the development of their society which can be achieved by laying more emphasis on entrepreneurship education.

Unfortunately, while most of these graduates that expected to become employers of labour, often join in the search for scarce paid employment thereby increasing the already high unemployment rate in the country despite the abundant entrepreneurship opportunities. This study focuses on determining if Business Education graduates are sufficient in skills required for them to be self-reliant. Careful observations of current trends create doubts about whether Business Education graduates possess skills required to successfully engage in entrepreneurship activities.

Business Education is a double-major programme which ideally enables students after their graduation to be self-employed or be employed if opportunity arises. The major focus of Business Education is to produce self-reliant graduates. This is the reason entrepreneurship education was included in the curriculum. With the unabated unemployment situation, the question arises of where does the problem lies despite the efforts of government and other stakeholders to see that unemployment is eradicated in the society? One may ask whether the curriculum is inadequate; whether there are some certain untapped skills requiring special attention so that the aims and objectives of Business Education can be realized. To the best of the knowledge of the researcher's knowledge, it seems that no recent study has been conducted on this problem; hence the need for this study.

Purpose of the Study

The main purpose of this study was to determine the influence of human relations, innovation and problem solving skills for self-reliance among Business Education graduates in South West, Nigeria. Specifically, the study sought to determine the extent of influence of:

1. human relation skills on Business Education graduates 'self-reliance in Southwest, Nigeria.

2. problem solving skills on Business Education graduates' self-reliance in South-West, Nigeria.

Research Questions

The following research questions were raised to guide the study:

1. What is the extent of the influence of human relations skills on Business Education graduates' self-reliance in South-West, Nigeria?
2. What is the extent of the influence of problem solving skills on Business Education graduates' self-reliance in South-West, Nigeria?

Research Hypotheses

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

- H₀₁: There is no significant difference between the mean perception of male and female respondents regarding the influence of human relations skills on Business Education graduates' self-reliance.
- H₀₂: There is no significant difference between the mean perception of respondents from federal and state universities respondents regarding the influence of problem solving skills on self-reliance of Business Education graduates.

Method

This study adopted a descriptive survey design while the population of the study consisted of 223 Business Education Postgraduate students in four public universities running postgraduates programmes in South West, Nigeria. The census sampling technique was used as a sample. Since the population is manageable, the entire population of 223 was used as the sample size for the study. This was the case because according to Azih and Ama (2020) whenever the population is manageable, it is ideal to study the entire population. A well structured questionnaire developed by the researcher titled: Influence of Entrepreneurship Skills on Self-Reliance (IESESSQ) questionnaire was used as instrument for data collection. The questionnaire was divided into two – parts A and B. Part A was designed to elicit demographic information of the respondents such as gender while Part B consisted 18 items into two clusters B1 to B3 which are structured on a 4-points rating scale on self-reliance of Very Highly Extent (VHE), Highly Extent (HE), Low Extent (LE) and Very Low Extent (VLE). The items were scored as follows: VHE= 4, HE= 3, LE = 2 and VLE = 1. The face and content-validity of the instrument was established using the opinions of two experts in the field of Business Education and one expert in measurement and evaluation, Kwara State University, Malete. Trial-testing method was used to determine the reliability of the instrument using 20 Business Education postgraduate students in Kaduna State who were not part of the study population. Data collected in the trial-testing were analyzed using Cronbach Alpha which yielded coefficient values of 0.55, 0.64 and 0.54 for clusters B1 and B2 respectively with an overall coefficient value of 0.87. The researcher personally administered copies of the questionnaire on the respondents with the help of two research assistants adequately briefed. All copies of 223 questionnaire distributed were retrieved and used for data analysis. Data collected were analyzed using mean and standard deviation to answer the research questions and determine the homogeneity of the respondents' opinions. The t-test was used to test the null hypotheses as 0.05 level of significance. A

hypothesis was rejected where the p-value is less than the alpha value of 0.05 but accepted where the p-value is greater or equal to the alpha value.

Results

Research Question One

What is the extent of the influence of human relations skills on Business Education graduates' self-reliance in South-West, Nigeria?

Table 1: Mean Perception of respondents on the influence of human relation skills on graduates' self-reliance

S/N	Items	Mean	SD	Remarks
1.	Empathy promotes self-reliance.	3.39	0.68	Very High Extent
2.	Conflict resolution is capable of influencing self-reliance.	3.38	0.64	Very High Extent
3.	Teamwork influences self-reliance.	3.34	0.69	Very High Extent
4.	Negotiation skills promote self-reliance.	3.27	0.56	Very High Extent
5.	Emotional intelligence influences self-reliance.	3.27	0.52	Very High Extent
6.	Constructive criticism encourages self-reliance.	3.37	0.73	Very High Extent
7.	Team building influences self-reliance.	3.29	0.57	Very High Extent
8.	Collaboration in business influences self-reliance.	3.37	0.70	Very High Extent
Grand Weighted Mean		3.33	0.64	Very High Extent

Source: Field Survey, 2024

N = 223

Analysis of data in Table 1 reveals the mean and standard deviation of the respondents regarding the extent of the influence of human relation skills on Business Education graduates' self-reliance in South-West, Nigeria. The data from the table suggests that the respondents believe that Empathy promotes self-reliance to a very high extent. Also, conflict resolution and team work are capable of influencing self-reliance, (mean = 3.39, 3.38, and 3.34 respectively). Similarly, according to the respondents, negotiation skills promotes self-reliance (mean = 3.27), and emotional intelligence influences self-reliance (mean = 3.27). Equally, the respondents indicated that constructive criticism could influence self-reliance, team building is capable of influencing self-reliance and collaboration in business can influence self-reliance to a very high extent (mean = 3.37, 3.29 and 3.37 respectively).

The standard deviations of all eight item structures range from 0.52 to 0.70. This indicates that the respondents' responses are not widely dispersed, as they are near their respective mean scores. The table shows a calculated weighted average mean of (3.33) and a standard deviation score of 0.64. This indicates that the respondents expressed a high level in ratings all the constructs. This implies that human relation skills positively influenced the self-reliance of Business Education graduates in South-West, Nigeria to a very high extent (mean = 3.33, SD = 0.64).

Research Question Two

What is the extent of influence of problem-solving skills on Business Education graduates' self-reliance in South-West, Nigeria?

Table 2: Mean Perception of respondents on the influence of problem-solving skills on self-reliance

S/N	Items	Mean	SD	Remarks
9.	Critical thinking skills in problem-solving influence self-reliance	3.83	0.74	Very High Extent
10.	Observational skills in problem solving influence self-reliance	3.98	0.69	Very High Extent
11.	Decision making skills in problem solving influence self-reliance.	3.99	0.80	Very High Extent
12.	Monitoring and feedback seeking influence self-reliance.	3.07	0.80	High Extent
13.	Ability to handle difficult economic situation influences self-reliance.	3.11	0.81	High Extent
14.	Effective change management skills give way to self-reliance.	3.16	0.87	High Extent
15.	Self-control in problem-solving influences self-reliance.	3.16	0.87	High Extent
16.	Self confidence in problem-solving can influence self-reliance.	3.30	0.94	Very High Extent
17.	Ability to avoid problems influences self-reliance.	3.35	0.97	Very High Extent
18.	Analytical and evaluation skills in problem solving influences self-reliance.	3.37	1.07	Very High Extent
Grand Weighted Mean		3.12	0.96	High Extent

Source: Field Survey, 2024 N = 223

Analysis of data in Table 2 reveals the mean and standard deviation of the respondents regarding the extent to which problem-solving skills influence the self-reliance of business education graduates in South-West, Nigeria. The data from the Table submits that the respondents believe to a very high extent that; Critical thinking skills in problem-solving can influence Self-reliance, observational skills in problem solving can influence (or can be of influence) and decision-making skills in problem solving can influence self-reliance (mean = 3.83, 3.98 and 3.99) respectively. Equally, the respondents rated the following item of the construct to a high extent; monitoring and feedback seeking can influence self-reliance, ability to handle difficult economic situation can influence self-reliance and Effective change management skills can give way to self-reliance (mean = 3.07, 3.11 and 3.16). Also, according to the respondents, self-control in problem-solving can influence self-reliance to a high extent (mean = 3.16). Table 2 also reveals that; self confidence in problem-solving can influence self-reliance, ability to avoid problems can influence self-reliance and analytical and evaluation skills in problem solving can influence self-reliance to a very high extent (mean = 3.30, 3.35 and 3.37)

The standard deviations of all the ten item structures range from 0.69 to 1.07. This indicates that the respondents' responses are not too widely dispersed, as they are near their respective mean scores. The table shows a calculated weighted average mean of (3.12) and a standard deviation score of 0.96. This indicates that the respondents expressed a high level in rating all the constructs. This implies that problem-solving skills positively influenced self-

reliance of Business Education graduates in South-West, Nigeria to a high extent (mean = 3.12, SD = 0.96).

H₀₁: There is no significant difference in the mean perception of male and female respondents regarding the influence of human relations skills on Business Education graduates' self-reliance.

Table 3: Independent Samples t-test of mean ratings on human relations skills and self-reliance

Group	N	Mean	SD	t-cal	DF	P-value	Decision
Gender							
Male	68	3.46	0.48	2.48	218	0.012	H₀₂ Rejected
Female	155	3.29	0.45				
Source: Field Survey 2024			N = 223		P<0.05		

The data in Table 3 reveals that 68 respondents representing 29.5% were male, while 155 of them representing 70.5% were female. This implies that there were more female business education postgraduate students than their male counterparts in four public universities running postgraduates' programmes in Southwest, Nigeria.

The mean ratings of the respondents show that; human relations skills positively influenced self-reliance of Business Education graduates in South-West, Nigeria to a very high extent as supported by a grand weighted mean and standard deviation of (\bar{x} = 3.33, SD = 0.64). The Table reveals that there was a significant difference in the mean perception of male and female respondents regarding the influence of human relations skills on Business Education graduates' self-reliance ($t_{218} = 0.012, P < 0.05$). Therefore, the outcome of the null hypothesis that states that there is no significant difference in the mean perception of male and female respondents regarding the influence of human relations skills on Business Education graduates' self-reliance was rejected. This implies that male and female postgraduate students of business education express divergent views in their responses regarding the influence of human relations skills on Business Education graduates' self-reliance, with male respondents having the highest mean ($X = 3.46$).

H₀₂: There is no significant difference between the mean perception of respondents from federal and state universities respondents regarding the influence of problem-solving skills on self-reliance of Business Education graduates.

Table 4: Independent Samples t-test of mean ratings on problem solving skills and self-reliance

Group Institution Ownership	N	Mean	SD	t-cal	DF	P-value	Decision
Federal	69	3.75	0.99	-4.54	218	0.001	H₀6 Rejected
State	154	4.37	0.72				
Source: Field Survey 2024			N = 223			P<0.05	

The data in Table 4 reveal that 69 respondents representing 30% were from federal university; while 154 of them representing 70% were from state universities. This implies that there were more business education postgraduate students in state universities than federal universities running postgraduate programmes in Southwest, Nigeria. The mean ratings of the respondents show that; problem-solving skills positively influenced self-reliance of Business Education graduates in South-West, Nigeria to a high extent as supported by a grand weighted mean and standard deviation of ($\bar{x} = 3.12$, $SD = 0.96$). The Table reveals that there was a significant difference between the mean perception of respondents from federal and state universities regarding the influence of problem-solving skills on self-reliance of Business Education graduates. ($t_{218} = 0.001$, $P < 0.05$). Therefore, the null hypothesis that state that there is no significant difference between the mean perception of federal and state universities respondents regarding the influence of problem-solving skills on self-reliance of Business Education graduates was rejected. This implies that postgraduate students of business education from federal and state universities expressed divergent views in their responses regarding the influence of problem-solving skills on self-reliance, with respondents from state owned institutions having the highest mean ($X = 4.37$).

Discussion

In this section, the findings of the study are discussed.

The results in Table 1 on research question one show that items 1, 2, 3, 4, 5, 6, 7 and 8 were rated as “Very High Extent”. On the whole, the weighted mean 3.33. The results therefore show that the respondents rated items as “High Extent”. Finding therefore revealed that human relations skills positively influenced Business Education graduates self-reliance in South-West, Nigeria to a very high extent. This is because “attitude determines attitude” therefore, effective human relation skills could guarantee the process of self-reliance. The finding corroborated with Aniefok and Christabel (2022) who indicated that there is positive relationship between communication, conflict resolution, negotiation and multi-tasking skills of an entrepreneur and organizational sustainability of small scale enterprises. Based on this opinion of these experts, it can be concluded that human relations skills is the interaction between individuals who are in formal structure such as work relationship, arranged functionally to achieve the stated goals of the business enterprises with persuasive communication in person to inspire excitement and work activities with enthusiasm productivity, happiness and satisfied cooperation on both sides.

The results in Table 2 on research question two show that items 9,10, 11, 16, 17 and 18 were rated as “Very High Extent” while items 12, 13,14 and 15 were rate “High Extent. On the whole, the weighted mean was 3.12. The results therefore, show that the respondents rated items as “High Extent”. The findings of research question two in Table 2 revealed that problem-solving skills positively influenced self-reliance of Business Education graduates in South West, Nigeria to a “High Extent”. The findings is in line with that of Akeke, Oche, Akuegwu and Ushie (2022) that students of Business Education programme should exposed to practical ways of running business enterprises while in schools through personal involvement in planning, marketing and managing school-based businesses. They also believed that problem-solving skills is needed for Business Education students’ self-reliance.

Conclusion

Based on the findings of the study, it was concluded that human relations skills positively influenced self-reliance of business education graduates. No matter how efficient entrepreneurs may be in their businesses, if they lack human relations and innovation skills such as ability to develop new ideas to create new products and ability to open up a new market, success may still become a mirage since it will be hard to compete with competitors as well as meeting the needs of the society. This skill will teach Business Education graduates how to be genuinely enthusiastic in doing their business.

Recommendations

Based on the findings and conclusion of the study the following recommendations were made:

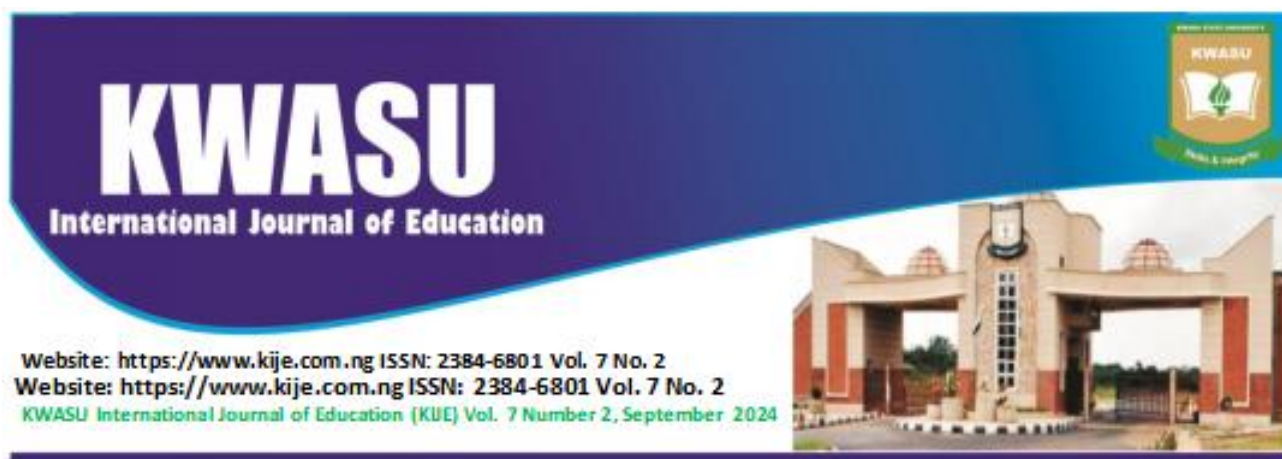
1. The current curriculum of Business Education in the universities should be reviewed to incorporate problem solving skills and risk management that will equip graduates with human relations skills to reduce risks, avoid physical hazard and transfer risks to another individual or organization through hedging, business insurance and employee insurance.
2. Business Education graduates should as a matter of urgency enroll in business school for training in the area of human relations, innovation and problem solving skills which are needed for self-reliance.

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STAKEHOLDERS' PERCEPTIONS OF STRATEGIES, OPPORTUNITIES AND CHALLENGES OF IMPLEMENTING THE NATIONAL SKILLS QUALIFICATION FRAMEWORK FOR ENTREPRENEURSHIP AND SUSTAINABLE DEVELOPMENT

BY

Lawrence F. Ademiluyi¹, Titus A. Umoru², Ngozi B. Nwabufo³ & Israel S. Ogundele⁴

^{1,2,3,4} Department of Business and Entrepreneurship Education, Kwara State University Malete

Abstract

The National Skills Qualification Framework (NSQF) is a structured framework designed to promote and enhance the quality of skills development and vocational education in Nigeria. It aims to establish a standardized system for recognizing and certifying skills across various sectors thereby facilitating the alignment of education and training with the needs of the labour market. This study examined the stakeholders' perceptions of strategies, opportunities and challenges of implementing the National Skills Qualification Framework for entrepreneurship and sustainable development in Nigeria. The study had eight purposes, four research questions and four null hypotheses. The study adopted descriptive survey design. The population of the study comprised public TVET institutions teachers, students and artisans in the six states of southwestern Nigeria. Multi-stage sampling techniques were used to sample 1,800 participants. The instrument used for data collection was a validated four-part research questionnaire, structured on the 4-point rating scale. Cronbach alpha method was used to determine the reliability of the instrument, and the reliability coefficients were 0.87 and 0.89. The data collected were analysed using mean and standard deviation for the research questions while the hypotheses were tested with independent-samples t-test and Two-way Analysis of Variance. The study found among others that the level of knowledge of the stakeholders on the contents of the National Skills Qualifications Framework was very low; and the best strategies for implementing NSQF included, training providers selection should be public and transparent and there should be a funding scheme to which both government and industry can contribute,

among others. Based on the findings, it was concluded that the low level of stakeholder knowledge about the NSQF highlights the urgent need for robust sensitization and training programs to bridge this gap. Transparent selection processes for training providers and a collaborative funding scheme involving both government and industry were identified, among others, as essential strategies for successful NSQF implementation.

Introduction

The need for accelerated but sustainable economic growth and national development has increased global focus on Technical Vocational Education and Training (TVET) as a prime implement for building the technical manpower resources of an industrializing society. The National Skills Qualification Framework (NSQF) in Nigeria is a structured framework designed to promote and enhance the quality of skills development and vocational education in the country. It aims to establish a standardized system for recognizing and certifying skills across various sectors, thereby facilitating the alignment of education and training with the needs of the labor market. It is a system that recognizes and classifies skills, knowledge and competencies acquired by individuals. It also provides a structure for the development of the skills irrespective of time, place or manner of acquisition. The NSQF is a competency-based system that structures qualifications into categories (levels) of aptitude, knowledge and skills. It is a developmental implement which imitates the steps taken by rapidly developing countries to fast-track entrepreneurial progress through acceleration of manpower development for the benefit of businesses and industry.

One of the earliest competence-based frameworks for vocational qualifications was the English National Vocational Qualifications Framework (NVQF) launched in 1987. This was followed by a comprehensive National Vocational Qualifications (NVQ) launched in New Zealand in 1992 and a similar one in South Africa in 1995. These early frameworks drew their intellectual inspiration from the competence-based teacher training models instituted in the USA (Coles, 2017). As recently as 2004, only five NQFs were in existence together with a larger number of competence-based vocational education and training frameworks; the latter were sometimes limited to one or more industry or occupational sectors. Since then, 120 countries have developed some form of qualification framework- some as NVQFs and restricted to vocational qualifications (like NVQs) and others being comprehensive frameworks for all qualifications

The NSQF is structured into various levels, each representing a specific set of competencies and skills. These levels help in categorizing qualifications based on the complexity of skills and knowledge required. It emphasizes competency-based education and training, focusing on what individuals can do with their skills rather than just the knowledge they possess. The framework includes provisions for recognizing skills and competencies acquired through informal and non-formal learning, allowing individuals to gain formal recognition for their skills. The NSQF aims to bridge the gap between education and industry by ensuring that the skills taught meet the demands of the relevant industry.

The framework includes mechanisms for quality assurance to ensure that training providers meet certain standards and that the qualifications awarded are credible and recognized. The NSQF promotes lifelong learning by allowing individuals to continuously upgrade their

skills and qualifications throughout their careers. The objectives of the scheme are to enhance the employability of individuals by providing them with relevant skills, standardize qualifications across various sectors and levels of education, facilitate the mobility of learners and workers within and across sectors, and to support the development of a skilled workforce that meets the demands of the economy.

The framework is the structure within which the National Skills

Qualifications (NSQs) operate (NBTE, 2015). The framework aims at promoting lifelong learning, providing quality assurance and recognition, understanding occupational learning routes and qualifications and how they relate to each other, providing access to vocational education and training opportunities. making progression routes easier and clearer. The Framework also seeks to improve career mobility and to increase the scope for recognition of prior learning.

Lifelong learning is necessary to enhance an individual's employability in a dynamic and continually evolving and increasingly global work environment. NSQF seeks to provide opportunities for training to meet needs arising from technological and economic development and changing career paths. National Skills Qualifications Framework can offer Nigeria an instrument for promoting the development of new qualifications, making delivery more flexible and widening the range of providers. The framework is designed to increase the influence of stakeholders on the development of qualifications so that the system is more responsive to the needs of the labour market. Employers and workers' organizations play important roles in developing competency standards for qualifications.

Originally NQFs were largely an Anglophone phenomenon. However, the decision of the EU to launch a European Qualifications Framework (EQF), stimulated the 29 EU countries to develop their own NQFs. Furthermore, with the support of the European Training Foundation (ETF) and other international agencies, countries in the other continents have followed. The result is that by the beginning of the third decade of the twenty-first century NSQF has become a global phenomenon, although compliance with the frameworks differ from nation to nation.

Ademiluyi et al (2023) views entrepreneurship as the combination of initiative, innovation and calculated risk taking, associated with identifying market opportunities, mobilizing resources and managing them efficiently in the operation of productive viable and socially responsible enterprise. In his opinion, entrepreneurship involves applying focused strategies to new ideas and new insights to create a product or service that satisfies customers' need or solves existing problems. Entrepreneurship is the process of designing, launching and running a new business (Okoye & Okoji, 2021). They explain that it is the process which involves the efforts of an individual in identifying viable opportunities in a business environment and managing the resources needed to exploit those opportunities. Entrepreneurship therefore is the process of using available capital in any form for business endeavors in an open and free market economy, for the primary purpose of making profit. Entrepreneurship is the ultimate propeller of TVET-driven creativity and innovation.

Entrepreneurship is also universally recognized as a prime implement of sustainable development. The New World Encyclopedia (2014) defines sustainable development as balancing the protection of the natural environment with the fulfillment of human needs so that the needs can be met not only in the present but also in the indefinable future. The term was

prompted by global recognition of the close linkage between environmental health and human development as well as the need to alter social and economic policies to minimize the human impact on the planet.

The United Nations Division for Sustainable Development identifies several areas as falling within the scope of sustainable development. These include agriculture, biodiversity, capacity building, climate change, education and awareness, poverty, sanitation, technology, trade and environment, sanitation, water and waste among others. The common principles guiding action programmes of sustainable development include: Dealing transparently and systemically with risks, uncertainty and irreversibility, ensuring appropriate valuation, appreciation and restoration of nature, integration of environmental, social, human and economic goals in policies and activities, equal opportunity and community participation in developmental efforts, conservation of biodiversity and ecological integrity, ensuring inter-generational equity, recognizing the global integration of localities, a commitment to best practice, no net loss of human capital or natural capital and the principle of continued improvement.

Sustainable development is a TVET concern because while TVET is all about personal progress and national development, unbridled development portends danger to future generations and to mankind as a race. For instance, while logging is necessary for construction and other creative tasks, reckless logging could damage the ecosystem, impair biodiversity, accelerate desertification and ultimately affect the quality of life on earth. These concerns have helped introduce in TVET, concepts like green TVET and continuous human capital development which is a major premise of the national skills qualifications' framework.

Technical and vocational qualifications in traditional systems were designed to lead directly to employment and rarely gave opportunities for those who qualified to progress to higher education. With the reduction of craft-based occupations and the growth of technical occupations requiring more theoretical knowledge, governments throughout the world have become increasingly concerned to open routes from vocational and technical qualifications to higher education. Including qualifications achieved through vocational programmes as well as those obtained in universities and polytechnics within the same framework promotes this possibility.

Statement of the Problem

The National Skills Qualification Framework was introduced by the Federal Government of Nigeria in 2015 to stimulate reforms in skills development and facilitate establishment of nationally standardized and internationally comparable qualifications. The Framework seeks to increase the flexibility and relevance of training programmes, ease recognition of prior learning, enhance lifelong learning and improve transparency of qualification systems. The programme is in line with global best practices. It is based on the universal paradigm shift from education based on inputs to that based on learning outcomes. Competency based learning shifts focus from training providers to users, emphasizes what the learner is supposed to be able to accomplish at the end of the training and ensures universality and acceptability of qualifications. Properly implemented, NSQF is expected to have an enduring impact on skill acquisition for self-reliance and entrepreneurship, and ultimately to have measurable influence on

sustainable national development. The acquisition of universally recognized certificates is bound to enhance job mobility and self-reliance. However, laudable and desirable as these objectives evidently are, not much has been heard, since its introduction, on the practical implementation of the programme in Nigeria. It even appears that most NSQF stakeholders are pathetically oblivious of the programme, blissfully unaware of its contents, the opportunities it presents for craftsmen everywhere and the challenges inherent in implementing such a revolutionary programme. From the researchers' interactions with artisans, students of TVET, teachers and managers of TVET institutions, it is obvious that very few institutions have keyed into the implementation of the Framework, leaving a great national opportunity largely unharnessed. If critical stakeholders continue to ignore the programme, the objectives will not be realized, closing a major opportunity for individual progress and accelerated national development.

The researchers also note the paucity of research work on NSQF in Nigeria., which suggests that the academia is either ignorant or disdainful of the programme. This situation should not be allowed to continue, hence the need for this study.

Research Questions

1. What is the level of respondents' knowledge of the contents of the National Skills Qualifications Framework?
2. What are respondents' perceptions of benefits of implementing the National Skills Qualifications Framework for entrepreneurship and sustainable development.?
3. What do respondents perceive as challenges of implementing the National Skills Qualifications Framework for entrepreneurship and sustainable development.?
4. What are respondents' perceptions of the best strategies for implementing the National Skills Qualifications Framework for entrepreneurship and sustainable development?

Hypotheses

1. There is no significant difference in the mean ratings of respondents regarding the level of respondents' knowledge of the contents of the National Skills Qualifications Framework based on the states in which they are located.
2. There is no significant differences in respondents' perception of benefits of implementing the National Skills Qualifications based on classifications for entrepreneurship and sustainable development (Lecturer/Student/Artisan/Entrepreneur)
3. There is no significant difference in perceived challenges of implementing the National Skills Qualifications Framework for entrepreneurship and sustainable development based on respondents' gender.
4. There is no significant difference in respondents' perceptions of the best strategies for implementing the National Skills Qualifications Framework for entrepreneurship and sustainable development, based on classification (Lecturer/Student/Artisan/Entrepreneur)

Research Methodology

The study was carried out to ascertain stakeholders' perceptions of strategies, opportunities and challenges of implementing the National Skills Qualification Framework for entrepreneurship and sustainable development. in Nigeria. The research was conducted in the six states of southwestern Nigeria, namely Lagos, Ogun, Oyo, Osun, Ondo and Ekiti states. Southwestern Nigeria, and Lagos in particular, are the industrial and commercial heartland of Nigeria.

The study employed descriptive survey research design which involved the collection of data in order to test hypotheses or answer research questions concerning the status of the subjects (Nwanna, 2011). Surveys are investigations in which the subjects are studied in their natural environments without treatment. Umoru (2013) explains that survey is particularly effective for seeking individuals' opinions, attitudes and perceptions.

Descriptive survey designs are ideal when the researcher seeks to describe or document the characteristics, attitudes, behaviours, opinions or perceptions of a group or population being studied. It is appropriate when the researcher seeks to determine characteristics, extent, frequencies, trends, or categories, The research design was chosen because the study sought to determine respondents' opinions on awareness, opportunities, challenges and strategies of implementing the NSQF in the Nigerian educational system.

The study population consisted of public TVET institutions teachers, students and artisans in the six states of southwestern Nigeria. TVET institutions consist of polytechnics and technical colleges. At the time of the study, there were 19 public polytechnics in southwestern Nigeria, comprising five federal and 14 state polytechnics. In addition, there were 37 NBTE-accredited Technical Colleges consisting of five federal and 32 state-owned colleges.

Multi-stage sampling techniques were used. In the first place, three of the six states were selected using simple random sampling. Purposive sampling was used to select one each of federal and state-owned polytechnics and technical colleges in each of the selected states. Stratified simple random sampling was used to select 100 final year students and 25 teachers from each of the institutions to be studied. The stratifications included gender (male/female), and courses of study (STEM/social sciences). Convenience sampling was used to select 25 artisans in the immediate neighbourhood of each institution, for ease of reach. The sampled size was 150 per institutions (including the artisans) and 600 per state. The total study sample consisted of 1800 subjects.

The instrument used in gathering data for this study was a validated four-part research questionnaire, structured on the 4-point rating scale with response options of High Level/Strongly Agreed (4 points), Moderate Level/Agreed, (3 points), Low Level/Disagreed, (2points) and Very Low Level/Strongly Disagreed (1 point). The instrument was validated by three experts and pilot tested. Cronbach Alpha method was used to determine the internal consistency of the instrument.

The data collected for the study were analysed using mean ratings to answer the research questions and standard deviation to determine the closeness or otherwise of the responses to the mean. Independent samples t-test statistics and ANOVA were used to test the null hypothesis of no significant difference at the probability level of 0.05.

Results

Descriptive and inferential statistics were used for this study's data analysis results, including tables, mean, and standard deviation. The presentations are organized according to

research questions that guided the study. Out of the 1,800 copies of the questionnaire distributed, 1,353 were retrieved, making 75.2% return rate. The breakdown of the retrieved copies of the questionnaire includes 232 lecturers, 650 students, 348 artisans and 123 industrialists. The analysis of the data collected is presented under the relevant headings as follows:

Research Question One: What is the level of respondents' knowledge of the contents of the National Skills Qualifications Framework?

Data collected in respect of this research question is presented in Table 1.

Table 1: Mean and Standard Deviation scores on the level of respondents' knowledge of the contents of the National Skills Qualifications Framework

S/N	Items on the Questionnaire	\bar{x}	SD	Remarks
1.	History of NSQF in Nigeria.	1.02	0.21	Low level
2.	Objectives of National Vocational Qualifications Framework in Nigeria.	1.68	0.47	Low level
3.	Benefits of NSQF to workers.	1.60	0.51	Low level
4.	Benefits of NSQF to entrepreneurs and employers of labour.	1.71	0.46	Low level
5.	Benefits of NSQF to national economy.	1.69	0.49	Low level
6.	Qualifications available through NSQF in my field.	1.63	0.49	Low level
7.	The role of the major stakeholders in NSQF in Nigeria.	1.64	0.48	Low level
8.	The process of NSQF delivery.	1.31	0.47	Low level
9.	Role and responsibilities of NSQF training providers.	1.74	0.44	Low level
10.	Role of NSQF Sector Skills Councils.	1.54	0.50	Low level
11.	Role of NBTE as NSQF programme regulator.	1.00	0.09	Low level
12.	NSQ Training providers in your field.	1.69	0.48	Low level
13.	Qualifications currently available for NSQF implementation.	1.61	0.53	Low level
14.	Levels (Stages) of NSQF in Nigeria.	1.72	0.48	Low level
15.	Challenges of NSQF implementation in Nigeria.	1.69	0.48	Low level
Grand Weighted Mean and SD		1.55	0.44	Low level

Analysis of data in Table 1 shows the mean and standard deviation of responses on the level of respondents' knowledge of the contents of the National Skills Qualifications Framework. The respondents indicated that their knowledge of the history of NSQF in Nigeria was low; they similarly indicated that their knowledge of the objectives of National Vocational Qualifications Framework in Nigeria was low and their knowledge of benefits of NSQF to workers was low. These were supported by mean scores of 1.02, 1.68 and 1.60. The respondents also indicated a low knowledge level of the benefits of NSQF to entrepreneurs, employers of labour, and national economy, same way their knowledge of Qualifications available through NSQF in their field was low and their knowledge of the role of major stakeholders in NSQF in Nigeria was low. These were supported by mean scores of 1.71, 1.69, 1.63 and 1.64 respectively.

The analysis also shows that the respondents indicated that their knowledge of the process of NSQF delivery, role and responsibilities of NSQF training providers, role of NSQF Sector Skills Councils as well as role of NBTE as NSQF programme regulator were low. These were supported by mean scores of 1.31, 1.74, 1.54 and 1.00 respectively. In addition, the respondents indicated that their knowledge of NSQ training providers in their field was low, same way their knowledge of qualifications currently available for NSQF implementation, levels

(stages) of NSQF in Nigeria and challenges of NSQF implementation in Nigeria are low. These were supported by mean scores of 1.61, 1.69, 1.72 and 1.69 respectively. All the 15 items constructed had standard deviations ranging from 0.21 to 0.51. This means that the responses of the respondents were not widespread as they were close to their respective mean scores. Table 1 has a grand mean and standard deviation of 1.55 and 0.44 respectively. This implies that the level of knowledge of the stakeholders on the contents of the National Skills Qualifications Framework is very low (mean = 1.55, SD = 0.44).

Research Question Two: What are respondents' perceptions of the best strategies for implementing the National Skills Qualifications Framework for entrepreneurship and sustainable development?

Data collected in respect of this research question is presented in Table 2.

Table 2: Mean and Standard Deviation scores of the best strategies for implementing the National Skills Qualifications Framework

S/N	Items on the Questionnaire	\bar{x}	SD	Remarks
16.	NSQF should be widely publicized to the general public using various public communication media and means.	2.60	0.65	Agreed
17.	Organised labour and industry should be closely involved in designing and implementing NSQF policy for entrepreneurship acceptance.	2.72	0.69	Agreed
18.	The academia must be carried along in formulating and implementing NSQF.	3.34	0.74	Agreed
19.	There should be a structure of incentives for NSQF participants	3.31	0.80	Agreed
20.	There should be a funding scheme for NSQF to which both government and industry will contribute.	3.35	0.71	Agreed
21.	There should be a data bank of the skills endowments and needs of each industry for NSQF to focus on.	3.26	0.81	Agreed
22.	NSQF structures, purposes and limitations should be legislatively designed to avoid conflicts.	3.08	0.85	Agreed
23.	Placement of NSQF products should be fast-tracked in both government organisations and industry.	3.05	0.74	Agreed
24.	Quality assurance mechanisms should be transparent to engender public and industry confidence.	3.21	0.93	Agreed
25.	Selection of NSQ training providers should be public and transparent.	3.34	0.77	Agreed
26.	Appointment and training of NSQ trainers should be rigorous and public.	3.26	0.80	Agreed
27.	The quality assurance mechanism should be of the highest level of integrity and should leave no room for doubt.	2.99	0.77	Agreed
28.	Youths must be mobilized to accept NVQ as a tool for poverty alleviation and panacea for unemployment	3.24	0.80	Agreed
29.	Government must promote NSQ as a tool for economic growth and sustainable development	3.18	0.86	Agreed
30.	Government should create a separate body outside the NBTE to regulate NSQF in Nigeria.	3.04	0.97	Agreed
Grand Weighted Mean and SD		3.13	0.79	Agreed

Analysis of data in Table 2 shows the mean and standard deviation of responses on the respondents' perceptions of the best strategies for implementing the National Skills Qualifications Framework for entrepreneurship and sustainable development. The respondents agreed to all the item constructed as strategies for implementing the National Skills Qualifications Framework for entrepreneurship and sustainable development. The respondents agreed that NSQF should be widely publicized to the general public using various public communication media and means, organised labour and industry should be closely involved in designing and implementing NSQF policy for entrepreneurship acceptance as well as must carry the academia along in formulating and implementing NSQF. These were supported by mean scores of 2.60, 2.72, and 3.34 respectively.

The respondents also agreed that there should be a structure of incentives for NSQF participants, a funding scheme for NSQF to which both government and industry will contribute as well as a data bank of the skills endowments and needs of each industry for NSQF to focus on. These were supported by mean scores of 3.31, 3.35 and 3.26. The analysis also shows that the respondents agreed that NSQF structures, purposes and limitations should be legislatively designed to avoid conflicts similarly; placement of NSQF products should be fast-tracked in both government organisations/industry and quality assurance mechanisms should be transparent to engender public and industry confidence as well as selection of NSQ training providers should be public and transparent. These were supported by mean scores of 3.08, 3.05, 3.21 and 3.34.

In addition, the respondents agreed that appointment and training of NSQ trainers should be rigorous and public, quality assurance mechanism should be of the highest level of integrity and should leave no room for doubt, same way they agreed that youths must be mobilized to accept NVQ as a tool for poverty alleviation and panacea for unemployment. Also, Government must promote NSQ as a tool for economic growth and sustainable development as well as create a separate body outside the NBTE to regulate NSQF in Nigeria. Mean scores of 3.26, 2.99, 3.24, 3.18 and 3.04 supported these. All the 15 items constructed had standard deviation ranging from 0.65 to 0.97. This means that the responses of the respondents were not widespread as they were close to their respective mean scores. Table 2 has a grand mean and standard deviation of 3.13 and 0.79 respectively. This means that all the items in Table 2 are strategies for implementing the National Skills Qualifications Framework for entrepreneurship and sustainable development. This implies that the best strategies for implementing the National Skills Qualifications Framework are, NSQ training providers selection should be public and transparent and there should be a funding scheme for NSQF to which both government and industry will contribute among others.

Research Question Three: What are respondents' perceptions of the benefits of implementing the National Skills Qualifications Framework for entrepreneurship and sustainable development?

Data collected in respect of this research question is presented in Table 3.

Table 3: Mean and Standard Deviation scores of the benefits of implementing the National Skills Qualifications Framework for entrepreneurship and sustainable development

S/N	Items on the Questionnaire	\bar{x}	SD	Remarks
31.	NSQF could open the door of certification to experienced craftsmen.	3.29	0.82	Agreed
32.	NSQF could reduce complexities and ambiguities in TVET qualifications.	3.29	0.74	Agreed
33.	NSQF could establish pathways to professionalism for experienced artisans.	3.18	0.91	Agreed
34.	NSQF could narrow gaps between TVET graduates' skills and industry's needs.	3.00	0.91	Agreed
35.	NSQF could help overcome progression limitations among TVET graduates.	2.76	1.05	Agreed
36.	NSQF could promote life-long learning	2.54	0.57	Agreed
37.	NSQF could ease career progression routes.	3.57	0.56	Strongly Agreed
38.	NSQF could help to improve qualifications comparability.	2.74	0.61	Agreed
39.	NSQF provides self-paced learning.	3.36	0.79	Agreed
40.	NSQF provides cost-effective training for individuals and organizations.	2.96	0.73	Agreed
41.	NSQF could improve corporate profit and competitiveness.	2.60	0.73	Agreed
42.	NSQF promotes staff retention.	3.45	0.72	Agreed
43.	NSQF could reduce unemployment and crime rates.	2.67	0.59	Agreed
44.	NSQF could promote productivity and efficiency.	3.44	0.76	Agreed
45.	NSQF could promote economic expansion.	2.83	0.74	Agreed
Grand Weighted Mean and SD		3.05	0.75	Agreed

Analysis of data in Table 3 shows the mean and standard deviation of responses on the respondents' perceptions of the benefits of implementing the National Skills Qualifications Framework for entrepreneurship and sustainable development. The respondents agreed to all the items constructed as benefits of implementing the National Skills Qualifications Framework for entrepreneurship and sustainable development. The respondents agreed that NSQF could open the door of certification to experienced craftsmen, reduce complexities and ambiguities in TVET qualifications and could establish pathways to professionalism for experienced artisans. These were supported by mean scores of 3.29, 3.29, and 3.18. The respondents also agreed that NSQF could narrow gaps between TVET graduates' skills and industry's needs, help overcome progression limitations among TVET graduates and promote life-long learning as well as ease career progression routes. These were supported by mean scores of 3.00, 2.76, 2.54 and 3.57.

The analysis also shows that the respondents agreed that NSQF could help to improve qualifications comparability, provides self-paced learning and cost-effective training for individuals and organizations as well as improve corporate profit and competitiveness. These were supported by mean scores of 2.74, 3.36, 2.96 and 2.60. In addition, the respondents agreed that NSQF promotes staff retention, could reduce unemployment and crime rates, promote productivity and efficiency as well as economic expansion. Mean scores of 3.45, 2.67, 3.44, and 2.83 supported these. All the 15 items constructed have standard deviation ranging from 0.56 to

1.05. This means that the responses of the respondents were not widespread as they were close to their respective mean scores. Table 3 has a grand mean and standard deviation of 3.05 and 0.75. This means that all the items in Table 3 are benefits of implementing the National Skills Qualifications Framework for entrepreneurship and sustainable development. This implies that the benefits of implementing the National Skills Qualifications Framework are that it could ease career progression routes, open the door of certification to experienced craftsmen and reduce complexities and ambiguities in TVET as well as could narrow gaps between TVET graduates' skills and industry's needs among others.

Research Question Four: What do respondents perceive as challenges of implementing the National Skills Qualifications Framework for entrepreneurship and sustainable development?

Data collected in respect of this research question is presented in Table 4.

Table 4: Mean and Standard Deviation scores of the challenges of implementing the National Skills Qualifications Framework

S/ N	Items on the Questionnaire	\bar{x}	SD	Remarks
46.	Funding is a major challenge for NSQF implementation.	2.92	0.81	Agreed
47.	Public acceptance may prove difficult.	2.87	0.74	Agreed
48.	Public awareness is very low	2.90	0.77	Agreed
49.	NSQF graduates may have poor theoretical knowledge	2.89	0.76	Agreed
50.	NSQF may not fully address the problem of skills mismatch.	3.53	0.77	Strongly Agreed
51.	Training outlets may not have all requisite facilities and equipment.	3.38	0.96	Agreed
52.	NBTE as a regulatory body may be too overloaded to effectively cater for NSQF implementation.	3.37	0.89	Agreed
53.	Nigerians may be culturally incapable of accepting extra-institutional qualifications.	3.18	0.80	Agreed
54.	NSQF may not redress the low public regards for TVET.	3.09	0.71	Agreed
55.	Youths may not be well-disposed to National Skills qualifications	2.60	0.65	Agreed
56.	Entrepreneurs and industrialists may not fully accept skills qualifications.	2.72	0.69	Agreed
57.	There may be inadequate data on skill gaps that demand national skills qualifications.	3.34	0.74	Agreed
58.	Public labour laws and practices have not fully covered national skills qualifications.	3.31	0.80	Agreed
59.	Quality assurance process will have to be very rigorous to engender credibility	3.35	0.71	Agreed
60.	Public information on NSQF will have to improve exponentially to win public acceptance	3.26	0.81	Agreed
Grand Weighted Mean and SD		3.11	0.77	Agreed

Data in Table 4 shows the mean and standard deviation of responses on the respondents' perceptions of the challenges of implementing the National Skills Qualifications Framework for

entrepreneurship and sustainable development. The respondents agreed to all the items constructed as challenges of implementing the National Skills Qualifications Framework for entrepreneurship and sustainable development. The respondents agreed that funding was a major challenge for NSQF implementation; similarly, they agreed that public acceptance might prove difficult, public awareness very low while NSQF graduates could have poor theoretical knowledge. These were supported by mean scores of 29.2, 2.87, 2.90 and 2.89 respectively. The respondents strongly agreed that NSQF may not fully address the problem of skills mismatch and training outlets may not have all requisite facilities and equipment, same way they agreed that NBTE as a regulatory body may be too overloaded to effectively cater for NSQF implementation while Nigerians may be culturally incapable of accepting extra-institutional qualifications. These were supported by mean scores of 3.53, 3.38, 3.37 and 3.18 respectively.

The analysis also shows that the respondents perceived the challenges to also include that NSQF may not redress the low public regards for TVET, youths may not be well-disposed to National skills qualifications and entrepreneurs or industrialists may not fully accept skills qualifications while there may be inadequate data on skill gaps that demand national skills qualifications. These were supported by mean scores of 3.09, 2.60, 2.72, and 3.34. In addition, the respondents agreed that public labour laws and practices did not fully cover national skills qualifications. Similarly, they agreed that quality assurance process would have to be very rigorous to engender credibility and public information on NSQF would have to improve exponentially to win public acceptance. Mean scores of 3.31, 3.35, and 3.26 supported these. All the 15 items constructed have standard deviation ranging from 0.65 to 0.96. This means that the responses of the respondents were not widespread as they were close to their respective mean scores. Table 4 has a grand average mean and standard deviation of 3.11 and 0.77. This means that all the items in Table 4 are challenges of implementing the National Skills Qualifications Framework for entrepreneurship and sustainable development. This implies that the challenges of implementing the National Skills Qualifications Framework are that NSQF may not fully address the problem of skills mismatch and low public regards for TVET and training outlets may not have all requisite facilities and equipment while funding is a major challenge for NSQF implementation among others.

Test of Hypotheses

The null hypotheses of the research study were tested using Independent Sample t-test and Analysis of Variance (ANOVA) at 0.05 level of significance. The summary of the test of hypotheses are presented in Tables 5 to 8 as follows:

H₀₁: There is no significant difference in the mean ratings of respondents regarding the level of respondents' knowledge of the contents of the National Skills Qualifications Framework based on the states in which the schools are located.

Table 5: Summary of ANOVA result showing difference in the mean ratings of stakeholders regarding their level of knowledge of the contents of the National Skills Qualifications Framework based on the states in which the schools are located

Residence	Number	Mean (\bar{x})	SD	F	Sig.	Decision	
LAGOS	375	1.48	0.373	4.715	0.106	Ho1	Not Rejected
OGUN	637	1.50	0.409				
OSUN	341	1.73	0.244				

The descriptive statistics (frequency, mean and standard deviation) as presented on table 5 shows stakeholders from schools located in Lagos, Ogun and Osun have mean scores of 1.48, 1.50, and 1.73, and corresponding standard deviation of 0.37, 0.40, and 0.24 respectively. The result of analysis of variance as presented in Table 5 reveals that the calculated value of F is 4.715 ($F_{1,350} = 4.715$) and the observed probability value is 0.106 which is greater than the fixed probability value of 0.05 ($P > 0.05$). This indicated that the null hypotheses which stated that, there is no significant difference in the mean ratings of respondents regarding the level of respondents' knowledge of the contents of the National Skills Qualifications Framework based on the states in which the schools are located was not rejected. This implied that stakeholders do not significantly differ in their responses regarding the level of their knowledge of the contents of the National Skills Qualifications Framework based on the states in which the schools are located.

Ho2: There is no significant difference in respondents' perceptions of the best strategies for implementing the National Skills Qualifications Framework for entrepreneurship and sustainable development, based on school ownership (Federal/State).

Table 6: Summary of t-test of the difference in the mean ratings of stakeholders' perceptions of the best strategies for implementing the National Skills qualifications Framework based on school ownership (Federal/State)

Group	N	Mean	SD	t-cal	Df	p-value	Decision
Federal	516	3.16	0.45	2.473	1351	0.014	Ho2 Rejected
State	837	3.09	0.36				

$P < 0.05$

The data in Table 6 reveals that there are 516 stakeholders from Federal owned schools and 837 stakeholders from State owned schools. The responses of the stakeholders indicated that stakeholders from Federal owned schools had higher mean score ($\bar{x} = 3.16$; $SD = 0.45$) than State owned schools ($\bar{x} = 3.09$; $SD = 0.36$). Their responses are close to the mean as the standard deviations are very low. The table revealed that there was significant difference in the mean rating of respondents' perceptions of the best strategies for implementing the National Skills Qualifications Framework for entrepreneurship and sustainable development, based on school ownership ($t_{1351} = 2.473$, $P < 0.05$). Therefore, the null hypothesis was rejected. This implied that stakeholders from Federal and State-owned schools did not differ significantly in their perception regarding the best strategies for implementing the National Skills Qualifications Framework for entrepreneurship and sustainable development.

Ho3: There is no significant differences in respondents' perceptions of benefits of implementing the National Skills Qualifications Framework for entrepreneurship and sustainable development based on professional classifications

Table 7: Summary of ANOVA result showing difference in the mean ratings of stakeholders' perception of the benefits of implementing National Skills Qualifications Framework based on their Professional classifications

Professional Classification	Number	Mean (\bar{x})	SD	F	Sig.	Decision
Lecturers	232	2.85	0.082	0.277	0.989	Ho3 Not Rejected
Students	650	2.90	0.121			
Artisans	348	2.89	0.107			
Industrialist	123	2.87	0.073			

The descriptive statistics (frequency, mean and standard deviation) as presented on table 7 shows lecturers, students, artisans and industrialists have mean scores of 2.85, 2.90, 2.89 and 2.87, and corresponding standard deviation of 0.08, 0.12, 0.10 and 0.07 respectively. The result of analysis of variance as presented in Table 7 reveals that the calculated value of F is 0.277 ($F_{1349} = 0.277$) and the observed probability value is 0.989 which is greater than the fixed probability value of 0.05 ($P > 0.05$). This indicated that the null hypotheses which stated that, there is no significant difference in stakeholders' perceptions of benefits of implementing National Skills Qualifications Framework for entrepreneurship and sustainable development based on professional classifications (student/teacher/artisan/industrialist) was not rejected. This implied that lecturers, students, artisans and industrialists significantly do not differ in their responses regarding the benefits of implementing National Skills Qualifications Framework for entrepreneurship and sustainable development.

Ho4: There is no significant difference in perceived challenges of implementing the National Skills Qualifications Framework for entrepreneurship and sustainable development based on respondents' gender.

Table 8: Summary of t-test of the difference in the mean ratings of stakeholders on the challenges of implementing the National Skills Qualifications Framework based on gender

Group	N	Mean	SD	t-cal	Df	p-value	Decision
Male	564	2.99	0.231	5.945	1351	0.000	Ho4 Rejected
Female	789	3.06	0.194				

$P < 0.05$

The data in Table 8 reveals that there are 564 male respondents and 789 female respondents. The responses of male and female stakeholders indicated that female stakeholders had higher mean score ($\bar{x} = 2.99$; $SD = 0.23$) than male stakeholders ($\bar{x} = 3.06$; $SD = 0.19$). Their responses are close to the mean as the standard deviations are very low. The table revealed that there was

significant difference in the mean rating of stakeholders on the challenges of implementing the National Skills Qualifications Framework for entrepreneurship and sustainable development based on gender ($t_{1351} = 5.945$, $P < 0.05$). Therefore, the null hypothesis was rejected. This implies that male and female stakeholders differ significantly in their responses regarding the challenges of implementing the National Skills Qualifications Framework for entrepreneurship and sustainable development.

Discussion of Findings

The study was carried out to ascertain stakeholders' perceptions of strategies, opportunities and challenges of implementing the National Skills Qualification Framework for entrepreneurship and sustainable development in Nigeria. The study found that the level of knowledge of the stakeholders on the contents of the National Skills Qualifications Framework is very low. This was evident in the result presented in Table 1. The finding that stakeholders possess a low level of knowledge regarding the contents of the National Skills Qualifications Framework (NSQF) highlights a critical gap in awareness and engagement, which poses significant challenges to its effective implementation. This result aligns with earlier studies, such as Adedayo and Olumide (2022), who reported that limited understanding of policy frameworks often leads to underutilization of their potential benefits. Similarly, Aina and Bello (2020) noted that inadequate dissemination of key policy details significantly hinders stakeholders' capacity to integrate such frameworks into their operational practices. The NSQF is designed to serve as a benchmark for assessing skills, competencies, and qualifications, making it a cornerstone for fostering entrepreneurship and sustainable development. However, a lack of knowledge among stakeholders undermines its objectives. This shortfall may stem from ineffective communication strategies, insufficient training sessions, or limited accessibility to relevant documents and resources. For instance, Yusuf et al. (2021) emphasized the importance of structured sensitization programs in bridging such knowledge gaps. Furthermore, the low level of awareness could perpetuate a cycle of inefficiency, where stakeholders fail to utilize the framework for skill development and entrepreneurial advancement. This deficiency might also contribute to resistance to adoption, as people are less likely to support what they do not understand. The result of the hypothesis one shows a further finding that stakeholders do not significantly differ in their responses regarding the level of their knowledge of the contents of the National Skills Qualifications Framework based on the states in which the schools are located.

The study also found that the best strategies include, NSQ training providers selection should be public and transparent and there should be a funding scheme for NSQF to which both government and industry will contribute among others. As revealed in Table 2, this means that the public and transparent selection of NSQ training providers and a joint government-industry funding scheme are pivotal strategies for implementing the National Skills Qualifications Framework (NSQF) indicating the need for collaborative and accountable approaches. Public and transparent selection processes ensure that only credible and competent providers deliver NSQF training, fostering stakeholders' trust. This aligns with the assertion by Okoye and Okojie (2021) that transparency in the selection of service providers enhances program credibility and stakeholder confidence. Additionally, a funding scheme supported by both government and industry emphasizes shared responsibility in implementing the NSQF. This approach addresses the financial constraints that often impede the successful rollout of such initiatives. Adamu and Ibrahim (2020) emphasized that collaborative funding models not only alleviate fiscal pressure on governments but also encourage industry participation in shaping training programs to align

with labour market demands. Furthermore, other strategies as agreed in Table 2 create an enabling environment for skill acquisition and entrepreneurship development. Joint funding ensures the sustainability of the framework, while transparent provider selection ensures the delivery of quality training that meets national and international standards. Adegbite et al. (2022) noted that such measures are instrumental in building a skilled workforce capable of driving sustainable development. Finding of the hypothesis also indicated that stakeholders from Federal and State-owned schools did not differ significantly in their perception regarding the best strategies for implementing the National Skills Qualifications Framework for entrepreneurship and sustainable development.

The study also found that the benefits of NSQF include among others that, it could ease career progression routes, open the door of certification to experienced craftsmen and reduce complexities and ambiguities in TVET as well as narrow gaps between TVET graduates' skills and industry's needs. These benefits indicated that the NSQF's role in fostering a robust skills ecosystem, by addressing key challenges in career progression, certification, and industry corporation, the NSQF paves the way for sustainable development and improved workforce readiness in Nigeria. The finding that the National Skills Qualifications Framework (NSQF) offers benefits such as easing career progression, enabling certification for experienced craftsmen, reducing complexities in technical and vocational education and training (TVET), and bridging skills gaps between graduates and industry needs underlines its transformative potential. The framework serves as a critical tool for supporting education and skills development with labour market demands. Easing career progression routes ensures that individuals can advance effortlessly based on acquired competencies rather than traditional academic qualifications. This approach is supported by Eze and Adediran (2020), who emphasized that competency-based frameworks enhance lifelong learning and provide opportunities for continuous professional development. Moreso, by opening certification opportunities for experienced craftsmen, the NSQF recognizes and validates informal learning, promoting inclusivity and equity in skill recognition. Adeyemi et al. (2021) noted that formal certification of informal skills boosts individuals' employability and earning potential, thereby reducing inequality. Also, reducing ambiguities in TVET enhances clarity and standardization, enabling better understanding and collaboration among stakeholders. Additionally, narrowing the gap between TVET graduates' skills and industry needs addresses a long-standing challenge in education. Umeh and Okafor (2019) highlighted that aligning training outcomes with industry requirements fosters economic growth and reduces youth unemployment. The hypothesis also shows a further finding that lecturers, students, artisans and industrialists significantly do not differ in their responses regarding the benefits of implementing National Skills Qualifications Framework for entrepreneurship and sustainable development.

Finally, the study found that the challenges of implementing the National Skills Qualifications Framework are that NSQF may not fully address the problem of skills mismatch and low public regard for TVET and training outlets may not have all requisite facilities and equipment while funding is a major challenge for NSQF implementation among others. The challenges of implementing the National Skills Qualifications Framework (NSQF), such as its limited capacity to fully address skills mismatches, low public regard for technical and vocational education and training (TVET), inadequate facilities at training outlets, and funding constraints, emphasize systemic issues in the skills development ecosystem in Nigeria. These challenges threaten to undermine the NSQF's potential to drive entrepreneurship and sustainable development. The inability to completely resolve skills mismatches reflects a disconnect between

curriculum design and labour market demands. As noted by Onyekwere and Abdullahi (2020), the dynamic nature of industry requirements often outpaces the ability of training frameworks to adapt, necessitating continuous stakeholder engagement. Similarly, the persistent low public regard for TVET impedes efforts to attract quality trainees and educators to this vital sector. According to Adebayo et al. (2021), societal biases against vocational careers reduce the appeal of TVET and hinder its development. In addition, inadequate facilities and equipment in training outlets are critical barriers, as effective skills acquisition relies on hands-on experience. This aligns with the findings by Odu and Obafemi (2019), who emphasized that under-equipped institutions fail to produce industry-ready graduates. Moreover, funding constraints exacerbate these issues, limiting infrastructure development, training programs, and sensitization campaigns. The results of the hypothesis also indicated that male and female stakeholders differ significantly in their responses regarding the challenges of implementing the National Skills Qualifications Framework for entrepreneurship and sustainable development. The female rated the challenges higher than the male.

Conclusion

The findings of this study emphasized critical insights into the implementation of the National Skills Qualifications Framework (NSQF) for entrepreneurship and sustainable development in Nigeria. The low level of stakeholder knowledge about the NSQF highlights the urgent need for robust sensitization and training programs to bridge this gap. Transparent selection processes for training providers and a collaborative funding scheme involving both government and industry were identified as essential strategies for successful implementation. These strategies promote accountability, inclusivity, and sustainability. The study also revealed significant benefits of the NSQF, such as easing career progression, certifying informal skills, standardizing TVET, and aligning graduates' skills with industry needs. However, challenges such as skills mismatches, societal biases against TVET, inadequate training facilities, and funding constraints jeopardise its effectiveness. Addressing these challenges requires targeted investments, increased public awareness, and dynamic stakeholder collaboration. The NSQF holds immense potential to transform Nigeria's skills development landscape if these issues are comprehensively addressed.

Recommendations

Based on the findings and conclusion, the following recommendations were made:

1. The government, in collaboration with educational institutions and industry stakeholders, should organize regular workshops, seminars, and awareness campaigns to improve stakeholders' knowledge of the National Skills Qualifications Framework (NSQF). This will ensure greater understanding, acceptance, and participation in its implementation.
2. To enhance the credibility and effectiveness of NSQF implementation, the selection of training providers should be conducted through a public, transparent, and merit-based process. This approach will ensure that only competent and well-equipped providers are entrusted with delivering high-quality training.
3. The government and private sector should establish a joint funding scheme for the NSQF. Such collaboration will ensure adequate financial resources for infrastructure development, the acquisition of modern training equipment, and the sustainability of the framework's programs.

4. A national campaign should be launched to elevate the public perception of technical and vocational education and training (TVET). This includes integrating TVET success stories into media narratives, engaging influential community leaders, and revising educational policies to emphasize the importance of vocational careers in driving economic growth.

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