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Digital Literacy and Technology Applications for Post Covid-19 Era Formative Assessment in Secondary Schools in Abia State

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Abstract

*T*he purpose of the study was to explore the level of secondary school teachers' and students' level of digital literacy and their preparedness to deploy digital technologies for post COVID-19 era formative assessment in Abia State, Nigeria. It adopted a descriptive survey design to examine the level of digital literacy of teachers and students in secondary schools and students' perception on use of digital technologies in the post-COVID-19era formative assessment in Abia State. The population consisted of secondary school teachers and students in Abia State. Sample of 108 teachers and 239 students were drawn from Aba and Umuahia Education Zones of Abia State using multi-stage sampling approach. Four hypotheses were tested at .05 alpha level using independent t-test and paired t-test. Data were collected with 'Digital Literacy and Digital Formative Assessment Questionnaire (DLDFAQ)'. Digital literacy scale was adopted from Van Deursen et al. (2014). Findings revealed that teachers' and students' levels digital literacy and students' perception on digital technologies in the post-COVID-19era formative assessment in Abia State respectively differ significantly. It further indicated that digital literacy significantly influences students' perception on digital technologies in the post-COVID-19 era formative assessment in for both secondary school teachers and students Abia State. Based on the findings it was recommended among others, that the government should flag off training programmes for teaching staff and support staff to increase their digital literacy in order to contend with such crisis situation as COVID-19 pandemic.

Key words: Digital literacy, Digital technologies, Post COVID-19 era, Formative assessment

Introduction

Prior to Corona Virus (COVID-19) pandemic, institutions of learning at all levels faced the challenge of contending with large class size both in instructional delivery and assessment. All these are done the conventional face-to-face teacher-learner interaction. Globally, the emergence of COVID-19 affected every area of human endeavour including education. UNESCO (2020) noted that over 1.5 billion students worldwide sat at home without schooling. This development resulted to a quick and unplanned shift from conventional instructional delivery to online learning (Jandric, 2020a). The unprecedented impact on the education system that led to the rapid transition revealed the gaps on how online learning has not been adopted in education system since the emergence of digitalization and given the students are digital natives (Teras, 2020). To understand and embrace the new normal and fill the gaps in the education environment, more attention needs to be paid to redefining policies and strategies in order to enhance development of digital technologies in educational assessments (Nikou & Aavakare, 2021), particularly, in formative assessment.

Assessment generally, occupies a vital position in the process of teaching-learning, certification, and acquiring knowledge and skills (Okonkwo, 2015). Specifically, assessment involves the gathering and evaluation of information on what students know, understand, and can do in order to take an informed decision about the next steps in the teaching and learning process. There are two major forms of assessment, formative and summative assessment but formative assessment is the focus of this study. Formative assessment in schools is translated to continuous assessment in conformity with the National Policy in Education (Federal Republic of Nigeria (FRN), 2013) hence; it is an integral part of teaching and learning process and is done frequently in the course of instruction. It is closely associated with assessment for learning, an approach that creates feedback used to improve students' performance. Formative assessment is described as all those activities undertaken by teachers and by their students in assessing themselves and that provides information to be used as feedback to modify teaching and learning activities (Black & William, 2009). In pre-COVID-19 era, all modalities of formative assessment had been dependent on students' physical presence for either administration or for observing their daily progress. In post COVID-19 era digital formative assessment which is used to facilitate a close view of interaction among teachers, technology and students and they function to support the learning process remotely (Black & Williams, 2009; Liberman et al., 2020).

Digital formative assessment is beneficial because through it teachers check understanding of students, get valuable data on students' learning, and then use the data to modify instruction (Educational Broadcasting Cooperation, EBC, 2004). Further, digital formative assessment affords timely feedback, provides scaffolding of next steps for learning at an appropriate level of difficulty, makes for flexibility as students can be assessed anytime, anywhere in a more comfortable environment, potentially increases learner's autonomy and self-regulation, provides support for learners' choice, affords opportunities for learners to design

their own learning goals and strategies, gives opportunities for self-and peer-assessment, accesses resources and online exemplars, and makes possible the potential for more seamless integration of formative and summative assessment (Looney, 2019; Miller, 2019).

Looney (2019) further identified different digital platforms and tools that can be employed in formative assessment to include personalized learning platforms (e-portfolios, digital storytelling, social media/online resources, e-textbooks, mobile learning, interactive white boards, rubrics, dashboards and monitoring tools, digital games and integrated formative and summative assessment. A digital assessment system must take into account issues of interface, accessibility, security, usability, the information to be collected, hardware and software technology, and information storage and processing (Love & Cooper, 2004 cited in Okonkwo, 2015). Hence, this study examined the level of digital literacy of teachers and students of secondary schools in Abia State as a means of demonstrating preparedness for use of digital technologies in post COVID-19 era formative assessment.

Digital technologies are fundamental and are adoptable to the new normal because they will connect the traditional classroom to a virtual landscape and enhance students' learning process (Gupta et al., 2020). Digital technologies include and are not limited to Computer-Mediated Communication (CMC) tools, subject – specific learning tools, interactive whiteboards, desktop or mobile videoconferencing, mobile applications/computer software, gamoney consoles, tablets and smart-phone (van Oostreen & Desjardins, 2015). Learning Management Systems (LMSs) which comprise module and blackboard had already been in use but recently gained popularity (Carvalho et al., 2011, Rachnadtullah, 2020). The LMSs while creating, deploying, maintaining full digital forms of education and provision of a meaningful e-learning experience for the users of such system (Nikou & Aavakare, 2021) disseminate knowledge, assess the learner competence, records the learner attainment, facilitate timely and accurate communication between learners and teachers and provide support for online social communities (Turnbull et al. 2019). The LMSs is therefore important in the post-COVID-19 formative assessment which is an integral part of the teaching-learning process. However, the effective and efficient use of such digital technologies require digital literacy on the part of teachers and students who are the key players in the education systems and the teaching and learning systems and the teaching and learning system.

Digital literacy (DL) is seen as "the multiplicity of skills associated with use of digital technologies" (Ng, 2012: 1066). Van Deursen et al. (2014) identified DL skills as operational skill, social skills, information navigation skill, creative skill, and mobile skill. Nikou and Aavakare (2021) contended that the use of digital technologies may involve employment of hardware and software for varying tasks within teaching and learning process. Julien (2018) defining DL from pragmatic point of view states that it is the set of skills, knowledge and attitude required to access digital information effectively, efficiently and ethically. Harvin (2020) see DL as the ability to utilize ICTs to find, evaluate, create, and communicate information, involving cognitive and technical skills. There are three

aspects of DL finding and consuming digital content, creating digital content, and sharing the digital content created.

In this post COVID-19 era, teachers' DL is imperative because they shoulder the responsibility of impacting knowledge. They play important roles of teaching a generation of students that are exposed to the digital world at a very early age (digital natives), to handle information properly and manage to extract the essence of knowledge available digitally. The teacher is expected to inspire the students to be creative, think critically, and analyze information logically. Hence, teachers must equip themselves with digital skills to necessary to help their students become responsible digital citizens (Harvin, 2020). Teachers are faced with challenges of realizing the goal of ensuring that students are responsible digital citizens. Srivastava and Dey (2018) reported the average level of the perception of teachers in implementing digital tools in teaching and learning process as well as high level of challenges of using technology in teaching such as lack of technical support, resources and time. Another challenge is that teachers are not digitally competent to the extent to enable them be quality digital teachers due to lack of prior knowledge, lack of training and inexperience (Al Khateeb, 2017).

Given that students are digital natives, they are very familiar with digital devices and they incorporate technology into their everyday lives. However, Gay (2019) contended that true digital literacy goes beyond knowing how to use web browser or navigate basic software rather it is being empowered to use digital tools enabling students to solve problems, create innovative projects, and enhance communications. It implies that students start being digitally literate as they thick critically, creatively solve problems, collaborate effectively, and communicate with impact. It also includes knowing how to evaluate digital information, and how to use it in decision-making. Earlier studies identified potential barriers to effective post COVID-19 digital formative assessment in secondary schools. Some of which are teachers and students unfamiliarity with digital technology and online assessment, lack of policy leadership to guide the use of digitalized assessment in secondary schools, absence of institutional bandwidth which determines the amount of information that can sent or received at any point in time on computer network, difficulty in assessing group, scoring and correcting questions with students' open responses, high cost of data, inadequate electricity, inaccessibility of internet and network connectivity (Alruwais et al. 2018; Haruna, 2021; Opateye, 2021).

Empirically, few literatures exist on digital literacy and readiness of use of digital technologies in formative assessment in secondary schools. However, Nikou and Aavakara (2021) investigated the impact of information and digital literacy on 249 Finish University staff and students. They found that information literacy has direct and significant impact on intention to use while unexpectedly digital literacy does not have a direct impact on the intention to use digital technologies in higher education. In another study, Ihuoma and Nwandu (2017) evaluated the extent of integration of technology in teaching and learning in secondary schools. Findings revealed that teachers were aware of ICT resources but do not utilize them due to lack of computer literacy among others.

Chikezie and Udoh (2020) examined secondary school teachers' perception of the effectiveness and relative advantage of classroom communication technologies based on teachers' preparation. It was found that there is no significant difference in the teachers' perception of effectiveness of classroom communication technologies whereas a significant difference was found in teacher's perception of the relative advantage of classroom communication technologies based on the level of teacher preparation. In another development, Okonkwo (2015) explored electronic assessment challenges and Information and Communication Technology (ICT) literacy needed for effective automation of assessment in Open and Distance Learning (ODL) among students of National Open University of Nigeria (NOUN). The result indicated that the ICT literacy of students was very important for effective use of technology in electronic assessment.

Ata and Yildirim (2019) investigated digital literacy perceptions of teachers using statistical techniques and tests, and found that cognitive, social and technical factors, as well as, attitudes were the important predictors of teachers' digital literacy. They further observed that many teachers had positive and high perceptions of digital literacy, but lack cognitive skills to find some information, create, evaluate and communicate which are principal features of digital literacy.

Appraisal of the literature reviewed showed that full use of digital technologies in secondary education had never been thought of until the outbreak of COVID-19 that disrupted the entire system. It is only in the Unified Tertiary Matriculation Examination (UTME) that digital technologies are deployed for assessment of candidates for admission into tertiary institutions and for Post-UTME for some institutions. Candidates being digital natives accept the use of such technologies. In the present study, it was proposed that high level of digital literacy has influence on secondary school students' and teachers' preparedness to use digital technology in formative assessment. Thus, the following hypotheses were formulated;

Ho₁: Secondary school teachers and students' level of digital literacy for digital technology applications in post COVID-19 era formative assessment do not differ significantly in Abia State.

Ho₂: Secondary school teachers and students' preparedness for digital technology applications in post COVID-19 era formative assessment do not differ significantly in Abia State.

Ho₃: Secondary schools teachers' level of digital literacy and their preparedness for digital technology applications in post COVID-19 era formative assessment in Abia State do differ significantly.

Ho₄: Secondary schools students' level of digital literacy and their preparedness for digital technology applications in Post COVID-19 era formative assessment in Abia State do differ significantly.

Method

The design of the study was descriptive survey. This design was chosen to enable investigation of secondary school teachers' and students' digital literacy

and their preparedness for digital technology in post-COVID-19 formative assessment.

The population of the study consisted of all senior secondary schools in three education zones in Abia State. Multistage sampling procedure was used to select the sample for the study. First simple random sampling technique was used to selecting two education zones, Aba and Umuahia education zones from the three existing zones. Aba education zone is made up of nine Local Government Areas whereas Umuahia zone has four Local Government Areas. Secondly, two LGAs and one LGA were randomly drawn from Aba and Umuahia education zones respectively. Thirdly, five and two secondary schools respectively, were randomly selected from the LGAs. The teachers and students in the schools constituted the sampling giving 108 teachers and 239 students.

The instrument for data collection comprised a researchers' made instrument titled 'Digital Literary and Digital Formative Assessment Questionnaire (DLDFAQ). It consisted of three parts. Part A sought information on status of respondents (whether they are teachers or students). Part B adopted 24 items seeking information on five digital literacy skills (Operational skills, social skills, information navigation skills, creative skills and mobile skills) from Van Deursen et al. (2014). Part C comprised 10 items on preparedness for use of digital technologies for formative assessment. Digital literacy skills scale was responded and scored on 5-point Likert-like scale of Very Great Extent (VGE) = 5; Great Extent (GE) = 4; Moderate Extent (ME) = 3; Low Extent (LE) = 2; and Very Low Extent (VLE) = 1. The Digital formative assessment scale had each item responded and scored on 5-point – Likert-type scale of Strongly Agree (SA) = 4; Agree (A) = 3; Disagree (D) = 2; Strongly Disagree (SD) = 1; Neutral (N) = 0. The instrument was validated by presenting copies to ICT expert and colleagues in Measurement and Evaluation in University of Uyo, Akwa Ibom State respectively. Their critical comments were integrated in the final version of the scales. The reliability coefficient was estimated using scores from 30 respondents. The Cronbach Alpha reliability coefficients obtained were 0.88 and 0.82 for Digital Literacy skills scale and for Digital Formative Assessment scale respectively. These indices of reliability indicated that the instrument was reliable.

The administered copies of the instrument were retrieved and scored. Out of the 400 copies administered, only 108 copies and 239 copies from teachers and students respectively were completely filled. The scores were collated and the data analyzed using Statistical Package for Social Sciences version 25 (SPSS 25). Hypotheses 1 and 2 were tested with independent t-test while hypotheses 2 and 3 were tested using paired t-test. All hypotheses were tested at .05 alpha level. For probability level less than or equal to .05, the hypothesis was rejected otherwise it was retained.

Results

Hypothesis 1: Secondary school teachers and students' level of digital literacy for digital technology applications in post COVID-19 era formative assessment do not differ significantly in Abia State.

Table 1: **Independent t-test analysis of Secondary School Teachers and Students level of digital literacy**

Variables	N	X	SD	t-value	df.	p-value
Teachers	108	93.03	12.62			
				9.00	345	.000
Students	239	106.13	12.54			

Table 1 presented the result of the difference between secondary school teachers' and students' level of digital literacy. The mean score of level of digital literacy of teachers was 93.03 while that of students was 106.13. The higher mean score of students implied that students are digitally literate to very great extent compared to teachers. The Table further indicated that t-value $_{(345)}$ = 9.00 with p-value (.000) less than alpha level (.05). Based on this the null hypothesis was rejected. It was deduced that there is a significant difference between secondary school teachers' and students' level of digital literacy in Abia State.

Hypothesis 2: Secondary school teachers and students' preparedness for digital technology applications in post COVID-19 formative assessment do not differ significantly in Abia State.

Table 2: **Independent t-test Analysis of Secondary School Teachers and Students' Preparedness for Post COVID-19 Era Digital Formative Assessment**

Variables	N	X	SD	t-value	df.	p-value
Teachers	108	33.68	3.46			
				9.25	345	.000
Students	239	28.40	5.45			

Table 2 indicated that secondary school teachers' mean score preparedness for digital technology applications for post COVID-19 era formative assessment was 33.68 while that of students was 28.40. This implied that was not much difference in the means. Table 2 also revealed t-value $_{(345)}$ = 9.25 with p-value (.000) less than alpha level (.05). Based on this the null hypothesis was rejected. It was deduced that there is significant difference between secondary school teachers' and students' preparedness for digital technology applications for COVID-19 era formative assessment in Abia State.

Hypothesis 3: Secondary school teachers' level of digital literacy and their preparedness for digital technology applications in post COVID-19 formative assessment in Abia State do differ significantly.

Table 3: **Paired t-test Analysis of between Teachers' Digital Literacy and Post COVID-19 Era Digital Formative Assessment (N = 108)**

Variables	X	SD	t-value	df.	p-value
Digital literacy	93.03	12.62			

			50.70	107	.000
Digital formative assessment	33.68	3.46			

Table 3 showed t-value $_{(107)}$= 50.70 and p-value (.000) less than the alpha level (.05). Based on the result, the null hypothesis that postulated that teachers' level of digital literacy does not significantly influence their preparedness for digital technology applications in post COVID-19 era formative assessment in secondary schools in Abia State is therefore, rejected. This means that there is statistically significant difference between teachers' level of digital literacy and preparedness for digital technology applications for post COVID-19 era formative assessment.

Hypothesis 4: Secondary school students' level of digital literacy and their preparedness for digital technology applications in post COVID-19 era formative assessment in Abia State do differ significantly.

Table 4: **Paired t-test Analysis of between Students' Digital Literacy and Post COVID-19 Era Digital Formative Assessment (N = 239)**

Variables	X	SD	t-value	df.	p-value
Digital literacy	106.13	12.54			
			117.87	238	.000
Digital formative assessment	28.40	5.45			

As can be seen in Table 4, t-value $_{(238)}$= 117.87 and p-value (.000) was less than the alpha level (.05). Based on the result, the null hypothesis that postulated that students' level of digital literacy does not significantly influence their preparedness for digital technology applications in post COVID-19 era formative assessment in secondary schools in Abia State is therefore, rejected. This means that there is statistically significant difference between students' level of digital literacy and preparedness for digital technology applications for post COVID-19 era formative assessment.

Discussion
The purpose of the study was to explore the level of secondary school teachers and students' level of digital literacy and their preparedness to deploy digital technology applications in post COVID-19 era formative assessment in Abia State. The test of the first hypothesis indicated that there is a significant difference between secondary school teachers' and students' level of digital literacy in Abia State. This result is not surprising because students being digital natives are expected to be digitally literate than teachers. This finding unexpectedly negates those of Nikou and Aavakara (2021) who found digital literacy does not have a direct impact on the intention to use digital technologies in higher education. Agreeing with finding, Ihuoma and Nwandu (2017) revealed

reported that teachers were aware of ICT resources but do not utilize them due to lack of computer literacy among others.

Hypothesis two revealed that there is a significant difference between secondary school teachers and students' preparedness for digital technology applications in post COVID-19 era formative assessment in Abia State. The finding of this study is not surprising because of the assertion of Srivastava and Deyb (2018) that there is average level of the perception of teachers in implementing digital tools in teaching and learning process as well as high level of challenges of using technology in teaching such as lack of technical support, resources and time. Contrary to the finding, Chikezie and Udoh (2020) found no significant difference in the teachers' perception of effectiveness of classroom communication technologies although a significant difference was found in teacher's perception of the relative advantage of classroom communication technologies based on the level of teacher preparation. Admittedly, digital technologies require digital literacy on the part of teachers and students who are the key players in the education systems and the teaching and learning systems (Nikou & Aavakara , 2021).

The result of testing hypothesis three also showed that there is a statistically significant difference between teachers' level of digital literacy and preparedness for digital technology in post COVID-19 era formative assessment. The finding is expected because of the challenge that teachers are not digitally competent to the extent to enable them be quality digital teachers due to lack of prior knowledge, lack of training and inexperience (Al Khateeb, 2017). This finding corroborates with Ihuoma and Nwandu (2017) found that teachers were aware of ICT resources but do not utilize them due to lack of computer literacy. Julien (2018) supporting the finding contended that being digital literate is a precursor to efficient use and acceptance of digital technologies in every aspect of educational delivery. The finding is in contrary to Ata and Yildirim (2019) who investigated digital literacy perceptions of teachers using statistical techniques and tests, and found that cognitive, social and technical factors, as well as, attitudes were the important predictors of teachers' digital literacy. They further observed that many teachers had positive and high perceptions of digital literacy, but lack cognitive skills to find some information, create, evaluate and communicate which are principal features of digital literacy.

Finally, the study revealed from testing the fourth hypothesis that there is a statistically significant difference between students' level of digital literacy and preparedness for digital technology applications for post COVID-19 era formative assessment in Abia State. This finding is surprising because students being digital literate are expected to be ready to use digital technologies in formative assessment. However, one may also suspect that students use their devices more for activities other than educational activities. This finding is line with Nikou and Aavakara (2021) who found that information literacy has direct and significant impact on intention to use. Okonkwo (2015) lending credence to this finding asserted that ICT literacy of students was very important for effective use of technology in electronic assessment.

Conclusion

Based on the findings it was concluded that students in Abia State secondary schools have high level of digital literacy than their teachers. Teachers are more in affirmative as regards preparedness for digital technology applications for post COVID-19 era formative assessment. Teachers and students are more digitally literate than they are prepared to deploy digital technology for post COVID-19 era formative assessment.

Recommendations

It was recommended that:
1. The government should flag off training programmes for teaching staff and support staff to increase their digital literacy and confidence around digital technology applications in crisis situation as COVID-19 pandemic.
2. Government and school proprietors should have a genuine commitment to adopting online teaching, learning, and assessment as a key complement to conventional face to face classes in the post COVID-19 era, and not a complete replacement for them.
3. Government and school proprietors should be ready to invest in facilities and resources to support the transition from physical instructional delivery to virtual.
4. Teachers and students should be ready also to bring their devices to facilitate digital literacy.

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Multimedia Enhanced Contents and Promoting Quality Education Delivery in The Nigerian Education System

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Abstract

*T**he use of multimedia enhanced contents is really imparting in education and has inevitably been trendy owing to its multifold benefits which have been established in most literature as indispensable means for promoting quality education delivery in the teaching-learning process. But the technological assisting component (multimedia enhanced contents) cannot be appropriately accorded and incorporated into many of the Nigerian educational institutions and*

school system due to several challenges. This paper therefore, examined the role of the multimedia enhanced contents in promoting quality education delivery in the Nigerian education system. Several concepts such as the multimedia enhanced contents and quality education delivery, among other concepts were explained in the paper. Further discussions in this paper were such issues relating to the types of multimedia technologies for enhanced contents in promoting quality education delivery, role and importance of the multimedia enhanced contents in promoting quality education delivery in the Nigerian education system, benefits of multimedia enhanced contents in the education system, and the challenges inhibiting effective incorporation of multimedia enhanced contents for promoting quality education delivery in the Nigerian education system. Given the challenges towards incorporating the multimedia enhanced contents into the Nigerian education system, suggestions were further made in the paper as a way forward for improvement of this process.

Key words: Contents, Delivery, Education, Enhanced, Multimedia, Quality, System

Introduction

The multimedia enhanced contents have not only become a huge force in human-being culture and industry but likewise in education. Practically, any type of information one receives can be categorized as multimedia, from television, to magazines, to web pages, social media platforms and to movies. The use of multimedia enhanced content is a tremendous force in enhancing quality education delivery in any education system. For instance, the Nigerian education system has been structured to incorporate the Early Childhood Care and Development Education (ECCDE), basic/primary education, secondary education, technical colleges and higher education, which incorporates the universities, monotechnics, polytechnics, colleges of education and other specialized institutions of higher learning (Federal Republic of Nigeria, FRN, 2014). Today, incorporating the multimedia enhanced contents into the Nigerian education industry and system has been extremely effective in teaching individuals a wide range of subjects; although, the advertising industry is perhaps one of the biggest industry's that use multimedia to send their message to the masses. The human brain learns using many senses such as sight, taste, touch, smell and hearing; and while a lesson can be extremely informative, a lesson that integrates pictures or video images can help students learn and retain information much more effectively. As the use of technologies in the Nigerian education system progresses, so will the multimedia enhanced contents. Today, there are plenty of new media technologies being used to create the complete multimedia enhanced experience. For instance, virtual reality integrates the sense of touch with video and audio media to immerse an individual into a virtual world. Other media technologies being developed include

the sense of smell that can be transmitted via the Internet from one individual to another. Today's video games include bio feedback (Sahet Net, 2008).

The multimedia enhanced contents promote quality learning and educational content delivery in the sense that students sought to retain only 20% of what they see and 30% of what they hear, but they remember 50% of what they see and hear, and as much as 80% of what they see, hear, and do simultaneously with multimedia enhanced content. The five senses of human – vision, hearing, touch, taste and smell reacts according to external stimuli. According to Madhav University (2018) and Rourke (2007), the multimedia enhanced contents is anything and everything that one watches and listens to in a form of text, photograph, audio, video, animations, graphic designs and many others. This is usually recoded and played, displayed or accessed by information content processing devices such as computerized and electronic devices. Multimedia enhanced contents refers to multiple mediums be it text, images, audio, video, graphics and animation, all or few used together. Similarly, a medium refers to different type of data representation such as text, images, graphics, speech, audio, and video. In the multimedia enhanced contents, one can use it being in the business, schools, home, public places and virtual reality. These have many functions to do many things and have made the things to more mobile. Real-time new social media communication channels like WhatsApp, Instagram, Facebook and Twitter contents are full of multimedia enhanced contents and elements. Thus, reading newspaper is a multimedia enhanced experience since its content integrates text and halftone images. Watching television is a multimedia experience whose content integrates video and audio signals. WhatsApp is a multimedia experience that integrates all the elements and contents of multimedia.

Nowadays, many schools and higher institutions are using multimedia enhanced contents in teaching and learning in order to promote quality educational delivery. The process of multimedia enhanced contents can be equally very highly profitable, advantageous and beneficial in promoting quality education delivery in various education systems including those of Nigeria education system. The Madhav University (2018) observed that the multimedia enhanced contents which has many advantages has bought teaching and studying to the next level. In this present technology knowledge-based economy, schools are encouraging teachers to use multimedia contents and technologies in line with their teaching to create interest for students in learning and for attainment of educational goals and objectives. The multimedia enhanced contents incorporated into the classroom allows the students to picture, absorb and retain information more easily, if they can stimulate all kinds of information through pictures, text, audio, images, bitmaps images and animations, among others. Further, using multimedia enhanced contents can help address the needs of students with varying learning styles. This also can make technology to improve teaching and learning the practical possibilities is endless, but the learning curve of software and hardware is shrinking. Best of these entire multimedia enhanced projects can provide a means of actively engaging students in the learning process at the different levels in various education systems. For examples, students can work in groups to create a digital video project. Projects this usually just only attract students to far more

personal than writing a paper, even though they may actually work harder in the video project (Madhav University, 2018).

Notwithstanding, the benefits of this enhanced contents in promoting quality education delivery in the Nigerian education system, many schools and higher education institutions have failed to effectively incorporate and utilize this technology assisting method into teaching and learning as a result of some factors and challenges identified by a few scholars in this paper. Scholars like Abdulrahaman, Faruk, Oloyede, Surajudeen-Bakinde, Olawoyin, Mejabi, Imam-Fulani, Fahm and Azeez (2020), Alemu (2016), Deutscher (2009), Mtebe, Mbwilo and Kissaka (2016), Onah and Nzewi (2021), Sarowardy and Halder (2019), and others, have discussed several challenges to the use of multimedia enhanced contents in schools which include; resource constraint, technical issues, the lack of motivation of the teachers, lack of expert human resource, the insufficient digital tools and lack of multimedia-enabled class environment, among others. Given all these challenges, there is need for improvement which can be through adequate funding of the Nigerian education system, multimedia resources provision and mobilization, improved teacher professional development, among many others. The thrust of this paper therefore, is to discuss issues in connection with the role of the multimedia enhanced contents in promoting quality education delivery in the Nigerian education system. Several sub-sections were created in the paper in order to discuss matters. However, it is important to explain quite a number of key concepts as done in the next section of this paper.

Concept of Multimedia Enhanced Contents

First of all, the multimedia as described by Badii, Fuschi, Khan and Adetoye (2009) in the Wikipedia refers to any form of communication that uses a combination of different content forms such as text, audio, images animations, or video into a single interactive presentation, in contrast to traditional mass media, such as printed materials or audio recordings, which features little to no interaction between users. Multimedia refers to multiple mediums be it text, images, audio, video, graphics and animation, all or few used together. Multimedia as further described is the use of a computer to present and combine text, graphics, audio, and video with links and tools that let the user navigate, interact, create, and communicate (Madhav University, 2018; Rourke, 2007). As depicted, the above definitions contain four components essential to multimedia. First, there must be a computer to coordinate what you see and hear, and interact with you. Second, there must be links that connect the information. Third, there must be navigational tools that let you traverse the web of connected information. Finally, because multimedia is not a spectator sport, there must be ways for you to gather, process, and communicate your own information and ideas. Sahet Net (2008) described the multimedia as forms of media integrated together. An example of multimedia is a web page with animation. Popular examples of multimedia include video podcasts, audio slideshows and animated videos. Multimedia can be recorded for playback on computers, laptops, smart phones, and other electronic devices, either on demand or in real time (streaming).

In the early years of multimedia, the term "rich media" was synonymous with interactive multimedia. Over time, hypermedia extensions brought multimedia to the World Wide Web. The term *multimedia* as further observed by Badii, Fuschi, Khan and Adetoye (2009) was coined by singer and artist Bob Goldstein (later 'Bobb Goldsteinn') to promote the July 1966 opening of his "Lightworks at L'Oursin" show in Southampton, Long Island. Goldstein was perhaps aware of an American artist named Dick Higgins, who had two years previously discussed a new approach to art-making he called "intermedia" (Zuras, 2010 cited in Wikipedia, 2021).While the term did not exist yet, the idea of *multimedia* could be taken back to when the 19thcentury composer Richard Wagner believed in the concept of *Gesamtkunstwerk*, meaning 'total artwork'. Wagner strived to combine multiple art forms- opera, drama, music - to create a perfect synthesis on stage. He looked down on the Grand Opera at the time, which emphasized individual talent, rather than the complete work as a whole. By combining these art forms, Wagner believed the most profound art could be made. On August 10, 1966, Richard Albarino of *Variety* borrowed the terminology, reporting: "Brainchild of song scribe-comic Bob ('Washington Square') Goldstein, the 'Lightworks' is the latest *multi-media* music-cum-visuals to debut as discothèque fare". Two years later, in 1968, the term "multimedia" was re-appropriated to describe the work of a political consultant, David Sawyer, the husband of Iris Sawyer—one of Goldstein's producers at L'Oursin. In the intervening forty years, the word has taken on different meanings (Albarino, 1966). In the late 1970s, the term referred to presentations consisting of multi-projector slide shows timed to an audio track. However, by the 1990s 'multimedia' took on its current meaning. In modern times, a multimedia device can be referred to an electronic device, such as a Smartphone, a videogame system, or a computer. Each and every one of these devices have a main function, but also have other uses beyond their intended purpose, such as reading, writing, recording video, streaming listening to music, and playing video games. This has led them to be called "multimedia devices". While previous media was always local, many are now handled through web-based solutions, particularly streaming (Badii, Fuschi, Khan & Adetoye, 2009; Albarino, 1966). Ever since the introduction of the multimedia in the education sector, it is being effectively used in educational institutions for enhanced content which is necessary in promoting quality educational delivery in all education systems.

Multimedia enhanced contents therefore can be termed as multiple streams or aggregation of multimedia objects, possibly comprising audio, video, images, text, and various other modalities. It is an information containing more than one form of data including- text, audio, image, animation, or video, in a single presentation. It incorporates the use of audiovisuals, interactive graphics, animations, photo galleries and other types of interactive media (IGI Global Partnerships, 2022). The Law Insider (2013) described the multimedia enhanced contents as communicative material of any kind or nature for which one is responsible, including but not limited to words, pictures, sounds, images, graphics, code or data, regardless of the method or medium of communication of such material and when such material is intended to inform others of your products,

services and/or activities. Multimedia enhanced content**s** does not include any tangible goods or products that are manufactured, produced, processed, prepared, assembled, packaged, labelled, sold, handled or distributed by you or others trading under your name. It is the creation and organization of content relating to any combination of text, voice, graphic, audio, video or similar communication media distributed by means of, or capable of being distributed by means of, communication services. For the avoidance of doubt, it does not include the distribution, including transmission and ancillary caching, or management of the distribution of such material by means of communication services. Alemu (2016) referred to the multimedia enhanced contents as an integration of multiple media elements (audio, video, graphics, text, animation and image) into one synergetic and symbiotic, while that result in more benefit for the end user than any one of the media elements can provide individually. It is the use of various types of media to create a presentation or an application which can be used for the purpose of broadcasting, entertainment, education and many others. According to Sahet Net (2008), multimedia enhanced content incorporates a computer-delivered electronic system that allows the user to control, combine, and manipulate different types of media, such as text, sound, video, computer graphics, and animation.

The most common multimedia machine consists of a personal computer with a sound card, modem, digital speaker unit, and CD-ROM. Interactive multimedia systems under commercial development include cable television services with computer interfaces that enable viewers to interact with TV programmes; high-speed interactive audiovisual communications systems, including video game consoles, that rely on digital data from fiber-optic lines or digitized wireless transmission; and virtual reality systems that create small-scale artificial sensory environments (Sahet Net, 2008).The advent of multimedia and multimedia technologies has changed the way educators teach and students learn. The traditional information service options are no longer acceptable to a large majority of the users or that there is a strong demand for newer forms of services which are not so familiar to the schools. Schools therefore, are now forced to be friendly and familiarized themselves with all relevant and current popular multimedia formats (Sreekumar, 2010 cited in Alemu, 2016). The integration of multimedia programmes into classroom provisions not only to change the kinds of information that is available for learning, but in which that leaning take place (Sreekumar, 2010 in Alemu, 2016). Multimedia application design coupled with its enhanced contents offers new insights into the classroom teaching and learning process of the designer and forces to represent information and knowledge in a new and innovative way, therefore, resulting into quality education delivery in the education system (Neo & Neo, 2010).

Concept of Quality Education Delivery

Quality, as described by Eldin (2011), means those features of products which meet customer needs and thereby provide customer satisfaction. In this sense, the meaning of quality is oriented to income. The purpose of such higher quality is to provide greater customer satisfaction and, one hopes, to increase income and maximize profits. Quality equally means freedom from deficiencies,

freedom from errors that require doing work over again (rework) or that result in field failures, customer dissatisfaction, customer claims, and so on. In this sense, the meaning of quality is oriented to costs, and higher quality usually "costs less." However, providing more and/or better quality features usually requires an investment and hence usually involves increases in costs. Higher quality in this sense usually "costs more". Education on the other hand can be seen as the acquisition of learning through instructions and teachings. Education delivery as conceived in this paper is the ability of educational institutions to achieve certain goals and objectives through instructions and other services. Quality education delivery therefore, refers to quality improvements in the education system which focuses on identifying, implementing and maintaining the best instructional and organizational practices that ensure appropriate services to clients for positive education outcomes (Nyirenda, 2014).

Quality education delivery as further remarked by Nyirenda (2014) should be guided by several principles as:

(a)   Focus on the client: service should be designed so as to meet the needs (both education and others) and expectations of clients (learners) and communities;

(b)   Focus on systems and processes: providers must understand what needs to be done, which steps have to be taken and in which order;

(c)   Focus on provider: education workers (teachers, heads of schools, etc.) need support from the system, such as clear job descriptions, clear and immediate feedback on performance, equipment and supplies, good working environment, recognition and motivation in the frame of regular supportive supervision;

(d)   Focus on teamwork: quality is best achieved through a team approach to problem solving and performance improvement;

(e)   Effective communication: this entails sharing or exchange of information, ideas, knowledge, emotions and skills between people. Effective communication is essential for ensuring the quality of education service delivery and satisfaction of users;

(f)   Routine supportive supervision: this is very crucial in improving performance and quality of education services. To make supervision more effective, a situation analysis needs to be conducted on regular basis in all schools, and identified problems discussed and address with all stakeholders involved, including community members; and

(g)   Use of data: evidence-based practice requires correct and current data.
        From all the above discussions, quality education delivery will lead to effective attainment of all educational goals and objectives in the education system. Therefore, promoting quality education in the Nigerian education system also requires ensuring that effectiveness of the teaching and learning experiences in the school is boosted incorporating the multimedia enhanced contents in the process.

Types of Multimedia Technologies for Enhanced Contents in Promoting Quality Education Delivery

Generally, multimedia contents are found in text materials, photographs and other still images, audio files, video presentations, GIFs and other forms of animation. Some examples of these multimedia technologies include high resolution photographic image which can be a powerful addition to a sales presentation, videos which can really bring a presentation to life, infographics, music, illustrations, art, GIFs, 360-degree photographs and virtual reality. Sahet Net (2008) classified the various types of multimedia technologies for enhanced content into their basic elements of text, graphics, audio, animation, video, bitmap images and graphic graphics (objects). Examples of these may include text in fax, photographic images, geographic information system maps, voice commands, audio messages, music, graphics, moving graphics animation, full-motion stored and live video, holographic images. Text and images are static objects, whereas audio, video and animations are dynamic objects that move or change (Makhanlal Chaturvedi National University of Journalism & Communication, 2020). Text is the form in which the text can be stored can vary greatly. In addition to ASCII based files, text is typically stored in processor files, spreadsheets, databases and annotations on more general multimedia objects. With availability and proliferation of GUIs, text fonts the job of storing text is becoming complex allowing special effects (colour, shades). Under graphics there is great variance in the quality and size of storage (Image file formats) for still images (Bitmap - gif, jpg, bmp)   (Vector - svg, pdf, swf, ps). Digitalized   images are sequence of pixels that represents a region in the user's graphical display.

Audio is an increasingly popular datatype (audio file format) being integrated in most of applications is Audio. It is quite space intensive. One minute of sound can take up to 2-3 Mbs of space. Several techniques are used to compress it in suitable format. Animation involves the appearance of motion caused by displaying still images one after another. Often, animation is used for entertainment purposes. In addition to its use for entertainment in education, animation is considered a form of art. It is often displayed and celebrated in film festivals throughout the world. Also used for educational purposes. The video is one on the most space consuming multimedia data type is digitalized video. The digitalized videos are stored as sequence of frames. Depending upon its resolution and size a single frame can consume up to 1 MB. Also, to have realistic video playback, the transmission, compression, and decompression of digitalized require continuous transfer rate. Graphic Graphics (Objects) consists of special data structures used to define 2D and 3D shapes through which one can define multimedia objects. These includes various formats used by image, video editing applications. Bitmap images are real images that can be captured from devices such as digital cameras or scanners. Generally, bitmap images are not editable. Bitmap images require a large amount of memory.

Multimedia sources as observed by the University of Wisconsin Madison (2022) may sometimes be found by searching online library catalogs, such as the Library Catalog or WorldCat. Some of these multimedia collections available online may include library subscription databases and free Web sites. The collections include multimedia such as photographs and other images, maps, audio recordings, and video recordings. For instance, the American Memory (Library of

Congress)provides free access to written and spoken words, sound recordings, still and moving images, prints, maps, and sheet music that document the American experience. Another is the AP Images which includes more than 3.5 million Associated Press primary-source photographs with original captions for every discipline. Also available are audio files from the 1920s to the present, 2 million Associated Press news stories from 1997 on, and a professionally produced collection of more than 45,000 maps, graphs, charts, logos, flags, illustrations, etc. Coverage of 1820s–present (Updated daily) Library Subscription Database (University of Wisconsin Madison, 2022).Multimedia presentations may be viewed by person on stage, projected, transmitted, or played locally with a media player. A broadcast may be a live or recorded multimedia presentation. Broadcasts and recordings can be either analog or digital electronic media technology. Digital online multimedia may be downloaded or streamed. Streaming multimedia may be live or on-demand. Multimedia games and simulations may be used in a physical environment with special effects, with multiple users in an online network, or locally with an offline computer, game system, or simulator. The various formats of technological or digital multimedia may be intended to enhance the users' experience, for example to make it easier and faster to convey information. Or in entertainment or art, combine an array of artistic insights that includes elements from different art forms to engage, inspire, or captivate an audience. Enhanced levels of interactivity are made possible by combining multiple forms of media content. Online multimedia is increasingly becoming object-oriented and data-driven, enabling applications with collaborative end-user innovation and personalized on multiple forms of content over time. Examples of these range from multiple forms of content on Websites like photo galleries with both images (pictures) and title (text) user-updated, to simulations whose co-efficient, events, illustrations, animations or videos are modifiable, allowing the multimedia "experience" to be altered without reprogramming. In addition to seeing and hearing, haptic technology enables virtual objects to be felt. Emerging technology involving illusions of taste and smell may also enhance the multimedia experience.

Faizal (2021) identified the various types of multimedia technologies for enhanced contents in educational delivery according to the under listed groupings;

1. **Interactive Multimedia:** The first is interactive multimedia, a form of multimedia that the user can fully control what and when the multimedia is displayed or run. The easiest examples of this multimedia are games and virtual reality. This type of multimedia is arguably the most interesting and enjoyable because one can interact more with it to better feel the content.

2. **Hyperactive Multimedia:** This type of multimedia has a structure of various related elements that the user can control. Although it is not like interactive multimedia, this type of hyperactive multimedia also has certain functions. For example, websites and online games.

3. **Linear/Sequential Multimedia:** There is the type of linear multimedia or sequential home multimedia. Linear multimedia is a type of multimedia that runs linearly or in a straight line. This type of multimedia only moves in the same direction as we often encounter in all types of video tutorial films. In contrast to

interactive multimedia, there is an interaction between the user and the multimedia by using computers, mice, keyboards. At the same time, linear multimedia in its use must be scheduled and sequentially from start to finish. Examples such as music and television station broadcasts.

4. **Multimedia Learning Presentation:** The next type of multimedia is learning presentation multimedia. Especially in the current pandemic era where all activities are limited, including one of them in school, a teacher must continue to teach online. The existence of learning presentation media like this will greatly facilitate a teacher in delivering material online. Therefore, indeed, multimedia also has an important function like this, which has a lot of positive impacts on humans.

5. **Self-Learning Multimedia:** There is home self-learning multimedia, where multimedia like this is multimedia in the form of software and can be used by students to independently study various materials that have been prepared in the independent learning multimedia and do not need teacher assistance. In the current pandemic era, self-learning multimedia is also one thing that will be very useful, considering that offline teaching and learning activities in schools are still not permitted, so software like this will be very helpful. Independent learning multimedia combines knowledge and tacit knowledge, for example, Adobe Flash.

6. **Multimedia Kits:** As the name suggests, Multimedia kits are a collection of various tools that can be used as learning materials and involve more than one type of media and are organized into a particular topic. What is meant by multimedia kits are CDs, cassettes, audio, and still images.

7. **Hypermedia:** Hypermedia is also multimedia that strongly supports the teaching and learning process, whether online or offline. Both the interactive multimedia and hypermedia consist of multimedia applications in which the user has a more active role. Therefore, this type of multimedia hypermedia consists of various elements or components such as text, audio, visual information stored in a computer. One of the easiest examples to find is the use of links on the web.

8. **Interactive Media:** The next type of multimedia is interactive media, where interactive media is a learning system that has previously been recorded, whether visual, sound, or even video, and presented under the control of a computer.
By using interactive media, users will see and hear the sound of the learning and make active responses so that the learning process can be more interesting.

9. **Virtual Reality:** Maybe this is one type of multimedia that is currently very popular, namely virtual reality. One advantage of virtual reality is that you can feel the simulation that you are in a certain place or are doing something real through visual displays and sound.

The Role and Importance of the Multimedia Enhanced Contents in Promoting Quality Education Delivery in the Nigerian Education System

The multimedia generally as indicated by scholars such as Andresen and van den Brink, (2013), Cao, Ajjan and Hong (2013), Collis (1991), Fletcher (2017) and Roberts (2016), finds its application and enhanced content in various areas including, but not limited to, advertisements, art, education, entertainment, engineering, medicine, mathematics, business,   scientific research and spatial

temporal applications. For instance, a lecture or lesson can be better understood by using a PowerPoint presentation. An experiment can equally be better explained using Simulation through animation. However, multimedia enhanced contents can be provided in education through the use of multimedia learning packages, simulation of lab experiments, e-books which incorporates books that are digitized and easily available on the internet, digital library which involves online access of books, journals, magazines through digital libraries, interactive encyclopedia, live presentations like speeches, webinars and lectures, and e-learning programmes like online and blended training. In the education industry, the multimedia enhanced content can also be produced in form of computer-based training courses (popularly called CBTs) and reference books like encyclopedia and almanacs. A CBT lets the user go through a series of presentations, text about a particular topic, and associated illustrations in various information formats. Learning theory in the past decade has expanded dramatically because of the introduction of multimedia. Several lines of research have evolved, e.g. cognitive load and multimedia learning.

From Multimedia Learning (MML) Theory, Roberts (2016) developed a large group lecture practice using PowerPoint and based on the use of full-slide images in conjunction with a reduction of visible text (all text can be placed in the notes view section of the PowerPoint). The method has been applied and evaluated in nine disciplines in education (Robert, 2016). In each experiment, students' engagement and active learning have been approximately 66% greater, than with the same material being delivered using bullet points, text, and speech, corroborating a range of theories presented by multimedia learning scholars like Sweller and Mayer (Robert, 2016). The idea of media convergence is also becoming a major factor in education, particularly higher education. Defined as separate technologies such as voice (and telephony features), data (and productivity applications), and video that now share resources and interact with each other, media convergence is rapidly changing the curriculum in universities all over the world. Higher education has been implementing the use of social media applications such as Twitter, YouTube, Facebook, etc. to increase student collaboration and develop new processes in how information can be conveyed to students (Cao, Ajjan & Hong, 2013).

Furthermore, the multimedia enhanced content provides students with an alternate means of acquiring knowledge designed to enhance teaching and learning through various mediums and platforms. In the 1960s, technology began to expand into the classrooms through devices such as screens and tele-writers (Fletcher, 2017). This technology allows students to learn at their own pace and gives teachers the ability to observe the individual needs of each student. The capacity for multimedia to be used in multi-disciplinary settings is structured around the idea of creating a hands-on learning environment through the use of technology. Lessons can be tailored to the subject matter as well as be personalized to the students' varying levels of knowledge on the topic. Learning content can be managed through activities that utilize and take advantage of multimedia platforms. This kind of usage of modern multimedia encourages interactive communication between students and teachers and opens feedback channels,

introducing an active learning process especially with the prevalence of new media and social media (Andresen & van den Brink, 2013).

Technology has impacted multimedia as it is largely associated with the use of computers or other electronic devices and digital media due to its capabilities concerning research, communication, problem-solving through simulations and feedback opportunities (Collis, 1991).The innovation of technology in education through the use of multimedia allows for diversification among classrooms to enhance the overall learning experience for students (Collis, 1991). Through various existing platforms such as the virtual reality, augmented reality and social media, multimedia enhanced contents are made available to students (Fletcher, 2017). Fletcher and the Madhav University (2018) further noted that virtual reality is a platform for multimedia enhanced content in which it merges all categories of multimedia into one virtual environment. It has gained much more attention over recent years following technological advancements and is becoming much more commonly used nowadays for various uses like virtual showrooms and video games. Virtual reality was first introduced in 1957 by cinematographer Morton Heilig in the form of an arcade-style booth called Sensorama. The first virtual reality headset was created by American computer scientist Ivan Sutherland and Bob Sproull, his student, in 1968. Virtual reality is used for educational and also recreational purposes like watching movies, interactive video games, simulations etc. Ford Motor Company uses this technology to show customers the interior and exterior of their cars via their Immersion Lab (Carson, 2015).In Pima County, Arizona their police force is trained by using Virtual Reality to create scenarios for police to practice in (Carson, 2015).Many video game platforms now support virtual reality technology, including Sony's PlayStation, Nintendo's Switch as part of their Labo project, as well as the Oculus VR headsets that can be used for Xbox and PC gaming, with it being more preferable to pair with a PC due to it only being compatible with the original Xbox One and providing limited capabilities.

Augmented Reality (AR) according to Fletcher (2017), as a platform for multimedia enhanced content, provides students with computer-generated perceptual information, to be used in conjunction with their existing senses. While virtual reality strives to create an immersive multimedia experience, augmented reality displays digital multimedia content over the real world. AR is commonly used in education, training, simulation, entertainment and a lot more. Augmented reality systems can be used for tasks such as overlaying speed, altitude and heading information on an aircraft Heads-Up Display, or projecting images or animations into a real-life scene, such as in the game Pokémon Go (Wingfield & Isaac, 2016).Sony uses augmented reality technology in their PlayStation 5 controllers with their haptic feedback (Warren, 2020) feature to give users a greater sense of immersion while playing video games. For example, while users are playing Call of Duty, the triggers on their controller can provide increased tension in order to more accurately emulate a gun's trigger. The game Astro's Playroom that comes with the PlayStation 5 console showcases the different ways a game can make players feel more immersed and the depth and potential that the haptic feedback feature has for the future of gaming. Social media platforms are filled with

multimedia enhanced contents. Real-time new social media communication channels like WhatsApp, Instagram, Facebook and Twitter contents are full of multimedia enhanced contents and elements. This has not always been the case and many people have experienced it as a gradual transition, the kind which can easily escape your notice as the service you use every day subtly changes in character. The reasons for this are relatively clear. Mobile internet speeds and access have rapidly increased and it is simply much more viable to send and receive video than was previously the case. Platforms like Instagram (2010), Snapchat (2011), Vine (2012) and TikTok (2016) as observed by (Fletcher, 2017) have multimedia at the heart of what they do. Partly in response to these challengers, established platforms like Facebook and Twitter have made multimedia much more prominent than was previously the case. The result is a social media in which video, audio and images play a much more prominent role than they did only a few years ago. An internet which had once been primarily based around text is increasingly awash with multimedia (Fletcher, 2017).

Benefits of Multimedia Enhanced Contents in the Education System

From all the foregoing discussions, the benefits of multimedia enhanced contents in the Nigerian education system cannot be overemphasized. The study by Deborah (2010) on assessment of benefits of multimedia objects in the teaching of American history course revealed that, there is high degree of student interest, expand students understanding in using digital media and aided learning process. However, the study was limited to only designing multimedia object, though what is needed is designing multimedia enhanced contents to handle all those multimedia objects. From formats of information sources, multimedia contents are mostly visited on the web. This indicates that the need for multimedia enhanced contents for education is high and to bring such collections to the learners and teachers, schools or education stakeholders designing and implementing multimedia enhanced content is important. To do this, schools have started building multimedia enhanced contents of audio/ video resources by using open source software (Sreekumar, 2010 in Alemu, 2016).Besides, the benefits of incorporating the multimedia enhanced contents in the education system as indicated by the Richard Mayer's Cognitive Theory of Multimedia Learning cited in Tech Row (2022) includes the following:

1.   Extensive Understanding: Information received via auditory and visual channels is processed in different parts of the brain. When students are able to learn through both of these channels simultaneously, they absorb more sensory information and are able to commit more of the lesson to memory.
2.   Increased Problem Solving: Because a large percentage of the brain is reserved for processing visual information, students are highly stimulated when absorbing images, video, and animations alongside text. This leads to an increase in student attentiveness and information retention. In a study titled "Problem-solving in a Multimedia Learning Environment", Tech Row (2022)researchers found out that students exhibited high motivation, teamwork, and enhanced understanding of the project, and encouraged the use of technology-backed classrooms.

3. Surge in Positive Emotions: Multimedia enhanced content learning tends to be much more fun for learners than gathering information through wordy textbooks, and this can actually increase their knowledge and passion for the subject being taught. A New York University study found out that 'positive emotions should be considered as important factors in instructional design", and that positive emotions can be generated by the instructional design that may be able to affect learners' experience and performance using the multimedia enhanced contents.

4. Greater Access to Diverse Knowledge: With increased internet connection which incorporates the multimedia enhanced contents in the classroom, students and teachers are able to gather information from a diverse range of sources, and illustrate points in exciting, immersive ways. According to nonprofit organization, educators can obtain a wealth of information and perspectives to pass along to their students by incorporating online multimedia enhanced resources and contents into their lessons, and innovative ways to convey their lessons.

5. Immersion and Exploration: Imagine the ability to take your students to the top of Mount Everest, the Space station, or a refugee camp in Jordan. Immersive multimedia enhanced resources and contents make this a reality, allowing educators to teach by experience without ever leaving the classroom. With a headset and a Smartphone, students have all that they need to explore without limits, utilizing 360° media to interact with their environment. Though teachers around the country are using multimedia enhanced technology in different ways, the approach is most successful when it helps students reach existing curriculum goals. As educators create effective uses for multimedia technology, imagination will be their only limit. Parents, educators, administrators, and school board members need to become familiar with multimedia, so they can begin to take advantage of its endless possibilities.

Notwithstanding the important roles and benefits of the multimedia enhanced contents in promoting quality education delivery in the Nigerian education system; yet there are hurdles and challenges to the integration and incorporation of effective multimedia enhanced contents necessary for promoting quality education delivery in the Nigerian education system which has further been discussed below.

Challenges Inhibiting Effective Incorporation of Multimedia Enhanced Contents for Promoting Quality Education Delivery in the Nigerian Education System

The multimedia enhanced contents as discussed in the paper are relevant for promoting quality education delivery in the Nigerian education system. Notwithstanding the importance and benefits of the multimedia enhanced contents, yet there are challenges inhibiting effective incorporation of this process into the various levels of the Nigerian education system which have been discussed in this section. Scholars like Abdulrahaman, Faruk, Oloyede, Surajudeen-Bakinde, Olawoyin, Mejabi, Imam-Fulani, Fahm and Azeez (2020), Alemu (2016),

Deutscher (2009),Mtebe, Mbwilo and Kissaka (2016), Onah and Nzewi (2021), Sarowardy and Halder (2019), and others, have discussed several challenges to the use of multimedia enhanced contents and learning in schools and they include; resource constraint, the lack of motivation of the teachers, the lack of expert human resource, the insufficient digital tools and lack of multimedia-enabled class environment, among others. It has been found out in some studies like those of Gao (2011) and Sarowardy and Halder (2019) that low resources and lack of expertise was among the constraints restricting the application of multimedia in the classroom.

Uzuegbu, Mbadiwe and Anulobi (2013) study, indicated that the factors which hindered incorporation of multimedia enhanced contents for promoting quality education delivery in school included poor funding, the inability of teachers to build their lectures on computer programmes like Power Points, there were also no financial provisions to acquire instructional materials, and were other factors as well. Onah and Nzewi (2021) gave a classification of the challenges inhibiting the integration of the multimedia in teaching and learning in schools and institutions for quality education delivery as related to the institutional barriers, teacher barriers, student issues, and technological barriers. Under the institutional barriers, issues such as student access to computers in the institutions, internet services and software on campus and IT support for off-campus use were significant components of the costs involved in acceptance and integration of technologies in education systems in developing countries (Alfahad, 2012 cited in Onah & Nzewi, 2021). Furthermore, infrastructural and technical challenges are also endemic in greatest institutions that have accepted education technologies in developing countries (Al-Harbi, 2011). Such challenges comprised securing the policies, procedures, software/hardware capacity required for the technologies. Multimedia enhanced contents necessitate passable, technical support and attention, and these are oftentimes lacking in developing countries. Internet coverage in educational institutions in the developing countries that facilitates the acceptance of multimedia technologies is poor in some areas. Another component of acceptance and integration of multimedia enhanced contents in developing countries is the state of IT security at the educational institutions, which make them difficult for users' access servers from places other than the institutions (Onah & Nzewi, 2021).

Teacher barriers as observed by Onah and Nzewi (2021) is connected to their ability to use and control the electronic technology, their attitudes towards the electronic technology devices, and their teaching styles, all affect how well they will accept the technology enhanced contents (Al-Harbi, 2011). Acceptance of the multimedia enhanced contents by staff is affected by their perception, attitudes toward them, the influence of people around them, as well as accessibility to these technologies. Support from staff is particularly important in indoctrinating confidence among students in their use of multimedia enhanced contents (Kimwise, 2016; Al-Harbi, 2011). A submission by Alenezi (2012) proposes that the use of new technology (that is, multimedia enhanced contents) by teachers is explicated principally in relation to their discernments about the worth they acquire from new technologies. This means that teaching staff members who swiftly realize the advantages of using multimedia enhanced contents are more likely to

be the first ones to begin using the process in enhancing their teaching. A study of Mtebe, Mbwilo and Kissaka (2016) observed that inadequate staff training on the use of multimedia technology, teachers' acceptance, knowledge of the ICT and interest were factors that influenced the use of multimedia enhanced contents in the schools. Some other factors that were used by previous studies also included information quality, attitude (Percy &Van-Belle, 2012), and awareness (Dulle & Minishi-Majanja, 2011). Onah and Nzewi (2021) further observed that ideally students face external and internal challenges that hamper proper use of multimedia contents. Shortage of access to multimedia facilities; difference in intentions to use multimedia technologies; their attitudes towards the use of multimedia contents; their perceptions of the usefulness of multimedia contents; and their perceptions about the ease of use of multimedia contents (Alshammari, 2015; Buabeng-Andoh, 2012).In developing countries, gender and age differences are major issues among students affecting them to accept and use of new learning multimedia enhanced contents(Navani & Ansari, 2016; Al-Harbi, 2011).

In line with this, Rambo, Liu and Nakata (2009) indicated that women academics' perceptions of electronic learning are mostly influenced by their age. The younger a female student was, the more receptive she was likely to be towards eLearning. This is emphasized by Yamani's (2014) assertion that young people grow up exposed to new technologies and thus prefer to use them in learning: young people are using technologies in all their daily activities, including their learning. They find it difficult to engage with the traditional teaching method. Thus, students who have grown up in the era of digital technology are poised to obtain the benefits of e-learning. Other issues, such as learners' deficiency of preceding IT acquaintance and their attitudes toward the new technologies, impact the acceptance of these technologies by students (Oketch, Njihia, & Wausi, 2014). Technological challenges and barriers that act as deterrents to the usage of multimedia enhanced contents for quality education delivery include technical malfunctions of the system, internet access and availability problems, and network problems (Shihundu, 2014). In the context of educational institutions in Africa and Nigeria inclusive, technological barriers identified as lack of availability and access to necessary technology and the contenders urge that this makes it difficult to use multimedia enhanced contents in teaching and learning for quality education delivery (Becker, Newton, & Sawang, 2013). Another issue that acts as a key obstacle to using multimedia enhanced contents is poor technological infrastructure, or a lack of it (Onah & Nzewi, 2021). Deutscher (2009)further gave a classification of these challenges under the following sub-themes discussed below as including; technical issues, location of computers, teaching practices, professional development and quality of the multimedia contents including technologies used in the classroom.

Technical Issues Challenge to Multimedia Enhanced Contents in Schools
Technical problems according to Deutscher (2009) and several other scholars such as Onah and Nzewi (2021), Sarowardy and Halder (2019), are major challenges for classroom teachers in using multimedia enhanced contents. A difficulty with addressing this challenge is that it is not always known whether the

technical issues reside at the development end or at the school. Often the curriculum/multimedia developers do not hear or learn about the problems and the variety of hardware configurations and operating systems makes it difficult to provide generic solutions. In the study, teachers were asked to describe their specific technology issues related to individual courses. This information helped the multimedia developers to appropriately address the issues for ongoing upgrades and future revisions. The age of the computers used by the teachers can have a large impact on how well the multimedia works. The multimedia will be slower or may not work well on older computer systems, or the graphics software that is needed to run multimedia may not work. As a result, teachers who have older machines may have a less positive view of the multimedia enhanced contents since the programs will not run as well as on newer computers. It is further possible that many of the teachers who use only the CDs do so because they do not realize the multimedia is available online. It is also possible that many teachers have limited online access. Making the multimedia enhanced contents available through both CDs and the Internet has allowed more and easier access for both teachers and students. In schools with better technology support, teachers are more likely to incorporate the multimedia enhanced contents and can deal more successfully with any problems they encounter. The technology support staff at the school site can help determine what the problem is and how to figure out solutions. They can also help decide if the problem is at the development end and then communicate that information to the authorities. Easily accessible technical support is also important (Deutscher, 2009).

Location of the Computers Challenge

Based on the data, schools have different situations with regard to their computer access. Understanding the physical settings where students and teachers use computers will make it easier to design the multimedia enhanced contents to accommodate the various settings. In many schools, teachers take their classes into computer labs or only have access to limited computers in their classrooms. Many teachers described how difficult it was to use the lab because they were required to sign up ahead of time. There is also the difficulty of transitioning the whole class to another location. Another important issue is how many teachers or classrooms share the same computer resources. Often computer labs, libraries, media centers, and laptop carts are shared by the whole school. Teachers said it was difficult to have access to the lab because it is in high demand. Another issue is the student-to-teacher ratio in various settings. It seems that many students have the opportunity to work individually or in pairs with computers, but generally not in the classroom. An out-of-classroom setting is where students get more individual opportunity to work with computers. Because there are fewer computers in many classrooms, teachers and the multimedia designers need to think of creative ways to provide opportunities for students to use the multimedia enhanced contents in the classroom for quality education delivery in educational institutions (Deutscher, 2009).

Teaching Practices Challenge

Teachers described a wide range of ways they used each of the resources in the multimedia. After examining the range of resources, it seems that some of the multimedia animations and simulations work better as demonstrations while others work better as hands-on experiences for the students. For some of the multimedia contents, students do not gain much benefit by viewing a demonstration. Students need the direct experience provided in a small group. This technique needs to be clearly described in the multimedia guide.

Teachers also need alternative ways of using the multimedia enhanced contents if they do not have access to enough computers. Having students access the multimedia online outside of class (at home or from a library) is one possible solution. Deutscher (2009) indicated that a few years ago, some experimental programs allowed students to check out computers so that a multimedia activity could be assigned as homework. However, these systems had problems and have not been widely adopted. Presently, some schools and states are purchasing a laptop computer for every student to use both at home and at school. Teachers need to be aware of their students' computer situations at home before assigning a piece of the multimedia as homework (Deutscher, 2009).

Professional Development (PD) Challenge

Deutscher (2009) opined that many teachers' first exposure to a use of multimedia contents is during professional development (PD). Teachers' exposure to the multimedia during a workshop may have an influence on how they incorporate the multimedia in the course and whether they use it at all. During professional development, teachers are introduced to the teacher guide and student print materials, experience several investigations, and learn how to conduct the investigations with students. Many of the trainers provided an overview of the multimedia during PD workshops but did not model how to use the resources with students. During professional development, if teachers experience the multimedia in the way, it would be best implemented in the classroom (i.e., small groups, individual use, etc.), teachers will be more likely to present it to their students in that engaging format. Apart from the above discussions, Mtebe, Mbwilo and Kissaka (2016) opined that majority of the teachers in schools lack the necessary technological skills that will aid incorporating the multimedia enhanced contents in the classroom for quality education delivery. This is as a result of teachers' lack of/poor professional development and constant training/retraining.

Quality of the Multimedia Challenge

This is another challenge affecting the incorporation of multimedia enhanced contents in educational institutions for quality education delivery. When designing multimedia resources and contents for the school, it is important to get feedback about their quality from teachers and students using them in the field. In an evaluation by Deutscher (2009), a large group of teachers was surveyed about all the multimedia in the courses. The feedback from the teachers has been used to help redesign the multimedia contents. As a result of these changes, the quality of the multimedia contents improved, and more schools were likely to utilize the

multimedia enhanced contents in their classrooms. By examining the challenges, educational institutions would improve professional development, teacher guides, and multimedia associated with curricula to make them more useful for teachers, administrators and students.

Given the above challenges discussed, it is therefore important to make suggestions as a way forward for improvement.

Suggestions/Way Forward for Improvement

The following suggestions have been made as a way forward for improvement.

1. There is need for adequate funding of the Nigerian education system in order to aid proper integration of multimedia enhanced contents for quality education delivery in schools. Uzuegbu, Mbadiwe and Anulobi (2013) in their literature emphasized the need for adequate funding of the educational system so as to encourage the incorporation of multimedia enhanced contents into the schools' curriculum and classroom for quality education delivery and achievement of educational objectives.

2. The government at all levels of the federal, state and local government should ensure effective implementation and incorporation of the ICT policy into the schools' curriculum which will aid the use of multimedia enhanced contents for quality education delivery in the educational institutions. Onah and Nzewi (2021) commented on the need for government, schools and related institutional systems to employ new policies to involve teachers in the decision-making and planning processes regarding multimedia usage in their classrooms.

3. Adequate technological resources should be mobilized and made accessible for schools in order to promote the use of multimedia enhanced contents for quality education delivery in the education system. In the studies of Gao (2011) and Sarowardy and Halder (2019), the need for adequate deployment of technology resources and gadgets was buttressed as on means of promoting the use of multimedia enhanced contents for quality education delivery in schools. Government should provide multimedia facilities in various institutions of learning so as to boost the educational sector and raise it to a standard where it can compete with what is obtained in the western world (Onah & Nzewi, 2021).

4. Teacher's knowledge, competences, skills and acceptance of multimedia enhanced contents for quality education delivery in the education system should be encouraged and boosted through constant training and retraining programmes on the multimedia. Onah and Nzewi (2021) suggested that there is need to provide professional development activities related to technology to update teachers' skills and knowledge, and offer technical support when needed. Also, workshops that allow teachers to reflect upon effective strategies for multimedia integration into instruction and unveil issues that are central to understanding the process of integration into instruction should be constantly provided.

5. Students should equally be encouraged to use the multimedia technologies in the classroom which is also a means of promoting the incorporation of multimedia enhanced contents for quality education delivery in the Nigerian

education system. Onah and Nzewi (2021) opined that students' collaboration is highly required for successfully breaking the barriers to multimedia integration in education. Also, schools need to provide appropriate access to the multimedia technology for students which have significant impact towards the use of multimedia enhanced contents in schools.

6. More attention and focus should be channeled on effective integration of the multimedia enhanced contents in classroom practices more than the conventional method. Abdulrahaman, Faruk, Oloyede, Surajudeen-Bakinde, Olawoyin, Mejabi, Imam-Fulani, Fahm and Azeez, (2020) opined that the use of multimedia-based teaching and learning activities is required more than the conventional method of teaching for quality education delivery in schools.

Conclusion

There is no doubt that the interest in multimedia enhanced contents which is as a result of technology education is rising, and has progressed fast in the past few years in the Nigerian education sector and system. In general, multimedia enhanced contents are the combination of visual and audio representations. These representations could include elements of pictures, text, graphic arts, sounds, animation and videos. However, multimedia enhanced contents seem to have been restricted and limited in the Nigerian education system owing to several challenges which needs absolute redress for improvement in the quality of education delivery in educational institutions and schools especially where information is digitized and processed through a computer. Now is the right time to promote the effectiveness of teaching and learning in the Nigerian education system through the multimedia enhance contents. Failure to incorporate the multimedia enhanced contents especially in this technology knowledge-based economy will have negative consequences on the quality of education delivery and educational outcomes. Hence, for quality education delivery to be promoted and improved in the Nigerian education system, there is the need to focus priority interest on the incorporation of the multimedia enhanced contents into all educational institutions and schools.

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Knowledge Generation Through Research and Institutional Effectiveness in Universities in Akwa Ibom and Cross River States, Nigeria

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Abstract

The study investigated knowledge generation through research and institutional effectiveness in Akwa Ibom and Cross River States, Nigeria. To achieve the aim of this study, one research question was raised and one hypothesis was formulated to guide the study. Survey research design was adopted for the study. The population of the study consisted of all Heads of Departments in the four Universities used for the study with a sample size of 228. The study adopted the census sampling approach. The instrument used for data collection was questionnaire titled "Knowledge General Through Research and Institutional Effectiveness Questionnaire (KGTRIQ) developed by the researchers and validated by experts in measurement and evaluation. Data collected were subjected to statistical analysis using independent t-test. The result revealed that there is a significant difference between the mean scores of knowledge generation through research among HODs in Akwa Ibom and Cross River States in their

institutional effectiveness. It was recommended that government and university administrations should make more funds and facilities available to lecturers in the universities to carry out research which will boost knowledge generation.

Introduction

The quality of knowledge which is generated in institutions of higher learning is critical to national competitiveness. Research according to Bako (2005) is a systematic attempt to search, investigate or find a solution to problems or questions in order to increase the sum of knowledge. It encompasses a study and investigation to discover facts, insight and other elements central to the matter at stake. It is so critical that it is highly valued, sought after and demand much commitment (Akuegwu, Udida and Bassey, 2006). In line with this, Olatokunbo (2013) posited that universities through research make important contributions to the growth and development of industries and government, business thereby promoting national and global development.

The Nigerian higher education, universities inclusive, has three statutory functions to perform and these include teaching, community service or engagement with society, but not much effort is committed to research. The Nigerian universities which should exist as centres for knowledge creation dissemination, research and knowledge creation have not maintained their full savour.

Donwa (2006) described them as teaching centres due to their focus on knowledge dissemination and insignificant contribution to knowledge creation through research. The research function remains a prime function source of knowledge and innovation at national, regional and international levels. Knowledge generation through research plays a key role in development of new knowledge as well as contributing to existing knowledge. Research findings by (Ekong 2006) posited that when quality education is delivered high enough to meet set standard, the product of education should be able to perform well in the world of work in the real-life situation.

Idowu, Esere and Omotosho (2001) observed that knowledge generation in higher education is imperative hence such educational provision enables the students to acquire skills and techniques which are ploughed into human productivity, creativity, competence, initiative, innovation and inventiveness.

Asaaju (2012) further identified six basic aims of higher education that can help generate knowledge through research to include;

1. Contribution to national development through high level manpower training
2. Development and inculcation of proper values for the survival of the individual and the society
3. Development of the intellectual capabilities of the individual to understand and appreciate their local and external environment.
4. Acquisition of both physical and intellectual skills which will enables the individual to be self-reliant and useful member of the society.
5. Promotion and encouragement of scholarship and community services, and

6.   For national unity and the promotion of national and international understanding and integration.

Ejimole (2013) in his study on research management for improving higher education in Rivers State found out that; quality research work by academic staff will lead to increase in research publication, paving way for confirmation and promotion in the academic field as professors and other recognized positions inside and outside the University enhancing institutional effectiveness.

Akuegwu, Uchendu and Ndem (2013) conducted a study on research management and role performance effectiveness of heads of Departments in Universities in Cross River State Nigeria. Result obtained revealed that there is significant relationship between research management and heads of departments' role performance effectiveness. They recommended that HODs should invest on research activities and also safeguard the available ones if they are to perform creditably their statutory roles.

Institutional effectiveness refers to the ongoing process through which an institution measures its performance against its stated mission and goals for purpose of evaluation and improvement. Institutional effectiveness has moved to the centre of the discussion among government agencies, accrediting organizations and higher education administrators, in this age of ever-increasing pressure for accountability, students, parents, government officials and accrediting agencies are demanding responsiveness from institutions of higher education (Walsh & Metcalf, 2003).

Institutional effectiveness includes measurement of performance in areas such as student learning outcomes, students' evaluation and goal accomplishment. It also includes accomplishment of the institutional mission, the reflection of its vision, philosophy, goals and objectives (Udo, James and Udo, 2019). In this study, the sub variables of institutional effectiveness include students' evaluation, goal accomplishment and effective communication.

Statement of the Problem

University is one of the tertiary institutions which exist as centre for knowledge generation and dissemination which form part of her mandate as stipulated by the laws establishing it. Through research which is a systematic attempt to search and investigate or find a solution to problems or questions in order to increase the body of knowledge generally, the universities have been engaging in carrying out this mandate for decades now but most of the findings of these researches merely end up on shelves of the libraries without contributing to or remaining a prime source of knowledge and innovation at various levels and also not enhancing institutional effectiveness. Also, some of the findings of these researches are supposed to be utilized by organizations and industries to boost quality of life globally but this is not the case. The problems could be attributed to lack of funding and commitment by university management and government at various levels.

Purpose of the Study

The purpose of the study was to examine the influence of university mandate on institutional effectiveness in Akwa Ibom and Cross River States, Nigeria. Specifically, the study seeks to find out the extent to which;

- Knowledge generation through research can enhance institutional effectiveness among HODs in Akwa Ibom and Cross River States Universities.

Research Question

In what way does knowledge generation through research enhance institutional effectiveness among HODS in Akwa Ibom State and Cross River State Universities?

Hypothesis

There is no significant difference between the mean scores of HODs in Universities in Akwa Ibom and Cross River States on ways knowledge generation through research enhance institutional effectiveness.

Methodology

The research design adopted for this study was survey design which sought to find out the difference between the mean scores of knowledge generation through research among HODs of Akwa Ibom and Cross River States Universities. The population of this study consisted of all the 228 heads of department distributed over the four public universities in Akwa Ibom State and Cross River State.

The sampling technique adopted for the research was census, it was necessary to census the whole population since the subjects involved were quite small and so a sample of 228 heads of department were drawn from four universities which include University of Calabar, University of Uyo, University of Cross River State and Akwa Ibom State University, Ikot Akpaden, was made up of 173 males and 55 females.

The instrument for data collection was a 25-item developed instrument titled "Knowledge Generation through Research and Institutional Effectiveness Questionnaire (KGTRIEQ). The instrument consisted of three section, A, B and C. Section A was on personal data of the respondents while section B has 7 items to measure knowledge generation through research and section C has 18 items with 6 each to measure the variable under institutional effectiveness in terms of students' evaluation, goal accomplishment and effective communication.

The questionnaire was face validated by three experts and the trial testing was done using 50 HODs, by using Cronbach Alpha method with coefficient range from 0.79-0.81, when 0.50 was seen as average score and the above score which surpass that of average was seen as reliable. All the 228 copies of the questionnaires were administered and retrieved by the researchers with the help of two research assistants. Independent t-test was used to test the hypothesis at .05 level of significance.

Result

Hypothesis 1

There is no significant difference between the mean scores of HODs in Universities in Akwa Ibom and Cross River States on ways knowledge generation through research enhance institutional effectiveness.

The Table 1 below shows the descriptive statistics of the total respondents used for the study when N=228. The mean and standard deviation of the variables of the study are calculated.

Table 1: Descriptive statistics of the variable (N=228)

Variable	X	SD
Knowledge generation through research	25.69	2.43
Students' evaluation	21.98	1.61
Goal accomplishment	18.39	3.15
Effective communication	21.54	1.59

Source: Researchers, 2022

Table 2: Summary of independent t-test analysis comparing the mean scores of knowledge generation through research among HODs of AKS and CR State in their institutional effectiveness (N=228).

Institutional effectiveness	Mean scores of knowledge generation through research among HODs	N	X	SD	T-cal
Students' evaluation	HODs of Cross River State	118	22.57	1.04	5.244*
	HODs of Akwa Ibom State	110	21.48	1.82	
Goal accomplishment	HODs of Cross River State	118	19.06	2.85	2.909*
	HODs of Akwa Ibom State	110	17.83	3.28	
Effective communication	HODs of Cross River State	118	22.53	.76	4.882*
	HODs of Akwa Ibom State	110	21.67	1.60	

Significant at .05 level, df=226, Crit-t=1.96

From Table 2, the calculated t-values of 5.244, 2.909 and 4.882 for students' evaluation, goal accomplishment and effective communication respectively are each higher than the critical t-value of 1.96 needed at 0.05 level of significance, with 226 degree of freedom meaning that there is a significant difference between the mean scores of knowledge generation through research among HODs of Akwa Ibom State and Cross River State in their institutional effectiveness.

Discussion of Findings

The result of the hypothesis tested above indicated that there is a significant difference between the mean scores of knowledge generation through research among HODs of Akwa Ibom and Cross River States in their institutional

effectiveness. The result of the findings in this aspect of research revealed that there is positive association between knowledge generation through research and institutional effectiveness. The positive nature showed that the more institutions are involved in knowledge generation through research, the more the institutions can investigate or find solution to problems or questions in order to increase the sum of knowledge in Universities in the two states. The possible explanation for these findings are that research is one of university mandates therefore, heads of departments and schools administrators must have realized the need for knowledge generation through research in these states. It gives institutions a sense of belonging and plays a key role in development and dissemination of knowledge, it leads to development of new knowledge as well as contributing to existing knowledge.

The result is in agreement with Ejimole (2013) who discovered that quality research work by academic staff will lead to increase in research publication, paving way for promotion and confirmation in the academic field as professor and other recognized positions inside the university and influencing institutional effectiveness.

Conclusion

The study concluded that knowledge generation through research has positive association with institutional effectiveness in universities in Akwa Ibom and Cross River States in terms of students' evaluation, goal accomplishment and effective communication.

Recommendations

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

(1)   Government and university administration should make more funds and facilities available to lecturers in the universities to carry out research.

(2)   Lecturers should explore more avenues, both locally and internationally, to carry researches to add the existing body of knowledge.

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Influence of Research, Training and Development on Job Performance of Academic staff in Benue State University

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Abstract

*T**he study investigated the influence of research, training, and development on job performance of academic staff in Benue State University. Three research questions and three hypotheses guided the study. Descriptive Survey Design was adopted for the study. The population comprised 385 academic staff in Benue State University. A total of 39 academic staff were sampled using proportionate stratified random sampling technique. A 4-point rating scale 12-item questionnaire titled Influence of Research, Training and Development on Job Performance Questionnaire (IRTDJPQ) was developed by the researchers and used to collect data for the study. The data collected was analyzed using mean and standard deviation to answer research questions while Chi-Square (x^2) test of goodness-of-fit was used to test the hypotheses at 0.05 level of significance. The findings of the study reveal that research, training, and development has significant influence on job performance of academic staff in Benue State University. It was recommended that the management of Benue State University, Tertiary Education Trust Fund and other Donor Agencies should improve and sustain financing research, training, and development of academic staff in Benue State University as this will enhance job performance of academic staff.*

Introduction

Staff training, research and development basically is concerned with the acquisition of knowledge, skills, techniques, practices, and the know-how. Training, research, and staff development are the primary duties of human resource departments/units in every organization. As a practice that enhances staff job performance, organizations are now encouraging and participating in organizational learning and general development. Armstrong (2006) opines that organizational learning which makes use of training and development as one of the several responses deals with the acquisition of understanding, know-how, techniques, and practices. These intellectual intangibles can be translated into organizational resources through the people that acquire, infer, and utilize such towards the achievement of the organization. Sims (2002) emphasizes that training and research focuses on the present job while development prepares one for possible future jobs.

Improving staff performance is the desire of every organization in the global world with education not been an exception. In order to improve the performance of staff, managers in charge of human resources in universities design different training and development programmes for members of staff as well as sponsor research in the university. Across the globe, organizations have sought to rely on improved skills, knowledge, and capacity of the talented workforce to create competitive advantage (Chun-Rung & Chun-Chieh, 2017). Employee training is a programme aimed at helping employees gain specific skills and knowledge, the acquired skills and knowledge are provided with the aim of assisting employees in improving their job performance (Halidu, 2015). In the same vein, Oduwole (2004) asserts that training is the achievement of relevant skills or provision of necessary knowledge for employees to perform specific tasks to achieve a common goal. Staff training yields definite outcomes which include improved staff performance and competency. Universities require staff who are competent and have the capacity to accomplish tasks that justify their wages. When universities do not obtain the desired or expected results from staff, they refer to such staff as being redundant staff that are to be laid off due to their unproductivity. In cases where strategies are employed to improve performance, training is the preferred solution (Ogbohme Osagie and Egwu, 2016).

The world is dynamic, so is education. This justifies the need for research in universities since universities serve as warehouse for knowledge. Tinuke (2000) defines research as a scholarly or scientific investigation aimed at discovering and applying new facts, principles, techniques, or natural laws. Supporting the above view, Okeke (2011) defines research as human activity based on intellectual

application in the investigation of matter, stated its aim as the discovery and development of methods and systems for advancement of human knowledge. Academic staff in universities carry out research which could either be basic or applied research. The search and improvement of knowledge for the development of new and improved products, services, and industrial process of capital development (Huang, 2005). Training and development in universities are aimed at staff development which resultantly leads to improved staff performance. Unfortunately, staff training, research and development has suffered set back in the Nigerian University system irrespective of its significance. This is largely owed to lack of sponsorship. Sponsorship of training, research and development is left at the mercy of individual universities, government agencies and donor agencies. Research funding in Nigeria is generally poor and funding pattern is irregular. Nigeria's research and development budgets are often below 1% of the Nation's Gross Domestic Product (GDP) (Halawi and Haydar, 2018).

Job performance can be referred to as the behaviors employees engage in while at work (Jex, 2020). It also refers to how efficiently an employee discharges his/her duty. According to Pugno and Depedri (2009), job performance can be defined as a set of behaviors that are relevant to the goals of the organization or the organizational unit in which a person works. In the view of Oduwole (2004), job performance is how one carries out the tasks, duties, and responsibilities associated with a particular job. It can therefore be deduced that job performance has to do with efficient discharge of duty by an employee aimed at organizational development. Individual performance improves because of learning, and high performance is always the result of greater understanding towards a particular task, instead of a greater effort to the job (Somentag, Volmer & Spychala, 2011).

Statement of the Problem

Research, training, and development play a vital role in modern day organizations. The university as a warehouse of knowledge is sustained through staff training, development, and research. Though research, training and development play a vital role in the improving job performance of staff, much attention has not been given to human resource unit; as a result, job performance of academic staff in universities is rather dwindling. Stakeholders are concerned about how to optimize job performance of academic staff in universities in relation to staff training, development, and research. The researchers seek to investigate the relationship between research, training, and development on job performance of academic staff in universities.

Purpose of the Study

The main purpose of the study was to investigate the influence of research, training, and development on job performance of academic staff in Benue State University, Makurdi. The study specifically sought to investigate:
1. Influence of staff training on job performance of academic staff in Benue State University, Makurdi.
2. Influence of research on job performance of academic staff
3. Influence of staff development on job performance of academic staff

Research Questions

The study was guided by the following research questions.
1. To what extent does staff training influence job performance of academic staff in Benue State University?
2. To what extent does academic research influence job performance of academic staff?
3. To what extent does staff development influence job performance of academic staff?

Hypotheses

The following hypotheses were formulated and tested at 0.05 level of significance.
1. Staff training has no significant influence on job performance of academic staff in Benue State University.
2. Academic research does not have significant influence on job performance of academic staff.
3. Staff development does not have significant influence on job performance of academic staff.

Methodology

Research Design: The study adopted the ex-post facto research design. Ex-post facto design is a quasi-experimental study examining how an independent variable, present prior to the study, affects a dependent variable. It is applied in contexts whereby it is not possible or acceptable to manipulate the characteristics of human participants (Emaiku, 2011). Ex-post facto research design was considered appropriate for this study because it is not possible for researchers to directly manipulate the independent variable.

Area of Study: The study was undertaken in Benue State University, Makurdi. Benue State University, Makurdi is a state-owned university in Nigeria. The University established by the second civilian Governor of Benue State, His Excellency Late Rv. Fr. Moses O. Adasu in 1992. From a modest beginning with four faculties, the University currently has eight faculties including a College of Health Sciences. The university has staff strength of 1,991 with 385 Academic Staff and 1314 Non-Academic Staff. There are also 18,729 undergraduate students, 1,150 postgraduate students and 1,569 pre-degree students giving a total of 21,448 students.

Population: The population of study comprised 385 academic staff of Benue State University, Makurdi (BSU Establishment Unit, 2021).

Sample and Sampling Technique: Percentage sampling technique was used to select 39 respondents for the study. This represents (10%) of the population. This Proportionate stratified random sampling techniques. Respondents were drawn

randomly from each stratum in such a way that the relative proportions of the stratum in the resultant sample were the same as exist in the present population.

Instrument: Instrument used for data collection was a self-constructed questionnaire titled Influence of Training, Research and Development on Job Performance Questionnaire (ITRDJPQ).

Validation:

Pilot Study:

Reliability:

Method of Data Collection:

Method of Data Analysis: Data collected was analyzed using Mean and Standard Deviation to answer the research questions. Chi-Square (χ^2) test of goodness-of-fit was used to test the hypotheses at 0.05 level of significance.

Results

Research Question 1: To what extent does staff training influence job performance of academic staff in Benue State University?

Table 1: Analysis of the extent staff training influence job performance of academic staff in Benue State University

S/no	Items	SA	A	D	SD	MEAN	STD	Decision
1	Staff training enhance academic staff of universities to perform their jobs better	17	11	7	4	3.05	1.025	Accepted
2	Staff training equips academic staff with the technical know-how which improves job performance.	18	12	6	3	3.15	.960	Accepted
3	Staff training equip academic staff with relevant skills for better job performance.	18	13	5	3	3.18	.942	Accepted
4	Most universities provide training opportunities for academic staff of universities.	20	11	6	2	3.26	.910	Accepted
	Clusters mean and standard deviation					**3.16**	**.959**	**Accepted**

From Table 1, since the cluster mean 3.16 and standard deviation .959 is above the decision point of 2.50 it therefore revealed that staff training influence job performance of academic staff in Benue State University.

Research Question 2: To what extent does academic research influence job performance of academic staff?

Table 2: Analysis of the extent academic research influence job performance of academic staff

S/no	items	SA	A	D	SD	MEAN	STD	Remark
1	Academic staff in my university acquire more knowledge through research.	19	14	4	2	3.28	.857	Accepted
2	Academic research brings about the introduction of new findings and inventions that are applicable to real life situations.	16	12	7	4	3.03	1.013	Accepted
3	My university encourages and sponsors academic research.	17	13	5	4	3.10	.995	Accepted
4	Academic research provides academic staff with more insights about their areas of specialization thereby equipping them towards improved job performance.	15	13	7	4	3.00	1.000	Accepted
	Clusters mean and standard deviation					**3.10**	**.966**	**Accepted**

From Table 2, since the cluster mean 3.10 and standard deviation .966 is above the decision point of 2.50 it therefore revealed that academic research influence job performance of academic staff.

Research Question 3: To what extent does staff development influence job performance of academic staff?

Table 3: Analysis of the extent staff development influence job performance of academic staff

S/no	Items	SA	A	D	SD	MEAN	STD	Remark
1	Staff development enhances academic staff to perform their duties efficiently.	21	11	4	3	3.28	.945	Accepted
2	Staff development motivates academic staff in my university to perform their jobs better.	15	14	7	3	3.05	.945	Accepted
3	There is relationship between staff development and job performance of academic staff in universities.	18	13	5	3	3.18	.942	Accepted
4	Development plans are adopted by my university to enhance job performance of academic staff.	15	13	7	3	3.00	1.000	Accepted
	Clusters mean and standard deviation					**3.13**	**.958**	**Accepted**

From Table 3, since the cluster mean 3.13 and standard deviation .958 is above the decision point of 2.50 it therefore revealed that staff development influence job performance of academic staff.

Hypotheses

Hypothesis 1: Staff training has no significant influence on job performance of academic staff in Benue State University.

Table 4: Chi-square analysis of influence of staff training on job performance of academic staff in Benue State University

Response	O	E	df	Level of sign.	X^2_{cal}	P-Value	Remark
SA	20	9.8	3	0.05	18.538	0.00	**Significant**
A	11	9.8					
D	6	9.8					
SD	2	9.8					

The result in Table 5 revealed that staff training has significant influence on job performance of academic staff in Benue State University, (X_3^2=18.538, p=.000). Therefore, the null hypothesis which states that Staff training has no significant influence on job performance of academic staff in Benue State University is rejected.

Hypothesis 2: Academic research does not have significant influence on job performance of academic staff.

Table 5: Chi-square analysis of influence of academic research on job performance of academic staff

Response	O	E	Df	Level of sign.	X^2_{cal}	P-Value	Remark
SA	19	9.8	3	0.05	20.179	0.00	**Significant**
A	14	9.8					
D	4	9.8					
SD	2	9.8					

The result in Table 5 revealed that academic research significant influence on job performance of academic staff, (X_3^2=20.179, p=.000). Therefore the null hypothesis which states that academic research does not have significant influence on job performance of academic staff is rejected.

Hypothesis 3: Staff development does not have significant influence on job performance of academic staff.

Table 6: Chi-square analysis of influence of staff development on job performance of academic staff

Response	O	E	df	Level of sign.	X^2_{cal}	P-Value	Remark
SA	18	9.8	3	0.05	15.051	0.00	**Significant**
A	13	9.8					
D	5	9.8					
SD	3	9.8					

The result in Table 6 revealed that staff development has significant influence on job performance of academic staff, (X_3^2=15.051, p=.000). Therefore, the null hypothesis which states that Staff development does not have significant influence on job performance of academic staff is rejected.

Discussion of Findings

The findings of this study show that development has a significant influence on job performance of academic staff in Benue State University. This is in agreement with Binglar and Etale (2014) who asserts that workers who are aware of current developments in their profession including new knowledge acquisition are positively in position to boost their productivity index. Ozunumba and Amasuomo (2015) agrees with the findings by asserting that staff development provides growth in staff academic career and are chanced to be trained and retrained. These output measures the extent to which university organizations achieve their goals, which is dependent on the acquisition of new skills, knowledge and experiences attributed to staff development programmes.

Findings of the study also shows that staff training has significant influence on job performance of academic staff. In agreement with the above findings, Greek (2013) also agrees with the findings by affirming that specific benefits accrue from training and developing workers which include increased productivity, reduced employee turn-over, increased efficiency resulting in financial gains and decreased need for supervision. In support of the above view, Jauoude (2015) asserts that organizations providing high level training to staff have been able to realize three times increase in profit compared to competitors.

The findings also show that there is significant influence of research on job performance of academic staff. This findings is supported by Ho (2014) who opines that academic research is one of the key aspects of academic staff job performance, academic staff job performance, academic staff who are not active in research probably use outdated teaching materials that may not meet the needs of our fast changing society. People undertake research projects throughout their academic and professional careers in order to answer specific questions, share their findings with others, increase their understanding of challenging topics and strengthen their research writing and analytical skills (http://courses.lumenlerarning.com).

Recommendations

The following recommendations were made from the findings:

i. Academic staff of universities should be furnished with adequate information regarding research, training and development opportunities by the university.

ii. Universities and government should improve funding of research/ research grant so that more staff can be accommodated.

iii. Universities should provide opportunities to academic staff to participate in training, research and development programmes.

iv. Universities should train and provide mentorship to staff on how to access research grants and how to carry out quality research.

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Inculcation of National Ethics and Discipline in Nigerian Schools: A Sociological Strategy of Rebuilding Trust in Education as Behaviour Modifier

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Abstract

*T*his paper examines imperative of repositioning the Nigeria's education system for inculcation of national ethics and discipline as a sound sociological strategy for rebuilding trust in education as behaviour modifier. The Nigeria's education system is recognized among other things, as an instrument of behaviour nurturing. As a nation, Nigeria has the necessary potentials both human, natural and materials to make her appearance in the comity of developed nations of the world a reality. Unfortunately, Nigeria could not;. The implication is that the public seems to lose trust in education as an instrument par Excellence especially in behaviour modification. The study is purely qualitative as it relies on secondary sources of information for facts. This study discovers that indiscipline behaviour has been stereotyped as a common characteristic of Nigerian citizens and this has some implications on the public's trust in education as behaviour modifier. This study therefore recommends among other things that the Nigeria's education system should be reposition to function in the direction of inculcating national ethics and discipline for good citizenship if trust must be rebuilt in Nigeria's education system as an instrument of behaviour nurturing for good citizenship.

Key words: Education, National Ethics, Discipline

Introduction

Nigeria is the largest, most populous and most renowned black nation in Africa and the world at large. Internationally, Nigeria was, before recent times, popularly referred to as the Giant of Africa. The reason is because among the nations of Africa, Nigeria has enormous natural/mineral and human resources which are supposed to be the root sources of development of any nation (Osisioma, 2011). It is disheartening to note that Nigeria is still grappling to survive the

pressure of under-development, national disunity and national disintegration. A close assessment of the Nation's potentials both human and materials reveals that Nigeria possesses diverse resources which include coal, gold, iron, steel, limestone, granites, cocoa, timber, crude, palm, dams and water-falls, among others within her boundaries (Esuabanga and Atang, 2014). Nigeria can also boast of producing a lot of renowned, sound, knowledgeable and skilled human capitals in almost all the fields of endeavour. With all these potentials, Osaghae (2002) reasoned that Nigeria has all it takes to appear in the comity of developed nations of the world. Unfortunately, the reverse has been the case. This has become a very worrisome situation to the concerned members of the public in relation to interested scholars such as Udo, James and Udo (2022), Ibia (2011), among others, discovered in the studies that indiscipline, disloyalty and dishonesty are some of the factors that deter development in Nigeria. Meanwhile, in Nigeria, a reasonable percentage of the populace is highly educated. This class of individuals are particularly expected to display exemplary behaviours of discipline in their social relationships with others, both in and outside the bounds of Nigeria. The absence of discipline and ethical behaviours among Nigerians have made the public to draw a quick conclusion that the Nigeria's education system is not instrumental enough for behaviour modification; that, it produces only individuals that are very indiscipline and whose behaviours defy the nation's national ethical norms of behaviour (Nwankwo, 2004). This has a serious implication on the public's trust in education as an instrument par excellence in behaviour modification.

Statement of the Problem

Nigerians might not be oblivious of the fact that inadequate inculcation of national ethical values and discipline in Nigerian schools distorts national consciousness, national unity and national integration which are the basic pointers to national development. Meanwhile, education which is the bastion of morality and ethical values of the nation has been observed to be inadequate in its functions particularly, in this direction. The thrust of this paper is therefore to examine inculcation of national ethics and discipline in Nigerian schools as a sociological strategy of rebuilding trust in the nation's education system as behaviour modifier.

Education

The Latin word "Educo or Educare" means 'to draw out', 'to bring up', 'to lead', to develop, to nurture or 'to train' an individual mentally, physically, socially and morally (Ikpe, 2005). Udoh (2010) reminded that in the traditional African societies, an educated person was seen as one who, among other things, is very humble and discipline and good character. In the light of the ancient conceptions of education, modern scholars describe education as all round development of the individual for self-actualization. From the sociological point of view, the construct education is conceived as the total up-bringing of the human organism to acquire the social characteristics of his society. When viewed from the sociological angle, it could be asserted that education is a cluster of cultural values, beliefs, skills, attitudes, knowledge and techniques. With this understanding, Ibia (2011) averred that education is the process by which the society through schools, colleges,

universities and other institutions deliberately transmits its cultural heritage from generation to generation. This manner of conceptualization was elaborately explained in Udoh (2010) that education is a process by which the individual acquires the many physical, social, moral and technological capacities and experiences demanded of him by the society for effective living and functioning within the society and beyond.

Discipline

The term discipline is coined from a Latin word 'dicere or discipulus' meaning to learn or to conform. According to Fan, Edu, Igbo and Asu-Ojua (2010), discipline involves the submission of one's impulse to the powers of rules and regulations which bring about efficiency and economy where there would otherwise be inefficiency, ineffectiveness and waste. Udoh (2010) explained that the concept of discipline to the Africans is very similar in meaning to morality in the idea of right and wrong, good and bad. Following from this, Udo and Ekanem (2020) explained that discipline behaviour is located in such attributes as self-sacrifice, diligence, cooperation, integrity, truthfulness, patriotism, avoidance of conflicts, obedience, conformity and self-control among others. That is to say, that discipline involves the ability of one to live his life within the bounds of laid down rules and regulations and ethos of behaviour that are generally accepted by other members of the society or group. For instance, a discipline member of the school system would always behave consciously so that he does not breach the laid-down rules and regulations, and norms of behaviour of the school.

On the contrary, indiscipline is an aspect of deviant behaviour which Ibia (2011) explained in terms of a behaviour that varies markedly from the norms of behaviour accepted as ethical by a group or society which the individual is a member. Mukherjee and Odebunmi (2009) explained indiscipline in terms of attitudinal behaviour which when displayed by the individual is described as unethical, delinquent, unhealthy, mal-adjusted, inappropriate and abnormal behaviour. These levels of behaviours are qualified as unacceptable and morally wrong in the ethical judgment of other members of a group or society.

Relevance of Discipline:

The relevance of discipline to a nation was summarized in Esuabanga (2016) that:
1. In the school setting, discipline guide learners against committing crimes, deviant behaviour, examination misconduct, immoral acts and other aspects of unethical behaviours that can reduce the individual's integrity.
2. In the larger society, a discipline person is reckoned by members of the society as a person of high moral rectitude which is one of the many variables relevant in building national ethical life.
3. Discipline guarantees unity and integration of the diverse people in a group and segments of a nation.
4. Discipline encourages the spirit of brotherhood and patriotic sentiment among the people of a nation.
5. Discipline encourages good attitude to work

6. Discipline enables the people to recognize ethically approved moral standards and to behave consciously within the bounds of such moral standards (rules and regulations).

National Ethics

Ethic as a concept is coined from a Greek word 'ethos' meaning custom, habits, behaviours and other ways of life accepted by the society as normal. Ethic is the normative science of human conduct which deals with the standards or principles of right and wrong behaviour of individuals in the society. Ethics explain and often times urge obedience to a rule. As a branch of philosophy, Oke and Esikot (2005) explained that ethic studies the fundamental principles of morality. Morality is a system of rules particularly prohibitions and prescriptions which guide human behaviour or actions. Morality has to do with the rightness of behaviour or action of an individual, class, group or the society at large. As such, ethic is very relevant in understanding behaviours or actions that are approved by the society. The reason is because ethic investigates behaviour and set a margin between morally accepted and morally unaccepted behaviours. That is why ethic and moral are often liken to the two sides of a coin since what is morally wrong or bad cannot be judged as ethically correct or right.

According to Oke and Esikot (2005), while morality is a body of rules that guide and regulate behaviour or actions in line with society's prescriptions and prohibitions (that is, social direction and control to guide the individual's conduct, behaviour or action); ethic on the other hand is the evaluative enquiry into 'the extent to which the individual's behaviour, conduct or action is either correct or wrong'. Ethic helps one to understand what is meant by such moral terms as good, right, wrong, ought to, justifiable, duty, responsibility, among other aspects of judgment in relation to the individual's behaviour or actions in a group or society at large (Fan, et al, 2010).

Theoretical Paradigm on Ethic and Discipline

Understandably, the Structural-Functional approach holds that human relationship is made possible in the society because the society finds and makes use of the means (structures) whereby it fulfils the needs (functions) which are fundamental requirements and consequences of organized social life. The Structural-Functional approach maintained that it is the relationships among the institutions and structures of the society that contribute to keep the society in operation and for social life to flow orderly. Following the structural-functional approach, Durkheim, a Functionalist holds that in modern societies (such as Nigeria), traditional norms and standards (accepted national ethical values) become undermined without being replaced by new ones and such a situation gives rise to what he (Durkheim) termed 'Anomie'. The theorist assumes that anomie exists when there are no clear standards to guide behaviour in the society. The implication is that structural tensions and lack of moral regulations and direction occurs in the society when available rewards do not match with the aspirations of the individuals and groups in the society. Such a situation in the view of the exponent often makes people to feel disoriented and anxious. Thus, the disparity between individuals'

desires and the ability to fulfil them can only be felt in the unethical motives and indiscipline behaviours of members of the society who feel a sense of discrimination and lack of belonging. 'Anomie' is therefore one of the structural situations in the Nigerian society that influences dispositions to unethical and indiscipline behaviours among Nigerians. Anomie could be noticed as a general syndrome among Nigerians as could be evidenced in citizens' negative attitude to national issues, such as national consciousness, unity and integration. It could also be noticed in lateness to work, lobbying for employment, ritualism, value disorientation, receiving goods and services under false pretence (419), abuse of public office, among other social vices which other nations of the world use in describing a true Nigerian.

The Discourse

The relevance of education in the area of behaviour moulding to the extent of making her citizens co-exist together having loyalty to the nation above the level of loyalty and sentiment they have for their respective ethnic groups and regions cannot be overemphasized. Yet, it is not also an overstatement that national ethics and discipline for good citizenship have not been given a proper attention for inculcation in Nigerian schools in a practical term. This could be observed in the way and manner the issue of ethical behaviour and discipline are addressed in the national policy on Education; just in the passing (NPE, 2013). Thus, inappropriate inculcation of national ethics and discipline for good citizenship has enormous implications on the behaviour of learners in and outside of the school. One of such implications is that the level of moral training given to the child in school usually manifests in his behaviours as an adult particularly in the midst of other individuals both at the national and international levels. This paper is of the opinion that education should be reposition to focus on inculcation of national ethics and discipline for good citizenship if learners who are the potential adults of tomorrow must behave within the framework of the nation's national ethics and discipline. Osisioma (2011) opined that the effectiveness of the Nigeria's education system in inculcating national ethics and discipline is the only antidote to avert the way and manner other nations of the world particularly European nations assess, evaluate and describe Nigerians. The author lamented that the developed nations assess Nigerians from the perspectives of corruption, selfishness, greediness, immorality, criminality, cheating and unpatriotic which are all indices of indiscipline and bad citizenship in any nation.

Since the school is established as an instrument of formal education, incubated and sponsored by the society to transmit her cultural heritage and values from generation to generation, it therefore become needful that the functions of the Nigeria's education system via the schools should include that of training the mind of the school child to imbibe the ethos of discipline and national ethics at the early stage of his life. When learners internalize national ethics and discipline in their early age, they would grow up as adults to embrace the nation as their own even though they may belong to different political parties, religions, regions, ethnic groups and speak different languages (dialect). This should be an outstanding

responsibility which education should practically shoulder if trust must be rebuilt in it as an instrument par excellence.

Understandably, Nigerian citizens think of their ethnic tribes first while national issues are always treated with disdain (Denga, 2008). The implication is that people are ready to do anything to achieve at the national level but with a special sentiment of bringing the results of their achievements to bear at the levels of their ethnic groups, States or regions. This level of sentiment does not allow rooms for national consciousness, unity and integration of the various segments of Nigeria to form a strong national force. Above all, since issues at the national level involve a lot of struggling among the different people for their respective States and localities, most of the strategies adopted in the long run tend to be very ambiguous and unethical. Such unethical behaviours, in the view of many, tend to become a legalized social norm in Nigeria. Today, indiscipline behaviour of Nigerians has gone beyond the borders of Nigeria. National ethics and discipline cannot be achieved through politics, the ideas of Federal character or Quota system. It could only be achieved through education which is the appropriate instrument of behaviour moulding. Kapadia (2001) opined that there is a dire need to reposition the Nigeria's education system to focus on character training and nationalism. This opinion therefore supports the mindset of this present study that inculcation of national ethics and discipline for good citizenship should be declared as a manifest function of education if national ethics and values must be practiced in Nigeria. However, Okon, Udo and Obo (2019) complained that Nigeria's education system has not been very effective in handling the function of behaviour moulding to the expectations of the public. Several factors might be the reason for the weakness of education. Esuabanga and Ekanem (2020) in their study on character training and human capital generation in Nigeria discovered that appropriate attention has not been paid to make education effective particularly in the area of supply of funds and other necessary resources required for its operations. In other words, education should be recognized in a practical term as a national instrument, an institution which must be adequately provided for and protected from the onslaught of tribalism, ethnicity and politics. If this idea is given a serious attention there is no gain saying that Nigeria's education system would be very effective in moulding the behaviours of today's students and youths to imbibe discipline and national ethical values as the potential future adult citizens of Nigeria. This is a sound sociological strategy to restore national ethical behaviour and discipline for good citizenship in Nigeria.

The Need for National Ethics and Discipline

The need for the inculcation of national ethics and discipline for good citizenship cannot be over-emphasized. Some of the reasons are explained;

   1.   **Unity and Integration of the Nation**

Obviously, it is only when people of a nation are disciplined that they can understand the value of unity. It is also only when they are united that they can put forward a strong force that is capable of elevating the status-quo of their nation (Udo, Uyanga and Emana, 2019). Education is a versatile instrument that can help in reducing political, socio-cultural, religious and economic tensions, differences

and inequality among the diverse groups and segments of the Nigeria nation, while strengthening national consciousness and solidarity which are not imposed by any authority (Oku, 2006). With national integration and unity people would be free to share ideas, values and emotional bonds. According to Abdur-Rahman (2012), cultural unity, constitution, territorial continuity, common economic pursuits, arts, literature, national festivals, national flag, national anthem and national emblem, among others are related variables that can promote national integration. Besides, Nigeria had established the National Youth Service Corps (NYSC), Federal Government Schools (Secondary, Colleges of Education, Polytechnics and Universities), Federal Ministries, federal Department, federal Agencies and federal Parastatal as possible conduits to evangelize national unity and integration. The government has institutionalized civic education at the lower education levels and Citizenship education in the higher levels of education among other strategies. Meanwhile, Kingibe (2007) observed that the solution to the problem of unity and integration in Nigeria lies not on any establishment but on giving focus to solving it through inculcation of national ethics and discipline for good citizenship which education is very instrumental. Unfortunately, in Nigeria, the unity and integration of the diverse groups and regions that make up the nation have always been an issue of consistent national discourse even before the nation's independence in 1960. Nigeria has in the long run been searching for a possible remedy to this issue which has been drawing her back in the area of national development. The Nigerian public believes in education for the restoration of national unity and integration for the sake of national development. Udo (2016) stated that the unity and integration of Nigeria could be made manifest through education by repositioning education to pay a focused attention to the inculcation of discipline and accepted patterns of social relationship among students in Nigerian schools. Discipline for good citizenship in Nigeria should therefore be conveyed in a common curriculum content from Primary school to the University.

2. **Utility Reason**

A Biblical injunction says: 'Bring up a child in the way of the lord so that when he grows up, he will not depart from it' (Proverb 22: 6). This simply means that when national ethics and discipline is internalized at the early age of the child's life, he would grow up discipline and having national sentiment and loyalty above any other. According to Tandu (2014), a disciplined society guarantees a high level of happiness for all the inhabitants particularly, when the members are conscious to understand that individuals' pursuit of private interests and happiness should be guided by the notion of 'common good and happiness of all'. This becomes obvious particularly when one considers the underlying philosophy of Nigeria's education which recognizes education as the basic instrument of behaviour moulding.

3. **As a National Cultural Heritage**

The society has a way of life and this is built around the culture of the society. It is the culture of the society that defines social norms of behaviour which in turn determine those aspects of behaviours that are approved as ethical and normal and those that are not. Since social norms determine those aspects of behaviours that are valued by the society as her social characteristics, conformity to social norms is therefore unavoidable (Esuabanga, 2014). Such aspects of behaviours include

but not limited to obedience and conformity to rules and regulations and constituted authorities, respect of elders, parents, teachers and significant others in the society, loyalty, honesty, brotherhood, patriotism, national sentiment, punctuality, hard work, transparency, diligence, fidelity, active participation in societal tasks, among others which constitute the cultural heritage of Nigeria as a nation. On the contrary, for the fact that the society often seriously frowned at indiscipline, deviancy and non-conformity to approved norms of behaviour it becomes unavoidable for the school to provide adequate formal socialization for the school child. This is to collaborate the quantity of informal socialization provided the child in the family. Tawor (2016) stressed that socialization and internalization of the socio-cultural heritages of the society can be achieved through the continuous and consistent inculcation of national ethics and discipline to our children in all Nigerian schools both private and public. As stated in the National Policy on Education (NPE); the traditional ideals of good citizenship constitute the manifest functions of education (FGN, 2013). If this is true, it therefore supports the proposition by Tawor (2016) that the inculcation of "national ethics and discipline for good citizenship" should be taken very seriously if trust must be rebuilt in education as an instrument of building a strong foundation of national sentiment in learners as the future adult citizens of the nation, Nigeria.

4.   National Sentiment and Brotherhood

It should be understood that Nigeria is a nation-state with diverse groups of people. Tandu, (2014) stated that people and groups that form Nigeria are different in so many ways which include language, culture, religion, custom, tradition, history, habit, tribe, region, among other waves of differences. Esuabanga (2016) pointed out that the diversity of the different ethnic societies that make up Nigeria, their beliefs and value systems have enormous influence on the people's behaviours and actions particularly, at the national setting. The difference could be observed in the incessant conflicts, disagreements, misunderstandings and misconceptions over most of the national issues with regards to the rightness or the wrongness of the prescription, proscription or prohibition of certain national issues. Umoh (2005) observed that a behaviour that is judged as ethical and morally right in one tribe or region in Nigeria is often likely judged as ethically and morally wrong in another or others. The resultant consequences of such a situation could be observed in the indiscipline and deviancy of youths and adolescents from the diverse segments of the nation towards some national prescriptions, proscriptions and prohibitions. The better grounds to observe some aspects of unethical and indiscipline behaviours in Nigeria include the NYSC camp, political party national Congresses, Federal Government established institutions of learning, among others. To a great extent, the confusion arising from opposing beliefs and values often have some negative implications on national development. This situation has often been a serious issue that constitute a National Question in major discourses among Nigerian scholars both at home and in Diaspora. this problem could be ameliorated if education is well positioned to inculcate national ethics and discipline in Nigerian schools in a practical term.

5.   Rebuilding Trust in Education

Today, the differences in the beliefs and values of the different ethnic groups in Nigeria are replicated in the behaviours and actions of their children and wards in the school community. This has influenced high rates of indiscipline and non-conformity of learners to school rules and regulations as well as disobeying teachers and constituted authorities of the school (Esuabanga, 2014). To a great extent, this situation has made the entire public to lose trust in education as an instrument of behaviour moulding. The reason is because education seems to fail in projecting the guiding principles of what constitutes national ethics and discipline in Nigeria. Tappen [1999] viewed that today various unethical and indiscipline behaviours and actions have taken over the centre stage; that they have become institutionalized as the basic socio-ethical life of the common citizen in Nigeria. These behaviours according to Udiugwamen (2006) include abuse of public office, tribalism, religious clashes, armed robbery, kidnap, thuggery, cultism, hostages, terrorism, militancy, ritualism and killing, human trafficking and child abuse, bribery and corruption, apathy to work, non-transparency, infidelity, among others which are very peculiar to Nigerians both at home and in Diaspora. According to Osisioma (2011), these behaviours among individuals and groups in the long run deter the public's trust in education as an instrument par Excellence particularly in behaviour moulding. The need and necessity of rebuilding trust in education should therefore stem from behaviour moulding through inculcation of national ethics and discipline. This position collaborates the assertion in Udoh (1996) that to be educated means more than mere acquisition of degrees and certificates; it connotes having a body of knowledge and conceptual scheme to raise that knowledge above the level of a collection of disjointed facts and beliefs to portray an outlook of discipline transformed by what one knows.

Conclusion

This study examined repositioning education for the inculcation of national ethics and discipline for good citizenship as a sound sociological strategy of rebuilding trust in Nigeria's education system. Today, Nigerians are known everywhere in the world to be very indiscipline. It is an open national issue that lack of discipline among Nigerians has affected unity and integration required to make Nigeria stronger. Meanwhile, engineering national unity and integration is supposed to be a vital function of education. But, education is observed to have failed in its function in this direction as its products do not display acquisition of discipline and ethical norms of behaviours which are the pivot around which national unity and integration rotate. This has very negative implications on the status of Nigeria locally and in the international setting. For this in the midst of other reasons, Nigerians both at home in Diaspora seem to lose trust in education as an instrument of behaviour moulding. The study discovers that the ineffectiveness of education in producing discipline individuals as its products has been influenced by centrifugal sentiment, poor funding in addition to provision of relevant resources both human and materials to boost operations in education which are all engineered by poor political will. It is therefore concluded that there is a dire need to reposition education to inculcate ethical behaviour and discipline in Nigerian schools in a practical term. This is a sound sociological strategy of rebuilding trust in education as an instrument par excellence in all ramifications.

Recommendations

1. The Nigeria's education system should be repositioned to function in the direction of inculcating national ethics and discipline for good citizenship if trust must be rebuilt in the education system as an instrument par Excellence in behaviour moulding.

2. There is a dire need for a strong political will to reposition Nigeria for unity and integration. This can be achieved through enforcing the inculcation of national ethics and discipline for good citizenship in all levels of the education system if a solid foundation of good citizenship and national sentiment must be internalized by Nigerian children for the sake salvaging the nation in the near future from the onslaught of unethical behaviour and indiscipline.

3. Nigerian leaders in all fields of endeavour (political, economic, social and technical fields, among others) and elders of our nation should display an exemplary attitude of discipline since they are seen as models by the young learners.

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Influence of Resource Allocation on Leadership Performance of Principals in Secondary Schools in Kaduna State, Nigeria

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Abstract

*T*his study assessed the Influence of Resource Allocation on Leadership Performance of Principals in Secondary Schools in Kaduna State, Nigeria. Two research objectives were raised for the study among which are to: ascertain the influence of fund allocation on leadership performance of Principals in Secondary Schools in Kaduna State; and assess the influence of material resource allocation on leadership performance of Principals in Secondary Schools in Kaduna State. These objectives were formulated into two corresponding research questions and hypotheses. The study adopted survey research design. The population of the study consisted of 546 principals and 5,096 teachers. A sample size of 55 principals, 509 teachers and 10 Ministry of Education Officials were used in the study. An open-ended type of questionnaire was used to generate data

for the study. The reliability coefficient of the instrument was determined using Cronbach Alpha technique which showed a reliability value of 0.79. The bio-data of the respondents was analyzed using descriptive statistics in the form of tables, frequency counts and percentages, while the research questions were answered using mean and standard deviation. All the two null hypotheses were tested using Analysis of Variance (ANOVA) at P = 0.05 (5%) level of significance. Findings among others showed that there is significant influence in the leadership performance of principals, teachers and MOE officials based on fund allocation and material resources allocation. Recommendations were made among others that Kaduna State government should realign staffing structures to accommodate the strengths and weaknesses of existing staff, and find ways to recruit and retain quality staff through compensation and support systems. Also, government at local and state level should ensure that administrative staff develops financial management skills so they can better understand the limits and flexibility of fund allocation sources in school management.

Key Words: Influence, Resource Allocation, Leadership, Performance

Introduction

Resource allocation is a process and strategy involving an organisation deciding where scarce resources should be used in the production of goods or services. The study of educational resource allocation has traditionally focused on the distribution of state and federal revenues among schools with particular attention to equity in school funding. Fairness in resource allocation is not only important for ensuring equity in educational opportunities, it is also related to the performance of the education system, as a whole. However, in many school systems, resources are not allocated equitably regardless of their socio-economic profile. On average, disadvantaged schools tend to have smaller classes, they also tend to be more likely to suffer from teacher shortages, and shortages or inadequacy of educational materials and physical infrastructure, than advantaged schools (Pablo, 2014).

This assumes that qualitative secondary education can be effectively sustained if the schools are well funded. As succinctly put by Afolabi, Oyewusi and Ajayi (2008), "the success of any secondary school depends upon the resources available to it. Money is very important in this respect because by it, all other vital elements in the school can be achieved such as buildings, purchase of equipment, payment of teachers' salaries and allowances and running expenses". School leadership has become a critical priority in education policy agendas internationally. It plays a key role in improving school outcomes by influencing the motivations and capacities of teachers, as well as the school climate and environment. Effective school leadership is essential to improving the efficiency and equity of schooling (Beatriz, Deborah & Hunter, 2008). Performance has long been a focus for organisations concerned with increasing efficiency and productivity (Won-joo & Frank, 2009). However, the management of 'leadership capacity' is a relatively more recent consideration. Organisations across all sectors now view leadership as a key enabler of organisational performance and competitive advantage and are investing greater and greater sums into leadership development activitiess (Raelin, 2004). Given this level of investment it is not surprising that many have now turned their attention to how best to manage their leadership talent to ensure succession, progression and the delivery of organisational objectives.

Good leadership is not about treating people as a means to some other end. Good leaders take care of their people and as well enrich their lives. Gill (2006), opined that good leadership is characterized by the quality of interactions rather than hierarchical level; team problem solving; conversation rather than instructions, shared values, and beliefs; honesty and a desire for the common good.

Traditionally, school leaders focused on the management of resources allocated to their school. A well-run school where buses run on time, with clean environment and are some of the hallmark of an effective school leader. With the paradigm shift to leadership for learning, maintaining an orderly environment through necessary but is not sufficient to meet the expectations and accountability requirements facing educators today. Education leaders need a system approach in complex organizations of schools. In order to ensure the success of all students and provide a high-performing learning environment, education leaders manage daily operations and environments by efficiently and effectively aligning resources with vision and goals.

School leaders experience difficulty in deciding the balance between the higher order tasks designed to improve staff, student and school performance (leadership), routine maintenance of present operations (management) and lower order duties (administration). The increased responsibilities and accountability of school leadership involves creating the need for effective resource allocation, both within schools and across schools. School boards also face many new tasks. While stakeholders consider resource allocation as vital for effective school leadership, these practices remain rare and often unclear; and those involved are not always recognized for their tasks.

Observation shows that most secondary school in Kaduna State may be encountering problem of mismanagement especially management of funds (Shoshani, 2001). This could be as a result of corruption, political involvement in education, appointment of unqualified personnel to handle financial sector in the school. Shortage of facilities and equipment (computer) required for assessing, controlling and keeping record related to financial expenditure.

Of all the numerous problems facing secondary school administration in Kaduna Statetoday, none is as persistent and as agonizing as the one relating to the allocation of resources in the schools (Monk & Hussain, 2000). The recent free education in Kaduna State has led to the rapid expansion of the secondary school system. It is no gainsaying that such rapid expansion of the school system will bring about high demand for more school buildings, more qualified and competent teachers, clerical staff and even instructional facilities for effective teaching and learning in the schools. Therefore, one of the most effective ways of sustaining free qualitative education is to supply the schools adequately with highly competent and well-motivated human resources.

Resource allocation might strengthen management and succession planning. Resource allocation across different people and organisational structures mighthelp to meet the challenges facing contemporary schools and improve school effectiveness. The fact is that one of the major factors maximizing the gulf between educational goals and accomplishments has been the way resources are allocated. Following the above stated problems, this study sought to ascertain the influence of resource allocation on leadership performance in secondary schools in Kaduna State.

Objectives of the Study
        This study is set to achieve the following objectives, to;
   1. Ascertain the influence of fund allocation on leadership performance of principals in secondary schools in Kaduna State; and
   2. Assess the influence of material resources allocation on leadership performance of principals in secondary schools in Kaduna State.

Research Questions
        Pursuant to the objectives of this study, the following research questions were formulated for the study:
1.   In what way do fund allocation influence leadership performance of Principals in secondary schools in Kaduna State?

2.   What is the influence of material resource allocation on leadership performance of principals in secondary schools in Kaduna State?

Research Hypotheses
        The following null hypotheses were postulated for this study:
HO1.   There is no significant difference in the opinions of principals, teachers and MOE officials on the influence of funding allocation on leadership performance of principals in secondary schools in Kaduna State.
HO2.   There is no significant difference in the opinions of principals, teachers and MOE officials on the influence of material resources allocation on leadership performance of principals in secondary schools in Kaduna State.

Funding
        Education funds refer to budgetary allocations that are readily made available or that are going to be made available at a stated time by governments or institutions for the purpose of paying salaries, allowances and benefits, the building and provision of educational infrastructure to aid teaching and learning. Funding is to provide resources usually in form of money, financial or other values such as effort or time for a project, a person, a business or public institution. World Bank (1994), stated in its report on Nigeria tertiary institutions that equipment for teaching, research and learning are either lacking or very inadequate and in a bad shape to permit the institutions the freedom to carry out the basic functions of academics. In the same vein, Ochuba (2001) opined that it is worrisome to note that Nigeria tertiary institutions are fast decaying.

Material Resource
        Execution of educational programmes demands that resources are provided if success is to be achieved. Government, school proprietors, parents and other stakeholders are expected to provide the resources for their schools. The Government stated that all stakeholders would be involved in every aspect of school management, provision of resources inclusive. However, this aspect is one of the most neglected areas in the school system (Olagboye, 2004). The quality of the products bears a direct relationship with the quality of the facilities deployed in the process of the production.

Allocation of Material Resources
        Material resources are those basic infrastructures and all educational equipment that are provided in the school in order to cater for the general and specific needs of students as well as to ease the process of teaching and learning both in class and outside the classroom. Uga cited in Ibrahim (2013), attempts a classification of these educational facilities into two broad types, Viz; physical facilities and learning facilities or curriculum resources. Physical facilities include classroom, school bay clinic, libraries, laboratories, administrative offices, auditoriums, toilets, cafeteria, common rooms, workshops, parking lots, power and water plants, transportation facilities, classroom furniture, first aid box, sport and recreational grounds, refuse disposal facilities, drainage facilities, gardens and so on (curriculum resources or learning

facilities are visual aids, aural aids and audio-visual aids. Uga, adds that the latter is used during the process of instruction. Fenker (2004) views school facilities as material resources provided for staff and students to optimize their productivity.

Asiyai (2012) conducted a study on accessing school facilities in public Secondary Schools in Delta State, Nigeria. The purpose of the study was to find out the state of the facilities. The study employed the ex-post-facto research design the questionnaire was the instrument for data collection from 640 respondent selected through stratified sampling techniques from all the 356 public secondary schools in the state. Findings revealed that school facilities in the schools are generally in a state of disrepair. The findings further revealed that maintenance carried out on school facilities were inadequate for majority of the facilities.

Allocation of Financial Resources

Another responsibility that school leaders have is allocating money from federal, state, and local revenue sources. These revenue streams include base allocations from the state, categorical funds from both federal and state sources, and revenues/grants from nongovernmental sources. Leaders at several levels of the system face important challenges in securing and allocating these sources of money and in directing them toward learning improvement priorities. Emerging practices highlight leaders' efforts to:

- Address inequalities in base funding/allocations.
- Decentralize spending authority to the schools.
- Make productive and flexible use of categorical funding sources.
- Secure nongovernmental funding and direct it coherently to learning improvement priorities.

Addressing inequities in base funding allocation

The amount of base funding is traditionally determined by state finance formulas and provided to each district. The funding is primarily driven by student enrollment and the staff-to-student ratios that set the number of teachers, administrators, and other staff units. A perennial debate about base funding centers on whether existing practices are equitable and adequate as funding is distributed from states to districts and then to schools. Rubenstein and Miller (2005), along with many other researchers and analysts, note the importance of achieving "vertical equity" ensuring that schools serving students with different levels of needs receive differentially appropriate levels of resources. While the equity and adequacy of state funding formulas are part of this study, a state's particular funding mechanisms and policies does affect leaders at both district and school levels and set the stage for local leaders' efforts to allocate resources in an equitable fashion.

Methodology

The survey research design was used. Since survey research is the gathering of information about a large number of people and seeking the response of few of them, then one can claim that the present study falls within the ambient of what survey research design is. The population for this study comprised of five hundred and forty-

six (546) principals andfive thousand ninety-six (5,096) teachersmade up of four thousand eighty-four (4,084) male and one thousand twelve (1,012) female teachers (Kaduna State Secondary School Management Board, Department of Planning, Research and Statistic, 2020). The sample size of fifty-five (55) principals, five hundred and nine (509) teachers and ten (10) Ministry of Education Officials, making the total of five hundred and seventy-four (574) respondents were used in the study. This sample size represented 10% of the entire population, which is in accordance to the recommendation of Lenth (2006) that sample size up to 10% out of the entire population can be used in any research process. As such, this sample represented 10% of the entire population and consisted of both male and female who are principals and teachers in public secondary schools in Kaduna State. This sample size was arrived at using simple random sampling technique in order to ensure sample representation. For the purpose of data collection for this study, questionnaire instrument was used. the instrumentwas given to an expect for proper scrutiny and vetting. Corrections and suggestions made by these expertswas duly effected, getting rid of ambiguities and over-wording of items on the instrument. This gave it the desired face and content validity. To test the reliability and consistency of the instrument, a pilot studywas carried out in fiveSecondary schools in Kaduna State. A total of five (5) principals and twenty-five (25) teachers making the total of thirty (30) respondents were used for the pilot study. A reliability coefficient of the instrument was determined using Cronbach Alpha technique which showed a reliability value of 0.79. This result means that the instrument was reliable for use in the main study. The bio-data of the respondents was analyzed using descriptive statistics in the form of tables, frequency distribution and percentage to present and describe the pattern of the demographic characteristics of the respondents. For the five null hypotheses, ANOVA was used to test each of the hypotheses at P = 0.05 (5%) level of significance. Any hypothesis that is greater than 5% or $p > 0.05$ is being rejected and hypothesis that is less than 5% i.e., $p < 0.05\%$ is being retained.

Table 1: **Influence of funding allocation on leadership performance of principals in secondary schools in Kaduna State**

S/N	Item	Respondents	SA	A	U	SD	D	Mean	SD
1.	No organization can survive or carry its function effectively without adequate financial resources at its disposal.	MOE officials	-	4	2	1	3	2.9000	1.10050
		Principals	-	26	19	3	7	3.2364	88115
		Teachers	2	227	111	102	67	2.9214	1.17960
2.	In many school systems, the allocation of school budgets is done according to a needs-based funding formula.	MOE officials	-	4	-	5	1	2.6000	1.49443
		Principals	-	29	4	5	17	3.0364	1.10493
		Teachers	3	284	101	61	60	3.2122	1.06583
3.	School leaders in Kaduna State operate within budget and fiscal guidelines and direct them effectively toward teaching and learning.	MOE officials	6	4	-	-	-	4.6000	51640
		Principals	-	36	10	3	6	3.4364	89781
		Teachers	5	295	78	21	110	3.3006	95469

								Mean	SD
4.	The amount of financial resources to be allocated to schools in Kaduna State is traditionally determined by state finance formulas and provided to each education zones.	MOE officials	-	5	-	2	3	2.8000	1.31656
		Principals	-	31	7	9	8	3.0909	1.17493
		Teachers	4	284	56	62	103	3.1238	1.13395
5.	Kaduna State education officials allocate funds based on student needs within the framework of federal and state rules.	MOE officials	-	5	2	-	3	3.2000	91894
		Principals	-	21	3	8	23	2.6727	1.13944
		Teachers	14	263	67	123	42	3.0059	1.29580
6.	School leaders in public secondary schools in Kaduna State face important challenges in securing and allocating financial resources toward learning improvement priorities.	MOE officials	-	2	-	2	6	2.2000	1.03280
		Principals	-	21	3	27	4	2.3273	1.41493
		Teachers	5	301	74	57	72	3.2456	1.07797
7.	A needs-based school funding formula distributes education resources on a per- pupil basis according to the student's background.	MOE officials	-	-	1	3	6	2.8000	63246
		Principals	-	16	16	13	10	2.6364	1.14445
		Teachers	5	180	115	109	100	2.7485	1.17705
8.	Education funding in Kaduna State is primarily driven by student enrollment and the staff-to-student ratios that set the number of teachers, administrators, and other staff units.	MOE officials	-	2	2	3	3	2.8000	1.15950
		Principals	-	26	11	9	9	2.9818	1.14651
		Teachers	5	231	94	72	107	2.9804	1.12750
9.	School leaders in Kaduna State use public resources and funds appropriately and effectively.	MOE officials	-	3	5	1	1	3.0000	94281
		Principals	-	27	16	4	8	3.2000	95063
		Teachers	3	268	90	62	86	3.1257	1.09216
10.	Staff arrears and benefits are paid promptly due to adequate funds allocation to schools.	MOE officials	-	2	2	2	4	2.7000	1.07497
		Principals	-	28	10	5	12	3.1091	1.04833
		Teachers	3	267	74	37	128	3.1395	1.03587

Table 1 on the influence of funding allocation on leadership performance of principals in secondary schools in Kaduna State showed that all the questions tested meet the requirement for acceptance that is, all the items are 2.5 and above with the exception of question 6 which states that school leaders in public secondary schools in Kaduna State face important challenges in securing and allocating financial resources toward learning improvement priorities. The responses obtained in respect of item 6 showed that 2 MOE officials agreed with this item, while 2 strongly disagreed and 6 of them disagreed. Similarly, 21 principals agreed and 3 stayed undecided, while 27 strongly disagreed and 4 of them disagreed with the item. In like manner, 5 teachers

strongly agreed with the item and 301 agreed, while 74 stayed undecided and 57 strongly disagreed and 72 disagreed. This result indicated that, Kaduna State government are not doing enough in this regard, as such, special attention must be paid to these areas in order to address this issue.

Table 2: **Influence ofmaterial resources allocation on leadership performance of principals in secondary schools in Kaduna State**

S/N	Item	Respondents	SA	A	U	SD	D	Mean	SD
1.	In schools, where resources are inadequate, principals ensure that resources are less equitably distributed among advantaged and disadvantaged schools.	MOE officials	-	2	2	3	3	2.8000	1.15950
		Principals	-	23	12	12	8	2.8364	1.19820
		Teachers	12	270	86	60	81	3.1827	1.10654
2.	Too often, scarce educational resources are allocated inequitable in Kaduna State public secondary school.	MOE officials	-	2	2	4	2	3.2000	1.22927
		Principals	-	32	11	10	2	3.3636	1.53193
		Teachers	12	328	94	56	18	3.4519	1.06674
3.	Fairness in resource allocation is not only important for ensuring equity in education opportunities, it is also related to the performance of the education system as a whole.	MOE officials	-	2	2	2	4	3.4000	1.07497
		Principals	-	28	11	10	6	3.0364	1.17005
		Teachers	3	296	89	73	48	3.2122	1.10927
4.	Higher-performing school systems allocate resources more equitably among socio-economically advantaged and disadvantaged schools.	MOE officials	-	4	1	7	-	1.8000	1.31656
		Principals	-	25	16	8	6	2.0545	1.07872
		Teachers	3	235	109	90	72	2.1784	1.15592
5.	School leaders in Kaduna State formulate policies, rules, and structures that frustrate equitable distribution of resources and thereby affect equity in learning outcomes.	MOE officials	-	3	1	3	3	3.4000	1.26491
		Principals	-	26	15	6	8	3.1091	1.03051
		Teachers	20	251	92	41	105	3.2043	1.0637
6.	Principals in disadvantaged schools tended to report that their schools had adequate educational resources as much as. if not more than, principals in advantaged schools reported.	MOE officials	-	4	-	1	5	2.7000	1.15950
		Principals	-	32	8	6	9	3.2000	1.07841
		Teachers	3	251	91	55	109	3.0747	1.07693
7.	Urban educational zones tend to allocate resources more equitably across all	MOE officials	-	5	2	-	3	3.2000	91894
		Principals	-	27	15	2	11	3.2182	89631

No.	Statement	Status						Mean	
	schools, regardless of their socio- economic profile.	Teachers	3	243	155	36	72	3.2063	94049
8.	The purpose of leadership in public secondary schools is to create powerful and equitable allocation of resources to schools in Kaduna State.	MOE officials	-	5	5	-	-	3.5000	52705
		Principals	-	36	17	2	-	3.5818	68559
		Teachers	9	319	134	44	3	3.4833	90396
9.	The disadvantaged schools tend to have smaller classes and are more likely to suffer from teacher shortage.	MOE officials	-	5	5	-	-	3.5000	52705
		Principals	-	29	19	3	4	3.3455	84367
		Teachers	10	267	136	41	55	3.2947	97387
10.	Supporting disadvantaged schools does not necessarily mean providing them with more resources, but rather with high-quality human and material resources.	MOE officials	-	3	3	4	-	2.5000	1.35401
		Principals	4	24	22	2	3	3.4545	85674
		Teachers	38	203	146	75	47	3.1611	1.16442

Table 2 on the influence of material resources allocation on leadership performance of principals in secondary schools in Kaduna State showed that all the questions tested meet the requirement for acceptance that is, all the items are 2.5 and above with the exception of question 4 which states that higher-performing school systems allocate resources more equitably among socio-economically advantaged and disadvantaged schools. The responses obtained in respect of item 6 showed that 4 MOE agreed with this item, while only 1 stayed undecided and 7 strongly disagreed. Similarly, 25 principals agreed and 16 stayed undecided, while 8 strongly disagreed and 6 of them disagreed with the item. In like manner, 3 teachers strongly agreed with the item and 235 agreed, while 109 stayed undecided and 90 strongly disagreed also 72 teachers disagreed with this item.

Hypothesis One: There is no significant difference in the opinions of Principals, Teachers and MOE officials on the influence of funding allocation on leadership performance of principals in secondary schools in Kaduna State.

Table 3: **Summary of Analysis of Variance (ANOVA)on the influence of funding allocation on leadership performance of principals in secondary schools in Kaduna State**

Status	Sum of Squares	Df	Mean Square	F-ratio	F-critical	Prob.
Between Groups	37.603	2	37.603	24.145	3.15	.004
Within Groups	532.618	572	1.557			
Total	**570.221**	**574**				

Table 3showed the f-ratio value of (24.145) at 2degrees of freedom572 and at 0.05 alpha level of significance. The critical value (3.15) is less than f-ratio value (24.145), the probability level of significance P(.004) is less than 0.05. This means that there is significant difference in the opinions of principals, teachers and MOE officials on the influence of funding allocation on leadership performance of principals in secondary schools in Kaduna State. The implication of this result is to reject the hypothesis which states that there is no significant difference in the opinions of principals, teachers and MOE officials on the influence of funding allocation on leadership performance of principals in secondary schools in Kaduna State.

Table 4: **Summary of Scheffe's Multiple Comparison Test on the Influence of funding allocation on leadership performance of principals in secondary schools in Kaduna State**

Respondents	N	Mean
MOE officials	10	45.80
Principals	55	39.93
Teachers	509	48.99

Table 4 on the influence of funding allocation on leadership performance of principals in secondary schools in Kaduna State showed that the response mean of MOE officials was found to be closer to that of teachers, indicating that the difference between the two respondents was not significant. On the other hand, the response mean of principals was found to be lesser than that of teachers and MOE officials. This shows that principals differ significantly in their responses regarding the influence of funding allocation on leadership performance of principals in secondary schools in Kaduna State.

Hypothesis Two: There is no significant difference in the opinions of principals, teachers and MOE officials on the influence of material resources allocation on leadership performance of principals in secondary schools in Kaduna State.

Table 5: **Summary of Analysis of Variance (ANOVA)on the influence of material resources allocation on leadership performance of principals in secondary schools in Kaduna State**

Status	Sum of Squares	Df	Mean Square	F-ratio	F-critical	Prob.
Between Groups	42.466	2	42.466	36.376	3.15	**.**001
Within Groups	399.255	572	1.167			
Total	**441.721**	**574**				

Table 5showed the f-ratio value of (36.376) at 2degrees of freedom572 and at 0.05 alpha level of significance. The critical value (3.15) is less than f-ratio value (36.376), the probability level of significance P(.001) is less than 0.05. This means that there is significantinfluence inthe opinions of principals, teachers and MOE officials on the influence of material resources allocation on leadership performance of principals

in secondary schools in Kaduna State. The implication of this result is to reject the hypothesis which states that there is no significant influence in the opinions of principals, teachers and MOE officials on material resources allocation on leadership performance of principals in secondary schools in Kaduna State.

Table 6: **Summary of Scheffe's Multiple Comparison Test on the influence of material resources allocation on leadership performance of principals in secondary schools in Kaduna State**

Respondents	N	Mean
MOE officials	10	5.371
Principals	55	11.18
Teachers	509	11.75

Table 6 on the influence of material resources allocation on leadership performance of principals in secondary schools in Kaduna State showed that the response mean of principals was found to be closer to that of teachers, indicating that the difference between the two respondents was not significant. On the other hand, the response mean of MOE officials was found to be lesser than that of principals and teachers. This shows that MOE officials differ significantly in their responses regarding the influence of material resources allocation on leadership performance of principals in secondary schools in Kaduna State.

Findings

The following findings emerged in view of the hypotheses tested for this study:
1. There is a significant influence in the opinions of Principals, teachers and MOE officials on funding allocation on leadership performance of Principals in secondary schools in Kaduna State.
2. There is a significant influence in the opinions of Principals, teachers and MOE officials on material resources allocation on leadership performance of principals in secondary schools in Kaduna State.

Discussion of Findings

Findings on hypothesis one (1) revealed that there is a significant influence in the opinions of principals, teachers and MOE officials on funding allocation on leadership performance of principals in secondary schools in Kaduna State. The implication of this result is to reject the hypothesis which states that there is no significant influence in the opinions of principals, teachers and MOE officials on funding allocation on leadership performance of principals in secondary schools in Kaduna State. Likewise, the result of research question two showed that all the questions tested meet the requirement for acceptance that is, all the items are 2.5 and above with the exception of question 6 which states that school leaders in public secondary schools in Kaduna State face important challenges in securing and allocating financial resources toward learning improvement priorities. This finding agrees with the finding of Afolabi, Oyewusi and Ajayi (2008), that financial resources were not equitably distributed across the public secondary schools.

The finding on hypothesis two (2) revealed that there is a significant influence in the opinions of principals, teachers and MOE officials on material resources allocation on leadership performance of principals in secondary schools in Kaduna State. The implication of this result is to reject the hypothesis which states that there is no significant influence in the opinions of principals, teachers and MOE officials on material resources allocation on leadership performance of principals in secondary schools in Kaduna State. This finding was further supported by the descriptive analysis carried out on research question three which revealed that all the questions tested meet the requirement for acceptance that is, all the items are 2.5 and above with the exception of question 4 which states that higher-performing school systems allocate resources more equitably among socio-economically advantaged and disadvantaged schools. This is in line with the outcome of Miles and Darling-Hammond (1997) that allocation of resources to public schools needs to be effectively organized at the school level.

Conclusion

Leaders at all levels of the education system are charged with making decisions about how to effectively distribute and leverage resources to support teaching and learning. Resources are always scarce (economists often assert that scarcity is part of the definition of a "resource"). Therefore, equity in resource allocation is not only important for ensuring effectiveness in education opportunities, since, allocation and nurturing of the appropriate human resources towards address the learning needs of student populations have huge implications on school leadership. In this way, conclusion was drawn that school leaders in public secondary schools in Kaduna State are faced with important challenges in securing and allocating financial resources toward learning improvement priorities. Findings from this research has demonstrated a strong relationship between adequate resources allocation and leadership success in secondary schools.

Recommendations

In the light of the findings and Conclusion of this study, the following recommendations were made that:
1. Government at local and state levels should ensure that administrative staff develop financial management skills so they can better understand the limits and flexibility of fund allocation sources in school management.
2. Policy makers should integrate a resource allocation strategy that is based on school and student needs by using input or collaboration from parents, teachers, and administrators who have access to material resource allocation data.

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School Principals' Role in the Enforcement of Human Rights Regime and Effective School Administration in Cross River State

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Abstract

*T**his study examined school principals' role in the enforcement of human rights regime and effective administration of secondary schools in Cross River State. Teachers empower here entails providing teachers with the resource needed for effective implementation of human right regime in the school system. Two null hypotheses were formulated to guide the study. The descriptive survey was adopted for the study. The population of 475 which consists of 295 male and 180 female secondary school principals in Cross River State. The simple random sampling was employed to select the size 95 principles (40 males and 55 females) representing 20% of the total population in secondary schools in Cross River State. The instrument for data collection was the questionnaire titled: Principals' Enforcement of Human Rights Regime for Effective Administration Questionnaire (PEHRREAQ). The data generated were analyzed using the t-test statistical tool at 0.05 level of significance. Findings revealed that numerous challenges hindered the enforcement of human right regime for effective school administration in the state. The paper concluded that adequate attention has not been given to enforcement of human right regime in secondary schools in the state. The paper recommended among other things that the state Ministry of Education should conduct seminars and workshops for all the stakeholders on the enforcement of human rights as it will equip them to discharge their duties adequate in the school system.*

Key Words: Enforcement, Human Rights, Regime, Principals, Administration

Introduction

Schools have lost their appeal as centres of discipline and excellence in recent times because of some gaps found in the system. This sad development has serious implications for teaching and learning environment which is expected to guarantee a serene and pedagogically friendly school climate. The school, be it private or public is a public institution established by law and certain prescribed functions of legal consideration, they are public institutions in the sense that they are established to serve the public and can be sued or sue since there is a law establishing it as a corporate organization with aim of carrying out specific duties in line with the rules and regulation

as embodied in the various state and Federal Government Education Laws codes, ordinance, decrees and Edicts and the edicts are now known as bye laws (Eboh, 2022).

Schools are structures set up in the society to inculcate describable values in education and for schools to operate well, they need laws to guide their operations while these laws to guide their operations while these laws are adhered to if they are properly enforced. This is because in Nigeria today parents and guardians are better informed, enlightened and inquisitive, about what happens to their children and wards in their various schools. A conducive school climate incorporates the protection and promotion of human rights of persons within the school organization. Human rights are freedoms and entitlement granted to man by reason of his being human. They are inherent and inalienable rights and freedoms that all men without discriminations or deprivation equally entitled in protection of their human dignity (Umozurike, 1993). The school authority is saddled with the responsibility of instilling discipline in the students she stands in loco parentis. This responsibility must however, be exercise with extreme caution and must be so exercised within the ambit of the law.

According to Arop, (2015), the progress we and systematic erosion of traditional values and the attendant voracious imbuement of exotic and foreign life styles have brought negative consequences to supplant our once cherished virtues of hard work, honesty, sincerity and bond, which have led to much indiscipline in the polity. Human rights can be seen as a part of education law which is they guide the operational and administrative functioning of the teachers and administrators in schools. Lamented that educational laws are of paramount importance in the operations of school system within and beyond Nigeria. Thus, principals as the heads of secondary schools have roles to play in their enforcement since they are responsible and accountable for everything that is expected to create a conducive environment for teaching and learning.

Education laws have been promulgated as ordinances during the colonial era, but during military regimes, the education laws were released as Decrees if made by the Federal during democratic civil rules, parliaments enact laws in the form of Acts. It is important for all concerned with management with education laws and how there govern our activities and programmes. Nakpodia in Biokoro, (2021) in a Latin "Maxim opined that "ignorantia juris est lala culpa" meaning ignorance of the law is not an excuse, is quite apt, many teachers are not aware of the right, duties, obligations and responsibilities alw and more especially actions on students. Also, they do not know and appreciate the general principles and provisions of law and regulation as they apply in handling issues of order and students' discipline in school.

Our schools have become bedeviled by students' predisposition high-tec indiscipline, antisocial behavior, militancy and general stiffness. Schools have lost their attraction and luster as far discipline and excellence are concerned school authorities are now engaged in splendid subterfuge and most time orchestrate and promote chaos amongst their students through obnoxious and patently unlawful rules and regulations (Apop, in Akpan, Okon & Ebura, 2015).

Nwagwu (1987) further stressed that teachers demonstrate an unfortunate destruction of the general principles and provisions of law relating to their noble profession. The perceived power of omnipotence ascribed to administrators and heads

of schools, has become nothing but a mere myth. School managers must conduct their affairs with due regards to the human rights of persons under them. The need for school administrators to examine their profession conduct vis-à-vis the bill of rights enshrined in chapter 4 of the 1999 Constitution of the Federal Republic of Nigeria becomes not only crucial and imperative but urgent.

Afelabi (2014) stated that both head teachers (625%) and class teachers (32.5%) had low awareness of education laws regulating school administration, thus exposing them to litigation. Arop (2010) stated that various challenges such as trauma, gross misconduct, ignorant of the law, sexual harassment amongst others are some of the challenges inherent in secondary school, which if not properly handed has legal implications in the law court.

For the achievement of secondary school educational goals and objectives, it is important to maintain a conducive atmosphere in the system education law and the rule of law are important and indispensable tools necessary for the maintenance of such conducive environment and school climate between the principals, teachers, students and other stakeholders in the affairs of senior secondary schools in Cross River State but the State School Management Board that are responsible for the formulation and implementation of the educational law failed to live up to expectation because the needed resources required for the enforcement of educational law, disciplinary law and fundamental right of the student, adequate funds are not released for these purpose and the required secondary school administrators needed for the enforcement of this humans regime do not have the necessary skills to function and the State Schools Board refusal to address the problem undermining the important in improving good organizational climate for both the school management, teachers, students and other stakeholders in the affairs of the management of secondary school system. Hence, the emphasis of this paper on principal's role in the enforcement of human rights regime as a key to effective secondary school administration in Cross River State.

Purpose of the study
The following specific objective guided the study:
1. To examine various challenges facing the enforcement of human rights regime for effective administrative in secondary school in Cross River State.
2. To ascertain the strategies employed by the state school board for enforcement of human rights regime for effective administration in secondary schools in Cross River State.

Hypothesis
The following null hypotheses were formulated to guide the study at 0.05 level of significance:
HO_1: There is no significant mean difference between male and female principals' perception on the challenges of enforcement of human right regime for effective administration in secondary school in Cross River State.

HO$_2$: There is no significant mean difference between male and female principals' perception on strategies for enforcing human rights regime for effective administration in secondary schools in Cross River State.

Methodology

The descriptive survey design was adopted for the investigation. The population of the study was 475, which consists of 295 male and 180 female secondary school principals in Cross River State. The simple random sampling technique was employed to select the size of 95 principals (40 males and 55 females) representing 20% of the total population in secondary schools in Cross River State. The instrument for data collection was a questionnaire titled Principals Enforcement of Human Rights Regime for Effective Administration Questionnaire (PEHRREAQ). The data generated were analyzed using the t-test statistical tool at 0.05 level of significance.

Data Presentation
Hypothesis 1

There is no significant mean difference between male and female principals' perception on the challenges of enforcement of human right regime for effective administration in secondary school in Cross River State.

Table 1: t-test analysis on mean difference between male and female principals' perception on the challenges of human right enforcement

Items	N	Mean	SD	Df	Level of sig	t-cal	t-crit	Remark
Male	40	12.49	4.87					
Female	55	12.57	4.89	94	0.05	1.57	1.96	Accepted

The results in Table 1 revealed that the –t-calculated value was 1.57, while the t-critical value was 1.96 at degree of freedom 94 of 0.05 level of significance. This implies that both male and female principles in public secondary schools in Cross River State accepted that various challenges are hampering the smooth enforcement of human right regime for effective administration of secondary school in Cross River State.

Hypothesis 2

There is no significant mean difference between male and female principals' perception on strategies for enforcing human right regime for effective administration of secondary school in Cross River State. Table 2 illustrates the result.

Table 2: t-test analysis on mean difference between male and female principals' perception on the strategies of human right enforcement

Items	N	Mean	SD	Df	Level of sig	t-cal	t-crit	Remark
Male	40	8.06	2.87					
Female	55	9.57	2.93	94	0.05	1.17	1.96	Accepted

The results in Table revealed that the t-calculated value was 1.17 while the t-critical value was 1.96 at degree of freedom 94 of 0.05 level of significance. This implies that both male and female principals in public secondary schools in Cross River State accepted working strategies are not put in place to enhance the enforcement of human rights regime in secondary schools.

Discussion

Findings from hypothesis one revealed that there several challenges facing enforcement of human right regime in the state secondary school. The finding aligned with the study of Arop (2010) who noted that various challenges like truancy, gross misconduct, ignorant of the law, sexual harassment amongst others are some of the challenges inherent in secondary schools, which of not properly handled has legal implications in then law court. Afolabi (2014) study is in agreement with the finding of this study, as he noted that both head teachers (62.5) and class teachers 932.5) had low awareness of education laws regulating schools' administration, thus making them prone to litigation.

Findings from hypothesis two revealed that adequate strategies are not put in place by the Cross River State government for the enforcement of human rights regime for effective administration in secondary schools in Cross River State. The study of Peretomode (2014) aligned with the present study where he revealed that, most schools cannot put into operation its education laws as a result of insufficient strategies put in place for its enforcement in most of the secondary school in the state.

Conclusion

Arising from the findings reached, the paper concluded that various challenges stand as a stumbling block for principals' enforcement of education laws for effective administration in secondary schools in Cross River State.

Recommendations

The following recommendations were preferred:
   (i)   The Cross River State Ministry of education should conduct seminars and workshops for all the stakeholders on the enforcement of education laws as it will adequately equip them in the discharge of their duties in the school setting.
   (ii)   A conducive environment should be made available by the State Ministry of Education in secondary school for efficient enforcement of human right regime to enhance effective administration.

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Head Teachers' Leadership Styles and Work Attitude of Teachers in Public Primary Schools in Rivers State

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Abstract

*T*he study examined the relationship between head teacher's leadership styles and work attitude of teachers in public primary schools in Rivers State. Four research objectives were outlined and four hypotheses guided the study. The correlational research design was used in the study. 11,657 head teachers and teachers made up the study's population, and 1,165 of them were selected by a stratified random selection and simple random sampling technique. Data collection utilized a questionnaire created by the researcher. The Pearson product moment correlation coefficient was used to analyze the data. The results showed a significant relationship between the autocratic leadership style of headteachers and teachers' attitudes toward work, as well as significant relationships between democratic leadership style and teachers' attitudes toward work, laissez-faire leadership style and teachers' attitudes toward work, and a significant relationship between headteachers' utilization of Transactional leadership style and teachers' attitude to work. According to recommendations made based on the study's findings, head teachers in primary schools should use the appropriate leadership style(s) when dealing with the teachers in order to enhance the attitude of teachers toward their work in primary schools.

Key words: Head teacher, leadership styles, work attitude, primary schools.

Introduction

Since teachers are the ones teaching in the classroom and developing the curriculum, their primary responsibility is to make sure that student performance improves every year. The head teacher of the school must encourage and support the instructors in order for them to fulfill this responsibility. However, in order for teachers to have a good attitude at work, they must have a good relationship with the headteacher(s) of their respective schools, earn the best wages, and participate in decision-making processes at those schools.

The way people approach their work has a significant impacts on both their personal lives and their productivity at work. Accountability and involvement in accomplishing specific career goals and boosting organizational productivity are two aspects of work attitude. The problem of workplace behavior is a problem for business and organization, but instructors are also quite concerned about it.A positive work

attitude is one that is influenced by employee values and expectations, workplace communication, personal information, and corporate culture.

The job of the headteacher is to motivate staff members to perform better and achieve more at work by enforcing rules, working with parents and stakeholders, encouraging teacher job satisfaction, and managing the budget. If the school is to succeed, the headteacher needs to gain the respect of the faculty (Stroh, 2007). The accountability of the head teachers at a specific level of education is an important consideration in decision-making process for determining how management is carried out effectively and how instructors' attitudes toward their jobs are developing. Since leadership involves having an interpersonal impact on others through the communication process in order to achieve specific goals, effective management of a school requires effective school leadership in which school head teachers are able to manage external operations and school environment interactions.

Numerous studies on management and organization in relation to leadership have consistently shown that leadership style is an important factor in the decision-making process for organizational performance and success; this affects organizational process and attitudes, structure, members' beliefs, patterns of social interaction, and job behavior in both a positive and/or negative way. However, instructors occasionally believe that the administration is not assisting them. Attitudes and confidence could significantly decline, when teachers lose faith in the head teacher, their efforts are reduced (Gallos, 2008). When teachers are dissatisfied with their jobs, it is harder to put out the effort necessary to achieve organizational goals. The major significant clash between an individual's demands and intentions and the requirements of the organization, according to Kiboss and Emiryott (2014), is the root cause of a number of administrative issues in formal organizations.

Teachers' commitment to students and attitude toward their work is both enhanced when they sense the headteacher's support. When two or more things interact, they can try to personalize their roles in order to better understand both their own needs and those of the group in an effort to achieve its objectives, they try to mold and fit them into the designated positions in other to achieve organizational goals.

The actions of followers are significantly influenced by the leadership. The process of a leader influencing a group of people's actions in an effort to attain a goal in a specific setting has been defined as leadership. It involves the leader and a force that motivates followers to take action. It requires a leader who guides people's actions in a specific direction so that the organization's objectives are met. It also entails a circumstance that presents an opportunity for educating people to be leaders in a way that will improve their effectiveness and efficiency in the workplace. It is focused on how to modify leadership philosophies to fit a circumstance in any formal organization. Titles are assigned to the people in accordance with their roles.

The behavioral patterns employed by leaders to persuade group members and make decisions on the strategy, mission, and operations of group activities are known as leadership styles. A leader's approach and demeanor when giving instructions, inspiring followers, and carrying out plans to accomplish organizational objectives are referred to as their leadership style. This indicates, however, that a leader's style and the

significance of their relationship with those who report to them are effective, a factor that has a significant impact on the character or result of a team's performance in any organizational hierarchy.

Different leadership philosophies employ distinctive methods to sway their followers. Holdford (2003) stated that there are a variety of leadership styles, some of which include: The term autocratic leadership style refers to management methods that use rewards and penalties to influence behaviour. However, it is a form of leadership where the goal of the leader is to direct followers in his or her manner of directing others. Additionally, in a democratic leadership style, the leader permits followers to have a voice or make decisions about how their work lives will be affected. As a result, the staff feels a feeling of ownership in the achievement of corporate goals, which fosters the development of trust and respect as well as new ideas. This staff strives to reach consensus among themselves and seeks counsel from someone in a position of authority. The third type of leadership is transactional, which holds that rewards and penalties motivate individuals.

Laissez faire leadership style is the fourth leadership style, a type of leadership where there are theoretically no rules dictating behavior in the organization. It also holds that when people come together to perform a specific work task, they must agree to give up on that part of agreement and authority to their leader who must take full control and power over the person under the authority who must obey his/her orders without question. This gives the capability or authority to talk, move, or take an action without the leader's consent.

A person's attitude about their job is determined by how much attention they give it. Work attitude is more of a person's attitude toward their employment, according to Mullin (2005). He argued, however, that work attitude is a complicated and diverse idea that can signify many things to various people. He claimed that motivation and work attitude are frequently related. The general attitude a person has toward their employment is referred to as work attitude. Work attitude refers to how someone feels and behaves toward their job. In this sense, the type of leadership a headteacher employs appears to have a favorable or bad impact on the work attitudes of teachers in schools. The goal of this study was to investigate the relationship between head teachers' leadership styles and teachers' work attitudes in public primary schools in Rivers State in light of the aforementioned.

Statement of the problem

Some factors related to a person's job can inspire him/her toward job happiness, whereas other factors related to the experience of the worker can motivate him/her toward job discontent. In Rivers State's public primary schools, it is frequently observed that teachers are not meeting expectations. This development may have been caused by a number of circumstances. These variables include the perception of low teacher welfare, a lack of pertinent education, and a lack of self-efficacy. Given that the performance of the caregivers will be influenced by their level of job satisfaction, this study will aim to ascertain whether there is any correlation between the leadership style of the headteacher and the attitude of the teachers in Rivers State.

Objective of the Study

The major goal of this study is to determine how the work attitudes of teachers in public primary schools in Rivers State relate to the leadership styles of the headteachers. In particular, the research will:

(1)   Determine if there is any relationship between headteacher's Autocratic leadership style and teachers' attitude to work.

(2)   Determine if there is any relationship between headteacher's democratic leadership style and teachers' attitude to work.

(3)   Determine if there is any relationship between headteacher's laissez faire leadership style and teachers' attitude to work.

(4)   Find out if there is any relationship between transactional leadership style and teachers' attitude to work.

Null Hypotheses

The study will be guided by the following null hypotheses:

(1)   There is no significant relationship between headteacher's autocratic leadership style and teachers' attitude to work.

(2)   There is no significant relationship between headteacher's democratic leadership style teachers' attitude to work.

(3)   There is no significant relationship between headteacher's laissez faire leadership style and teachers' attitude to work.

(4)   Transactional leadership style of headteacher does not significantly relate to teachers' attitude to work.

Methodology

The correlational research design was used in the study. 11,657 teachers from the 943 public primary schools in Rivers State made up the study's population. 1,165 teachers from public elementary schools were selected as the study's sample utilizing a multiple sampling technique that included stratified random sampling and simple random sampling techniques. The stratified random selection method was used to choose 94 public primary schools, and the simple random sample method was used to select 1,165 instructors in the 94 public primary schools. The Head-teacher's Leadership Style and Teachers' Work Attitudes Questionnaire (HLSTWAQ), a 28-item questionnaire created by the researcher, served as the data gathering tool. Two experts from the Department of Early Childhood and Primary Education, faculty of education at Ignatius Ajuru University of Education validated the instrument. Using the Pearson's Product Moment Correlation Coefficient was used to determine the reliability coefficient. The instrument's reliability index was 0.74. Before beginning to administer the instrument and gather data, the researcher first secured permission from the head teachers of the sampled public primary schools. In addition to building rapport and scheduling dates and times for the respondents to complete the questionnaires, the researcher visited the public primary schools to request permission from the administration. Therefore, the researcher distributed the questionnaire to the respondents on the scheduled date in order to collect data. The respondents were given

enough time to respond to the items in the questionnaire that were collected by the researcher later. The data collected was analyzed using Pearson product moment correlation coefficient to test the null hypotheses at .05 level of significance.

Results and Findings

H_{01}: There is no significant relationship between headteachers' autocratic leadership style and teachers' attitude to work.

Table 1: Summary of Pearson Product Moment Correlation (PPMC) on the relationship between headteachers' use of autocratic leadership style and teachers' attitude to work (n=1162)

Variable	N	∑X	∑Y	N∑X²	N∑Y²	N∑X.Y	r-value	*p-value*
Autocratic leadership style	1162	2938		8988110				
Vs						8315054	0.788	0.000
Attitude	1162		2717		7882671			

The result from Table 1 shows the summary of Pearson Product Moment Correlation on the relationship between headteachers' use of autocratic leadership style and teachers' attitude to work. It shows that the relationship between headteachers' autocratic leadership style and teachers' attitude to work was positive and very strong(r=0.788). The result further shows that there is significant relationship between headteachers' autocratic leadership style and teachers' attitude to work (r=0.788, p<.05). The null hypothesis one was rejected at .05 level of significance

H_{02}: There is no significant relationship between headteachers' democratic leadership style teachers' attitude to work.

Table 2 Summary of PPMC on the relationship between headteachers' utilisation of democratic leadership style and teachers' attitude to work (n=1162)

Variable	N	∑X	∑Y	N∑X²	N∑Y²	N∑X.Y	r-value	*p-value*
Democratic leadership style	1162	3314		11363049				
Vs						9303075	0.686	0.000
Attitude	1162		2717		7882671			

The result from Table 2 shows the summary of Pearson Product Moment Correlation on the relationship between headteachers' utilization of democratic leadership style and teachers' attitude to work. It shows that the relationship between headteachers' democratic leadership style and teachers' attitude to work was positive and very strong(r=0.686). The result further shows that there is significant relationship between headteachers' democratic leadership style and teachers' attitude to work (r=0.686, p<.05). The null hypothesis two was rejected at .05 level of significance.

H₀₃: There is no significant relationship between headteachers' laissez-faire leadership style and teachers' attitude to work.

Table 3: Summary of PPMC on relationship between headteachers' laizze-faire leadership style and teachers' attitude to work (n=1162)

variable	n	$\sum x$	$\sum y$	$n\sum x^2$	$n\sum y^2$	$n\sum x.y$	r-value	*p-value*
laissez faire leadership style	1162	2786		8454898				
						7984544	0.705	0.000
vs								
attitude	1162		2717		7882671			

The result from Table 3 shows the summary of Pearson Product Moment Correlation on the relationship between headteachers' utilization of laissez-faire leadership style and teachers' attitude to work. It shows that the relationship between headteachers' Laissez-faire leadership style utilization and teachers' attitude to work was positive and very strong(r=0.705). The result further shows that there is significant relationship between headteachers' laissez-faire leadership style and teachers' attitude to work (r=0.705, p<.05). The null hypothesis three was rejected at .05 level of significance.

H₀₄: Transactional leadership style of the headteachers does not significantly relate to teachers' attitude to work.

Table 4 Summary of PPMC on relationship between headteachers' traditional leadership style and teachers' attitude to work (n=1162)

Variable	N	$\sum X$	$\sum Y$	$N\sum X^2$	$N\sum Y^2$	$N\sum X.Y$	r-value	*p-value*
Transactional leadership style	1162	3263		10925711				
						9078471	0.571	0.000
Vs								
Attitude	1162		2717		7882671			

The result from Table 4 shows the summary of Pearson Product Moment Correlation on the relationship between headteachers' utilization of Transactional leadership style and teachers' attitude to work. It shows that the relationship between headteachers' Transactional leadership style utilization and teachers' attitude to work was positive and very strong($r=0.571$). The result further shows that there is significant relationship between headteachers' utilization of Transactional leadership style and teachers' attitude to work ($r=0.571$, $p<.05$). The null hypothesis four was rejected at .05 level of significance.

Discussion of Findings

The result in Table 1 shows that there is a significant relationship between headteachers' autocratic leadership style and teachers' attitude to work. The null hypothesis one was rejected. This means that there is significant relationship between headteachers' autocratic leadership style and teachers' attitude to work. The study's findings corroborate those of Wanjiru (2016), who looked into how head teachers' leadership style affected teachers' attitudes toward their jobs in public primary schools in Kirinyaga West Sub-County and discovered that autocratic leadership philosophies had a negative impact on primary school teachers' attitudes toward their jobs. The study's results also concur with those of Nadarasa and Thuraisingam (2014), who conducted research to determine how principals' leadership styles affected teachers' attitudes toward their jobs. They discovered that autocratic leadership had a negative effect on teachers' attitudes toward their jobs.

The findings in Table 2 reveals that there is a significant relationship between headteachers' democratic leadership style and teachers' attitude to work. The null hypothesis two was rejected. Thus, there is a significant correlation between head-teacher's democratic leadership style and teachers' work attitude. This finding is consistent with those of Wanjiru (2016), who conducted research on how head teachers' leadership styles affected teachers' attitudes toward their jobs in public primary schools in Kirinyaga West Sub-County and discovered that democratic leadership philosophies had a positive impact on primary school teachers' job attitudes. Additionally, the results are consistent with those of Nadarasa and Thuraisingam (2014), who conducted research to examine the effects of principals' leadership styles on teachers' job attitudes and discovered that Democratic leadership had a favorable effect on teachers' job attitudes.

The result in hypothesis three at Table 3 shows that there is significant relationship between headteachers' laissez-faire leadership style and teachers' attitude to work. The null hypothesis three was rejected. Therefore, there is significant relationship between headteachers' laissez-faire leadership style and teachers' attitude to work. This result is consistent with that of Owenvbiugie and Ibadin (2017), who examined the effect of principals' administrative style on teachers' work attitudes in senior secondary schools in the Oredo Local Government Area of Edo State and discovered that principals' laissez-faire leadership style affected teachers' work attitudes. Once more, the study's findings corroborate those of Wanjiru (2016), who investigated the impact of head teachers' leadership styles on teachers' job attitudes and

discovered that laissez-faire leadership style in elementary schools had an impact on teachers' job attitudes.

The result in Table 4 shows that there is significant relationship between headteachers' utilization of Transactional leadership style and teachers' attitude to work (r=0.571, p<.05). The null hypothesis four was rejected at .05 level of significance. Therefore, there is significant relationship between headteachers' utilization of Transactional leadership style and teachers' attitude to work. This result differs with that of Patricia (2002), who investigated the relationship between job attitude and transactional and transformational leadership and found that there was no beneficial relationship between the two. While Wells and Peachey (2010) conducted a separate study to examine the relationship between leadership behaviors (transformational and transactional), satisfaction with the leaders, and voluntary organizational turnover intentions, the study's findings support their findings. They found a negative relationship between transactional leadership behavior and voluntary organizational turnover intentions.

Conclusion

Since the head teacher's leadership style has a big impact on the teachers' attitudes toward their jobs, it is crucial in determining how the teachers will behave at work. This implies that the type of work attitude demonstrated by the teacher reflects the leadership style exhibited by the headteacher. The use of the appropriate leadership style(s) by the headteacher will improve the work attitude of the teachers, which will ultimately improve the academic achievement of the primary school students. The primary school headteacher's democratic leadership style, laissez-faire leadership style, transactional leadership style, and autocratic leadership style are all related to the teachers' work attitudes.

Recommendations

Based on the findings of the study the following recommendations were made:
1. The head-teachers in the primary schools should apply the right leadership style(s) in dealing with the teachers so as to improve teachers' work attitude in the primary schools.
2. The government, through the Universal Basic Education Board, should organize workshops and seminars for head-teachers on appropriate leadership in public primary schools to make them more efficient.
3. The government should provide good enabling environments (structures, facilities, incentives and proper training) in the primary schools to enhance effective working relationships in primary schools.

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Impact of Communicative Interactive Teaching Methods in Teaching and Learning of English Language in Secondary Schools

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Abstract

The study examined the impact of communicative interactive teaching methods in teaching and learning of English Language in Secondary Schools. It looked at different types of teaching methods used in schools and the uniqueness of interactive teaching methods. Quasi-experimental design was used to carry out the study, while a total of 40 students from Zappa Mixed Secondary Schools in Oshimili South Local Government Area were used as sample study for both experimental group and control group. English Language Performance Test was designed and administered to the groups. The data collected was analyzed using appropriate statistical tools (Statistical Package for Social Sciences (SPSS) while t-test and standard deviation (SD) were used for data analysis. The findings revealed significance differences in the performance of those exposed to communicative interactive teaching methods while recommendations centred on the need to engage teachers to further training on the application of the interactive method in the classrooms to enhance positive stimuli and challenges for the students.

Key words: Communicative, interactive methods, teaching, English language

Introduction

The importance of qualified teachers and effective teaching methods in school in determining the academic standard of the students cannot be overemphasized. It is obvious that effective teaching method has a major role to play in the quality of education students received. The teaching method emphatically includes both the infrastructural facilities and the human resources available in school.

This implies that schools that fail to provide the necessary learning facilities, good conducive atmosphere, teaching and learning facilities and qualified teachers may find it difficult to provide the best quality of education to their students. The quality of education does not only depend on the quality of teachers alone but also on teaching method and effective administration of the school system by the school management (Yunus, 2011).

There are many factors which have contributed to students' poor academic achievement in English school which include: poor study habits and lack of available resource materials, poor school climate, mother tongue interference, indiscipline,

inadequate facilities, teachers' ineffectiveness, poor teaching method and the type of learning environment available for both the students and the teachers. Teacher's ineffectiveness as a cause of student's poor performances can be narrowed down to teacher's qualification, lack of motivation, lack of innovation, lack training and poor knowledge of subject(s) assigned to teach. It is important to note that once a teacher is assigned a course to teach which the teacher is not proficiently equipped, or studied as a discipline, the teacher ends up dodging the question. Because it is clear that you cannot give what you don't have because the quality of what you incubate will determine what you can deliver. .

However, it is important to note that learning occurs through one's effective interaction with one's environment. Environment here refers to availability of facilities that are of good help to facilitate students' learning and yield a positive outcome on their academic performances. The environment is very inclusive. It ranges from contact with books, audio-visual, software and hardware of educational technology, size of classroom, sitting position and arrangement, availability of tables, chairs, chalkboards/whiteboards, shelves on which instruments for practical are arranged and so on. Communicative teaching methods, also called interactive teaching methods, constitutes the basic elements of a recently developed process to motivate learning, so that students and future English teachers develop a critical position about the taught content.

On the other hand, the extent at which some teachers, exhibit high level of indiscipline within the teaching method do not seem to portray them as role models. Thus, they rather encourage indiscipline among students by their attitudes which may have negative influence of students' academic achievement. Teachers on the other-hand can make or mar the school curriculum; therefore, their adequacy and quality such as qualification, experience, attitude and personality for better service delivery needs to be assessed by the school authority on a regular basis, so that students' academic performance will not be in jeopardy.

The availability of qualified English teachers is a major determinant in the performance of students in schools. Wei (2011) emphasizes that teachers who had undergone in-service training tend to be more effective in classrooms as compared to teachers who had not undergone any form of training. Many scholars and researchers generally are in agreement that the teaching methods play critical role in the academic performance of students in schools. The important role of the teachers in the learning is unquestionable. Teachers have been said to have a lot of influence on their classroom practices. Teachers should have and apply specific teaching skills and abilities that can be reflected in their students' performance in the subject they teach, in which the students will be able to make connection between what is taught in school and its application in problem solving in real life (Cheng & Dornyei, 2007).

Statement of the Problem

There are evidences of mass failure of students in both internal and external examinations in language courses especially English Language, which has been narrowed down to poor teaching methods and other factors, such as, lack of basic

infrastructural facilities, lack of resource personnel, teacher's quality, experience and competence. Teachers can make or mar the school curriculum; therefore, their adequacy and quality such as qualification, experience, attitude and personality for better service delivery are very important in determining the academic performance of students in English language.

Therefore, this study examines the impact of using communicative interactive teaching methods as cure to the learning of English Language in schools.

Objectives of the Study

The study investigates the impact of interactive teaching method in learning English language in school. It attempts therefore, to show how interactive teaching method is used to effectively impact knowledge to the students. To realize the aims and objectives of this study, the following objectives were formulated:

i.   To examine different types of teaching methods used in learning of English Language in schools.
ii.   The find out the impact of interactive teaching method in the learning of English Language in schools.

Research Questions

To address the study two research questions were raised and answered:

i.   What are the different types of teaching methods used in teaching and learning of English Language in schools?
ii.   What are the impacts of interactive teaching method in teaching and learning of English Language in schools?

Hypothesis

Two null hypotheses were formulated:

i. $H0_1$:   There is no significant difference in the different types of teaching methods used in learning English Language.
ii. $H0_2$:   There is no significant difference on the impacts of interactive teaching method of learning English Language in schools.

Significance of the Study

The study will help enrich and stimulates our ways of thinking about different types of teaching methods. It will serve as a resource base to scholars and researchers who may be interested in carrying out similar study. It will give an insight into the nature of teaching methods used in schools and make learners more persuasive in their writing and speaking. More so, it will bring to fore the interplay between person's background and the person's choice of words, while school administrators, teachers and educational planners will immensely benefit from the study for planning and development.

Therefore, this study is carried out to fill the gap using interactive teaching methods as an antidote to the learning of English Language in schools.

Empirical Review

The empirical strategy of modern education should focus on the student's independent activity, the institution of self-learning environments and practical training, where students have a choice of actions and can use creativity, as well as flexible training programmes where students can work in a comfortable speed. The central focus, therefore, is the use of communicative interactive methods of teaching, which is encompassing and encourages interest in the competence; promote the effective acquisition of training material; form outlines of comportment; provide high inspiration, strength, information, team spirit and freedom of expression; and contribute to the complex competences of future professionals.

Communicative interactive teaching method is very instrumental to both the teachers and the students alike in teaching and learning process. The use of interactive teaching methods in the preparation of future teachers, revealed features of interactive teaching methods, as well as a brief description of such interactive methods as role play, case study, game style, creative assignments, discussion, brainstorming, and cluster. These kinds of interactive teaching methods are effective tools aimed at improving and strengthening the learning process, motivation of educational activity and the development of professional skills of future teachers. The key factor is the interactive teaching methods initiative of students in the learning process, which inspires teachers from the point of assistant to that of the partner. Using interactive techniques, the students become more engaged in learning, retain more information, thus becoming more satisfied.

Contrary to the use of traditional teaching methods in the educational development shows that in the educative practice a generative property dominates in observation and adaptation of information by students. Traditional teaching methods and activities is stereotyped method of teaching which involve mainly the teacher's activity on transmission of information. But the interactive board provides dynamic visualization of content as well as the ability to physically manipulate independent work at home. During class, the interactive board and the internet create a content. Again, teachers assign extension activities to supplement classroom lessons with interactive learning environment. Because the activity has Web-based interaction, students can use the Web as a tool to learn with. In the end innovation has provided new capabilities that can transform the process of teaching and learning. Therefore, transforming the process of teaching and learning will mean that teachers create fundamentally different learning environments that promote interactivity. New ways of teaching will be accomplished through enhancing the skills of professional teachers but also through future teachers.

Researchers have proved that the successful mastery of learning material depends only on the mental activity of the learner. Lately, there is a great interest of teachers to interactive teaching methods that are most effective in improving the professional competence of future education professionals (Grigorashm and Trubilin, 2014). The main distinguishing feature of interactive teaching methods is an initiative of students in the learning process, which is stimulated by teacher from the position of assistant partner. The process allows for personal significance for all participants and assists to develop the students' ability to solve the problem themselves.

According to Kashlev, (2011) interactive methods are methods of well-aimed enhanced inter-subjective interaction of the teacher and students to create optimal conditions for their development as well as methods that involve co-education that is collaborative learning: students and teacher are the subjects of learning.

Moreover, using of interactive methods allows students to make knowledge more accessible, formulate and build evidence of their point of view and lead the discussion. More so, it allows students to learn how to listen to the other person, respect an alternative view, simulate enrich and build a constructive relationship in the group as well as avoid conflict, reach compromise, seek dialogue, analyze accounting information, and nurture skills in project activities as well as creative work.

During training of future education professionals, the use of interactive teaching methods: creative tasks, discussion, brainstorming, business play and cluster become imperative. Thus, it should be noted that interactive methods in teaching English as a foreign language to the students ensure energetic interaction of communication parties. This results in active exchange of professionally significant information in foreign language, cultivates both professional and language communication skills.

Theoretical Framework

The theoretical framework for this study is Learning Theory proposed by John Dewey (1859-1952). Learning by doing theory is appropriate with the interactive teaching method that the researcher is out to achieve. Learning is an activity which takes place both in school and outside the school system. It involves a careful design of activities that allows learners to have important, relevant learning experiences that will develop their future. It involves the participation of meaningful projects, learning by doing, encouraging problems and solving them. It does not only facilitate the acquisition and retention of knowledge but fosters critical intelligence and individual initiative. It is pertinent to note that learning is more than assimilating but it also involves the development of habits which enable the learner to deal effectively and most intelligently with his environment (Sano & Harmer, 2007).

According to John Dewey theoretical framework, there are some basic assumptions associated with theories of learning, which are:

i.   People learn best when they are personally involved in the learning experience.

ii.   Knowledge has to be discovered by the individual if it is to have any significant meaning to them or make a difference in their behaviour.

iii. A learner's commitment to learning is higher when they are free to set their own learning objectives and are able to actively pursue them within a given framework. (John Dewey, 1859-1952).

Savignon (2007) sees communicative language teaching as goals and processes in classroom learning, which is built on the theoretical concept. However, communicative competence basically means expression, interpretation and negotiation of meaning. While according to Richards and Rodgers (2001) communicative language is actually one of the best approaches to language teaching; which they emphasis, developed from the theory that the main functional benefit of language is

communication, and that the ultimate goal of the learner is building and developing communicative competence and ability. Moreover, communicative teaching method is all embracive. It is a concept that covers communicative abilities, knowledge of grammar and vocabulary in terms of linguistic competence, the ability to identify specific things in social communication in terms of socio-linguistic competence, the ability to initiate, open, negotiate ideas, contribute or close a conversation by a consistent or coherent manner in terms of discourse competence; or the ability to perform an effective communication with limitation of language knowledge in terms of strategic competence (Vyas & Patel, 2009 and Gahin & Myhill, 2001).

The communicative language teaching method uses both proficiency-based movement and standard-based movement approaches. These appropriate devices are aimed at producing the best learning context for the learners. The proficiency-based movement is actually proficiency guidelines to describe, evaluate and instruct the improvement of learners' competence in language (Wei, 2011). More specifically, it helps students to identify what they should know and how they should use language in different context by performing a certain level of language accuracy.

While, the standard-based movement encompasses the standards that indicate what student should know and should do as well as help to monitor the students' performance using assessments of their achievement and to guide the students to meet national standards in second language education. It is important to note that the two engagements are strengthening and making positive impacts on teaching practices. Fundamentally, the communicative interactive language teaching method could be viewed and applied in many educational areas from cognitive science, educational psychology to the second language acquisition. The modus operandi is quite flexible and employ variety of approaches and methodologies and could be adapted to facilitate the learning and teaching process (Tuan, 2012, Power, 2003, and Huang & Liu, 2000).

Harmer (2002) developed some criteria to qualify the label communicative interactive method of teaching English Language, such as:

i. Activities that require involvement and recurrent mutual interaction among learners with conversational partner with purpose of exchanging information or solving problems.

ii. Approaches that focus on learner in that the learner's background, goals and language needs taking into account.

iii. Let the learner to get involve in instructional decisions.

iv. Use of non-pedagogic texts and applying the 'real-world' information to form appropriate communication activities,

v. Should stress on the importance of both written and spoken models and channels, teach learner the link between channels.

In fact, the communicative language is considered as the macro-strategies or methodological principles as there is no other particular method or theory that could be used as fundamental for their practical and theoretical foundation (Kadiri, 2004; Mazur, 2012, & Adi, 2012).

The method gives direct contact with English Language, not just by hearing the teacher speak it but also by using it and writing it. Language teaching and learning

should be seen as an interaction of structural, lexical and situational or contextual forms (Olaofe, 2013).

Communicative Language teaching strategies is also significant. Effective use of this method could turn the teaching and learning into chat between the teacher and the students (Zhenhui, 2001; Li & Song, 2007 and Richards & Rodgers, 2001).

Language Teaching Methods

Moreover, in as much as communicative interactive method of teaching sounds very superlative and all embracing, it is important to note that from critical evaluations and studies, that there is no one single best method of teaching style that is superior to the other. The basic concept remains that the ways and manners teaching is handled will depend very much on the ability and the competence of the teacher and learner's comportment. The competence of the teacher is very important. Therefore, good professional teacher must understand that learners have different objectives, different perceptions, temperament, feelings, dispositions, different environmental challenges and learning needs and as such adopt the principle of eclecticism approach (i.e., diversity), deciding on the most suitable technique and applying the most appropriate methodology for that learner's specific objectives, learning style and context, (Ellis, 2009).

As a language learner, training manager, or teacher, it is important to understand the various methods and techniques so that the teacher should be able to steer the fair, make educated choices, and boost enjoyment of learning a language (Brown, 2001). One best way to learn English language is that the teacher must constantly interact with the students and spend time in classroom educating the students the basic grammatical, syntactical, phonological, and morphological principles. The teacher must be a professional, competent and using interactive task-based method in handling the language so as to be able to impact effectively to the students. It is still one of the most effective ways to learn English Language. Students absorb the language naturally if they are constantly abreast with the language. The greatest barrier to language learning is distance. Once there is a gap or incompetency on the part of the teacher, there is every tendency that fossilization or ossification will set in, which is barrier to the teaching and learning of English language in schools (Masmaliyeva, 2014; Ellis, 2003 & Chou, 2014)

Research Design

Quasi-experimental design was unique for the study. It was designed around the process-product framework with implication of examining the types, methodologies and impacts of teaching methods on the learning of language. The experimental design involved the manipulation and control of variables to be able to establish a cause-effect relationship. Two groups were formed, the experimental group and control group. The experimental groups were taught using teaching method question, while the control group did not receive any teaching, then examination was given to the two groups to determine their performance. The result was to accept or reject the hypotheses earlier stated:

For example

$P - O_1 - x - O_2$

$P - O_1 - O_2.$

P	-	*Purposive selection*
O_1	-	*Pre-test$_2$*
X	-	*Treatment*
O_2	-	*Post-test*

Research Question 1:

What are the different types of teaching methods use in the learning of English Language?

To answer this research question, the post-test that was administered to both the control and experimental groups was analyzed to determine the different types of teaching methods used in the learning of English Language.

Table 1: Independent sample t-test showing differences in post-test scores of experimental and control group

Source	Group	N	Mean	SD
Scores	Exp.	20	13.40	4.09
	Cont.	20	11.37	3.01

Source: Field Survey, 2022

From the Table 1 above revealed that students are exposed to different types of teaching methods of learning Language. The table revealed that the post-test performance of experimental group and control group regarding the types of teaching methods used. There was a high mean response of 13.40 and 11.37 by experimental group and control group respectively. Details also showed the standard deviation value of 4.09 for the experimental group while control group has the standard deviation value of 3.01.

Hypotheses Testing

Hypothesis One: There is no significant difference between different types of teaching methods used in the learning of English Language.

Table 2: Independent sample t-test showing differences in post-test scores of experimental and control group

Source	Group	N	Mean	SD	Df	T	Sig. (2-tailed)	Remark
Scores	Exp.	20	3.40	4.09	203	-7.38.	000	Significant
	Cont.	20	1.37	3.01				

Source: Field Survey, 2022

The Table 2 above shows the mean scores of experimental group and control group. The experimental group was taught with different types teaching methods while the control group was taught without and the scores stand as thus; experimental group 3.40 and control group 1.37; with standard deviations of 4.09 and 3.01 respectively. This implies that students taught with different types of teaching methods are likely to have better academic performance than students taught without any teaching method. The t-value is -7.38, while the p-value is 0.000 (P<0.005). The null-hypothesis is hereby rejected because there was a significant difference in the performance of students taught with different teaching methods in English Language.

Research Question 2:

What are the impacts of the interactive teaching Methods on students' performance in English Language?

To answer the research question, the post-test that was administered to both the control and experimental groups was analyzed to determine the impacts of both interactive teaching methods on students in order to ascertain their performance in English Language.

Table 3: Independent sample t-test showing differences in post-test scores of experimental and control group.

Source	Group	N	Mean	SD
Scores	Exp.	20	11.40	3.09
	Cont.	20	9.37	2.01

Source: Field Survey, 2022

From the Table 3 above, it is revealed that students who were taught with interactive teaching methods tend to perform better than those taught with other teaching methods. The table revealed that the post-test performance of experimental group and control group regarding the impacts of interactive teaching method is better than in students' performance in English Language. There was high evidence in mean scores of 11.40 for experimental group and 9.37 for control group. It also shows that standard deviation value of 3.09 for the experimental group and 2.01 for control group.

Table 4: Independent sample t-test showing differences in post-test scores of experimental and control group.

Source	Group	N	Mean	SD	Df	T	Sig. (2-tailed)	Remark
Scores	Exp.	20	11.40	3.09	203	-7.38.	000	Significant
	Cont.	20	9.37	2.01				

Source: Field Survey, 2021.

Table 4 shows that the impacts of interactive teaching methods on students have a higher mean score of 11.40 and 9.37 for both the experimental group and control

group while standard deviation of 3.09 and 2.01 stood as thus respectively. The t-value is -7.38, while the p-value is 0.000 (P<0.005). The null-hypothesis is hereby rejected because there is a significant impact in the performance of students taught with interactive teaching methods.

Discussion of Findings

The discussion of the findings from the analysis show that students taught English language using different types of teaching method performed better than those taught without teaching methods. This also reflects that teaching method is very instrumental to the students' academic performance in English Language. The competence of the teacher is very important. Therefore, good professional teacher must understand that learners have different objectives, different perceptions, feelings, dispositions, different environmental challenges and learning needs and as such adopt the principle of eclecticism approach (i.e., diversity), deciding on the most suitable technique and applying the most appropriate methodology for that learner's specific objectives, learning style and context.

As a language learner, training manager, or teacher, it is important to understand the various methods and techniques so that the teacher should be able to steer the fair, make educated choices, and boost enjoyment of learning a language. (Masmaliyeva, 2014; Ellis, 2003 & Chou, 2014). According to Tuan (2012), it is also revealed that communicative interactive teaching method of learning remains superlative in the sense that it is fundamental, viewed and applied in many educational areas from cognitive science, educational psychology to the second language acquisition. The modus operandi is quite flexible and employs variety of approaches and methodologies and could be adapted to facilitate the learning and teaching process (Power 2003, and Huang & Liu 2000)

Harmer (2002) further developed some criteria to qualify the label communicative interactive teaching method as activities that require involvement and recurrent mutual interaction among learners with conversational partner with purpose of exchanging information or solving problems, focuses on learner in that the learner's background, goals and language needs taking into account and learner involves in instructional decisions, without pedagogic texts but applying the 'real-world' information to form appropriate communication activities, In fact, the communicative language is considered as the macro-strategies or methodological principles compared to other methods or theories (Kadiri, 2004; Mazur, 2012, & Adi 2012).

The reasons for this development could be attributed to availability of the well qualified English Language teachers, availability of instructional materials, administrative leadership of the teachers and principals, and qualifications and experience. As observed by Li (2001), these factors are militating factors.

Conclusion

Based on the foregoing, it was evident that students taught with communicative interactive teaching method performed better than students taught with non-interactive means. Also, communicative language method demands the resourcefulness and

initiative of the teacher. The method gives direct contact with English Language, not just by hearing the teacher speak it, but also by using it as well as writing it. Language teaching and learning should be seen as an interaction of structural, lexical and situational or contextual forms. Communicative language teaching strategies is also significant. Effective use of this method could turn the teaching and learning into chat between the teacher and the students.

Recommendations
Premised on above, it was recommended that;
i.   There should be training and retraining of teachers to understand how to use the communicative interactive teaching method.
ii.   There should be adequate provision of instructional materials to schools.
iii.   There should be well equipped Language laboratories in all our schools to enable the students study and learn all the method required in teaching and learning of English Language.
iv.   Teachers should be regularly exposed to seminars, conferences and workshops by government and professional bodies.

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Effect of Charcoal in Continuous Cropping on Growth and Leaf Yield of Fluted Pumpkin (*Telfairiaoccidentalis*) in Humid Tropics: Implication for Human and Animal Nutrition.

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Abstract

The study investigated the effect of charcoal on the growth of fluted pumpkin in tropical humid soil. Six objectives were stated to guide the study. The study was done or carried-out at the teaching and research farm of Department of Agriculture, Ignatius Ajuru University of Education Ndele Campus. The experiment lasted two (2) growing seasons and the design for the study was randomize complete block design RCBD with charcoal as treatment material. Measurements were taken on number of leaf, leaf area, number of branches, vine length, fresh leaf weight, and dried leaf weight. The data were also subjected to Analysis of Variance using SPSS and Mean separated using Duncan multiple ranges. The results indicated that charcoal influences number of leaf, leaf area; number of branches, vine length, fresh leaf and dry leaf weight. It was concluded that Charcoal had positively influenced the growth and leaf yield of fluted pumpkin. The number of leaves, leaf area, vine length, number branches, and fresh leaf yield increase with time cultivation and quantity of charcoal applied. Application of charcoal should be used between 4- 6 tons ha^{-1}. Higher application above 6tons ha^{-1} has negative effect may be due to the release of more heavy metals which to formation complex substances in the soil and this influences soil fertility.

Key words: soil fertility, leaf yield, nutrition, charcoal, nutrients heamatology.

Introduction

There are different cropping systems available for the farmers to choose from, these include crop rotation, bush fallowing, mono-cropping, mix- cropping and continuous cropping. Each of these cropping may be limited by one or more factors which the farmers must consider before adoption. Continuous cropping involves using a piece of land for cultivation of crops year in year out or from one farming season to another without allowing any fallow period between cropping regime. It is always used where there is scare land for farming, due to lack of land as input or other inputs to secure land and alternative uses of land. Urban settlement also favours continuous cropping due to population pressure and industrial development. Continuous cropping has negative impact on soil structure, soil texture, and soil nutrients, these consequently influence crop yield. Continuous cultivation of crops has resulted in reduction in soil organic carbon and soil physical properties in general (Bhattacharya *et al.,* 2007).

Many materials have been used to stimulate the properties of the soil to increase crop yield, the materials are both organic and inorganic. The organic materials commonly in used are green manure, animal droppings/ dung and urine (poultry, goat, sheep, rabbit and cattle), compost, stubbles, wood ash and charcoal among others (Omisore *et al.*, 2009). Addition of organic matter enhances soil organic carbon content, which is an important indicator of soil quality and crop productivity (Lal, 2003). Blended inorganic fertilizer commonly used to enhance soil fertility hence productivity of crop is NPK. Though there are others such single fertilizers like urea and super phosphate among others. The inorganic fertilizers may contain micro-nutrient except added, it costly and also has negative effect on soil physical, chemical and biological properties. Charcoal remains as one of the alternative available to farmers to use as organic soil amendment material to boost productivity of crops.

Charcoal is residue left after wood burning in low or high temperature, the temperature only influences the sizes of the final product. It also increases the amount of water available to plant and it improves soil pH so that plant can get more nutrients from the soil. The involvement biochar or charcoal in crop production dated back to discovery of fire. Charcoal a product of partial or complete combustion of wood. It is very common in communities where energy or fuel wood is used for cooking. It is also common in areas where traditional farming systems still persist; clearing and burning of farm land led to charcoal production .and crop are sowed with them on farmlands. Some farmers are commonly seen in local communities burning wood on special site for special crops such as pepper, cucumber and amarathus, to mention but a few. Charcoal has stock of nutrients that it slowly releases into the soil to aid the growth of plants (Keller, 2017). Laird *et al*, (2010), reported the advantages of charcoal, emphasizing that because charcoal been a porous material with high water and air retention capacities, its addition to agricultural soils leads to increases in water holding capacity and decreases in nutrient leaching. Glaser *et al*, (2002), in a recent review demonstrated that crop yields can be increased when chemical is added to the soil especially in the tropics. The significance of charcoal to plant growth is so much that apart from increasing the amount of water a soil can hold and improvement to soil acidity pH) so that plants can get more nutrients from the soil, evidences show that

charcoal which has tiny pores that looks like sponge can equally absorbs pesticides and chemicals secreted from the roots of anxious weeds and enhance special fungi that infect a plant root and assist the plant to get more nutrient from the soil.

Fluted pumpkin (*Telfairia occidentalis*) is among the numerous important crop cultivated mainly for its leaves and fruits. It is regarded more as leafy vegetable than fruit vegetable because of important of the leaves in Nigerians delicacies. This crop is grown among the people of Nigeria; initially the crop was popular in the south eastern parts used in the preparation of *edikan-ikong* soup commonly among the *Efik* and *Ibibio* people of the Akwa Ibom and Cross River states. It is also popular leafy vegetable among the *Igbo* speaking people of Abia, Imo and Rivers state where it is called *ugu.* Today, due to migration and civilization the crop is very popular in Nigeria but mostly cultivated in the southern and middle belt parts of the country. Shippers (2000) reported fluted pumpkin is one of the important leaf and seed vegetables with high nutritional, medicinal and industrial values and hence a valuable source of combating nutritional deficiencies in diets of Nigerians.

Medicinally, it is significant, according to Akoroda *et al*, (1990), the oil extracted from the leaf is used as blood tonic which can be administered to patients' weak heamatology or anemia to man and farm animals. The oil extracted from the seeds is used for the reduction and treatment of lung cancer, diabetes, tapeworm and depression. Ndor *et al*; (2010), reported that aqueous extract of fluted pumpkin reduces blood sugar and increases hematological indices and equally reduces blood glucose levels and hence could be a hypoglycemic agent. According to Kayode & Kayode (2011), fluted pumpkin has a restorative ability in the treatment of oxidative stress. Fluted pumpkin is also used for the treatment of convulsion in Ethno medicine where the young leaves are sliced and stored in a bottle to which coconut and salt is added. According to Tanaka (2014), fluted pumpkin is an indigenous plant used in ethno medicinal treatment of anemia in Nigeria. Furthermore, according to Oluwole *et al*, (2003), and Eseyin *et al*, (2005) fluted pumpkin possesses anti–inflammatory and anti-diabetic properties. Commercially, fluted pumpkin provided an appreciable amount of income to small families that produced or involve in its value chain and marketing. To some extent fluted pumpkin has shifted from subsistence to small and medium scale production and its all seasonal demand also has shifted from local consumption to continental. The leaves and seeds of fluted pumpkin are utilized as livestock feed. The fresh and dried leaves are exported outside the country and become a source of foreign ex-charge. Fluted pumpkin (*Telfairia occidentalis*) is important in every sphere of the life of individuals in Nigeria.

To meet the current demand for fluted pumpkin leaves and seeds is becoming increasing difficult due to many factors which include soil degradation by human activities, effect of erosion and leaching on soil, irreplaceable nutrient uptake by plants and reduction on available land for agriculture due to population pressure on land. Some three to four decades ago researchers reported to poor conditions of Niger Delta soils. Fubara (1983) observed that the soils of the Niger Delta are such that the movement of gravitational water is usually very slow as a result of the poor permeability, leading to high surface runoff. Further-more, there is high evaporation which is about one-half. Similarly,Opuwaribo *et al*. (1990) also stated that the soils of

the Niger Delta are generally strongly weathered, have low caution exchange capacity, low base saturation and low fertility level usually suffering from multiple nutrient deficiencies. Since then , the situations have really change , these factors limit production of crops including fluted pumpkin directly and indirectly, the major is poor growth and yield of the crop in the study area. The experiment was conducted to determine the effect of charcoal on the growth and yield of fluted pumpkin.

Materials and Methods

The experiment was conducted at the Teaching and Research Farm Department of Agricultural Education, Ignatius Ajuru University of Education, Port Harcourt, Rivers State, Nigeria. The farm is located at Ndele and it is characterized by two (2) main seasons; dry and rainy seasons. The soil is sandy-loam; varieties of crops are grown there including fruit vegetables, fruit trees, forest trees and other arable crops. The area was cleared and seed beds constructed, each seed bed measured 2 by 3m. The farm land was cleared at Ignatius Ajuru University of Education, Ndele Campus and seed beds were constructed. The bags of charcoal were purchased from local producers, grounded, measured and applied on the seed beds. The treatments applied were 0, 2, 4, 6 & 8 in randomize complete block design and each treatment was replicated three times. The bags of charcoal were purchased from local producers, grounded, measured and applied on the seed beds. The treatments applied were 0, 2, 4, 6 & 8 tons ha^{-1} in randomize complete block design (RCBD) and each treatment was replicated three times with total of forty- five (45) experiment units. The fluted pumpkin seeds for planting were sourced from the varieties planted by the local farmers. The first planting was done during the first season farming of 2019 and the second planting was done during the season planting of the same year 2019. The first planting was done two weeks after application of charcoal. Measurement were taken every three weeks on the following parameters; number of leaves, vine length, leaf area, number of branches, fresh leafy and dried leaf yields.

Result and Discussion

Table 1 shows the summarized data on the effect of charcoal on the growth parameters of fluted pumpkin during two growing seasons. The number of leaves recorded in the first growing season is 46.99, 50.46, 46.55, 52.12 and 44.30 for 0, 2, 4, 6 and 8 tons ha-^{1} respectively. There was no significant difference among treatments. In growing season 2 the leaf number are 43.11, 52.63, 49.41, 52.00 and 41.85 for 0, 2, 4, 6 and 8 tons ha-^{1} of charcoal. There was no significant difference among treatments. In both seasons, the number of leaf increases in irregular pattern which may be due to activities of grass cutter and other rodents that were identified in the study area.

Leaf area in the first season is 153.60, 156.39, 163.68, 165.06 mm^2 and 166.13 for 0, 2, 4, 6 and 8 tons ha-^{1} of charcoal application. There is no significant difference among the treatments. In season 2, recorded leaf area is 154.67, 151.91, 170.22, 172.07 and 166.65mm^2 for 0, 2, 4, 6 and 8 tons ha-^{1} of charcoal applied. In the second season of plant the leaf, area gradually increases from 154.67mm^2, in control to 172.07mm^2 in 6 tonsha-1 of charcoal. There was significant difference among treatments. Treatment

control does not differ from treatment 2 tonsha-1 of charcoal. Treatment 4 tons ha-1 does not differ for treatment 6 tonsha-1 respectively. The irregular increase pattern observed among treatment may be due to environmental factors such as pests, different in temperature and other climatic variables.

Number of branches developed by the vine is 6.02, 5.35, 5.90, 5.93 and 5.39 for 0, 2, 4, 6 and 8 tons ha-^{1} of charcoal applied. The number of branches is not significant (P≥0.05). In the second growing season the number of branches recorded is 663, 5.15, 5.82, 5.78 and 5.29 for 6, 2, 4, 6 and 8 tons ha-^{1} of charcoal applied. The number of branches is significantly different among treatments. 2 tons ha-^{1} and 8 tons ha-^{1} do not differ significantly; 4 and 6 tons ha-^{1} do not also differ significantly from each other.

Table 1: Effect of charcoal application in continuous cropping on the growth of fluted pumpkin in two growing seasons

| Treatments charcoal | Season 1 | | | | | | Season 11 | | | | | |
	No. of leaf	Leaf Area	No. of branches	Vine length	Fresh leaf weight	Dry leaf weight	No. of leaf	Leaf area	No.of branches	Vine length	Fresh-leaf weight	Dry-leaf weight
0 kgha-^{1}	46.77^b	153.66^a	4.02^c	109.01^a	75.75^a	13.41^a	43.11^a	154.67^a	4.63^c	115.30^a	82.13^a	9.39^a
2 kgha-^{1}	50.46^a	156.39^a	5.35	115.06^a	79.76^a	18.11^b	51.91^b	151.91^a	5.15^a	120.87^a	90.41^a	16.63^a
4 kgha-^{1}	47.35^a	163.68^a	5.9^a	125.10^b	82.15^b	21.13^c	49.41^b	170.22^c	5.82^b	136.27^b	94.78^b	19.74^c
6 kgha-^{1}	52.12^a	162.06^a	5.93^a	131.80^b	94.67^c	23.39^c	52.0^b	172.07^c	5.78^b	129.60^b	108.78^c	19.74^c
8 kgha-^{1}	44.30^a	1.66.13^a	5.39^b	114.00^a	81.64^b	18.81^b	41.85^a	166.61^b	5.29^a	117.30^a	85.74^a	21.15^c
SE	3.65	7.44	0.36^b	9.021	16.93	4.09	4.23	7.82	0.36	9.46	17.49	3.25

Mean with same superscript is not significantly different (P≥ 0.05) different = 14, and SE is standard error, season 1- first farming season and season 11-season farming season

Table 1 also shows the vine length of 109.09, 115.07, 125.00, 131.8 and 114.8mm for 0, 2, 4, 6 and 8 tons ha-^{1} of charcoal respectively. There was significant difference among treatments. The control differs significantly (P≥0.05) from 2, 4 and 6 tons ha-^{1} of charcoal respectively. Control and stonsha-1 do not differ significantly. In the second season, vine length recorded is 115.30, 120.87, 136.27, 129.60 and 117.3mm for 0, 2, 4, 6 and 8 tons ha-^{1} of charcoal. There treatments differ significantly from one another. The control, 2 and 8 tons ha-^{1} do not differ statistically from each other. In similar order treatments 4 and 6 tons ha-^{1} do not differ statistically from each other.

Fresh leaf weight recorded is 75.78, 79.70, 82.15, 94.67, and 81.64 for 0, 2, 4, 6 and 8 tons ha-^{1} of charcoal during the first growing. The fresh leaf weight is significant among treatments. The control differs statistically from 2, 4, 6 and 8 tonsha-^{1} of charcoal applied. 2, 4 and 8 tons ha-^{1} do not differ from one another statistically. The observed may be due to biochemical composition and environmental factors which may not limited to metabolism, pests and climatic factors. In the second growing season, the fresh leaf weight recorded are 82.13, 90.41, 94.78, 108.78 and 85.74 for 0, 2, 4, 6 and 8 tonsha-^{1} of charcoal. The treatments were significantly difference. Control and stonsha-^{1} are not significantly different. Also, 2 and 4 tons ha-^{1} do not differ from each other.

In both seasons, the fresh leaf weight significantly differs among treatments. The increment in fresh leaf weight does follow any pattern which could be due many factors

among them may climatic, soil, and management strategies adopted. The dried leaf weight in first season is 13.41, 18.11, 21.13, 23.39 and 18.881 g. for 0, 2, 4, 6 and 8 tonsha-[1] respectively. The data were statistically different from each other. The control differs from 2, 4, 5 and 8 tonsha-[1] of charcoal2 tonsha-[1] and 8 tons ha-[1] does not differ statistically. Also 4 tons ha-1 and 8 tons ha-1 do not differ statistically. In the second growing season, dried leaf weight recorded are 9.39, 16.63, 19.74, 21.15 and 15.224g for 0, 2, 4, 6 and 8 tonsha-[1] of charcoal. The dried leaf weight is significantly different (p< from one another. The control differs from 2, 4, 6 and 8 tonsha-[1] of charcoal. 2 and 4 tons ha-[1] do not differ from each other. Similarly, 4 and 6 tonsha-[1] of charcoal do not differ from each other. The difference in dried leaf weight could be influence by the equipment and the temperature used in drying the fluted pumpkin leaves. The growth of fluted pumpkin could influence by other factors which are not nutritional. The application graded quantity of charcoal has shown increase selected parameters investigated. The application of 4 and 6 tonsha-[1] of charcoal give the best result in terms number of leaf, leaf area number of branches, vine length, fresh leaf weight and dried leaf weight. Application of higher level above 6 tons ha-[1] showed the decline in number of leaf, leaf area, number of branches, vine length, fresh leaf weigh and dried leaf weight. The observed may be due slow breaking down of bulk minerals and immbolization of soil nutrients.

Application of charcoal gave positive effect on the growth of fluted pumpkin. Increase in the quantity of charcoal applied per hectare (kgha-[1]) resulted increase in number of leaf, leaf area, number of branches, vine length, fresh leaf weight and dried leaf weight. The best growth parameters results were obtained with the application 4 and 6tons ha-[1] of charcoal in both growing seasons. It was evidential that the parameters measured differ numerically from one growing to another season one (1) being better than season (two). The observed is attributed to climate and soil factors. The result is in tandem with the findings of Glaser *et al.* (2002) that charcoal is not only a soil conditioner but acts as a fertilizer. Ketterings & Bigham (2002) reported that charcoal positively affect seed germination, crop growth and yield. The result is also in line with the findings of Ogawa & Okimori (2010) that the effect of charcoal on growth crop varies according to the raw materials, production methods, type of charcoal and the period of its application to the soil.

Conclusion

Charcoal had positively influenced the growth and yield of fluted pumpkin, the number of leaves, leaf area, vine length, number branches, and fresh leaf yield increase with time and quantity of charcoal applied. Application of charcoal should be between 4- 6 tons ha-[1]. Higher application above 6tons ha-[1] has negative effect may be due to the release of more heavy metals which to formation complex substances in the soil and this influences soil fertility.

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Innovative Secondary School Management for Global Competitiveness and Entrepreneurship

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Abstract

Secondary school management and administration in Nigeria is an audacious task in the education system. It is more herculean and tasking in the third world countries where education is inadequately funded. School managers deal with human beings whose behaviours cannot be manipulated or formulated. In short, school management deals with subjects and subordinate colleagues with profound intellectual profundities of equals in many endeavours. School management also include financial management, human resources management, information technology management, operational management etc. In deed schools should be managed as business ventures in these days of atrophying funding for education vis-à-vis the global and national economic downturn. For schools to remain relevant and become sustainable, adaptive innovative management mechanisms through synergistic efforts of partnerships for healthy global competitiveness and entrepreneurship practices should be adopted. This paper highlighted some innovative management templates and paradigms to reposition secondary school education in Nigeria for competitiveness and entrepreneurship. The paper concludes that management of school will be effective, efficient, less tasking and seamless with the application of innovative management skills and principles if more participative and facilitative management approach be applied.

Keywords: School Management, Financial management, technology management, entrepreneurship, participative, facilitative.

Introduction

There are fundamental issues in the management of secondary education in Nigeria. Obviously, there appears to be avalanche of issues that will come to mind when the problems of management of secondary education are to be examined. The universal claim of education as the magic wand and panacea to the problems that plague humanity cannot be over-emphasized. Education is the answer to all human problems. These include social, economic, political, environmental and pandemics etc. Giving the

importance of education to any nation, it behooves that the products of education should be thorough, competent, knowledgeable with technical and practical virtuosity both in learning and character as leading stars in the transformation and reformation of the individual and society. Paradoxically, there has been hues and cries about the quality of secondary school leavers and even university graduates these days. In a stark juxtaposition, secondary school leavers nowadays are less knowledgeable in all ramifications compared with their counterparts in the 1960s, 70s and early 80s. The cause of this attenuating quality in education is not far-fetched. The issue of quality of secondary school graduates becomes more problematic as most of them are not employable and this is attributable to variegated problems confronting education and presumably the paucity of white-collar jobs. Over the years, it is at the secondary school level that career decisions are made by young graduates. When the idea of producing qualitative school leavers comes to mind, the notion of having adequately qualified and experienced teachers cannot be overlooked because without them, there can be no qualitative education. The role and influence of the teacher is indispensable. According to Justina and Etimuli (2015) other identifiable attributes to this despicable state of education include the role of government and its policies towards education; The role of secondary school heads and their administrative styles; The role of teachers, students and parents; and provision of infrastructural facilities and the management of these facilities and resources. It is against this backdrop, this paper envisioned laudable innovative strategies and templates for a competitive and entrepreneurship school management in this millennium and beyond that will guarantee qualitative and employable secondary school leavers.

Basic Standard of Secondary School Management

Education management or administration has virtually come under focus as the bane of pragmatic sustainable secondary school education. Babalola (2013) asserts that education is concerned with the transformation of the individuals, households, communities, private and as well as public institutions and the nation through the building of human capacities to ensure that available resources are properly managed and directed towards societal and economic improvements. Efficient management of education means efficient and effective management of the economy and resources both human and material as well as information technology adroitly so as to achieve secondary school educational objectives. Udita (2018) asserted that education managers deal with human beings whose behaviours cannot be reduced to formulas, yet they can benefit from learning and implementing best practices and tested approaches to running educational organizations. In essence, management of secondary school should show how a principal is related to their school in the knowledge of its goals, the effective implementation of programmes and policies to get goals accomplished and how to motivate employees to perform to the highest standards without cohesion. Udita (2018) further stressed that to achieve progress in management, cultivation of supervisory skills, e.g., delegation, career development, motivation, mentoring etc. need to be acquired.

A vital management approach in vogue that should be combined with the approach asserted by Udita is managing secondary school with a more participative and facilitative approach. This amounts to an all-inclusive style of school administration when all stake holders in the school are involved in the decision making and implementation process. Various research findings attest to the fact that enormous potential benefits are achieved when living and working together. Chidobi and Okenzia (2015) are of the view that educational or secondary school management is the theory and practice of the planning, organization and administration of existing educational establishments and systems through competitiveness amongst secondary schools. There is now intense competition between secondary schools to attract students for quality education and improved standards and overall best performances in WASCE, NECO and JAMB results in the country. Indeed, the outcome of the competition is squarely anchored on the managerial ability of the school managers, the quality and competence of the academic staff which translates to effectiveness and efficiency of the management of the school. Effective secondary school management is predicated on a number of parameters and most importantly on consistent and sustained quality performance of West African School Certificate results (WASC) and Joint Admission and Matriculation results of various public and private school and the overall performance of secondary schools between states. According to Dike (2018), many school administrators rely on schools with high score in WASC and JAMB examinations as indicators of improvement over time in comparison to other schools.

Problems of Secondary School Management

There are numerous problems confronting secondary school management in Nigeria. Some of the problems include:

1. Inadequate funding: Funding has been the bane of secondary school management in Nigeria. Despite the increasing financial burden required for running these schools, the government both federal and state had always paid lip services to the issue of funding. The United Nations Educational Scientific and Cultural Organization (UNESCO) recommendation of at least 26% of the total annual budget proposal for education, the Nigerian government allocation to education is less than 10%.

2. Poor and infrastructural decay: The near complete absence of infrastructure and decay of the few available ones build over time is a contributing factor to effective management of secondary school. In some public schools, students sit on bare floor to have their lectures. This makes effective secondary school management difficult and problematic. Okocha (2016) stated that dearth of infrastructure, inadequate classroom, offices, inadequate laboratories for teaching, shortage of books are some of the problems that beset the secondary schools.

3. Inconsistent policies and Government interference: There are obvious inconsistent Government policies and programmes that are formulated at the Board and Executive levels that are forced down the throat of the school principals to execute. Most of these policies and programmes are formulated

without inputs from school administrators who invariably are the implementers. This has been the profound lacuna between school policy formulators and implementation. State owned secondary schools are replete with the appointment of principals and vice principals who are in most cases do not possess the requisite qualification to be appointed as a school principal.

4. Cultism: Secondary schools in Nigeria have been challenged by the menace of the activities of cultism and other social vices. This has led to the closure of school for long periods of time and this affects the smooth operation of school.

5. Examination Malpractice: The Nigerian secondary schools are infested with the menace of examination malpractice. This practice is more pronounced during external national examinations like West African School Certificate (WASC) and National Examination Council (NECO) examinations.

6. Lack of inspection and Supervision: School supervision and inspection including instructional supervision is the hallmark of improved quality education. However, this vital educational programme especially clinical supervision is completely absent in the management of secondary schools in Nigeria. Instructional supervision that had hitherto been diligently carried out and implemented in the 1960s, 70s and 80s is completely nonexistent in schools these days. School supervision and inspection that formed the bulwark of making the government realize the present condition of schools has completely been abandoned by the ministries of education. In short, personnel posted to the inspectorate divisions considered such postings as punishment. The non-implementation of supervisory and inspection roles by ministries, boards created a predominant cog in the management of secondary schools. Okocha (2016) lamented that lack of inspection and supervision in secondary school is one of the biggest problems facing Nigeria education system.

7. Corruption: corruption which is an endemic social vice has also eaten deep into the fabrics of the management of secondary school in Nigeria. Obviously, school managers misappropriate funds allocated for specific projects and in some cases divert such funds. This invariably affects the smooth and effective management of such schools.

8. Fear of technology (Technophobia): Some school administrators and teachers have a fear of technology. in these days of digitization, so many schools are managed through electronic processes which have proved to be effective and less expensive measure of school administration. However, a lot of school managers are not adaptive to such changes in technology thereby making the schools not competitive with others that are more technologically savvy and adaptive to change

Improved School Management for Global Competitiveness

The idea of globalization and competitiveness in education as an emerging phenomenon of world community and the earth as a global village is sequel to technological breakthroughs in transportation and information communication technology network (ICT). Ikoro and Ezeanyim (2017) in Robertson (1987) sees

globalization as an accelerated compression of the contemporary world and the intensification of consciousness of the world as a simple entity. Jaris (2000) was of the view that in globalization what binds nations and societies is not simply the ties of economic exchange and political agreements but also the shared consciousness of being part of a global system. Globalization also entails impacts of a ubiquitous phenomenon at the same time; thus, sparking a competition amongst the affected regions or nations. Formal education is one of the greatest instruments in the process of globalization. It is through education that the consciousness of the world as a single or being part of global universe evolved. With globalization there arose contrived efforts and attempt of global competitiveness between nations or geopolitical or economic blocks and regions that are phenomenally neck deep in global competitiveness. The ability of, and performance of sub sector or country to sell and supply goods and services in the global market must be measured, assessed and compared in tandem with what is attainable in other nations of the world as best practices that are comparatively acceptable is what is considered as effective global competitiveness. World economic forum (2013) defined competitiveness as the set of institutions, policies and factors that determines the level of production of a country favourably competitive to others. Giving the above prognosis, secondary school management for global competitiveness requires managing and operating secondary schools to be globally competitive and competent. Secondary school education entails the critical and fundamental task of school management leading to human development and a critical factor in determining the individual and the nations potentials in the various spheres of economic, political, social and human resources.

Therefore, school management for global competitiveness should usher that qualitative education that would impact in the citizenry, the required knowledge, skills, competences, aptitude and attitude that are globally desirable to solve the nations' problems and the world at large. Managing secondary school has created a paradigm shift, recognizing the integration of global best practices of managing principles and theories. To facilitate management for global competitiveness and interdependence is facilitated by the use of computer system, internet and website known as the information and communication technology (ICT) facilities for e-administration, e-learning etc. For secondary schools to compete effectively in the emerging computerized and automated global system, Nigerian schools should be equipped with functional libraries laboratories, classrooms, modern instructional technologies – computers connected to the internet as necessary tools for both instructional and operational management of the school. Obagan (2014) stated that for Nigerian secondary schools to be competitive in a world which competitive advantage has replaced comparative advantage, secondary education system should respond effectively to the demands of the world of work or a knowledge economy, or artificial intelligence and compete keenly with others for the generation and application of knowledge. Udita (2018) identified some basic indices for global competitiveness to include;
1. Virtual visibility;
2. Provision of educational services;
3. Transparent and efficient management system;

4. Adequate infrastructural development;
5. Improved quality assurance (internal and external)
6. Cross border quality assessment practices;
7. Sustained high performance in both internal and external examinations;
8. Quality of available academic and non-academic staff;
9. Robust educational technology and effective school supervision and inspection.

School Management and Entrepreneurship Development in Nigeria and indeed the globe are faced with attenuating job opportunities for secondary and tertiary school graduates. The secondary school level at its completion, prepares its graduates for career orientation and also with a view of going for university education. Oyekan (2016) opined that adopting measures to include entrepreneurship education on the long run is expected to reduce the level of youth unemployment in Nigeria which will lead to improved national economy and sustainable development in the country. To achieve this laudable objective, the new secondary school curriculum (NSSC) was introduced to Nigeria's secondary schools to ensure that students graduating from secondary schools are equipped with basic entrepreneurial and information communication technology (ICT) skills that will make them more relevant in the labour market. This is expected to reduce the level of unemployment amongst secondary school leavers. Incidentally, the success of NSSC in reforming the curriculum for entrepreneurship education was plagued with numerous shortcomings ranging from limited infrastructural provision, absence of qualified teachers, poverty due to unstable economy of the country, corruption, lack of commitment and aptitude just to mention a few. Alabi (2017) also identified some challenges that culminated in the crises in education that posed serious hindrance to curriculum reforms and implementation to include inadequacies of students, parents, government, educational supervisory agencies, regulatory professional organizations, examination bodies, private sector, the Nigerian society and the principal's management style and acumen. Globally,   men and women are embracing entrepreneurship as a major tool for self-reliance, employment opportunities and employers of labour themselves. According to Aboho and Juniu (2017) entrepreneurship is the ability and willingness of a person or persons to acquire educational skills to exploit and implore investment opportunities, establish and manage a successful business enterprise. Benson (2019) putatively stressed that the need to develop entrepreneurial skills among secondary school students in the pedagogical principles and process has taken a global dimension due to continuous ebbing employment opportunities. The concept of entrepreneurship has evolved over the years. Etymologically, entrepreneurship is derived from the 'French word' "entrepreneur" meaning "between taker" or "go between" later the word came to mean one who takes risk. Nwodo (2011) defined entrepreneurship as the willingness and ability of a person to identify and seed business ideas or investment opportunity, establish and run the business venture successfully. In all the definitions of entrepreneurship, the issue of trying to organize and manage a business stands out clearly. The fulcrum of secondary education in the contemporary time and beyond is therefore the inculcation of entrepreneurship education in secondary school students to

make them functional, useful and relevant to contribute meaningfully to the development of the nation.

Developing Entrepreneurial Skills in Students

The ultimate goal of education is entrepreneurship through which the learner become a functional citizen in the society. Elechi (2015) identified "school industrial links" as a potential strategy in the acquisition of entrepreneurial skills for students. Through industrial links, students are made to receive practical on the job experience either through employment on part time basis in an industry or business establishment using industrial personnel as resource persons. Students are sent on attachment to private establishment for a period of time. The school industrial link will also create the link between students and industries for investment opportunities. To this end, Okoro (2017) posited that school managers should incorporate school industrial link as their managerial principles and pedagogical methods to be adopted in the teaching/learning process for easy acquisition of entrepreneurial skills. Similarly, Igwe (2015) identified three types of industrial work experience programme which are as follows;

1. Work study plan and works exploration plans.
2. Co-operative occupational education.
3. Internship and practicum.

Other managerial strategies that will help in developing entrepreneurship skills include the following:

a) Organization of internship programme for students.
b) Organizing workshops and training programmes
c) Practical counselling on entrepreneurial and skill acquisition for students.
d) Accessibility to loans, that is granting soft loans to students to enable them start various businesses.
e) Remanding students that perform well in entrepreneurship and skills acquisition activities.
f) Science technology-society, excursion method and demonstration method.

Nnamdi (2015) in a study carried out to determine the viability of entrepreneurship education in Nigeria identified the following options to include:

1) Motivation of students: Students need to be motivated to embrace entrepreneurship education both at the management level and at the teaching/learning process. The motivation could be intrinsic and extrinsic.
2) Encouragement: The school management teacher or trainer need to encourage the development of entrepreneurial skills and this could be achieved through; the provision of student friendly environment; display a role model aptitude and attitude to the students; exposing the students to challenging opportunities; provide time for exploration through excursions; encourage students to be creative and discover things by themselves under the guidance of the school and teachers and regularly organize visitations and excursions to local entrepreneurs to enable students become familiar with entrepreneurial management skills.

Prospects of Entrepreneurship Education

The world today and more so in the future will be dominated by science, technology, innovation and entrepreneurship. Akinwunmi (2019) stressed that the graduate today is graduating into a world of uncertainties. Over 13 million young people enter the job markets each year in Africa but only 3 million get jobs. Africa will have the largest number of youths joining the labour market by 2030 than all the world taken together. Giving the above assertion, the inculcation of innovative entrepreneurial skills in student become instructive. Akinwunmi (2019) identified some innovative prospects of entrepreneurship as;

1) The development of analytical and critical thinking skills in capitalist recipients.
2) Secondary schools will understand the needs of the private sector and look for how to drive technologies, innovation and entrepreneurship opportunities
3) Enable secondary school leavers economically independent and contribute towards economic growth of the nation; enable secondary school leavers become employers of labour.
4) Enable students to have business and financial knowledge and understanding and increase the student's horizon of acquiring knowledge, skills and aptitudes necessary for survival in a capitalist-oriented society. Giving the above benefits, it is quite instructive that knowledge and acquisition of entrepreneurship should be considered not truly in terms of local environment but for the entrepreneurship knowledge to be transformative, it must also have global relevance and competitiveness.

Conclusion

To be a successful entrepreneur, you need some attributes in addition to those you were taught in school. These attributes are perseverance, persistence and unwavering attitude of doing something despite difficulty or delay in achieving success. Thus, entrepreneurship education is the acquisition of entrepreneurial skills and knowledge for the purpose of living a self-sustaining life in a capitalist oriented and highly competitive society. The non-existence of jobs with its concomitant glut of job seekers in the labour market is attributable to the indispensability of entrepreneurship as a transformative knowledge for students to live in this our competitive global community. Entrepreneurship education has become the hallmark of education with its attendant benefits both to the individual and the society at large.

Suggestions

It is very obvious to everyone that the conventional education system, with its blurred educational goals, is difficult to achieve. A lot of our secondary educational objectives would be achieved through entrepreneurship education. In the light of the above the study highlighted the following suggestions;

1) Secondary school should shift from rote teaching into allowing students to experiment, try things, put ideas to and innovate; (transformative knowledge)

2) Secondary school students must be supported to become entrepreneurs. This will make schools to become knowledge transmitters, as well as entrepreneur developers.
3) Students must be motivated, encouraged and supported in small and medium sized enterprises.
4) Teaching in entrepreneurship should be made compulsory in the senior secondary cadre in all schools.
5) There should be massive campaign and awareness creation and also value orientation as regards to the ills and dangers of social vices of which secondary school student has predilection for in this era of joblessness in order to embrace entrepreneurship;
6) Government should provide adequate funding of education sector and infrastructural of the system to enable entrepreneurship training thrive successfully.

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Imperatives of Good Governance to Science Education and Society; Panacea to Nigeria's Security Challenges

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Abstract

Good governance fosters and defines the nature of security of a nation. In order to address the issue of the place of good governance in Science Education, Society and the possibility of strengthening the security architecture in Nigeria, the paper examined the following subheadings with the view to fathom a best way forward for the study of science education: Impact of Governance on the Science Education in Nigeria, Good Governance and the Challenge of Security in Nigeria; remedial solution to Nigeria's governance challenges, Science Education: Panacea for Security Challenges in Nigeria Societies, Suggestions for improvement were proffered for evaluation by all stakeholders amongst others which include: Science Educators should be sponsored to seminars, conferences, workshops amongst others. This will enhance effectiveness and Efficiency in the educational sector; and there is need to improve effectiveness of security operatives through training and retraining, and provision of modern equipment to enhance their performance; and government should encourage good governance, openness, accountability through the use of print and digital media, and inform the public through conferences, seminars, and non-governmental agencies.

Key word: Good Governance, Science Education, Security

Introduction

Nigeria as a sovereign nation has remained a developing nation for over six decades after independence in spite of its endowment with abundant natural and human resources which are enough for functional science education (Ogundiya, 2010). Transformation and development from a consumption to a producing country has witnessed a tortoise movement approach with gross decayed over the years due to bad governance system which had been the greatest enemy of functional and efficient science education in the country. Nigeria is one of the countries which had suffered profusely during the military era whose approach of governance was predominantly dictatorial in nature, no priority was given to rule of law and the growth of the science and the economy was at the mercy of the military. According to Aina, Gana and Ibitimi (2017), the Nigerian populace suffered much in the hands of the military for an extended period of their dictatorship until the transition to democracy in 1999 which governance by then was supposed to be for the people, by the people and for the people but poor orientation of good governance undoubtedly crimpled the systems growth and aggravated the suffering of the people. The worst of the suffering is the lack of quality education from which the functional science education emanated. More so, Aina et al (2017) maintained that the use of 'functional' is important because to a layman government is funding the teaching and learning of science in Nigeria schools. Arguably, questions of concern are: what is the quality of this science teaching and learning? How functional is this science? What can the graduates of this science do? Can we compare these graduates with graduates in other countries? and are these graduates provided with a job or what can they do by themselves with their science knowledge? These concerns no doubt rates good governance in Nigeria low.

Bello & Tayo (2019) defined education as a process by which individuals are assisted formally through proper direction and guidance to develop their capacities for their own benefits and that of the society. It therefore follows, by a simple logic, that if a nation bequeaths the right type of education to its citizens, the citizens will not turn against their father- land and is no different from the end result of good governance. Good governance is a system of government based on good leadership, respect for the rule of law and due process, the accountability of the political leadership to the electorate as well as transparency in the operations of government (Odock, 2006). It is governance that provokes and defines the nature of security. When there is governance failure, the security frame work deteriorates. According to Unogu (2022), governance is the way in which government exercise power for the management and distribution of a country's social and economic resources which relates to the management of society by the people or the exercise of authority to manage a country's affairs and resources. It refers to government providing infrastructures fairly and equitably to the citizens. Good governance involves the process by which the government engages communities. Without good governance, a country makes itself vulnerable to diverse forms of insecurity (Aina, et al 2017). Those who temper with security and perpetrate acts of insecurity have offered reasons of marginalization of themselves and communities by government and in most instances, they are seeking tangible demonstration of governments visible commitment towards improving their lives as is the case in other

countries of the world. Aspects of public good which include: roads, educational opportunities, health services and communication infrastructure amongst many others are far away from communities.

Unogu (2022) maintained that the lives and properties lost to insecurity are immeasurable as estimated number of 6000 lives was lost in Nigeria between January 1 and June 30, 2021 and the case down the line is more worrisome from that time till today for the educational system. Consequently, parents have withdrawn their wards from schools while some State Governments have closed down schools for fear of lives and properties. The 1999 Constitution of the Federal Republic of Nigeria in section 14 subsection 2(b) as amended, emphasized and specifically states that the welfare of the people shall be the primary purpose of government. In Nigeria, government has failed in the constitutional responsibility to provide a secured and safe environment for lives of students, teachers and others actors in the educational institutions.

There are security problems posed to the society. Natural disasters like flooding, desertification has grossly affected productivity in agriculture leading to increase in consumption; unemployment has affected the youths and their interest in the country generally. Other security threats are hunger and filthy environment which are reflected in the health challenges we have in the society. Health threats in the community include; deadly diseases as malaria, diarrhea, typhoid and Lassa fever. Hence, the need to strengthen governance and her activities for sustainable development which thereby reducing the proliferation of crime which tempers security and enhancing the growth, sustainability of science which is the hallmark for sustainable peace in the society.

Impact of Governance on the Science Education in Nigeria

There is a linear relationship between good governance and a functional science education. There cannot be a functional science education where country's resources and power are not well utilized for the citizen of the nation. According to Adeosun (2012), governance is the use of State resources and power in an accountable way to achieve and promote the well-being of the citizenry. It, therefore, implies that when the power and resources are not well managed for the welfare of the citizen, there is bound to be a problem. The power and resources in Nigeria are not well utilized by the people.

Governance in Nigeria has not been at its best. The worst has been from 1999 when the country changed from the military dictatorship to the democratic rule. However, there is that belief that good governance thrives in a democratic government. According to Odo (2015), good governance thrives in a democratic setting and where there is no democratic government there can be no good governance. There are many situations that are indicators of lack of good governance in Nigeria. These challenges include insecurity, food crisis, proper education management, poor health management and natural disaster amongst others. He maintained that many of these crippled our education and affected science education badly more than any disciplines. The indicators are interwoven that they have multiple effects on the people of Nigeria and their communities. According to Arowolo & Aluko (2012), the primordial cause of lack of good governance in Nigeria is the absence of visionary leader to lead the country. Most of the leaders Nigeria ever had since the return of democracy in 1999 has been in

power to pursue personal, ethnic and religious ambitions. These leaders had no vision for the good of the nation. Most of the developmental challenges Nigerian had today is attributed to these leaders who lacked good vision for the nation (Odo, 2015). He further stated that these leaders lacked commitment for true nationhood and allowed personal ambitions and ethnic, regional as well as religious persuasions to override national considerations. It suffices to say that good governance requires responsible and responsive political leaders at all level contrary to the feeling and opinion owned by these leaders as political and public office holders see their positions as a means for illegal wealth accumulation to the detriment of the common Nigerian.

The leaders give privileges and undue advantage to their family members, friends, and associates, in the distribution of public resources (Adeosun, 2012). Nigeria as a sovereign nation have undoubtedly persisted to be a corrupt nation, managed by corrupt leaders who have made the governance an instrument of capital accumulation, rather than using it to project the interest of the citizenry who are the common people in the society. These leaders make democracy a curse for the nation because of the abuse of it. When democracy is abused, good governance becomes an illusion (Arowolo & Aluko, 2012). Governance is good when it is not discriminatory, and every member of the society are treated according to the established laws of the country as enshrined by the constitution of the federal republic of Nigeria. Consequent upon the act of impunity seen in our political leaders, the heads of the executive, legislature, and the judiciary and indeed every other leader in public and private institutions are lawless. The Nigeria legislators are reckless and not effective in discharging their duty. For Ogundiya (2010), the Nigeria legislators that would have provided adequate checks on abuses of power by the executive and recklessness of the opportunistic politicians are also inefficient and ineffective. The case of Nigerian legislatures is that of a blind man leading.

Adeosun (2012) posits that the Nigeria legislators have failed to utilize its enormous power to ease the economic and social hardship confronting the people of the nation. More still, Odisu (2016) emphasized that Nigerian citizens are increasingly losing hope and confidence in the nation's judiciary due to the unethical conduct of some judicial rascals thereby confirming the clear cases of judicial misconduct in the Nigerian Judiciary which has been militating against the rule of law. Therefore, as a result of the lapses in all the three arms of the Nigeria, ills in governance becomes inevitable being the hallmark and stronghold for corruption, mismanagement and misappropriation in Nigeria. Corruption is the abuse of public office for private gain, and it is an aspect of bad governance (Ogundiya, 2014). Where corrupt practices are prevalent government and good governance become difficult thereby crippling basic health and education services and other social infrastructures. Good governance cannot be possible in a state where corruption is gaining a foothold.

Corruption is evil, and it affects all areas of human lives. Corruption increases poverty and disproportionately affects those in the low-income group because it pulls resources from the national treasury into the hands of a few individuals who are politically powerful Odisu (2016). Nigeria's problem is not that of lack of resources, but of corruption and hence the high cost of governance which takes affects the citizens negatively as a result of greediness and self-centeredness of the leaders and seemingly

making it the way of life for most public office and private leaders; the case is worrisome in Nigeria's educational institutions (Gberevbie & Iyoha, 2007). Corruption is the anchor for all other problem bedeviling Nigeria as a nation. The insecurity, unemployment, kidnapping, poverty, divorce, hunger and deprivation, injustice and others, are some of the problem corruptions is breeding in Nigeria.

Good Governance and the Challenge of Security in Nigeria

A superficial look at the various conflicts in Nigeria today reveals an ugly trend which could be calamitous for the country if not chastened and this fundamentally is the lack of good governance. Security means safety to the average person or protection from harm and risk. Onifade (2013) sees security as a situation that emerges from the establishment of ways of protecting individuals, information, and properties from hostile people, influences, and behavior. This simply connotes "the absence of threat to life, property and socio-economic well-being of the people." (Arisi and Regina, 2013). While Insecurity is just the opposite of what we have as security. Insecurity like security is often used in a number of ways. Many people would take it to mean lack of safety or the existence of danger; hazard; uncertainty; lack of trust; doubtful; inadequately guarded or protected; lack of stability; disturbance; lack of protection and unsafe (Achumba 2013). Insecurity will make you lose trust, be frightened, unsettled, oppressed, lose focus, and be devastated and lose your humanity.

According to Aina et al (2017), the following are remedial solutions to Nigeria's governance challenges:

1. Everyone who aspires to rule as the president of the nation should determine to rule transparently and by example. Such leader must be ready to be a father to all ethnic groups and religions. Good governance cannot be promoted as seen presently in Nigeria where some ethnic groups and religion consider themselves as above law because their man is the president.
2. We must all fight corruption until it is completely obliterated in all sphere of our nation. The law must take its course on any corrupt citizen not minding his or status in the society. Everybody must follow the rule of law.
3. Every government must make education a priority in the national agenda. More money must be allocated to science education for research, teacher education and infrastructure in all our institutions.
4. The present science education curriculum should be changed to accommodate the needs of our youth. The curriculum should accommodate the authentic learning experience where the students control their learning by themselves. This will make them functional after graduation and reduce the rate of which graduates depend on the government for jobs and reduce unemployment.
5. Teacher education is important, and the government should accord it the desired recognition. There are innovations in science teacher education that can be brought to the teacher through science teacher professional development. Science teacher should be given full support for research within and outside the country.

6. The government should empower our youths who are innovative and willing to establish a venture that will provide them a job. Through this, most youth will prefer starting a private business without depending on government for a job.

Other approaches to repositioning education by government and the education stakeholders in Nigeria might include:

1. Every institution (University, Polytechnics, Colleges of Educations, and others) should establish a Youth Scientific Collaborative Programme (YSCP) with the developed countries of the world. The aim of this programme should be to send all

   youths who graduate in biology education with an outstanding result to go for practical experience for a given period.

2. Government should initiate practices that promotes and create avenues to youths' employment.

3. Rapid attention by government and the key political actors should be encourage especially with preference to vocational and entrepreneurship skills and practices.

Science Education: Panacea for Security Challenges in Nigeria Societies

Science education is very important to the development of any nation in many areas especially scientific and technological advancement (Sani & Ikpe, 2019). It comprises of three subjects namely biology, chemistry and physics; and if well-developed will represent a catalytic process for educational training, public awareness, values, behaviour and lifestyles required for a sustainable human and capital development (Badmus & Omosewo, 2018). The benefits of science education in Nigeria cannot be overemphasized and one major effect is in the area of Information and Communication Technology (ICT). Science helps humans gain increased understanding of how the world works, while technology helps scientists make these discoveries (Yoldere & Adamu, 2014). Despite all the benefits derived from science education, its development seems to be drowning due to several challenges in Nigeria. There is need for a total overhaul of the curriculum at all levels of education with a view to providing its recipients, broad based education in the development of the mind, soul and body; in comprehending the environment; in the development of appropriate attitudes, skills, abilities and competences to co-exist with and contribute to the development of the society. The forum futures (2007) opined that there is a need for synergy between science education, liberal education, vocational and entrepreneurship education to help coup the security challenges bedeviling societies. A liberal education is one that frees the minds of its recipients from their preconceptions. It broadens the possibilities for greater understanding of others in our nation and around the world

Institutions should try to train future workers to help State economies and to offer liberal education so as to produce informed citizens who can contribute to our democratic way of life. Every sovereign, independent state must train, sustain and nurture men and women to serve in its security and intelligence out fits. According to Esiemokhai (2005), in Europe and America, these men and women are selected from the best and the brightest citizens, who are endowed with keen and subtle intellect.

Recruitment into defense and military intelligence outfits need scrupulous assessment of the recruit's educational background, intellectual sharpness, smartness and patriotism. Odock (2006) stated that, graduates with the best grades should be deployed not those who got ranks by the federal character formula as is the case in Nigeria. It increases the potential for individuals to perform as citizens. There are many examples of the public being misinformed and making bad decisions. However, without education, the situation would be vastly worse. It gives one the ability to critically examine an issue and articulate a reasoned position about it. Nurturing critical thinking is a key component of education. The introduction of Vocational and Entrepreneurship programmes into the curriculum at the various levels of education in Nigeria is a welcome innovation that goes a long way to strengthening the popular liberal education (Forum Futures, 2007)). What is required by the government at various levels now are to adequately provide the needed human and material resources to make these programmes effective and functional. they further stated that, it is no longer news that liberal education alone has failed to equip recipients/youths with requisite skills and attitudes for leading a productive life. It is also no news that graduates of our institutions of higher learning have been populating the crime world due to their inability to secure meaningful employment upon graduation which can be reversed with the entrepreneurship and vocational programmes and the need to equip and finance their sustainability.

Conclusion

There is no doubt that the security situation in the country calls for extraordinary measures to combat it. It will need a transformation in the way we think and in the way we look at one another. Any nation that ignores it usefulness will be doom to stagnation and retrogression. Good governance fosters and defines the nature of security of a nation. For any nation to develop scientifically, there is need to educate its citizens to understand and appreciate science and apply its knowledge and technical know-how effectively and useful, in other to correct the deficits of governance. There is also need for government to provide science friendly environment in our schools, technical and vocational Centre, such as well-equipped laboratory. The importance of teachers training and retraining on the latest methods and technology cannot be left out, researches should be encouraged and well-funded. There is need for government to provide other functional structures such as judiciary, military, and parliament. When the functional structure is integrated with science, there will be further enhanced. There are unrests of various shades and hues in different states of Nigeria, borne out of equally diverse causative factors. The education option comes in handy for the desired transformation. It may take a long time and huge resources to achieve but the end is certainly going to justify the means. Nigerians should perceive the education most especially science education option as a new way to reduce the sophistication of crimes and violence that are threatening national integration and security. This paper has identified different national security challenges. All these threaten the very existence of the nation.

Recommendations

The following suggestions are considered for implementation by the government and associated stakeholders.

1. Science Educators should be sponsored to seminars, conferences, workshops amongst others. This will enhance effectiveness and Efficiency in the educational sector.
2. Science Education should be perceived as a global issue. This can be achieved by restructuring and reforming government policies, international co-operation and science education in our universities.
3. There is need to improve effectiveness of security operatives through training and retraining, and provision of modern equipment to enhance their performance.
4. To overcome the problem of insecurity in Nigeria, it is important that political actors and institutions embraced the principles of true democracy and allow open, free and fair competition.
5. The ongoing constitutional review should be taken seriously and it should stipulate life imprisonment for any corrupt officer whether in government or private establishment.
6. Government should encourage good governance, openness, accountability through the use of print and digital media, and inform the public through conferences, seminars, and non-governmental agencies.

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Impact of Supervision on Students' Academic Performance in Secondary Schools in Fagge Local Government Area of Kano State

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Abstract

Supervision, to the extent of its importance and functionality cannot be overemphasized as it is quite instrumental to the academic performance of students in secondary schools in Nigeria. Progressive studies by scholars and researchers over the years have shown that there has been enormous reduction in academic performance of many secondary school students in Nigeria. This situation has further worsened in the massive failure incurred by the students in national exams like NECO and WAEC. All these have been facilitated by poor supervision of teachers in the respective schools understudied. The study examined the impact of supervision on students' academic performance in public secondary schools in Fagge Local Government Area of Kaduna State, three research questions and three hypotheses guided the study. A descriptive survey research design was adopted for the study. The data collected was analyzed using frequency counts, percentages, and mean. The total population of 15, 814 comprising all the public secondary school principals; teachers and students in Fagge Local Government Area of Kano State was used for the study. These include 39 principals, 375 teachers and 15, 400 students. The instrument for data collection was a structured questionnaire titled "Impact of Supervision on Students Academic Performance Questionnaire (ISSAPQ)". The Krejcie and Cronbach Alpha Table of Specification was adopted to determine the sample size of the study. The paper recommended among others that the educational board should ensure that head teachers of public secondary schools are involved in supervision of teacher's activities in their various schools.

Key words: Academic performance, Clinical Supervision, administrative supervision, Follow-Up supervision.

Introduction

Since the last two decades academic performance of secondary schools across the States in Nigeria has not been encouraging. The standard of secondary school has falling. The present situation of supervision in schools as reported shows that there has not been a thorough supervision of schools in the recent past decades. The corrupt and critical nature of Nigeria's educational system is evident in students' declining academic

performance on national examinations such as the West Africa Examination Council (WAEC) and the National Examination Council (NECO) (Aja and Uzoma, 2021).

Education is seen as an instrument for achieving socioeconomic and technological growth and development of any nation. More so, education could be conceptualized as an exceptional tool for promoting human intelligence, technical competence, character, and effective citizenship for individual independence and successful national development in a country, whether developed, developing, or underdeveloped (Mucai, 2013, p. 12). The typical contemporary Nigerian society is one that has overtime presented an overture suggestion of the impact of supervision on students' academic performance. This is because over the years, students have badly obtained poor results in internal, national, and international exams. Some in most cases have been spotted to have passed the average, and others are nowhere to be found on the ladder of academic excellence. The continued existence and chances of the foregoing has made scholars as well as the generality of the Nigerian society to question the authenticity of schools as instrument for the building up of morals, inculcating the culture of academic excellence in the students, and sustaining the records of high academic standards in the country.

The education system is basically divided into three levels; Primary, Secondary and Tertiary. The Secondary school education is very important in Nigeria. It is the education children receive after primary education and before tertiary education. According to Federal Republic of Nigeria (2004), the broad goals of secondary education should be to prepare the individual for: useful living within the society and higher education. The concept of supervision in education is aimed at the achievement of instructional objectives for both the teacher and the students. It involves the working co-operation between the supervisors and the teachers for the improvement of instructional strategies. So, supervision should be designed to improve and increase teachers' capabilities, upgrade their knowledge and skills, provide support to teachers, improve their perception of teaching and learning. The academic performance of students is largely dependent on the quality and efficiency of the supervision that takes place in the school. This is because the impact of supervision as it exists in this study goes a long way to bringing improvement to the academic performance of students, which has been a major issue in public secondary schools in Fagge Local Government of Kano State, since 2017.

In Kano State, the total number of both female and male that registered for WAEC rounded off to about 49,829 and the total number that passed the examination, while maintaining five credits and above including Mathematics and English Languages in 2016, rounded off to about 38,766 (National Bureau of Statistics, 2019). Following the results, about 18,399 was spotted to have passed the exams, while the others performed badly in the exams (NBS, 2019). In 2017, about 1,481 sat for WAEC exams. In the end of the examination year, about 500 students were assumed to have passed the examination. In 2018, a total number of 38,766students participated in the WAEC, about 17, 875 students were stated to have passed the exams. A cursory look into the trajectory and trends of WAEC successes and failures over the years as presented above, one could rightly say that Poor academic performance of students in secondary schools

can be officially attributed to lack of effective supervision by teachers among others. All the result was aggregated from all the 36 State of the Federation (National Bureau of Statistics, 2019). The different types of supervision employed for this study among others are explained below.

Clinical Supervision

According to Veloo and Khalid (2013), Clinical Supervision is a technique for teachers to enhance their instructional abilities, which will subsequently help students in learning and personal development. Under the circumstances requiring educational changes, clinical supervision aims to enhance the performance of staff members who provide teaching and learning to students in the 21st century while preserving the most illustrious traditional values of traditional supervision, such as wisdom, decentralization, and cooperative problem solving.

Administrative Supervision

The Federal Republic of Nigeria, in its National Policy on Education (2013), makes it clear that one of the primary goals of administrative supervision in the field of education is to provide quality control through routine assessment and ongoing oversight of instruction and other educational services. According to Ekyaw (2014), administrative supervision is basically understood as a branch of administration that was created or categorised expressly for the accomplishment of particular educational goals and objectives.

Follow-up Supervision

Follow-Up is one of the types of supervision strategies, which investigates whether the suggestions, corrections and recommendations made during the previous visit have been carried out by affected personnel or schools. The visit is to ascertain to what extent the corrections and suggestions provided have helped in achieving the educational objectives of the school in question (Nwachukwu Ajuru, 2014). Triggered by the above, scholars have been trying to carefully examine the none-relinquishing factors that have further facilitated and engendered mass failure of students in public examinations in secondary schools in Nigeria, namely, Fagge Local Government Area of Kano State. It is against this back drop that this study evaluated the key concepts and phenomenon of Clinical supervision, administrative supervision, and Follow-up supervision to be able to proffer world class based and sustainable solution to the problem of poor academic performance of the students in secondary schools in Fagge Local Government Area of Kano State.

Statement of the Problem

In Kano State, the total number of both female and male students that registered for WAEC in 2016 were around 49,829 and the total number that passed the examination from five credits and above including Mathematics and English Languages in 2016 were about 38,766. In 2017, about 1,481 sat for WAEC exams, while 500 students were assumed to have passed the examination again. In 2018, a total number

of 38,766 students participated in the WAEC, about 17, 875 students passed the exams which was not good enough.

Looking at the above performance it appears that the commitment of the Nigerian government as well as the government of Kano State to ensure improved academic performance of students in secondary school in Nigeria, has not yielded enough positive results. This is because the government has done their best to introduce conferences, conventions, and series of teacher training programs. In spite of all these efforts by all stakeholders, it is still unfortunate that the academic performance of students in both WACE and NECO is not improving especially in Fegga Local Government of Kano State. It is against this backdrop that the researchers desire to bring solution to this problem by investigating the impact of supervision on students' academic performance in secondary schools, in Fagge LGA of Kano State Nigeria.

Purpose of the Study

The main purpose of the study is to investigate the impact of supervision on students' academic performance in secondary schools in Fagge LGA of Kano State. Specifically, the objective of the study is to:

i.   Investigate the impact of clinical supervision on academic performance of students in secondary schools in Fagge Local Government Area of Kano State.
ii.   Ascertain the impact of follow-up supervision on academic performance of students in secondary schools in Fagge Local Government Area of Kano State.
iii.   Examine the impact of administrative supervision on academic performance of students in secondary schools in Fagge Local Government Area of Kano State.

Research Questions

The following research questions guided the study:

i.   What is the impact of Clinical supervision on academic performance of students in secondary schools in Fagge Local Government Area of Kano State?
ii.   What is the impact of follow-up supervision on academic performance of students in secondary schools in Fagge Local Government Area of Kano State?
iii.   What is the impact of administrative supervision on academic performance of students in secondary schools in Fagge Local Government Area of Kano State?

Hypotheses

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

H01: Clinical Supervision does not have any significant impact on academic performance of students in secondary schools in Fagge Local Government Area of Kano State.
H02: Follow-up Supervision has no significant impact on the academic performance of students in secondary schools in Fagge Local Government Area of Kano State.
H03: Administrative Supervision has no significant impact on academic performance of students in secondary schools in Fagge Local Government Area of Kano State.

Research Methodology

The study adopted a descriptive survey research design. This method was most preferred because of its ability to offer an honest means of eliciting needed information from respondents. The population comprised 15,814 which was made up of 15,400 students, 375 teachers and 39 principals respectively, that are in senior secondary schools in Fagge Local Government Area of Kano State.

The sample size of the study was 196. This comprised of 10 principals, 100 teachers and 86 students in senior secondary schools in Fagge Local Government Area of Kano State. The sample was selected from 39 senior secondary schools using simple random sampling technique through balloting method. The instrument for data collection is a self-constructed questionnaire. The instrument was titled: Impact of Supervision on Students' Academic Performance Questionnaire (ISSAPQ). Test re-test reliability was done to ensure the consistency of the instrument. The collected data were analysed using frequency counts, percentages and mean to answer the research questions while t-test was used to test the research hypotheses at 0.05 level of significance.

Data Presentation, Analysis and Findings
Research Question 1:

What is the impact of clinical supervision on academic performance of students in secondary schools in Fagge Local Government Area of Kano State?

Table 1: Mean analysis showing impact of clinical supervision on academic performance of students in senior secondary schools as perceived by Principals

S/N	Impact of Clinical Supervision on Students' Academic Performance	Principals' Level of Agreement				$\bar{X}$	STD	Decision
		SA	A	D	SD			
1	Clinical supervision can improve instruction by direct feedback to a teacher on aspect of his/her teaching	3	4	2	1	2.90	0.99	Agreed
2	The good relationship which clinical supervision offers between the teacher and the supervisor sharpens the programme, and improve students' learning	1	2	3	4	2.00	1.05	Disagreed
3	Clinical supervision gives room for the two persons concerned to find a special way of improving teaching and learning	4	2	2	2	2.80	1.23	Agreed
4	Clinical supervision tends to allays created by supervision in the teachers.	4	3	2	1	3.00	1.05	Agreed
5	Clinical supervision brings more ideas to the teachers and the students	4	4	1	1	3.10	0.99	Agreed
6	Clinical supervision permits openness to teaching and learning in the classrooms	3	4	2	1	2.90	0.99	Agreed

S/N		SA	A	D	SD	$\bar{X}$	STD	Decision
7	Through clinical supervision, the supervisor and teachers get more understanding of methods of teaching needed in class	3	4	2	1	2.90	0.99	Agreed
8	Clinical supervision helps the school system to reduce failures in academic performance of the school students	3	3	3	1	2.80	1.03	Agreed
	Sectional Mean					**2.80**	**1.04**	**Agreed**

Scale Mean 2.50, n=9

Table 1examined the impact of clinical supervision on academic performance of students in secondary schools in Fagge Local Government Area of Kano State as perceived by Principals. From Table 1, it could be observed that the mean values of 2.90, 2.80, 3.00, 3.10, 2.90, 2.90 and 2.80 were in agreement with items 1, 3, 4, 5, 6, 7 and 8 respectively while the mean value of 2.00 was in disagreement with item 2. The sectional mean of 2.80 was greater than the scale mean of 2.50 which indicated that some of the respondents agreed that clinical supervision can improve instruction by direct feedback to a teacher on aspect of his/her teaching. It could also be deduced from the analysis that clinical supervision gives room for the two persons concerned (teacher and students) to find a special way of improving teaching and learning. More so, clinical supervision removes the fear which that supervision instils in the teachers, Clinical supervision brings more ideas to the teachers and the students, permits openness to teaching and learning in the classrooms. Through clinical supervision, the supervisor and teachers get more understanding of methods of teaching needed in class and clinical supervision helps the school system to reduce failures in academic performance of the school students while the remaining respondents disagreed with the good relationship which clinical supervision offers between the teacher and the supervisor sharpens the programme, and improve students' learning.

Research Question 2:
What is the impact of administrative supervision on academic performance of students in secondary schools in Fagge Local Government Area of Kano State?

Table 2: Mean analysis showing impact of administrative supervision on academic performance of students in senior secondary schools as perceived by Principals

S/N	Impact of Administrative Supervision on Students' Academic Performance	Principals' Level of Agreement				$\bar{X}$	STD	Decision
		SA	A	D	SD			
9	The ministry of education should ensure that they employ adequate number of supervisors to carry out supervision activities on public secondary schools	4	3	2	1	3.00	1.05	Agreed
10	The educational board should ensure that head teachers of public secondary schools are involved in supervision of teacher's activities in their various schools	3	3	3	1	2.80	1.03	Agreed

11	Giving volunteers the opportunity to evaluate the performance of the teachers in the classroom can improve the performance of students in public secondary schools	1	2	3	4	2.00	1.05	Disagreed
12	Enhancing the professional growth of the teachers in public school help the performance of the students to improve	4	3	2	1	3.00	1.05	Agreed
13	The principal of the schools should supervise the teachers periodically	3	4	2	1	2.90	0.99	Agreed
14	The ministry of education should give priority to the professional academic qualifications of the prospective teachers	3	3	3	1	2.80	1.03	Agreed
	Sectional Mean					**2.75**	**1.03**	**Agreed**

Scale Mean 2.50

The above table reveals the impact of administrative supervision on academic performance of students in secondary schools in Fagge Local Government Area of Kano State as perceived by Principals. From Table 2, it could be observed that the mean values of 3.00, 2.80, 3.00, 2.90 and 2.80 were in agreement with items 9, 10, 12, 13 and 14 respectively while the mean value of 2.00 was in disagreement with item 11. The sectional mean of 2.75 was greater than the scale mean of 2.50 which indicated that some of the respondents agreed that the ministry of education should ensure that they employ adequate number of supervisors to carry out supervision activities on public secondary schools. The education board should ensure that head teachers of public secondary schools are involved in supervision of teacher's activities in their various schools, enhancing the professional growth of the teachers in public school help the performance of the students to improve, the principal of the schools should supervise the teachers periodically and the ministry of education should give priority to the professional academic qualifications of the prospective teachers while the remaining respondents disagreed with giving volunteers the opportunity to evaluate the performance of the teachers in the classroom can improve the performance of students in public secondary schools.

Research Question 3: What is the impact of follow-up supervision on academic performance of students in secondary schools in Fagge Local Government Area of Kano State?

Table 3: Mean analysis showing impact of follow-up supervision on academic performance of students in senior secondary schools as perceived by Principals

S/N	Impact of Follow-up Supervision on Students' Academic Performance	Principals' Level of Agreement				$\bar{X}$	STD	Decision
		SA	A	D	SD			
15	Lack of supervision activities in schools is a problem influencing follow-up supervision in public secondary schools	1	2	3	4	2.00	1.05	Disagreed

16	Record keeping in public secondary schools by school management makes follow-up supervision very difficult and affects the performance of students in the public schools	1	2	4	3	2.10	0.99	Disagreed
17	Lack of funds from the Ministers of Education to empower and mobilize staff for follow-up supervision is a major problem in the performance of students	4	3	2	1	3.00	1.05	Agreed
18	A school manager's inability to supervise and follow-up brings relaxed attitude to work toward the student's academic performance	4	3	2	1	3.00	1.05	Agreed
19	Lack of proper follow-up on teachers/instructors can affect students' academic performance in public schools	3	4	2	1	2.90	0.99	Agreed
20	A principal's inability to take decisions in supervision can create laxity in students' academic performance	4	4	1	1	3.10	0.99	Agreed
	Sectional Mean					**2.68**	**1.02**	**Agreed**

Scale Mean 2.50

The above table evaluated the impact of follow-up supervision on academic performance of students in secondary schools in Fagge Local Government Area of Kano State as perceived by Principals. From Table 3, it could be observed that the mean values of 3.00, 3.00, 2.90 and 3.10 were in agreement with items 17, 18, 19 and 20 respectively while the mean values of 2.00 and 2.10 were in disagreement with items 15 and 16 respectively. The sectional mean of 2.68 was greater than the scale mean of 2.50 which indicated that some of the respondents agreed that lack of funds from the Ministries of Education to empower and mobilize staff for follow-up supervision is a major problem in the performance of students. It was also discovered that a school manager's inability to supervise and follow-up educational projects, the tendency of supervisors to manifest a none-concerned attitude to work could impinge on students' academic performance. More so, the study found out that the lack of proper follow-up on teachers/instructors can affect students' academic performance in public schools and lack of proper follow-up on teachers/instructors can affect students' academic performance in public schools while the remaining respondents disagreed with lack of supervision activities in schools is a problem influencing follow-up supervision in public secondary schools and record keeping in public secondary schools by school management makes follow-up supervision very difficult and affects the performance of students in the public schools.

Major Findings of the Study

Having examined the responses as provided by the respondents, it is clear that clinical supervision can improve instruction by direct feedback to a teacher on the aspect of his teaching, clinical supervision gives room for the two persons concerned to find a special way of improving teaching and learning. Clinical supervision removes the fear

which that supervision instils in the teachers, clinical supervision brings more ideas to the teachers and the students, clinical supervision permits openness to teaching and learning in the classrooms, through clinical supervision, the supervisor and teachers get more understanding of methods of teaching needed in class and clinical supervision helps the school system to reduce failures in academic performance of the school students while the remaining respondents disagreed with the good relationship which clinical supervision offers between the teacher and the supervisor sharpens the programme, and improve students' learning.

These findings support the studies of Veloo et al. (2013) also posited that clinical supervision helps teachers to improve teaching learning to be more effective to enhance students understanding. They further stated that clinical supervision can also be used as guidance for teaching and learning improvement by school inspectorates. Supporting this view, Fuller, Parsons, and Watkins (1994) also opined that Clinical supervision is a process by which a teacher receives individualized support to enhance their instruction in order to improve education for all students.

In research question two, that sought to find out impact of administrative supervision on academic performance of students in secondary schools in Fagge Local Government Area of Kano State. The study revealed that the Ministry of Education should ensure that they employ adequate number of supervisors to carry out supervision activities on public secondary schools, the educational board should ensure that head teachers of public secondary schools are involved in supervision of teacher's activities in their various schools, enhancing the professional growth of the teachers in public school help the performance of the students to improve, the principal of the schools should supervise the teachers periodically and the ministry of education should give priority to the professional academic qualifications of the prospective teachers while the remaining respondents disagreed with giving volunteers the opportunity to evaluate the performance of the teachers in the classroom can improve the performance of students in public secondary schools. This research work agreed with what Ekyaw (2014) viewed, that administrative supervision has therefore become a critical variable for the examination and evaluation of school programmes for desirable results. Hence, it utilizes a wide array of strategies, methodologies, and approaches aimed at improving instruction and promoting educational leadership as well as change in modern curriculum demands and needs.

Research question three, indicated that lack of funds from the Ministry of Education to empower and mobilize staff for follow-up supervision is a major problem in the performance of students, a school manager's inability to supervise and follow-up brings relaxed attitude to work toward the student's academic performance, lack of proper follow-up on teachers/instructors can affect students' academic performance in public schools and lack of proper follow-up on teachers/instructors can affect students' academic performance in public schools while the remaining respondents disagreed with lack of supervision activities in schools is a problem influencing follow-up supervision in public secondary schools and record keeping in public secondary schools by school management makes follow-up supervision very difficult and affects the performance of students in the public schools.

Conclusion

Supervision should be given its rightful place in national development plans and the school development plans as well. It is high time that government, managers, policymakers, school board and the Nigerian society were enlightened on the benefits of clinical supervision, administrative supervision and follow-up supervision which will actualize the goals, aims, vision and objective of the school's system of the present government and future. These benefits may not be achievable if educational supervision is directed poorly. Effective supervision must be accorded priority attention so as to enhance quality assurance in the academic performance of students in Fagge Local Government Area of Kano State. When this is achieved, a more responsive performance of students would be established, so as to meet the ever-growing demands of Nigerians towards having a good result of students in both WAEC and NECO in secondary School in Kano State.

Recommendations

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

1. Government should organize training programmes for teachers as well as school administrators with greater emphasis on the need for supervision of instruction in the school system.
2. Necessary equipment and materials should be given to the instructional supervisors to enable them perform their functions effectively.
3. Supervisors should be engaged in regular training to update their knowledge and skills and provide them with useful information that will keep them abreast of the current trends in the educational system.

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Home - School Synergy: A Dialectical and Symbolic Milestone for Socialization Process of The Child

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Abstract

*B*uilding strong synergy between home-school is a veritable tool at improving effective learning outcomes. Home versus school synergy is required owing to the complexity of the society and the anticipatory needs of the child as he/she internalizes with the wider world. This paper examined conceptual clarification of home and school, x-rayed the rationale for family–school partnership and highlighted the principles that underpin effective Home-School Partnerships. Dimensions of Family-School Partnerships, feature of successful home–school partnerships, role of the school as a centre of community services, role of the school as a community centre, and ways of making the school as centre of community service were further explained. Suggested Strategies for effective Home - School in developing symbolic Synergy were further addressed.

Key words: Home-school, Synergy, Symbolic Milestone, Socialisation, Child

Introduction

The school and community are among the major variables that are reflected in the society. The institution of education aims at shaping the conduct of the people of a particular community by injecting in them norms and values of the society through systematic approach of teaching and learning in school. The school system is a vital institution of preparing the mind of the younger generations to face the challenges of the society. The school as a social institution is regarded as a center of knowledge and it possess the power to mould and shape the character of individuals in the society. It is a custodian of culture and knowledge of the people of the society. In the school, students or pupils are being cared for and it remains a Centre for appropriate selection of

individuals into the available institutions in the society. The teachers and instructors take the place of parents who are charged with the responsibility of shaping the child's mind, thinking and character formation. One of the aims of establishing school is to transmit the cultural values and heritage of the society from one generation to another.

The school is a formal organization which carries all forms of bureaucratization. It is a functional system with an aim of educating people about certain designed and acceptable values of the society. With this, school carries every chance of employing staff and organizing a chain of authority for proper coordination. It is a learning environment which is strongly associated to the ethical values of the society. This shows that school is a mirror of the society. The educational institution remains the school and the social agency of the society among many others. The school is a centre of building the youth of the society, in terms of moral, thinking and the ability to face challenges of the adult life and more especially the modern world of globalization (Mahuta, 2007).

The concept of community has been viewed and understood differently by different people at different times. The term community can be used to describe boundaries, location of a certain people, and social organization of people. It is also a group of people who share the same ideas, feelings and heritage. In addition, the concept of community means an organized structure in which there are laws that bind or hold and guide its members, for example, the school community. In a community set-up there are different individuals with different mental capacities and capabilities. It provides an avenue for interaction, continuity and change. Thus, these factors lead to the creation of an ideal community. Community can also be regarded as a group of people living together in a geographical setting, having a common bond, one ideology, similar religious beliefs, belonging to the same nationality, having similar characteristics and equally having common socio-economic problems that are to be solved together and mutually with a sense of cohesion and consensus. This association is an important component that deserves greater attention

In a bid to showcase the dialectical relationship that exists between the home–school synergy, it becomes pertinent paves way for the underlining diagram;

Learners Performance
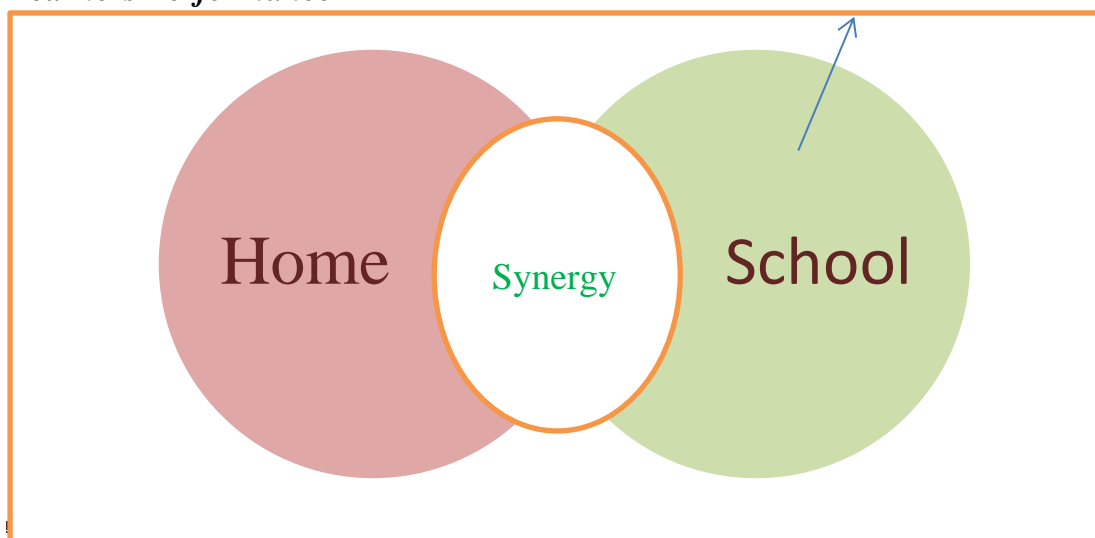
Learners performance = behavioural and academic

The above diagram depicts a symbolic and dialectical relationship that exists within and between the school and the society. It represents a sine qua non. The school exists within the society while the school gives back to the society. The mode of operandi of the school is concomitant to the societal norm, values, aspirations and yearnings. The accomplished results in terms of discoveries and innovations made by the school go a long way in adding sustainable values to the society. Inhabitants in the society learn one vocational skills, occupation, aptitude and career making them proficient academically resulting to self-reliance. The school helps shape the behavior of its recipients making them acceptable and good ambassadors within the society or community where they live. School and Home synergy are collective relationships, activities, deliberates efforts and communications between the school and the home. This involves the school staff, parents, guardians and other family members of students at a school. Effective synergy can be best achieved between the school and the home through mutual trust and respect, shared responsibility for the education of the children at the school.

Home-school synergy is important because families are the first educators of their children and they continue to influence their children's learning and development during the school years and long afterwards. Schools have an important responsibility in helping to nurture and teach future generations and families trust schools to provide educational foundations for their children's future. At the same time, schools need to recognize the primary role of the family in education. This is why it is important for home-schools to work together in partnership. Research have proven that effective schools have high levels of parental and community involvement. This involvement is strongly related to improved student learning, attendance, assignment completion, completion of education and relationship with other learners. Home can have a major impact on student learning, regardless of the social or cultural nature of the family. However, developing home-school synergy may not always be easy. It requires commitment and time. Because of pressures and circumstances, many families will need special arrangements, or extra support, to enable them to become actively involved in their children's school lives, and to help their children get the most from school. The results of this effort will be significant. Families that understand the education system and the difficulties schools face are a valuable source of support which schools cannot afford to underestimate. Schools that engage families in their children's learning are tapping in to a rich source of information and expertise and can help build communities.

Dimensional Requirements of Successful Family-School Partnerships

The Home-School synergy Framework identifies seven dimensions as guidelines for planning partnership activities between the home and the school as opined by Suzanne (2013). These seven dimensions are:

   A. Communicating

This key dimension emphasizes that effective communication is active, personal, frequent and culturally appropriate; is where schools go out of their way to make families feel welcome and valued; it is a two-way exchange between families and

schools; involves not only an exchange of information but also an opportunity for schools and families to learn about each other and makes clear that families are genuine partners and can help solve big problems

Home-school communication needs to be taken seriously and must be valued, recognized, and rewarded by schools and education systems. It is essential to provide teachers and school leaders with education and training programs to prepare them to communicate effectively with families in an approachable manner. It is equally important to empower and encourage families to communicate effectively with schools.

B. **Connecting Learning at Home and at School**

This key dimension emphasizes understanding by families and schools of the overlap between the home and school environments; the connection between successful partnerships and the child's learning, including the importance of high expectations from both teachers and parents to the child's success at school; families and schools working together to create positive attitudes to learning in each child; ensuring families are informed about and understand their child's progress; families and schools valuing and using the skills and knowledge children bring both from the home to the school and from the school to the home; families and schools recognizing and using learning opportunities in the home environment; parents working with teachers in the educational decision-making process for their individual child; and schools becoming a venue and agent for parental self-growth, learning and the development of new skills.

C. **Building Community and Identity**

This key dimension emphasizes activities that improve the quality of life in a community while honoring the culture, traditions, values and relationships in that community. By including activities that shape students' sense of identity and culture, schools can build a sense of community in each student. The work of schools includes aspects of the social, emotional, moral and spiritual development of young people. Thus schools have a role to play in promoting both personal growth and cultural renewal. Schools can act as a focal point for communities to come together and engage in capacity-building.

D. **Recognizing the Role of the Family**

This key dimension emphasizes that as primary educators of their children, parents and families have a lasting influence on their children's attitudes and achievements at school. They can encourage their children's learning in and out of school and are also in a position to support school goals, directions and ethos. Parents look to schools to provide secure and caring environments for their children.

Families and schools can reach mutual understanding of each other's roles and priorities in partnerships by: exploring the nature of parent and family's role in the education of children to develop mutual understanding; offering strategies for family support and encouragement of children's learning at school; organizing workshops/discussions/meetings and demonstrations around areas such as literacy and numeracy, home and classroom work, raising resilience and confidence in young people, transitions and careers and so on, depending on local needs and priorities; ensuring families understand school goals, curriculum and the social objectives of schooling; ensuring schools understand family, parent and community priorities;

ensuring schools are sensitive to parents' sensibilities; ensuring schools are realistic, patient and brave; establishing an environment where schools show leadership which is visible and available; helping schools become a place that parents can call their own including creating real roles for parents who come into the school; building relationships; and developing skills, such as communication, collaboration and conflict management.

E. Consultative Decision-Making

This key dimension emphasizes that parents are entitled to be consulted and participate in decisions concerning their own children. Parents can play meaningful roles in the school decision-making processes. Training and information to make the most of those opportunities can be provided as part of the partnership activities. An inclusive approach to school decision-making and parental involvement creates a sense of shared responsibility among parents, community members, teachers and school leaders. In turn, shared responsibility: ensures that parents' values and interests are heard and respected; makes the school more accountable to its community; ensures that the values and opinions of families are sought outside the formal school structures; and ensures that contact with Indigenous parents from within the community is sought to ensure their engagement in school decision making.

F. Collaborating Beyond the School

This key dimension emphasizes identifying, locating and integrating community resources. The wider community provides services which can strengthen and support schools, students and their families. Schools, families and students can assist the community in return. Schools are increasingly collaborating with partners such as: local businesses; after-school care providers; higher education; foundations; and other community-based agencies.

G. Participating

This key dimension emphasizes that families' time, energy and expertise can support learning and school programs in many ways. This may involve family members: working with students on learning activities in classrooms; participating in other school activities outside the classroom; or participating in activities outside the school itself; and supporting and valuing teachers. Families participate in the school in a wide variety of ways and all contributions are valuable. Participation may involve families having the opportunity to do something that interests them and including activities that are not directly education-related.

Dialectical and Symbolic Features of Building a Successful Home–School Partnership

The following are the main feature of successful home-school partnership identified by Bull Brooking and Campbell, (2008).

A. Relationships in home–school partnerships are collaborative and mutually respectful

The case studies all showed that establishing positive relationships was an essential first step in establishing successful home–school partnerships. Many teachers interviewed felt that their attitudes towards parents were really critical in the

establishment of successful home–school partnerships. This was supported by our interviews with parents in schools with successful home–school partnerships, who said that they felt valued by the school, and that the positive attitudes of the principal and teachers encouraged them to get involved in school activities and their children's education.

B. Successful home–school partnerships are multi-dimensional and responsive to community needs

Like the successful home-school partnerships identified in the research literature, most of our case study schools had a range of different strategies in place to facilitate engagement with parents. A number of schools in this project had adapted and modified the original Ministry of Education home–school partnership model in response to the needs of their communities. By listening to feedback from parents, schools were able to provide activities (and adapt them as necessary) to more closely meet the needs of the parent community. We found that it is important that parents have input in determining what sorts of activities they want to be involved in, and that their feedback about the effectiveness of these initiatives is listened to. For example, in one particularly successful partnership, the parents themselves determined that the focus of the home-school partnership should move from the school giving them general information about teaching strategies, to a focus on the learning of their individual children. At the parents' request the school provided assessment data about student achievement and then, in response to feedback, experimented with ways of presenting data that were more meaningful for parents.

C. Successful home–school partnerships are embedded in school development plans; they are well-resourced; and they are reviewed regularly

Neither of these schools could operate without home–school partnerships. In each of these school there was a "seamlessness" between home and school, and a large area of overlap in responsibility for the education of the child between the school and the home. In "mainstream" schools with successful home–school partnerships, these partnerships were also embedded in the school's planning, and there was a whole school commitment to working in that particular way.

D. Successful home–school partnerships are goal oriented and focused on learning:

Although building relationships is an important initial step in establishing home–school partnerships, if the purpose of the partnership is to lift achievement, it is important that once the relationship is established there is a shift to a more task-oriented approach. In the case study where there was the strongest emphasis on learning, teachers and parents were developing a "shared language of learning" that enabled them to talk about achievement, progress and assessment, and both partners were clear about their roles in supporting learning. At this school, "learning messages" were consistent between home and school, parents had the opportunity to talk and think about how their own education was different from that of their children, and there was an emphasis on teachers learning from parents as well as parents learning from teachers.

E. Effective parental engagement happens largely at home:

Many of the case study schools had strategies in place to help parents support their children's learning at home. These included "study hints" in the school newsletter, the provision of specific questions for parents to ask children about their learning, interactive homework requiring input from the family, and sharing learning goals with families so they can reinforce their children's out-of-school learning.

F. There is timely two-way communication between school and parents in successful home–school partnerships:

The parents we interviewed in the empirical research component of this project were clear that if they are to be able to support their children's learning, they need to have good communication with the school, accurate information about their children's progress and information about school proprammes in general. It seems there are some current practices such as homework and parent–teacher interviews that could, with slight modifications, give the parents this information while at the same time allowing teachers to draw on the expert knowledge parents have about their own children. Where home–school partnerships seemed to be working well, teachers were aware of the extent to which they could learn from parents and there was genuine two-way communication.

G. Building successful home–school partnerships takes time and commitment:

In several of our case studies, principals reported that involving parents in the education of their children became easier as time went on. If early strategies for enhancing parental engagement were seen by parents as worthwhile, parents were more likely to take a more active role in subsequent initiatives. In many schools with successful home–school partnerships, the principal was identified by teachers, parents, and sometimes students, as a key player in the development of the partnerships. The commitment of staff was also critical to the success of home–school partnerships though, and some principals were specifically recruiting staff with a commitment to the idea.

Role of the School as a Centre of Community Services

Mahuta (2007) in Abdulwahab (2010) retreated that, the school is not an island of itself but it is part of the community. Therefore, the aims and objectives of the school and what it teaches are the making of the community. The community therefore, determines the aims and objectives of the school in the verge that:

- The curriculum is designed based on the socio-cultural variables of the community.
- The socialization which the school provides is the socialization of the customs of the community.
- The school is a community centre for the teaching of the norms of the society from one generation to another.
- Durkheim (1959) in Meighan and Blatchford (2004) is of the view that "the man who education should realize in us, is not the man such as nature has made him, but as society wishes him to be. It is society that draws for us the portrait of the kind of man we should be, and in this portrait all the peculiarities of its organizations comes to be reflected"

- The school curriculum originates from the community and that is enormous as the school is to serve both the students and the community. This shows that the school contents should reflect the needs and conditions of the community. This therefore means that in the teaching and learning situation, it is the community that dictates what factors need to be in the school teaching content and the school experts are expected to use the community as a consultant.
- The school utilizes the community resources for teaching and learning purposes and this is with a view to enhance or improve the process of teaching and learning.
- The community has strong dependence on school experts for rendering social services to the people by means of behavioral changes and modifications, establishing good relationship, producing and reproducing expected manpower for the well-being of the people and the community at large.
- The school is also expected to produce for the community sound and well-behaved and mannered students that are resourceful and useful to the society.
- The school attaches significant importance to the members of the community. This can be seen in the way the community is expected to participate in the activities of the school, such as contributing money for the development of the school, moral contributions and showing interest in the activities that are taking place in the school.
- The school is equally relevant to the development of the community. This is by disseminating community messages in schools and by actualizing the dreams of the community in the development of the youths. The school can as well be an agent for the mobilization and sensitization of the people of the community about various issues such HIV/AIDs, Tuberculosis, and immunization.
- The school life should be closely related to the life of the community so that the students could be trained to be able to handle the problems and challenges which they will meet in later life. Aggarwal (2005) argues that no school in the countryside can capture the loyalty or the realities of their life and their main interests and preoccupations.

Symbolic Role of the School as a Community Centre

The relationship between school and the community has been recognized as a strong tie for the smooth running of the school in the society.

- The school is a community learning centre, a place that serves a custodian of the traditional values of the society.
- The school should endeavor to establish social organizations and allow members of the community to actively participate in improving and sponsoring the organizations in the school.
- The school should allow for the existence of social clubs that are attractive and creative to the students, parents, and community members.
- Members of the community should actively be involved in one educational programme or the other.

- Adult literacy classes should be allowed to take place in the school community. This will help more people to acquire literacy and numeracy so as to be able to face the challenges of the modern times.
- The school remains a place where the members of the community consult for issues and problems to be solved or addressed.

Ways of Making the School as Centre of Community Service

In trying to make schools to be centers of community service, the following ways can be adopted as opined by Mahuta (2007) in Abdulwahab (2021);

- The school environment should be made available for adults and the students for events and other societal activities, programmes and events.
- Schools can organize to visit places in the community, such as religious institutions, health service centers and the public markets with a view to learning more about the community and its needs and aspirations.
- Membership of certain clubs and organizations of the school can render social services to be community voluntarily. This will significantly improve the relationship between the school and the community.
- The community is to take active participation in the school activities by providing full moral and financial assistance to the school in the community. Investing in education remains one of the investments in society.
- The school should actively be involved in community development services by rendering social services to the people in the community; this would make school more relevant, meaningful and focused.
- The aim and focus of school should be well known to members of the community for active participation. This means that the community should be well informed about the aims and the activities to the school so as to enable it participate when there is need to do so.
- Both the school and the community should be a place where learning can take place in many ways; this could be through excursion, classroom activities and lots more.
- In view of the strong relationship of school and community, most examples of the school are within the framework of the community as the curriculum is a reflection of the culture of the larger society. In addition, to the school being a replica of the society

However, developing home-school synergy may not always be easy. It requires commitment and time. Because of pressures and circumstances, many families will need special arrangements, or extra support, to enable them to become actively involved in their children's school lives, and to help their children get the most from school. The results of this effort will be significant. Families that understand the education system and the difficulties schools face are a valuable source of support which schools cannot afford to underestimate. Schools that engage families in their children's learning are tapping in to a rich source of information and expertise and can help build communities.

Conclusion

Family-school partnerships are collaborative relationships and activities involving school staff, parents and other family members of students in the school. Effective partnerships are based on mutual trust and respect, and shared responsibility for the education of the children and young people at the school. The family is the first agent of socialization where the child learns the first words. It is the first contact where values are cleared, cultivated and planted. Therefore, charity and literacy start from home and that the type, nature and variety of training nurtured unto the child determine his wholesome life. The school being the second agent of socialization is an organized formal centre where the planted values nurtured to a child from home are watered, fertilized and harvested under the proficiency of professional teachers who are skilful and competent in nature. It is the school that x-rayed the initial value cultivated unto a child which therefore determines his/her occupational tracts in life and further assists the child to cope in this globalized world.

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Factors Inhibiting Mobilization of Multimedia Projectors in Teaching and Learning in Public Secondary Schools in Nnewi Education Zone: Possible Strategies for Improvement

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Abstract

This study investigated some of the factors inhibiting mobilization of multimedia projectors in teaching and learning in public secondary schools in Nnewi Education Zone. Five research questions guided the study. A descriptive survey research design was adopted in the study. Population for the study comprised29principals and 804 teachers from the29public secondary schools in Nnewi education zone. Sample size for the study consisted of 417 participants which comprised 15 principals and 402 teachers from 15 public secondary schools in Nnewi education zone drawn at 50% using the proportionate random sampling technique. 40-item researchers-developed questionnaire titled: "Factors Inhibiting Mobilization of Multimedia Projectors Questionnaire (FIMMPQ)" and structured on a 4-point scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD). Construction of the research instrument was guided by the purpose of the study and research questions. The questionnaire was face validated by three experts from Tansian University, Umunya, Oba Campus, Anambra State. Reliability of the questionnaire was established through a pilot-test and after the test, the Cronbach Alpha statistics was used to collate data which gave internal consistency reliability (r) values of 0.77, 0.83, 0.78, 0.85 and 0.81, which were added up to give an overall internal consistency value of 0.81, showcasing that the research instrument was reliable and trustworthy in order to collect the necessary data for the study. Method of data collection was through direct and personal contact with the respondents. Data were analyzed using mean statistics rated at 2.50 and standard deviation statistics. Findings of the study revealed among others, the teacher-related factors, student-related factors, school administrator-related factors and technology-related factors inhibiting mobilization of multimedia projectors in teaching and learning in the public secondary schools in Nnewi Education Zone. Based on the findings of the study, recommendations were made and among them include that the teacher-related factors inhibiting the mobilization of multimedia projectors in teaching and learning in the public secondary schools in Nnewi education zone should be resolved by the government through the Post Primary Schools Service Commission (PPSSC) and principals by encouraging teachers to develop interest and adopt positive attitude towards the use of different technologies in the classroom.

Keywords: Factors, Inhibiting, Mobilization, Multimedia, Projectors, Teaching-Learning, Possible, Strategies, Improvement

Introduction

The multimedia projectors which are also one of the computer electronic devices have continued to play important and significant role in education sector in the areas of promoting effective teaching and learning in schools especially secondary schools including those in Nnewi education zone. The multimedia projector as described by White (2022) is a compact, high resolution, full-color projector capable of projecting text, images, video and audio content. Typically, the projector will feature inputs for a computer, DVD player, VCR, CD player and any other storage device. The images transmitted from the device are then transmitted into a special digitized light that is reflected on thousands of mirrors within the projector, which shines the image onto a screen. Using a multimedia projector, the teacher can show a DVD, video, slide show or television programme on a large screen with colour and sound. Besides, a projector, by definition, is a machine that uses light to create an image on a surface – normally a flat surface like a movie screen or a wall (Davies, 2022). Multimedia projectors are also referred to as data projectors, digital projectors and data/video projectors. These names can apply to both portable and ceiling-mounted units provided that they can project computer output.

Multimedia projectors allow for presentations that can be used for work functions, classroom instruction or enjoyment of films and television at home. This technological device is very beneficial in the teaching and learning in aspects of providing reality view of lesson presented in the classroom through display of images, text, videos, audio and sounds projected on the screen. The Journal group (2002) identified that the multimedia projector affected teaching and learning experiences in several areas, including visual aid, greater flexibility for alternative teaching methods, enhanced teacher demonstrations, heightened student awareness and customized curriculum applications. Multimedia projectors allow teachers to provide diverse content to all students in the classroom at once, allowing students to have a visual and colourful learning experience during a given lesson. These projectors are perfect for this generation's visually oriented youth because they help make abstract concepts easier to understand. By not forcing a teacher to rely solely on books, a multimedia projector makes more educational information available to students. It changes conventional habits and rituals in the classroom. Instead of having students crowd around a PC, the entire class can view one big screen without difficulty. The multimedia projector has made the teaching of Internet-related subjects and the demonstration of new software applications much easier - heightening students' awareness and expectations, while captivating their attention and increasing their motivation. The projectors also accommodate the electronic submission and viewing of student work. Projectors are being used for a variety of curriculum-specific applications. In language arts, a teacher linked up to an author's Website to provide greater insight and impact to a reading assignment. A science teacher created a PowerPoint presentation to demonstrate a frog dissection. In social studies, a teacher developed a tornado presentation for increased audio and visual impact. For math classes, projectors have been used to teach students how to work with spreadsheets, calculate formulas, and utilize charts and graphs. Athletic departments show practice and game films, as well as illustrate plays, with the ability to pause, reverse and update them spontaneously (The Journal group, 2002).

Given the above benefits and uses of the multimedia projector, there are various types and classifications of the multimedia projectors and they include digital projectors such as the **DLP, LCD, LED, LCOS and Laser projectors**. DLP stands for Digital Light Processing, LCD stands for Liquid Crystal Display while LCOS means Liquid Crystal on Silicon. The laser projectors rely on solid-state laser instead of lamp for its light source (Diaconis, 2020; Globus, 2019). Further describing these multimedia projectors, Diaconis (2020) and Globus (2019) noted that **Digital Light Processing (DLP)** projector makes use of tiny mirrors that reflect light towards the screen. The setup includes a physical colour wheel that spins to generate sequential colours. DLP projectors can be single-chip or three-chip with red, green and blue DLP chips. The light output of the DLP projectors is vibrant and highly suitable for environments with ambient lightings like classrooms and conference rooms. DLP Projectors are used for conducting conferences, delivering presentations and lectures, launching events and for displaying movies, TV programmes, and playing video games in the classroom. The LED (Light-Emitting Diode) projectors use the LED lamps as it light source. LED lights work on a process called electroluminescence to produce light. In the source lamp, electricity passes through the semiconductor material that the LEDs are made up of. It allows a certain type of energy to pass through them. When an electrical energy passes through the material, it kicks off electrons that are too big to pass through. They shrink and give off protons which are the constituting particles of light. This process generates very less amount of heat as compared to the traditional gas-filled lamps. This lengthens the life of a LED lamp as compared to the regular lamps.

There are several advantages of using an LED projector. There is lesser sound and heat during its operation. The combination of colour LEDs results in better white light than most of the traditional lamps. This is why LED projectors have better ability to produce a wide array of colours than of the other projectors. LED projectors use LEDs to produce images and are small and convenient to be moved around. LED projectors take much lesser time to be set up and they can be frequently turned on/off as compared to DLP projector, LCD projector. **LCD projectors** use the same liquid crystal display technology that can be found in televisions and monitors as well. An LCD Projector creates images using multiple elaborate steps. They consist of three LCD panels which cast image using the three primary colours; red, green and blue. All three of the colours are simultaneously projected so that the image is completely coloured. LCDs tend to have a sharper, crisper and focused image, likewise, appear brighter than DLPs even at a lower lumen count. LCD projectors use three liquid crystal displays, in which an image is created through multiple steps. A light source emits a beam of white light which is passed to three mirrors which are specially shaped to reflect only particular wavelengths of light. Each coloured light beam is sent to an LCD panel, which receives an electrical signal. The signal commands the panel on how to arrange the pixels in the display to create the image. The same image is produced on the three LCD panels, but in different colours due to the source light falling on them. These different coloured images are then combined in a prism resulting in a single-coloured image. Finally, the image goes through a lens before reflecting on the projection screen. LCD projector is more light efficient as compared to the DLP projectors. LCD produces

brighter images as compared to other projection technologies, produce more beautiful and vibrant colours even in a brightly lit room. They can be used in schools as well.CRT projectors were commonly used technology during the early days. It deploys a small high brightness cathode ray tube (hence the projectors are called CRT, Cathode Ray Tube projectors). The first colour CRT projector was invented in early 1950s. In this type of projector, the red, green and blue parts of the video signal are processed and sent to the individual CRTs whose images are focused by the projector lenses to obtain the overall image. Recently, they have been replaced by other technologies like LCD Projectors, DLP Projectors, LED Projectors for their cost-effectiveness and convenience (Diaconis, 2020; Globus, 2019).

Cathode Ray Tube (CRT) projectors have long operational life, good brightness, rare bulb replacements, high resolution, superior overall black level, and zero input lag as well as zero motion blur. For the LCOS projectors, it uses three chips to modulate light in red, green and blue channels each. However, unlike DLP projector, it does not have a spinning colour wheel. The LCOS technology is usually high in resolution and even higher in price. They have pixel edges that are smoother as compared to DLP projectors. More natural and life-like images. LCOS projector delivers continuous red, green and blue simultaneously. No rainbow effects, eye strain or headache as compared to DLP projector. A laser projector is a device that projects changing laser beams on a screen to create a moving image for entertainment or professional use. It consists of a housing that contains lasers, mirrors, galvanometer scanners, and other optical components. A laser projector can contain one laser light source for single-color projection or three sources for RGB (red, green, and blue) full color projection. Lasers offer potentially brighter projected images, with more and better colours.

The laser light source for projectors offers a number of advantages over replacement lamps. The first advantage is that, for most models, you can run the projector at full power and use the projector for 10 or more years (20,000 hours) without having to replace the lamp. This is especially advantageous for large deployments such as school districts, where the cost and availability of labour to replace hundreds of projector lamps can create both logistical and financial challenges to an organization. Laser projectors have fast and stable projection with high repetition rate (50 Hz), are optimized for 2D and 3D objects with highest accuracy of projection. They have wide optical angle (80° x 80°) which allows bigger working sites, and a multi-projection system for huge and complex projections(Ben, 2020; Diaconis, 2020; Globus, 2019).Aside from the above classification and types of multimedia projectors, Davies (2022) opined that one can find different types of projectors in movie theaters, homes, offices and classrooms. Familiar types of projectors include traditional movie projectors, which shine bright light through a scrolling roll of film to show the movie on the cinema screen. Overhead projectors, traditionally used in offices and classrooms, work by shining light through a translucent sheet with writing or illustrations on it, casting those images onto a screen or whiteboard. Slide projectors use a rotating carousel of translucent slides with photos or other images printed on them and shine light through them to show the slides in order. More recently, many of these types of projectors have been replaced by computers using

a projector output device. These new types of projection equipment connect to a computer using cables similar to a traditional monitor, then display on a movie screen, wall or other surface an image that would otherwise be shown on a computer screen. With tools like Microsoft PowerPoint, these projectors have come to replace traditional slide and overhead projectors for presentations, and they can also be used to show movies and TV shows. Even movie theaters have replaced traditional film projectors with digital devices that can require less maintenance and supervision than traditional devices with scrolling rolls of film. However, all these multimedia projectors make impeccable and significant impact in promoting effective teaching and learning in school; therefore, must be highly mobilized and accessed in the secondary schools. The secondary schools in Nnewi Education Zone have been established to achieve certain educational goals and objectives as enunciated by the Federal Republic of Nigeria (FRN, 2014) in the National Policy on Education (NPE).

Among these educational goals and objectives are that secondary schools should provide holders of basic/primary education certificates with the opportunity of education of a higher level. They should offer diversified curriculum in order to cater for differences in talents, disposition, opportunities and future roles. They should provide trained manpower in the applied sciences, technology and commerce at the sub-professional grade; and also provide entrepreneurial, technical and vocational job-specific skills for self-reliance, and for agricultural, industrial, commercial and economic development, among others. Attainment of these goals and objectives highly requires promoting qualitative and high standard teaching and learning during instructional delivery in the secondary schools. This will further require the mobilization of technological resources such as the multimedia projectors. Mobilization of the multimedia projectors refers to all activities involved in securing new and additional multimedia projectors for the organization. It also involves making better use of, access to and maximizing, existing resources in the school (Seltzer, 2014).

According to the Indeed Editorial Team (2022), mobilization of the multimedia projectors which is equivalent to resource mobilization in any organization is when a business or an organization like the school secures new or additional resources to meet their needs. This process can also include strategies that maximize the efficiency of existing resources. In some cases, the school may take count of what is currently available and develop a plan to use those resources or multimedia projectors as efficiently as possible. If necessary, the school can acquire new or enhanced multimedia projectors to supplement any existing options. Especially in times of great need or demand, it can be important to understand what a school has and needs to successfully cover expenses and maintain standard quality (Indeed Editorial Team, 2022). From the foregoing, mobilization of the multimedia projectors is of great relevance and significance to the school in the following manner. It ensures the continuation of the school's service provision to clients (that is, students), supports organizational/school sustainability, allows for improvement and scale-up of products and services the organization/school currently provides, and the school organizations, both in the public and private sector, must be in the business of generating new business to stay in business. Therefore, mobilization of the multimedia projectors as provided within the

context of this present study incorporates the effective integration, adoption, utilization, access to, availability, acceptance, deployment and coordination of these technology resource in teaching and learning in the secondary schools. This process however, seems to bring about effectiveness in the teaching and learning, especially, in the secondary schools in Nnewi education zone, whether public school which is owned by the government or private school, owned by an individual, religious organization like the churches or any other non-governmental organization. Invariably, mobilization of the multimedia projectors for effective teaching and learning in the public secondary schools seems to be a lot more difficult task due to some factors inhibiting this process in the school system. Scholars and researchers through their empirical researches and studies discovered several factors that inhibited the mobilization of instructional materials such as the multimedia projectors in teaching and learning in various school systems. According to Uzuegbu, Mbadiwe and Anulobi (2013) study, the factors that hindered utilization of instructional materials in school include poor funding, epileptic power supply, teachers' non-compliance to ICT and related technologies, and lack of media resource centres. Also, unavailability of instructional materials, inadequate lecture halls, well-equipped ICT laboratory and rooms, the inability of teachers to build their lectures on computer programmes like Power Points, lack of e-library science discipline on school, there are no financial provisions to acquire instructional materials, and teachers' preference to tour to library rather than use new media resources to teach in the classroom were other factors as well.

Adeyanju's (2003) study on teacher education and use of instructional materials revealed the poor skills of Nigerian teachers in using instructional materials for teaching. Todowede (2019) study confirmed that the teacher-related challenges of continuous workforce training affected the use of technology in schools coupled with the lack of/poor perception of ICTs among teachers and administrators; and the perception of information technology as a hurdle. Also, teacher-related factor such as poor students' interest towards use of technologies in school was not a factor that inhibited the mobilization of technology in schools. Ogundile, Bishop, Okagbue, Ogunniyi and Olanrewaju (2019) study which reported that students seem not to be frequent users of ICT and most of the students have not been trained and equipped with the necessary ICT skills that will enable them to be able to use them effectively. Agbo (2015) study equally indicated that students' attitude towards computer usage and like of parents and community support affected the mobilization of technologies in schools in Ohaukwu Local Government Area of Ebonyi State. Buabeng-Andoh (2012) study indicated that institutional and technological factors encouraged mobilization of computer technology in teaching and learning processes.

Zhao and Frank (2016) equally reported in their study that the constant changing nature of technologies including constant changes in new software and hardware which needs upgrading by the school negatively affected mobilization of technologies in schools investigated. Agbo (2015) confirmed that the level of accessibility and cost of ICT equipment affected its mobilization in schools. Jones (2004) study cited in Buabeng-Andoh (2012) reported that the breakdown of a computer causes interruptions and if there is lack of technical assistance, then it is likely that the regular repairs of the

computer will not be carried out resulting in teachers not using computers in teaching. The effect is that teachers will be discouraged from using computers because of fear of equipment failure since no one would give them technical support in case there is technical problem. Becta (2004) study also cited in Buabeng-Andoh (2012) concurred that if there is a lack of technical support available in a school, then it is likely that technical maintenance will not be carried out regularly, resulting in a higher risk of technical breakdowns. Onah and Nzewi (2021) and other scholars gave a classification of these factors inhibiting the integration of the multimedia in teaching and learning in schools and institutions as related to the institutional barriers, teacher barriers, student issues, and technological barriers. Under the institutional barriers, issues such as student access to computers in the institutions, internet services and software on campus and IT support for off-campus use were significant components of the costs involved in acceptance and integration of technologies in education systems in developing countries (Alfahad, 2012). Furthermore, infrastructural and technical challenges are also endemic in greatest institutions that have accepted education technologies in developing countries (Al-Harbi, 2011). Such challenges comprised securing the policies, procedures, software/hardware capacity required for the technologies. Multimedia technologies necessitate passable, technical support and attention, and these are oftentimes lacking in developing countries. Internet coverage in higher education institutions in the developing countries that facilitates the acceptance of multimedia technologies is poor in some areas. Another component of acceptance and integration of multimedia technologies in developing countries is the state of IT security at the higher education institutions, which make them difficult for users' access servers from places other than the institutions.

Teacher barriers as observed by Onah and Nzewi (2021) is connected to their ability to use and control the electronic technology, their attitudes towards the electronic technology devices, and their teaching styles, all affect how well they will accept the technology (Al-Harbi, 2011). Acceptance of the multimedia technologies by staff is affected by their perception, attitudes toward them, the influence of people around them, as well as accessibility to these technologies. Support from university staff is particularly important in indoctrinating confidence among students in their use of multimedia technologies (Kimwise, 2016; Al-Harbi, 2011). A submission by Alenezi (2012) proposes that the use of new technology (multimedia technologies) by teachers is explicated principally in relation to their discernments about the worth they acquire from new technologies. This means that academic staff members who swiftly realize the advantages of using multimedia technologies are more likely to be the first ones to begin using the technologies in enhancing their teaching. Nonetheless, when members of faculty only expect slim advantages from the new technologies, they are likely to limit their usage of technology to the features that they are familiar with (Alshammari, 2015; Buabeng, 2012). For example, one participant in a study to determine faculty members' use of Learning Management System (LMS) in universities in South Arabia noted that despite the fact that LMSs have many functions and features, only one or two functions are used by academics (Alshammari, 2015). This suggests that features in the multimedia technologies must address or not be perceived as not fit by users

(teachers/lecturers) to do their work. Studies of Mtebe, Mbwilo and Kissaka (2016) observed that inadequate staff training on the use of multimedia technology, teachers' acceptance, knowledge of the ICT and interest were factors that influenced the use of multimedia enhanced content in the schools. Some other factors that were used by previous studies also included information quality, attitude (Percy &Van-Belle, 2012), and awareness (Dulle & Minishi-Majanja, 2011). Onah and Nzewi (2021) further observed that ideally students face external and internal challenges that hamper proper use of multimedia technologies. Shortage of access to multimedia facilities; difference in intentions to use multimedia technologies; their attitudes towards the use of multimedia technologies; their perceptions of the usefulness of multimedia technologies; and their perceptions about the ease of use of multimedia technologies (Alshammari, 2015; Buabeng, 2012). In developing countries, gender and age differences are major issues among students affecting them to accept and use of new learning technologies (Navani& Ansari, 2016; AlHarbi, 2011). In line with this Rambo, Liuand Nakata (2009) indicated that women academics' perceptions of electronic learning are mostly influenced by their age. The younger a female student was, the more receptive she was likely to be towards eLearning. This is emphasized by Yamani's (2014) assertion that young people grow up exposed to new technologies and thus prefer to use them in learning: young people are using technologies in all their daily activities, including their learning. They find it difficult to engage with the traditional teaching method. Thus, students who have grown up in the era of digital technology are poised to obtain the benefits of e learning.

Another issue that Rambo, Liuand Nakata (2009) identified as critical in shaping the perceptions of female learners was the academic discipline that the student was pursuing. For example, Rambo, Liu and Nakata (2009) originated out that female students who were pursuing studies in technology, linguistics, science or business were eager to adopt eLearning. However, their counterparts who were pursuing languages, religious studies or other humanity courses were less eager to embrace e-learning. Similarly, Prabu (2015) argued that the awareness about e-learning of science students was better than that of their counterpart(s) in courses that were related to arts (Prabu, 2015). A study by Mirza and Al-Abdulkareem (2011) established that accolades attained by students using the new technologies are seen to have less job opportunities and are not analogous to traditional attainments. This suggests that numerous existing and potential students are likely to opt for traditional classroom learning instead of using the new technologies to attain their education. Other issues, such as learners' deficiency of preceding IT acquaintance and their attitudes toward the new technologies, impact the acceptance of these technologies by students (Oketch, Njihia, &Wausi, 2014). Technological challenges that act as deterrents to the usage of multimedia technology include technical malfunctions of the system, internet access and availability problems, and network problems (Shihundu, 2014). In the context of higher education institution in Africa, technological barriers identified as lack of availability and access to necessary technology and the contenders urge that this makes it difficult to use technology in teaching and learning (Becker, Newton, & Sawang, 2013).

Another issue that acts as a key obstacle to using technologies such as multimedia is poor technological infrastructure, or a lack of it (Onah & Nzewi, 2021). This can particularly be said of developing countries, which generally have low levels of technological infrastructure. For example, a study by Tarus, Gichoya, and Muumbo (2015) established that insufficient e-learning and information communication technology infrastructure is one of the key challenges that hindered the implementation of e-learning in public universities. It is therefore argued that if education institutions in developing countries want to have world-class universities and improve quality of education, the countries will be obliged to invest heavily in technology and infrastructure. Given all the factors inhibiting the mobilization of multimedia in the school system, certain strategies can be employed or adopted to salvage all these factors challenging the propagation of effective teaching and learning in the secondary schools. Onah and Nzewi (2021) pointed out that for improvement towards integration of the multimedia in teaching and learning schools must provide professional development activities related to technology to update teachers' skills and knowledge, and offer technical support when needed. They should equally support partnerships that help teachers share effective technology practices and experiences. Provide workshops that allow teachers to reflect upon effective strategies for multimedia integration into instruction and unveil issues that are central to understanding the process of integration into instruction. Offer opportunities to virtually observe teachers who use technology. Augment curricula with technology-enhanced materials. Provide enough freedom for teachers in selecting and covering curriculum materials. Provide effective, timely, and continuous training to improve multimedia skills and manage a technology-rich classroom and multimedia content delivery (Mtebe, Mbwilo &Kissaka, 2016). Encourage positive attitudes about the significance of integrating ICT into instruction and provide adequate technical support (Liu & Szabo, 2009; Tezci, 2010).

Technology should be used for more than just support of traditional teaching. According to Tezci (2010), teachers should learn not only how to use technology to enhance traditional teaching or increase productivity, but also should learn from a student-centered perspective how multimedia can be integrated into classroom activities in order to promote student learning. This means that teachers need to use multimedia gadgets in more creative and productive ways in order to create more engaging and rewarding activities and more effective lessons (Birch & Irvine, 2009). Appropriate administrative support for the effective use of multimedia should be made available. Schools need to provide appropriate access to technology. Government, schools and related institutional systems need to employ new policies to involve teachers in the decision-making and planning processes regarding multimedia usage in their classrooms (Onah & Nzewi, 2021). From the foregoing discussions, the present study sought to find out if all these factors indicated by the previous studies inhibited the mobilization of multimedia projectors in teaching and learning in public secondary schools especially in Nnewi education zone. Given that the poor situation towards use of technological resources like the multimedia projectors in public secondary schools in Nnewi Education Zone draws attention to investigate the cause of this problem. Moreover, many of the public secondary schools in Nnewi education zone still focus

and rely on the old conventional traditional method of teaching without giving due considerations towards the use of modern technology. Many of the teachers seem not to have access to the multimedia technologies which draws attention to teachers' competency or proficiency in using such device in school. Upon this whole background, the present study therefore, investigated the teacher-related factors, student-related factors, school administrator-related factors and technology-related factors inhibiting mobilization of multimedia projectors in teaching and learning in the public secondary schools in Nnewi Education Zone.

Statement of the Problem

The multimedia projectors could be termed as one of the computer technological devices necessary for bringing about transformation and improvement in teaching and learning in secondary schools. The use of multimedia projectors stimulates methodological changes in the way and manner teaching and learning activities are being coordinated in the educational system, therefore, requires up-to-date and constant mobilization of this digital device for promoting innovative practices in the secondary school system. Never minding the benefits of using the multimedia projectors towards creating excitements during instructional delivery and also making teaching and learning in the classroom meaningful through diversification of more interesting strategies and methodologies; yet many public secondary schools including those in Nnewi Education Zone seem not have adequately mobilized the multimedia projectors in their schools. Many teachers in the public secondary schools still rely heavily on the old conventional and traditional method of 'chalk and talk' teaching methodology, which focuses more on abstract discussions, does not deepen themes and showcase visual reality of the lesson presented in the classroom. With the invention of modern technologies in education, it is however expected that secondary school teachers all over, explore many of the multimedia projectors for their presentations in the classroom in order to improve students' learning. The inadequacies and lack of teachers' incorporation of the various multimedia projectors during instructional delivery in public secondary schools in Nnewi Education Zone has raised a lot of concern in this present study towards investigating those factors inhibiting the mobilization of multimedia projectors in teaching and learning in these schools; therefore, demanding the deployment of possible strategies for improvement. In a bid to cover this gap, the present study sought to find out those factors inhibiting mobilization of multimedia projectors in teaching and learning in public secondary schools in Nnewi Education Zone, which is equally the problem of this study.

Purpose of the Study

The purpose of this study was to determine those factors inhibiting mobilization of multimedia projectors in teaching and learning in public secondary schools in Nnewi Education Zone, also looking at the possible strategies for improvement. Specific objectives of the study were to;

1. Find out teacher-related factors inhibiting mobilization of multimedia projectors in teaching and learning in public secondary schools in Nnewi education zone.

2. Determine student-related factors inhibiting mobilization of multimedia projectors in teaching and learning in public secondary schools in Nnewi education zone.

3. Ascertainschool administrator-related factors inhibiting mobilization of multimedia projectors in teaching and learning in public secondary schools in Nnewi education zone.

4. Find out technology-related factors inhibiting mobilization of multimedia projectors in teaching and learning in public secondary schools in Nnewi education zone.

5. Determine the possible strategies for improvement towards mobilization of multimedia projectors in teaching and learning in public secondary schools in Nnewi education zone.

Research Questions

The following research questions guided the study;

1. What are the teacher-related factors inhibiting mobilization of multimedia projectors in teaching and learning in public secondary schools in Nnewi Education Zone?

2. What are the student-related factors inhibiting mobilization of multimedia projectors in teaching and learning in public secondary schools in Nnewi education zone?

3. What are the school administrator-related factors inhibiting mobilization of multimedia projectors in teaching and learning in public secondary schools in Nnewi education zone?

4. What are the technology-related factors inhibiting mobilization of multimedia projectors in teaching and learning in public secondary schools in Nnewi education zone?

5. What are the possible strategies for improvement towards mobilization of multimedia projectors in teaching and learning in public secondary schools in Nnewi education zone?

Methodology

A descriptive survey research design was adopted in the study. The design involved using a questionnaire constructed by the researchers to gather information from a sample of principals and teachers selected from their population in public secondary schools in Nnewi Education Zone and thereafter, the information gathered were analyzed using the most appropriate statistics to draw inferences and report the findings of the study. Population for the study comprised 29 principals and 804 teachers from the 29 public secondary schools in Nnewi Education Zone. Justification for selecting only principals and teachers was that they were in better position to describe those factors inhibiting mobilization of multimedia projectors in teaching and learning in public secondary schools in Nnewi Education Zone. Sample size for the study consisted of 417 participants which comprised 15 principals and 402 teachers from 15 public secondary schools in Nnewi Education Zone drawn at 50% using the proportionate random sampling technique. This sampling technique was employed in order to enable the researchers proportionately stratify and draw sample of the principals and teachers according to this geographical location and schools. In selecting the sample, both the principals and teachers in the public secondary schools in Nnewi

Education Zone were drawn at 50%. This is equally in line with the recommendations of Nworgu (2015) who opined that sample which ranged from 10% to 80% is representable and enough in situations where there is a large population in a study. As regards, the sample used in the present study is sizeable enough to conduct the study.

40-item researchers-developed questionnaire titled: "Factors Inhibiting Mobilization of Multimedia Projectors Questionnaire (FIMMPQ)" was structured on a 4-point scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD). Construction of the research instrument was guided by the purpose of the study and research questions. The questionnaire was face validated by three experts from Tansian University, Umunya, Oba Campus, Anambra State. These experts made useful corrections on the questionnaire in terms of the sentence construction, suitability and clarity, which were incorporated before the final print out of the research instrument. Reliability of the questionnaire was established through a pilot-test and after the test, the Cronbach Alpha statistics was used to collate data which gave internal consistency reliability (r) values of 0.77, 0.83, 0.78, 0.85 and 0.81, which were added up to give an overall internal consistency value of 0.81, showcasing that the research instrument was reliable and trustworthy in order to collect the necessary data for the study. Method of data collection was through direct personal contact with the respondents. An on-the-spot method was also adopted by the researchers with the help of three research assistants in order to distribute the questionnaire to the respondents. These research assistants were also familiar with the location of the public secondary schools selected for sampling, and they communicated with the principals and teachers who filled and returned the questionnaire immediately on the spot. All the 417 copies of the questionnaire distributed to the respondents were recovered back by the researcher and research assistants at period of one week on a 100% return rate. Data were analyzed using mean statistics rated at 2.50 and standard deviation statistics. The decision rule on the items on the research instrument was based on the premise that any statement with a mean score of 2.50 and above was accepted as agreeing to the statement, while any one below 2.50 was seen as disagreeing to the statement.

Results

Research Question 1: What are the teacher-related factors inhibiting mobilization of multimedia projectors in teaching and learning in public secondary schools in Nnewi Education Zone?

Table 1:   Mean Score and Standard Deviation of Respondents on the Teacher-Related Factors Inhibiting Mobilization of Multimedia Projectors in Teaching and Learning in Public Secondary Schools in Nnewi Education Zone

N = 417 Respondents (that is, 15 Principals & 402 Teachers)

S/N	Statements: Please determine how the following teacher-related factors inhibits the mobilization of multimedia projectors in the school. Mobilization of multimedia projectors in teaching and learning can be inhibited by:	Principals			Teachers		
		Mean	SD	Decision	Mean	SD	Decision

S/N	Statement	Principals Mean	SD	Decision	Teachers Mean	SD	Decision
1.	Teachers poor awareness, skill or knowledge of using the multimedia projectors in teaching and learning	3.27	0.93	**Agree**	2.84	1.16	**Agree**
2.	Lack of constant ICT training/retraining to boost teachers proficiency towards using of multimedia projectors	2.60	1.20	**Agree**	2.95	0.83	**Agree**
3.	Many teachers preference of the old conventional method of 'chalk and talk' over the use of multimedia projectors	3.27	1.00	**Agree**	2.83	1.07	**Agree**
4.	Poor interest towards use of multimedia projectors in teaching and learning by teachers	2.93	0.93	**Agree**	2.91	0.88	**Agree**
5.	Phobia, fear and anxiety towards using multimedia projectors in teaching and learning by teachers	2.80	1.11	**Agree**	2.60	1.09	**Agree**
6.	Teachers inability to build their classroom presentation/lesson using PowerPoint slides	2.93	1.06	**Agree**	3.08	0.93	**Agree**
7.	Teachers personal characteristics in terms of gender, sex which negatively inhibits mobilization of multimedia projectors in the classroom	3.33	0.70	**Disagree**	2.29	1.20	**Disagree**
8.	Non-compliance of teachers to multimedia-related technologies	3.07	1.00	**Agree**	2.65	1.08	**Agree**
9.	Perceiving the use of multimedia technologies as a whole waste of time in the classroom	3.13	0.81	**Agree**	2.32	1.09	**Disagree**
	Grand Mean Score and SD =	**3.04**	**1.01**	**Agree**	**2.72**	**1.08**	**Agree**

Analysis of result in Table 1 from the respondents' (principals and teachers) responses indicated that items 1 to 6, 8 and item 9 of only the principals' responses were rated above 2.50 of the acceptable mean score by both respondents showing that they agreed with these statements. While item 7 (of both the principals and teachers' responses) and item 9 of only the teachers' responses were rated below 2.50 of the acceptable mean score by the respondents showing that they disagreed with these statements. The grand mean and standard deviation of both respondents is 3.04 and 1.01 (for the principals); 2.72 and 1.08 (for the teachers) indicating closeness in the respondents' responses. This result revealed that both respondents reacted positively to many of the items on the table. This is to say that the principals and teachers reacted positively to the teacher-related factors inhibiting mobilization of multimedia projectors in teaching and learning in public secondary schools in Nnewi Education Zone.

Research Question 2: What are the student-related factors inhibiting mobilization of multimedia projectors in teaching and learning in public secondary schools in Nnewi Education Zone?

Table 2: **Mean Score and Standard Deviation of Respondents on the Student-Related Factors Inhibiting Mobilization of Multimedia Projectors in Teaching and Learning in Public Secondary Schools in Nnewi Education Zone**

S/N	Statements: Please determine how the following student-related factors inhibits the mobilization of multimedia projectors in the school. Mobilization of multimedia projectors in teaching and learning can be inhibited by:	Principals Mean	SD	Decision	Teachers Mean	SD	Decision
10.	Lack of students' interest/attitude towards the use of multimedia projectors in the classroom	1.87	0.88	**Disagree**	2.24	1.09	**Disagree**

S/N	Statement	Mean	SD	Decision	Mean	SD	Decision
11.	Students' preference of the conventional method over the use of multimedia projectors in the classroom	2.20	1.11	**Disagree**	2.19	1.07	**Disagree**
12.	Many students lack the necessary ICT proficiency or skill to operate the multimedia projectors in the classroom which inhibits mobilization of these devices in the classroom	3.07	0.85	**Agree**	3.41	0.69	**Agree**
13.	Students perceiving mobilization of the multimedia projectors in the classroom as wrong approach towards conducting their assessment which inhibits their mobilization in the classroom	1.80	0.91	**Disagree**	2.22	1.11	**Disagree**
14.	Gender differences (that is, male & female characteristics) among students affecting their acceptability of the use of multimedia projectors in the classroom	1.93	1.00	**Disagree**	1.94	1.03	**Disagree**
15.	Lack of parental support to use the multimedia projector at home also inhibits their mobilization in the school	2.80	0.98	**Agree**	2.73	1.06	**Agree**
	Grand Mean Score and SD =	**2.28**	**1.08**	**Disagree**	**2.45**	**1.13**	**Disagree**

N = 417 Respondents (that is, Principals & Teachers)

Analysis of result in Table 2 from the respondents' (principals and teachers) responses indicated that only items 12 and 15 of both the principals and teachers' responses were rated above 2.50 of the acceptable mean score by both respondents showing that they agreed with these statements. The rest of items 10, 11, 13 and 14 were rated below 2.50 of the acceptable mean score by both respondents showing that they disagreed with these statements. The grand mean and standard deviation of both respondents is 2.28 and 1.08 (for the principals); 2.45and 1.13 (for the teachers) indicating closeness in the respondents' responses. This result revealed that both respondents reacted negatively to many of the items on the table. This is to say that the principals and teachers reacted negatively to the student-related factors inhibiting mobilization of multimedia projectors in teaching and learning in public secondary schools in Nnewi education zone.

Research Question 3: What are the school administrator-related factors inhibiting mobilization of multimedia projectors in teaching and learning in public secondary schools in Nnewi education zone?

Table 3: **Mean Score and Standard Deviation of Respondents on the School Administrator-Related Factors Inhibiting Mobilization of Multimedia Projectors in Teaching and Learning in Public Secondary Schools in Nnewi Education Zone**

N = 417 Respondents (that is, Principals & Teachers)

S/N	Statements: Please determine how the following school administrator-related factors inhibits the mobilization of multimedia projectors in the school. Mobilization of multimedia projectors in teaching and learning can be inhibited by:	Principals			Teachers		
		Mean	SD	Decision	Mean	SD	Decision
16.	Lack of/poor perception of ICTs among school administrators on use of multimedia projectors to administer teaching and learning in the classroom	3.20	0.83	Agree	3.03	0.88	Agree
17.	School administrators' inability to procure the necessary multimedia projectors to support teaching and learning in the school	2.93	1.06	Agree	3.23	0.75	Agree

S/N		Mean	SD	Decision	Mean	SD	Decision
18.	Poor adoption of effective maintenance culture for most of the multimedia resources mobilized in the school	2.87	0.96	**Agree**	2.94	0.87	**Agree**
19.	Inability of the respective authority to provide adequate time in the timetable to facilitate the use of multimedia projectors during teaching and learning in the classroom	2.20	1.05	**Disagree**	1.81	0.98	**Disagree**
20.	Inadequate instructional supervision of teachers' classroom activities on the part of the school administrator in order to determine their inefficiencies which will encourage mobilization of the multimedia projectors during teaching and learning in the school	2.93	1.00	**Agree**	2.93	1.01	**Agree**
21.	Inadequate leadership financial support for teachers in order to encourage mobilization of the multimedia projectors in the classroom	2.93	0.93	**Agree**	2.79	1.06	**Agree**
	Grand Mean Score and SD =	**2.84**	**1.02**	**Agree**	**2.79**	**1.04**	**Agree**

Analysis of result in Table 3from the respondents' (principals and teachers) responses indicated that items 16 to 18, 20 and 21 of both the principals and teachers' responses were rated above 2.50 of the acceptable mean score by both respondents showing that they agreed with these statements. Only items 19 was rated below 2.50 of the acceptable mean score by both respondents showing that they disagreed with the statement. The grand mean and standard deviation of both respondents is 2.84 and 1.02 (for the principals); 2.79 and 1.04 (for the teachers) indicating closeness in the respondents' responses. This result revealed that both respondents reacted positively to many of the items on the table. This is to say that the principals and teachers reacted positively to the school administrator-related factors inhibiting mobilization of multimedia projectors in teaching and learning in public secondary schools in Nnewi education zone.

Research Question 4. What are the technology-related factors inhibiting mobilization of multimedia projectors in teaching and learning in public secondary schools in Nnewi Education Zone?

Table 4: **Mean Score and Standard Deviation of Respondents on the Technology-Related Factors Inhibiting Mobilization of Multimedia Projectors in Teaching and Learning in Public Secondary Schools in Nnewi Education Zone**

N = 417 Respondents (that is, Principals & Teachers)

S/N	Statements: Please determine how the following technology-related factors inhibits the mobilization of multimedia projectors in the school. Mobilization of multimedia projectors in teaching and learning can be inhibited by:	Principals			Teachers		
		Mean	SD	Decision	Mean	SD	Decision
22.	High cost of many of these multimedia gadgets including projectors	3.00	0.82	**Agree**	2.92	1.10	**Agree**
23.	Poor/lack of technological infrastructure such as multimedia centre, projectors, internet connectivity problem, etc.	2.93	1.00	**Agree**	3.01	1.03	**Agree**
24.	Technical malfunctioning of the system which affects mobilization of multimedia projectors	3.20	0.83	**Agree**	2.89	0.99	**Agree**
25.	Changing nature of technologies which demands consistent upgrading including recycling of the multimedia projectors	3.27	0.85	**Agree**	2.99	1.00	**Agree**

S/N	Statement	Mean	SD	Decision	Mean	SD	Decision
26.	Breakdown of the technological causing interruption towards mobilization of multimedia projectors	3.13	0.81	**Agree**	2.75	1.04	**Agree**
27.	Poor electricity supply hindering mobilization of multimedia projectors	3.27	0.93	**Agree**	2.69	1.10	**Agree**
	Grand Mean Score and SD =	**3.13**	**0.88**	**Agree**	**2.87**	**1.05**	**Agree**

Analysis of result in Table 4from the respondents' (principals and teachers) responses indicated that all the items from 22 to 27 of both the principals and teachers' responses were rated above 2.50 of the acceptable mean score by both respondents showing that they agreed with these statements. None of the items was rated below 2.50 of the acceptable mean score by both respondents showing that they disagreed with any of these statements. The grand mean and standard deviation of both respondents is 3.13 and 0.88 (for the principals); 2.87and 1.05 (for the teachers) indicating closeness in the respondents' responses. This result revealed that both respondents reacted positively to all the items on the table. This is to say that the principals and teachers reacted positively to the technology-related factors inhibiting mobilization of multimedia projectors in teaching and learning in public secondary schools in Nnewi Education Zone.

Research Question 5. What are the possible strategies for improvement towards mobilization of multimedia projectors in teaching and learning in public secondary schools in Nnewi Education Zone?

Table 5: **Mean Score and Standard Deviation of Respondents on the Possible Strategies for Improvement towards Mobilization of Multimedia Projectors in Teaching and Learning in Public Secondary Schools in Nnewi Education Zone**

N = 417 Respondents (that is, Principals & Teachers)

S/N	Statements: Please determine the possible strategies that will improve the mobilization of multimedia projectors in the school. Mobilization of multimedia projectors can be improved through:	Principals			Teachers		
		Mean	SD	Decision	Mean	SD	Decision
28.	Government adequate financial provision for school mobilization of the multimedia projectors	3.07	1.00	**Agree**	3.24	0.89	**Agree**
29.	Constant ICT training/retraining programmes for teachers including students in order to manage a technology-rich classroom for mobilization of multimedia projectors in school	2.80	1.11	**Agree**	2.91	0.97	**Agree**
30.	Establishment of well-furnished multimedia centre in school	3.00	0.97	**Agree**	3.06	0.93	**Agree**
31.	Adequate incorporation of technology to enhance the traditional method of teaching in the classroom which will positively impact on the mobilization of multimedia projectors	3.07	1.06	**Agree**	2.87	0.98	**Agree**
32.	Augmenting curricular through constant procurement, update including replacement of old technology-enriched infrastructure, materials and multimedia resources which will enhance mobilization of digital projectors in school	3.33	0.87	**Agree**	2.73	1.04	**Agree**
33.	Financial sponsorship for teachers to personally provide the multimedia gadgets to support teaching-learning in the classroom	3.47	0.72	**Agree**	3.01	1.05	**Agree**

No.	Item	Mean	SD	Decision	Mean	SD	Decision
34.	Orientation/workshops to encourage teachers to maintain positive attitude towards using multimedia projectors for instructional delivery in school	3.20	0.83	Agree	2.94	1.00	Agree
35.	Offering technical support that will encourage mobilization of the multimedia projectors in school	2.87	1.09	Agree	3.32	0.79	Agree
36.	Soliciting support from the private sector through PTA support, financial institutions support, business philanthropist donations and others in order to improve mobilization of the multimedia projectors in teaching and learning in school	3.07	0.77	Agree	2.80	0.98	Agree
37.	Ensuring students preparedness including readiness to learn with the multimedia projectors during teaching and learning in school	2.93	1.18	Agree	3.10	0.88	Agree
38.	Effective instructional supervision of teachers' activities in the classroom by the school administrator in order to determine their areas of needs coupled with deficiencies which will ensure mobilization of the multimedia projectors in teaching and learning in the classroom	3.13	0.81	Agree	3.21	0.79	Agree
39.	Adoption of effective ICT maintenance culture by the school administrator using various strategies such as the preventive strategy, corrective strategy, predictive strategy, emergency strategy, among others.	2.80	0.75	Agree	3.25	0.79	Agree
40.	Constant auditing of the multimedia resources to determine when they need upgrading or replacement	3.40	0.71	Agree	2.99	0.82	Agree
	Grand Mean Score and SD =	**3.09**	**0.95**	**Agree**	**3.03**	**0.94**	**Agree**

Analysis of result in Table 5 from the respondents' (principals and teachers) responses indicated that all the items from 28 to 40 of both the principals and teachers' responses were all rated above 2.50 of the acceptable mean score by both respondents showing that they agreed with these statements. None of the items was rated below 2.50 of the acceptable mean score by both respondents showing that they disagreed with any of these statements. The grand mean and standard deviation of both respondents is 3.09 and 0.95 (for the principals); 3.03 and 0.94 (for the teachers) indicating closeness in the respondents' responses. This result revealed that both respondents reacted positively to all the items on the table. This is to say that the principals and teachers reacted positively to the possible strategies for improvement towards mobilization of multimedia projectors in teaching and learning in public secondary schools in Nnewi Education Zone.

Discussion of Findings

The findings of this study revealed the factors in connection with the teacher-related factors, student-related factors, school administrator-related factors and technology-related factors inhibiting the mobilization of multimedia projectors in teaching and learning in the public secondary schools in Nnewi Education Zone. These findings are in line with the studies of Alenezi (2012), Alfahad (2012), Al-Harbi (2011), Kimwise (2016) and Onah and Nzewi (2021) and other scholars which indicated that several factors inhibited the integration of the multimedia in teaching and learning in schools and institutions as related to the institutional barriers, teacher barriers, student issues and technological barriers. The finding of this present study equally revealed the

possible strategies for improvement towards mobilization of multimedia projectors in teaching and learning in public secondary schools in Nnewi education zone. However, the finding of this study discovered teacher-related factors inhibiting the mobilization of multimedia projectors in teaching and learning in the public secondary schools in Nnewi education zone, as they include: teachers' poor awareness, skill or knowledge of using the multimedia projectors in teaching and learning; lack of constant ICT training/retraining to boost teachers proficiency towards using of multimedia projectors; many teachers preference of the old conventional method of 'chalk and talk' over the use of multimedia projectors; poor interest towards use of multimedia projectors in teaching and learning by teachers; phobia, fear and anxiety towards using multimedia projectors in teaching and learning by teachers; teachers inability to build their classroom presentation/lesson using PowerPoint slides; and non-compliance of teachers to multimedia-related technologies.

However, teachers' personal characteristics in terms of their gender and sex did not inhibit the mobilization of multimedia projectors in teaching and learning in the public secondary schools in Nnewi education zone. This finding agrees and corroborates with the previous studies of Adeyanju's (2003), Al-Harbi (2011), Mtebe, Mbwilo and Kissaka (2016), Onah and Nzewi (2021), Todowede (2019), Uzuegbu, Mbadiwe and Anulobi (2013) which found out poor skills of Nigerian teachers in using instructional materials (like the multimedia projectors)for teaching, the inability of teachers to build their lectures on computer programmes like Power Points, inadequate continuous workforce and staff training on the use of multimedia technology, teachers' preference to tour to library rather than use new media resources to teach in the classroom, teachers attitudes towards the electronic technology devices and their teaching styles, teachers knowledge of the ICT and interest, acceptance multimedia technologies by teachers coupled with the lack of/poor perception of ICTs among teachers, hindered the use of technology in schools.

The finding of this present study revealed student-related factors inhibiting the mobilization of multimedia projectors in teaching and learning in the public secondary schools in Nnewi education zone. As they include that many students lack the necessary ICT proficiency or skill to operate the multimedia projectors in the classroom which inhibits mobilization of these devices in the classroom; and lack of parental support to use the multimedia projector at home also inhibits their mobilization in the school. This finding agrees with Ogundile, Bishop, Okagbue, Ogunniyi and Olanrewaju (2019) study which found out that students seem not to be frequent users of ICT and most of the students have not been trained and equipped with the necessary ICT skills that will enable them to be able to use them effectively. Agbo (2015) study confirmed that poor parental and community support affected the mobilization of technologies in schools in Ohaukwu Local Government Area of Ebonyi State. Oketch, Njihia and Wausi (2014) confirmed that such issues as learners' deficiency of preceding IT acquaintance and their attitudes toward the new technologies, impact the acceptance of these technologies by students. Alshammari (2015), Buabeng (2012) and Onah and Nzewi (2021) found out in their studies that ideally students face external and internal challenges that hamper proper mobilization and use of multimedia technologies in schools.

Difference in intentions to use multimedia technologies; students' attitudes towards the use of multimedia technologies and their perceptions of the usefulness of multimedia technologies including their perceptions about the ease of use of multimedia technologies equally influenced mobilization of different technologies in schools. Moreover, such factors as; lack of students' interest/attitude towards the use of multimedia projectors in the classroom; students' preference of the conventional method over the use of multimedia projectors in the classroom; students perceiving mobilization of the multimedia projectors in the classroom as wrong approach towards conducting their assessment which inhibits their mobilization in the classroom; and gender differences (that is, male & female characteristics) among students affecting their acceptability of the use of multimedia projectors in the classroom; did not inhibit mobilization of multimedia projectors in teaching and learning in the public secondary schools in Nnewi education zone. This finding is at variance with Agbo (2015) study which found out that students' attitude towards computer usage affected the mobilization of technologies in schools in Ohaukwu Local Government Area of Ebonyi State. In the case of the present study, students' interest and attitude was not a hindrance towards mobilization of the multimedia projectors in the public secondary schools. The present study also agrees with Rambo, Liu and Nakata (2009) study which found out that female students who were pursuing studies in technology, linguistics, science or business were eager to adopt eLearning; as such gender was not found as a barrier towards integrating technology in teaching and learning.

It was further discovered through one of the findings, school administrator-related factors inhibiting the mobilization of multimedia projectors in teaching and learning in the public secondary schools in Nnewi Education Zone; and they include: lack of/poor perception of ICTs among school administrators on use of multimedia projectors to administer teaching and learning in the classroom; school administrators' inability to procure the necessary multimedia projectors to support teaching and learning in the school; poor adoption of effective maintenance culture for most of the multimedia resources mobilized in the school; inadequate instructional supervision of teachers classroom activities on the part of the school administrator in order to determine their inefficiencies which will encourage mobilization of the multimedia projectors during teaching and learning in the school; and inadequate leadership financial support for teachers in order to encourage mobilization of the multimedia projectors in the classroom. It was further disclosed that school administrator's inability of the respective authority to provide adequate time in the timetable to facilitate the use of multimedia projectors during teaching and learning in the classroom did not inhibit mobilization of multimedia projectors in teaching and learning in the public secondary schools in Nnewi education zone. This finding corresponds with Buabeng-Andoh (2012) study which found out that most institutional encouraged mobilization of computer technology in teaching and learning processes. The present study finding also concurs and in line with Todowede (2019) study which found out that the lack of/poor perception of ICTs among administrators and the perception of information technology as a hurdle, inhibited the mobilization of technology in schools.

It was found out in the present study, Technology-related Factors Inhibiting the Mobilization of Multimedia Projectors in Teaching and Learning in the Public Secondary Schools in Nnewi Education Zone, that there are high cost of many of these multimedia gadgets including projectors; poor/lack of technological infrastructure such as multimedia centre, projectors, internet connectivity problem, etc.; technical malfunctioning of the system which affects mobilization of multimedia projectors; the changing nature of technologies which demands consistent upgrading including recycling of the multimedia projectors; breakdown of the technological resources causing interruption towards mobilization of multimedia projectors; and poor electricity supply hindering mobilization of multimedia projectors. This finding corroborates with Buabeng-Andoh (2012) study which found out most technological factors encouraged mobilization of computer technology in teaching and learning processes. This finding also concurs and agrees with Becker, Newton and Sawang (2013) and Onah and Nzewi (2021) who found out in their studies that poor technological infrastructure or a lack of/availability of it, including shortage of access to multimedia facilities, equally acted as a key obstacle to using technologies such as multimedia. The finding of Shihundu (2014) study confirmed that technological challenges that act as deterrents to the usage of multimedia technology include technical malfunctions of the system, internet access and availability problems, and network problems. Uzuegbu, Mbadiwe and Anulobi (2013) study confirmed that epileptic power supply, lack of media resource centres, lack of e-library science discipline on school and unavailability of instructional materials such as well-equipped ICT laboratory and rooms, hindered the use of ICTs in schools. Zhao and Frank (2016) found out in their study that the constant changing nature of technologies including constant changes in new software and hardware which needs upgrading by the school negatively affected mobilization of technologies in schools.

Tarus, Gichoya, and Muumbo (2015) confirmed that insufficient e-learning and information communication technology infrastructure is one of the key challenges that hindered the implementation of e-learning in public universities. Agbo (2015) confirmed that the level of accessibility and cost of ICT equipment hindered their mobilization in schools. Jones (2004) study cited in Buabeng-Andoh (2012) confirmed that the breakdown of a computer causes interruptions and if there is lack of technical assistance, then, it is likely that the regular repairs of the computer will not be carried out resulting in teachers not using computers in teaching. The effect is that teachers will be discouraged from using computers because of fear of equipment failure since no one would give them technical support in case there is technical problem. Becta (2004) study also cited in Buabeng-Andoh (2012) concurred that if there is a lack of technical support available in a school, then it is likely that technical maintenance will not be carried out regularly, resulting in a higher risk of technical breakdowns.

Finally, the finding of this study determined the possible strategies for improvement towards mobilization of multimedia projectors in teaching and learning in public secondary schools in Nnewi education zone; as they include the following: government adequate financial provision for school mobilization of the multimedia projectors; constant ICT training/retraining programmes for teachers including students in order to manage a technology-rich classroom for mobilization of multimedia

projectors in school; establishment of well-furnished multimedia centre in school; adequate incorporation of technology to enhance the traditional method of teaching in the classroom which will positively impact on the mobilization of multimedia projectors; augmenting curricular through constant procurement, update including replacement of old technology-enriched infrastructure, materials and multimedia resources which will enhance mobilization of digital projectors in school; financial sponsorship for teachers to personally provide the multimedia gadgets to support teaching-learning in the classroom; orientation/workshops to encourage teachers to maintain positive attitude towards using multimedia projectors for instructional delivery in school; offering technical support that will encourage mobilization of the multimedia projectors in school; soliciting support from the private sector through PTA support, financial institutions support, business philanthropist donations and others in order to improve mobilization of the multimedia projectors in teaching and learning in school; ensuring students preparedness including readiness to learn with the multimedia projectors during teaching and learning in school; effective instructional supervision of teachers activities in the classroom by the school administrator in order to determine their areas of needs coupled with deficiencies which will ensure mobilization of the multimedia projectors in teaching and learning in the classroom; adoption of effective ICT maintenance culture by the school administrator using various strategies such as the preventive strategy, corrective strategy, predictive strategy, emergency strategy, among others; and constant auditing of the multimedia resources to determine when they need upgrading or replacement. This finding agrees and corroborates with the studies of Birch and Irvine (2009), Liu and Szabo (2009), Mtebe, Mbwilo and Kissaka (2016), Onah and Nzewi (2021), Tezci (2010) which found out for improvement towards integration of the multimedia in teaching and learning, schools must provide professional development activities related to technology to update teachers' skills and knowledge, and offer technical support when needed. They should equally support partnerships that help teachers share effective technology practices and experiences. Provide workshops that allow teachers to reflect upon effective strategies for multimedia integration into instruction and unveil issues that are central to understanding the process of integration into instruction. Offer opportunities to virtually observe teachers who use technology. Augment curricula with technology-enhanced materials. Provide enough freedom for teachers in selecting and covering curriculum materials. Provide effective, timely, and continuous training to improve multimedia skills and manage a technology-rich classroom and multimedia content delivery. Schools should further encourage positive attitudes about the significance of integrating ICT into instruction and provide adequate technical support (Liu & Szabo, 2009; Tezci, 2010).

Tezci (2010) study further confirmed and established that teachers should focus their efforts on how multimedia can be integrated into classroom activities in order to promote student learning. This means that teachers need to use multimedia gadgets in more creative and productive ways in order to create more engaging and rewarding activities and more effective lessons (Birch & Irvine, 2009). Appropriate administrative support for the effective use of multimedia and access to technology, should be made

available in schools. The government, schools and related institutional systems need to employ new policies to involve teachers in the decision-making and planning processes regarding multimedia usage in their classrooms which will aid mobilization of the multimedia projectors in teaching and learning, just as confirmed by Onah and Nzewi (2021) study.

Conclusion

Mobilization of the multimedia projectors in teaching and learning processes in the public secondary schools in Nnewi Education Zone is of no doubt will bring about sustainable quality education which is beneficial to students' learning and high academic achievements for the accomplishment of educational goals and objectives. However, the study concludes and equally submits that there are some factors in relation to teacher-related factors, student-related factors, school administrator-related factors and technology-related factors inhibiting the mobilization of multimedia projectors in teaching and learning in the public secondary schools in Nnewi education zone. Also, possible strategies for improvement towards mobilization of multimedia projectors in teaching and learning in public secondary schools in Nnewi Education Zone have been indicated in the study. Hence, the recommendations proffered below.

Recommendations

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

1. Teacher-related factors inhibiting the mobilization of multimedia projectors in teaching and learning in the public secondary schools in Nnewi education zone should be resolved by the government through the Post Primary Schools Service Commission (PPSSC) and principals by encouraging teachers to develop interest and adopt positive attitude towards the use of different technologies in the classroom. Also, teachers' competence, proficiency and usage of the multimedia projectors in teaching and learning should be highly improved and encouraged through adequate and continuous technology training and retraining programmes.

2. Institutions and parents should support students use of multimedia technologies in school through constant orientation, adequate ICT training and infrastructural provision which will resolve all the student-related factors inhibiting the mobilization of multimedia projectors in teaching and learning in the public secondary schools in Nnewi Education Zone.

3. School administrator-related factors inhibiting the mobilization of multimedia projectors in teaching and learning in the public secondary schools in Nnewi education zone should be resolved through their having positive perception of use of multimedia projectors to administer teaching and learning in the classroom, procurement of the necessary multimedia projectors, adoption of effective maintenance culture, providing adequate instructional supervision of teachers classroom activities and adequate financial support for teachers in the classroom.

4. Principals through soliciting adequate external financial support and encouragement from the private sector should resolve the technology-related factors inhibiting the mobilization of multimedia projectors in teaching and learning in the public secondary schools in Nnewi Education Zone.

5. All concerned stakeholders in the secondary education sector such as the government, non-governmental institutions, policy makers, parents, school administrators and teachers, should be positively committed towards adoption of all the possible strategies that will promote, improve and significantly impact on the mobilization of multimedia projectors in teaching and learning in the public secondary schools in Nnewi education zone. These strategies can be through adequate financial provisions made for schools to mobilize multimedia projectors, constant ICT training/retraining programmes for teachers including students in school, establishment of well-furnished multimedia centre in school, adequate incorporation of technology to enhance the traditional method of teaching in the classroom, soliciting support from the private sector through PTA support, financial institutions support and business philanthropist donations, and having positive attitude and interest towards the use of multimedia projectors in the school, among others.

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Effects of Languages of Instruction: A Desideratum for Instructional Approaches in Science, Technology, Engineering and Mathematics (Stem) Education in Nigeria

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Abstract

*T*his study is conducted on indigenous languages of instruction: A desiratum for instructional approaches in STEM education. It made use of pretest, posttest factorial design with two levels of treatment and control groups. The accessible population was the public secondary schools in one local government area of Edo state. Purposive and simple random sampling methods were used to obtain a sample of two co-educational senior secondary schools for the study. Each school provided one form of SSS 2 for the study. The instruments used for the study were instructional package, lesson plans and Physics Achievement Test (PAT). The reliability coefficient of the validated instrument was determined using Pearson Product Moment Correlation and it was 0.78. Two research questions and three null hypotheses were tested at 0.05 level of significance. The two groups were taught the same concepts in mechanics using the same method but different languages of instruction. 2 x 2 ANOVA was used to analyze the data. The results revealed that Physics students taught in Pidgin English Language (indigenous Language) performed significantly better than those taught in conventional English Language, no significant interaction between sex and language of instruction and that male physics students performed better than the female counterparts but the difference was not found to be significant. Conclusions were drawn and based on the findings, it was recommended among others that Nigeria should use her indigenous languages to teach STEM and related subjects in our primary and secondary schools and in urban areas where we have different mother-tongue, Pidgin English Language should be adopted as our indigenous language.*

Keywords: Languages of Instruction, STEM, Pidgin English

Introduction

Science, Technology, Engineering and Mathematics (STEM) education aim at exploring nature and manipulating it to serve us in a way that can positively affect our lives. STEM education is deployed to serve our present needs without compromising the needs of generation yet unborn. Therefore, STEM education should be taught and learned not for its own sake but because we are interested in the goal of making the community a better place to live (Wasagu, 2013). Oguniyi (2006) in Asabere-Ameyaw

(2013), noted that during a ministerial conference in Lagos (1964), many African countries lamented the limitations of an absence of adequate national policies on Science and Technology education as well as bereft of any national machinery for coordinating and preparing such a policy.

In Nigeria, there has been the creation of several curriculum development centers that have helped to produce a variety of STEM curricula with textbooks and instructional materials and yet the desired goals are yet to be achieved. According to Jegede (2006), the way STEM education is taught, projects only one form of world view – the western view which holds claim to superiority over other forms of studying nature. Jegede (2006) therefore, calls for science and technology teaching in Africa to be context specific and to recognize the socio-cultural and cosmological background of the learners. The instructional approaches being used are not adequate. Science and technology subjects can better be taught to schools by exploring different approaches (Dania, 2018). Teaching of science and technology is aimed at achieving some objectives which typically manifest into instructional products or students' academic achievement (Dania, 2014). He emphasized that the nature and intensity of the outcomes, the behavioral changes in the learner are functions of specific instructional approach. In the same view, Nwachukwu and Nwosu (2007), pointed out that the effectiveness of any instructional approach to some extent depends on the operator and the language being used to operate the method.

Physics as a subject is the basis of STEM education through its principles. A wide range of application of physics is used in industrial development for improvement of materials useful to the well-being of human race. In their findings, Wambugu and Changeiywo (2008), pointed out that the teaching of physics provides the learner with skills and scientific knowledge needed for scientific research, fostering technological and economic growth in the society.

Physics education should therefore be taught in a language students will easily understand. The use of appropriate language of instructional approach is critical to the successful implementation of the objectives of STEM education in Nigeria.

During the past years, focus has been on the medium of instruction in STEM education in Nigeria. For instance, the theme for the Thirty Second Annual conference of the Science Teachers' Association of Nigeria STAN was "Teaching Science, Technology and Mathematics in the mother tongue. The medium of instruction at all levels of education in Nigeria is English language, which is second language. It is a fact that a child learns best in his or her mother tongue.

Language generally performs a lot of functions in speech communication. Language is also a means of expressing thoughts and feelings (Nnamani, 2012). Ezieojioku (2007) observed that all the technologically developed nations achieved their breakthrough, using their indigenous languages. For instance, America, Britain, France, Russia and Germany all achieved their technological feats by using their local languages. Today, China, India, Japan, Korea and other Asian Tigers that rule the world in science and technology achieved their feats using their indigenous languages and technology (Ede, 2019). Therefore, for Nigeria to achieve her Science, Technology, Engineering and Mathematics (STEM) education objectives, the use of Nigerian

languages as a means of instruction cannot be overemphasized. Research has shown that children learn better in their mother-tongue since they think first in their language and latter relate their thought to any foreign concept. Fafunwa (1995), opined that once we are able to teach concepts of mathematics and other science and technology subjects to our children in their mother-tongue, we are likely to develop faster in science and technology. Besides the three major languages, Hausa Igbo and Yoruba, efforts should also be made to develop other minority languages in the country with the view of using them as medium of instruction in our primary and secondary schools.

The fact remains that many states in the country could be regarded as mini-Nigeria because of their individual ethnic composition. Even in many states where you have the dominant groups like the Hausa/Fulani, Igbo and Yoruba, many other ethnic groups co-exist in the same geographical environment, especially in terms of linguistic cleavages. Below is the list of the 36 states of Nigeria and the Federal Capital Territory with the number of languages spoken in each state.

Table 1: Languages by State in Nigeria

S/N	STATE	No. of Languages	S/N	STATE	No. of Languages
1	Abia	1	19	Kano	4
2	Adamawa	58	20	Katsina	2
3	Anambra	3	21	Kebbi	16
4	Akwa Ibom	26	22	Kogi	8
5	Bauchi	60	23	Kwara	7
6	Bayelsa	10	24	Lagos	2
7	Benue	14	25	Nasarawa	29
8	Borno	28	26	Niger	38
9	Cross-River	50	27	Ogun	1
10	Delta	11	28	Ondo	10
11	Ebonyi	5	29	Osun	1
12	Edo	17	30	Oyo	1
13	Ekiti	1	31	Plateau	48
14	Enugu	1	32	Sokoto	23
15	Gombe	21	33	Taraba	73
16	Imo	1	34	Yobe	9
17	Jigawa	4	35	Zamfara	1
18	Kaduna	57	36	FCT	9
Total No. of Languages			**343**		

Source: Department of Languages and Linguistics, University of Jos, Nigerian Tribune, Monday 7th October, 2013. P35.

From the above analysis, there is a considerable support for the use of mother-tongue as a medium of instruction especially in the rural areas of which constitute about 70% of the entire population of the country, but a little problem exists in the urban areas as most of which are mutli-ethnic. Students in urban areas have different mother-tongue and the problem is that of selecting the appropriate mother-tongue to use.

In Edo state, where the study was carried out, there are seventeen (17) languages in the state. The inhabitants use adulterated forms of English Language referred to as Pidgin English Language as a means of communication. By implication, the mother-tongue in Edo State can be said to be Pidgin English Language. The advocacy for the use of Pidgin English Language as a medium of teaching science and technology is based on mere conjecture that will improve students' achievement in science and technology education. There is no known empirical evidence to back up such. This conjecture is therefore put to test in this study.

Statement of the Problem

Students' performance in STEM education is not encouraging in Nigeria. The language being used in communicating concepts to students at primary and secondary school levels is not effective. The use of English Language as a medium of instruction in science and technology education in Nigeria has been implicated in observed under-achievement. Of all the continents and people of the world, it is only in Africa and few other ex-colonial countries that formal education is offered in a language that is foreign to the child. Therefore, the problem of this study; is language of instruction responsible for students' poor performance in STEM education?

Research Questions

The study is proposed to answer two research questions;
1. Which of English language and Pidgin English language (mother tongue) will be more effective as a language of instruction in the teaching of physics concepts to senior secondary school students?
2. In which of these languages (English and Pidgin) male and female physics students perform better when each is used in the teaching of physics concepts?
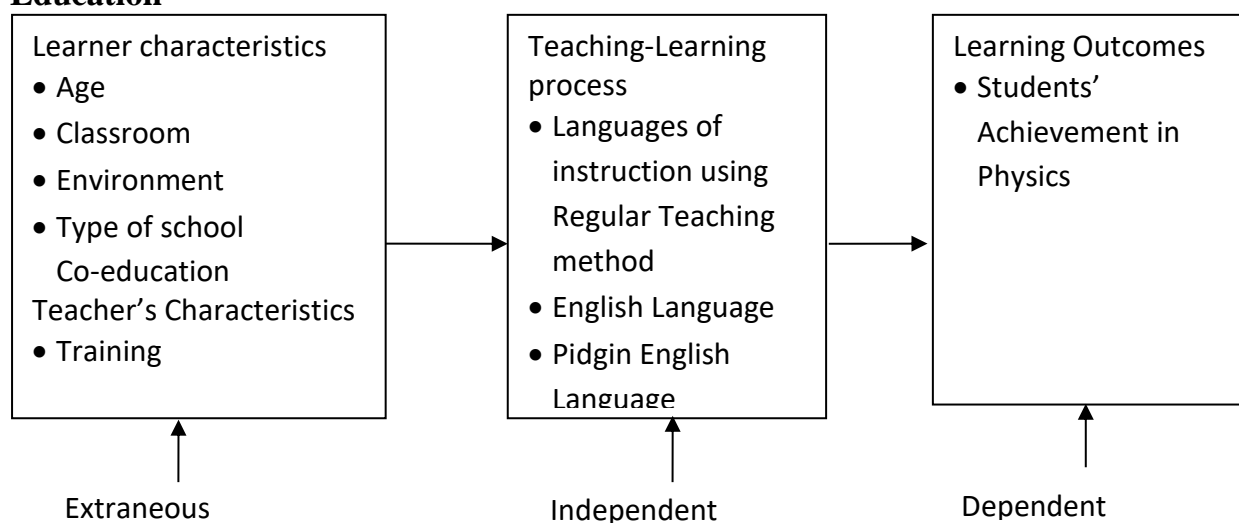
Research Hypotheses

Three null hypotheses were formulated for the study.

HO_1: There is no significant difference in the performance of Senior Secondary School Physics students taught using English as a language of instruction and those taught using Pidgin as a language of instruction as measured by Physics Achievement Test (PAT)

HO_2: There is no significant difference between the performance of male and female physics students as measured by Physics Achievement Test (PAT).

HO_3: There are no interaction effects between gender and the language of instructional approach on the achievement of Physics students as measured by Physics Achievement Test (PAT).

Conceptual Frame Work Used to Investigate Languages of Instruction in STEM Education

Learner characteristics	Teaching-Learning process	Learning Outcomes
• Age	• Languages of instruction using Regular Teaching method	• Students' Achievement in Physics
• Classroom	• English Language	
• Environment	• Pidgin English Language	
• Type of school Co-education		
Teacher's Characteristics		
• Training		

Extraneous   Independent   Dependent

The conceptual framework to guide the study was based on the System Approach (Joyce and Weil, 1980) which holds that the teaching and learning process has inputs and outputs. To achieve good results, then the inputs must have suitable materials. The study was also based on the assumption that the blame for a student's failure rests with the quality of instruction and not lack of students' ability to learn (Bloom, 1981: Levine, 1985).

Method of Study

The study is a pretest, posttest factorial design that allows the examination of several factors at the sometime. The target population for the study is senior secondary schools two Physics students in public senior secondary school in Akoko, Edo Local Government Area, Edo state, Nigeria. The population was twenty-eight (28) public senior secondary schools with five hundred and sixty (560) physics students (Edo State Ministry of Education, Igarra (2020/2021). Purposive sampling technique was used to select the sampled schools from the target population. The criteria used are:

- Schools with equipment and functioning Physics laboratory.
- Schools that are currently presenting candidates for external examination.
- Schools with at least one experienced professional physics teacher.
- Schools that are co-educational.

Out of the twelve (12) schools that met the criteria, two were randomly selected by balloting. The selected schools were randomly assigned to treatment and control groups. Comprehensive mixed school, Igarra was assigned experimental group, with 25 physics students. While Akoko-Edo mixed grammar School Uneme-Nekhua was assigned control group with 20 physics students.

The study involved groups of students in their intact classes assigned to experimental and control groups. The two independent variables are sex and instructional approaches. The effects of these independent variables on the dependent variables, students' academic achievement was investigated.

The instruments for data collection were instructional package, lesson plan for the teaching session and Physics Achievement Test (PAT). The instructional package consisted of selected concepts from mechanics (Equilibrium of Forces) in Physics from SSS 2 syllabus with the contents: resultant and equilibrant force, centre of gravity and equilibrium, equilibrium of bodies in liquids, Archimede's principle and the law of flotation. These contents were based on SSS 2 physics syllabus. Two physics lecturers from a college of Education and two experienced physics teachers at the secondary school level, validated the instruments. Their comments and corrections were incorporated into the final form of the instrument. To ensure content validity, the instructional objectives were divided into four (4) educational hierarchies of knowledge, comprehension, application and analysis. The test blue print of the table of specification is shown in Table 2 below. Experts determined the suitability of the items for the target population in terms of class level, contents, and reading level, relevance and language level. The reliability of the test items was carried out using test-retest being administered to twenty students from non-participating schools. The reliability coefficient of 0.78 was obtained using Pearson Product Moment Correlation.

The achievement test of 30 multiple choice items was administered as pre-test to the students just before the commencement of treatment. The exercise was to ensure confidence that the schools were experimentally equivalent enabling comparison of the performance of the control and experimental groups of the post-instructional stage. The students in the experimental group were treated with Pidgin English Language while those in control group were treated with conventional English Language. Both groups were exposed to the expository traditional method of teaching. The researcher carried out the teaching himself so as to guide against certain factors such as qualification, teaching, experience etc. that could limit the effectiveness of the task presentation. The treatment lasted for four weeks. Immediately after the treatment, posttest was administered to the two groups. The two groups were exposed to the same physics contents. The only difference was the language of instruction.

Table 2: Intellectual Objectives

Unit	Knowledge 28.7%	Comprehension 23.3%	Application 30%	Analysis 20%	Total
Resultant equilibrant forces 10%	2	1	-	-	3
Parallel forces 13.3%	1	1	-	2	4
Moment of force (Torque) 13.3%	1	1	2	-	4
Centre of gravity 6.7%	1	1	-	-	2
Equilibrium of forces in Liquid 20%	-	1	3	2	6

Archimedes principle 16.7%	1	1	2	1	5
The law of floatation 20%	2	1	2	1	6
Total	**8**	**7**	**9**	**6**	**30**

Results and Discussion

A t-test statistics was used to verify the initial abilities of the students in Physics before they were treated with either Pidgin English Language or conventional English Language as languages of instruction as measured by PAT. A 2x2 Analysis of variance was used to test the effects of the languages as a means of instructional approaches on the performances of the students in Physics as measured by PAT.

Table 3: t-test statistics of pre-test mean scores of experimental and control groups

Variable	N	$\bar{x}$	Sd	df	t-obtained	t-cal	Sig at p<0.05
Experimental group	25	5.85	2.52	43	0.85	2.021	NS
Control group	20	6.24	2.17				

A t-test analysis revealed no significant difference between the mean pretest scores of experimental and control groups. This result, among other things, informed the decision to use 2x2 Analysis of Variance (ANOVA) for comparing the group means of the post-test. Table 3 presents the 2x2 ANOVA summary which was used to test the stated hypotheses instead of Analysis of Covariance (ANCOVA).

Table 4: 2 x 2 Analysis of Variance (ANOVA) of Dependent Variable post-test scores of students taught with Pidgin English Language and conventional English Language

Source of variation	Df	SS	MS	F-obtained	F-crit	Sig. at p<0.05
Treatment	1	281.3	281.3	25.21	4.08	S
Sex	1	10.4	10.4	0.932	4.08	NS
Interaction (treatment x sex)	1	2.1	2.1	0.188	4.08	NS
Error (ssw)	41	401.8	11.16			

In Table 4, the calculated F-statistics due to treatment (Language of instruction) is 25.21, while from the F-DST, the value of F-statistics beyond 0.05 probability level (1df and 41 degree of freedom) is 4.08. The calculated value due to treatment is therefore greater than the expected F-value. The difference is significant thus leading to

the rejection of hypothesis HO_1. This implies that the performance of students in physics is related to the language of instruction and it is in favour of Pidgin English Language as shown in Table 5.

In the same Table 4, the calculated F-value 0.932 due to sex is less than the expected F-value (4.08). Hence, sex has no significant effect on the performance of physics students as measured by PAT. Thus, leading to the acceptance of hypothesis HO_2. However, the mean scores of male students in both treatment and control groups were found to be higher than that of female as shown in table 5. Also in Table 4, the obtained F-value 0.188 due to interaction effect is less than the expected value 4.08, leading to the acceptance of hypothesis HO_3 at 0.05 level of significance. In other words, interaction effects between sex and the language of instruction on the achievement of physics students was not significant. This implies that the simple main effects of languages of instruction do not change as a function of variation in sex and vice versa.

The result of this study is in consonance with the assertion of Fafunwa (1995), Ezieojioku (2017) and Ede (2019), that the use of mother-tongue has a significant effect on students' academic performance in STEM education.

Table 5: Summary of Cell and Marginal Mean

		Treatment		
		Conventional English Language	**Pidgin English Language**	**Sample mean**
Sex	Male	12.90	19.40	16.15
	Female	11.60	17.80	14.70
Sample Mean		12.25	18.6	15.43

Conclusion

In conclusion, this research has a number of interesting findings. The study has revealed that the effect of indigenous language in the teaching and learning of physics was significant. This implies that the achievement of students in physics was based on the language of instructional approach and that sex has no significant effect on students' academic achievement irrespective of the language of instruction.

Recommendations

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

1. Most developed countries in the world are using their indigenous languages to develop their science and technology education. Nigeria should therefore use her indigenous language as a means of instruction and see how far she will go in the development of her STEM education.
2. There is no effective instructional approach in terms of language of instruction in our primary and secondary schools. There should therefore be adequate trained teachers in the area of the use of indigenous languages in our schools.

3. In the urban areas where we have different indigenous languages (mother-tongue), there will be problem of selecting an appropriate mother tongue. In such areas, Pidgin English language should be adopted as a mother-tongue.
4. Instructional materials and textbooks with manual in our mother-tongue should be produced for pupils' use.

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An Overview of Boko Haram and Banditry in Nigeria: Origin, Impacts, Challenges and Ways Out

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Abstract

This paper seeks to trace the origin of Boko Haram and Banditry in Nigeria, the impacts of their activities, challenges faced by Nigerian government, and security operatives in defeating them. It looks at some of the reasons that made these groups take to violence and how their operations have badly affected not only education, but economic, religious and social activities in Nigeria. It discusses how some security operatives, government officials, well to do individuals in the society and people living within the communities where these groups operate have helped in sustaining their activities to date. Attempt is also made at proffering solutions on how to put an end to the menace of these groups.

Key words: Boko Haram, Banditry, Origin, Impacts, Challenges, Way-out

Introduction

There is no country that can achieve development without security, thus security is the backbone of every development, be it political, economic or social. Nigeria, the 'giant of Africa', has been beset with economic, political and social insecurity since the end of the civil war in 1970 and this has affected its development. Today, Boko Haram and Banditry are a great threat to the Country's development. They have destroyed the northern part of the country, resulting in the collapse of Nigerian national security[1].

Boko Haram and banditry have brought about widespread insecurity all over parts of northern Nigeria which is the most populated part of the country. This has not only raised tension amongst the various ethnic groups, but has also resulted in the collapse of economic and infrastructural development and brought about fear to local

and foreign investors. Lack of proper security architecture in neighbouring countries like Chad, Niger and Cameroon paved way for the attacks on Borno, Zamfara, Sokoto, Katsina, Kano, Yobe and Adamawa States etc. There was a major attack in Kano on 20th January, 2012 which resulted in the killing of over two hundred and fifty (250) people with colossal amount of property destroyed.[2] Others were the bombing of United Nation (UN) headquarters in Abuja on 26th August, 2011 leaving at least 18 killed and dozens injured.[3] Attacks on mosques, Churches, government institutions, ministries and parastatals located in the northern part of the country. All these attacks were intended to put pressure to inflame religious tension.

This paper takes a look at how Boko Haram and Banditry evolved over the years into a more sophisticated group, the challenges faced by the military in defeating them, its impacts and the way out. The insurgence of Boko Haram can be categorized into two phases. The first phase which is the peaceful movement, covers the period 2002 to 2009. The second phase of the movement is characterized by violence, which started from 2009 to date.[4]

First Stage of Boko Haram (Peaceful Phase)

According to Shuaibu Salleh Shehu, *Jama'at Ahl as-Sunnah Lid-Da'wah Wah-'l-Jiha'd* an Islamic terrorist organization based in North-Eastern Nigeria, known as Boko Haram emerged around 2002 as a peaceful local sallafist Islamic movement. The Hausa phrase 'Boko Haram' means, Western education is forbidden[5]. Boko Haram was brought into limelight in 2002, in Maiduguri the capital of Borno State located in North Eastern Nigeria by one Mohammed Yusuf, a radical Islamic cleric who mainly organized lectures for the charity of the needy. The cleric set up a religious complex called *arkaz*, following his expulsion from two mosques in Maiduguri by other Muslim clerics for propagating his radical views. The complex included a mosque and an Islamic school. Many poor Muslim families in Nigeria and neighbouring countries sent their children to the school to get the knowledge of his new teachings. In fact, the center had ulterior political goals to create an Islamic state and impose sharia law. Hence, it soon became a recruiting ground for future jihadists to fight the state. The group was initially operating under the name *shahaah Muslim youth organization* under the leadership of Mallam Lawal.[6] As a matter of fact, when Lawal travelled to Madina in Saudi Arabia to increase his Islamic knowledge, Yusuf became the leader of the movement.

Second Stage of Boko Haram (Violent Phase)

On the 28th July, 2009, the Nigerian Army reportedly launched an offensive attack on the sect and its leader Muhammad Yusuf. His compound and a nearby mosque used by his members were raided by Nigeria security forces which claimed the lives of many of his members. According to some eye witness accounts, about one hundred corpses were seen lying beside the police headquarters in Maiduguri.[7]

Thousands of people fled their homes in order to escape the violence. Many people were pulled out of their cars and shot dead. Several civilian corpses were found lying on the streets of Maiduguri. This crisis later spread to Kano, Yobe and Jigawa

States. Violence continued for five days until the sect's leader, Mohammad Yusuf was eventually killed while in police custody. Over seven hundred persons were killed within this period.[8] After all these happenings, the activities of the group appeared to be dissipated. However, they regroup and re-emerged in 2010 under the new leadership of Abubakar Shekau. With the rise of a new leadership, Boko Haram attacks escalated becoming more frequent and intensified. The group orchestrated its first attack in September, 2010 on a prison in Bauchi. On the 16th of June, 2011 it attacked the police headquarters which turned out to be the first suicide bombing in Nigerian. In August 2011, a suicide bomber again, attacked the UN headquarters in Abuja, killing over sixty people and leaving many critically injured. The spokesman of the group, Abu Qaqa claimed responsibility. The attacks became frequent and more intensified that In January 2012, the sect co-ordinated and carried out series of deadly bombings in Kano the largest commercial city of northern Nigeria. The attacks resulted in the death of more than one hundred and eighty people including large numbers of security personnel.[9] This was believed to be the highest death toll in a single day since the group began its violent campaign in July 2009.

Origin and Evolution of Banditry in Nigeria

According to Dr. Abubakar Mohammed of ABU Zaria, banditry in Nigeria started as a dispute between herders, farmers and the native authorities. Its root causes could be traced back to the 1970s, when the Fulanis who are predominantly cattle rarers started complaining of oppression and exploitation by the members of their host communities and traditional rulers.[10]

They accused the natives and their rulers of charging excessive fines for trespass by their cattle on their farms. They also complaint of being marginalized and exploited in times of misunderstanding that resulted to quarrels between them and the natives. When this happened, the Fulanis were made to compulsorily give certain number of cattle as fine for their offences.[11] The exploitation became rampant that the Fulanis reported to government authorities at the local and state levels, but their complaint was given little or no attention. Worst still, when they complaint to the police authorities, little or nothing was done about it. Instead, the police arrested them for not paying off the charges levied against them. This continued for decades that some of the traditional rulers started having more numbers of cattle than the Fulanis.[12]

As the oppression continued, Ishe, a Fulani activist started challenging the natives and their rulers by demanding for justice for his brother Fulanis. This, majority of the natives did not like. As a result, Ishe was assassinated.[13] The natives did not stop at that. Members of their vigilante group known as 'Yan Sa Kai' started attacking Fulani communities within the city and surrounding bushes in Zamfara.[14] Added to this, was the fact that grazing lands and cattle routes were now being occupied by the natives as farm lands and home settlements. As a result, pasture for their animals in these areas was increasingly becoming a problem. Then, came the menace of cattle rustling which became very rampant and the targets of this nefarious acts were the Fulani herders. Hence, they continue to lose possession of their cattle which was their major means of livelihood.[15] Besieged by all these problems, they decided to take the laws into their

hands by robbing the natives and attacking police stations to free their brother Fulanis that were arbitrarily detained. They did not stop at that, they also attacked and killed traditional rulers who were known to be unjust to them. This resulted to a new wave of crime (banditry and kidnapping). As time went on, their brothers from neighbouring countries immigrated into Nigeria claiming they came for the 2015 general elections. These foreigners joined hands with their brother Fulanis to form various groups of bandits that have disrupted the peace and security of Nigeria at large. This saw the emergence of Turji, a notorious Fulani Bandit Leader who committed all sorts of atrocities like indiscriminate killing of innocent people, raiding of communities and kidnapping for ransom.[16]

Today, authorities in Zamfara think that there are well over 30,000 bandits split into around 100 heavily armed groups[17] Among them is one Ado Aliru, one of the most feared warlords commanding a gang of bandits in Zamfara, who in an interview with the British Broadcasting Corporation (BBC) explained that all these happenings were due to the fact that they no longer have place to rear their animals, all the cattle routes and grazing lands have sized to exist as natives have taken over all these places either as farmlands or settlements. He further stated that the situation gets worst during the rainy season as they hardly can find grazing land or routes for their cattle. As a result, they have to take their cattle through rocky and bad terrains where they often die. Not only that, the natives continuous exploitation and attacks on the Fulanis and their cattle in the forest have made them (Fulanis) resort to attacks on villages of the natives and abduction of people for ransom as the only way to make the government acknowledge that they have problems and are in dear need of a permanent solutions to these problems.[18]

However, a closer look at the bandits' and their activities indicates that they also want to make money. This is evident of the fact that they more often than not kidnap for heavy sums of money as ransom. For instance, in early 2021, they abducted nearly 280 school girls from a government run high school in Jangebe for ransom and only release them after the government paid 60 million naira which Ado said they used to purchase more arms and ammunitions.[19] Ado confessed to have taken so many lives that he has lost count of. He further explained that he now has a dead conscience because the government has failed in addressing their problems, rather, the government sends military men with their war planes to bomb and kill them and their animals in the forest.[20]

In 2021 alone, 9,423 Nigerians in the orgy of violence in different parts of the country loss their lives with the 6 states of Zamfara, Kebbi, Katsina, Sokoto, Kaduna and Niger states affected by banditry recording 4,104 deaths.[21]

Impacts of Boko Haram and Banditry in Nigeria

Insecurity in Nigeria has made the nation unsafe. The right to life and peaceful co-existence has been threatened. Schools in the North Eastern and North Western states like Zamfara, Katsina, Sokoto, Niger, Borno, Yobe, Taraba, Adamawa, Kaduna and recently in some South Eastern states like Imo, Abia and Enugu are shut down for very long periods. People are being displaced from their communities. Normal ways of life

and sources of livelihood are also being destroyed or crippled. This has greatly affected education. Children's education is being truncated till such a time that the parents or guardians settles down to start another means of livelihood. Some parents believe that paying school fees is the only responsibilities they have towards their children's education. They tend to forget the social wellbeing of the child. That is why there are many cases of child molestation, sexual harassment and drug abuse.

Some years back, children moved happily and freely around the nooks and crannies of their communities without fear of molestation, kidnap, being killed or any sort of danger happening to them. Today, the case is different. Field research reveals the alarming rate of abduction of school children and under graduates across the country for huge ransoms. Especially in states like Niger, Kaduna, Zamfara, Sokoto, Katsina, Adamawa, Borno, Yobe, Taraba, Bauchi, Plateau and some states in the South Eastern parts of the country. This has negatively affected education to the extent that one might be tempted to say Boko Haram members are beginning to achieve their aim of saying western education is evil and should be abolished. Suffice to say that, it is not out of place when some analysts assert that the lingering Academic Staff Union of Universities (ASUU) strike can be linked to the cardinal objective of Boko Haram. They argue that some top government officials who are suspected to be supporters of Boko Haram are deliberately against government meeting up with ASUU's demands so that the Universities will remain closed, thereby, aiding Boko Haram in achieving its aim that Western Education is evil and should be abolished.

In fact, some commentators have stated that the negative effects of the activities of Boko Haram and Bandits on education are worse than that of Covid-19. Field survey reveals that WAEC and NECO Examinations were postponed in some states like Borno, Katsina and Zamfara because of the insecurity caused by them.[21] As a result, there seem to be some sort of inequality in the level of education in the affected states when compared to other states that are experiencing relative peace. For Nigeria to come out of poverty, hunger and disease, the problem of illiteracy must first be addressed. No country in the world can achieve economic and social development without educating its younger generation who would be leaders of tomorrow and this cannot be achieved in an atmosphere of insecurity.

Recently, kidnap for ransom has become a big business that even the clergy are no longer safe. For instance, a catholic priest was kidnapped in Kaduna state on the 5th of July 2022.[22] Another cleric venerable and his son were kidnapped in Ondo state on the 22nd May 2022.[23] On the 21st of August 2022, four catholic nuns were again kidnapped in Imo State[24] just to mention a few. So, have churches and mosques been attacked and innocent worshippers either maimed or sent to their early graves. For instance, on 1st November, 2021 bandits invaded the Baptist church Kakau in Chikun local government area of Kaduna state, killing two (2) while scores were said to have been abducted.[25] Again, in June, 2022 a mass shooting and bombing occurred at St. Francis Catholic Church in the city of Owo in Ondo state. About 40 people were killed and over 80 people injured. Upon investigation, Idris Ojo, one of the high-profile Islamic State in West Africa Province (ISWAP) that escaped from Kuje Prison was arrested alongside Momoh Abubakar, Aliyu Itopa and Auwal Onimisi in connection

with the attack. Onimisi is said to be one of the masterminds of the June 5th catholic church attack in Owo as well as the attack on the police station in Adavi in Kogi state that led to the killing of a police man as well as weapons being carried away.[26] These attacks are not targeted at churches alone, mosques in Nigeria have also had their own fare share. The country's North-West and North-East are the regions mostly affected. At least, five worshipers were killed and 40 others kidnapped when armed gun men attacked a mosque in Zamfara state. The Imam was among those reportedly abducted.[27] This kind of attacks have been very frequent in North-East and North-Western Nigeria with the most recent on September, 2022 where a mosque in Zamfara was attacked by bandits during Juma'at prayer and scores of worshippers abducted just to mention a few.[28] This has negatively affected religious activities that now some people no longer feel safe to go to the church or mosque for worship.

Most worrisome is the fact that the activities of bandits have gotten close to the seat of power. This is evident of the fact that on 5th July, 2022 the bandits attacked Kuje Medium Security Custodial Centre, Abuja freeing over 600 inmates of the custodial centre including 64 high profile Boko Haram members who also killed 4 inmates and injured 16 others.[29] So also did bandits attack some official of the 7 guards battalion of the Nigerian Army Presidential Guards brigade in Bwari Area Council of Abuja leaving 3 soldiers wounded and 8 personnel killed. The attack on the brigade whose duty is to protect, comes a few weeks after terrorist Launch a similar attack on a presidential convoy in Dutsinma, Katsina State. The same day they invaded the Kuje prison.[30]

Worthy of note is the fact that, some government officials are now being suspected to be either supporters or members of these terrorist groups. For instance, the former Borno State Governor, Kashim Shetima was allegedly accused of being the boss of Boko Haram and keeper of Chibok girls.[31] Recently, Sheik Gumi's personal assistant Mr. Tukur Mamu, a self-acclaimed Kaduna train hostage negotiator was arrested in Egypt on 6th September, 2022 while on his way to Saudi Arabia.[32] Upon his interception, and subsequent interrogation, the DSS found that Mamu was on his way to Saudi Arabia for a clandestine meeting with commanders and top leaders of terrorists organizations across the globe. Investigations further revealed that he has been using the cover of his profession as a journalist to aid both local and international terrorists' groups. The secret police listed some of the items recovered from Mamu's residence and office to include large sums of monies in different currencies, 16 ATM (Automated Teller Machine) cards for local and foreign banks, different banks cheque books, 8 pieces of Nigerian Army uniforms and 16 pieces of Nigerian Naval Uniforms were amongst the 34 items recovered. The secret police further claim that the actions of Mamu caused the deaths of many security personnel in North-Central and North-Eastern parts of Nigeria.[33]

The activities of Boko Haram and Bandits have also affected economic and social activities in the country. People no longer find it safe to go out for their businesses and other activities. The indiscriminate killings, bombing, kidnapping and raiding of communities by members of these groups has also greatly affected agriculture. For instance, residence of 4 communities in Kajuru local government area of Kaduna state said the constant attacks on their communities by bandits have affected their means of

livelihood as the can no longer go to their farms to avoid being killed or kidnapped by the bandits.[34] Farmers can no longer go to their farms. Where farming has already been done, they cannot go there to harvest their farm produce. In some instances, crops are set on fire by the Bandits or Boko Haram members. All these have led to the problem of food crises in the affected areas.

With the 2023 general elections round the corner, many people are beginning to express fear that these groups will disrupt the elections. More so that, there are strong allegations that some top politicians and government officials contesting for elective positions are associates of Boko Haram and Bandits. It is believed that these people may win elections into key offices during the forth-coming elections. If this happens, they will plunge the country into serious problems and confusion. Where they do not have chances of winning, they may disrupt the elections. This indeed calls for serious concern and worry.

Challenges of Defeating Boko Haram and Bandits

One of the major challenges faced by the military in defeating Boko Haram and the bandits can be linked to the soldiers themselves. Some soldiers leak their tactics and secret information of the military to the enemies (Boko Haram members and Bandits) in return for money thereby betraying their colleagues.[35]

They also leak secret information about their directions and whereabouts to the enemies for money. As a result, the enemies ambush and attack them by surprise. When this happens, they kill the soldiers and collect their weapons.[36] Again it is alleged that the civilians at the trouble spot always harbor these enemies in their midst. Being together with the public, they hear what people say about them and the plans of the military against them. Furthermore, the Nigerian borders are so porous that these groups train outside the country and come back without any hindrance.[37]

Another important factor is that some government officials and wealthy individuals sponsor these groups. Mailafia, the then deputy governor of central bank alleged that some influential personalities in the country were supporting these groups. Analysts agree with this allegation, saying it is the reason why these groups are still very strong. They are said to be getting financial support and aids like arms and ammunition, food supply etc. from outside the country.[38] Again, Boko Haram and bandits have sophisticated weapons that the military do not have. This makes it difficult for the military to withstand their fire power.[39]

Yet another problem is the non-issuing of orders by some military commanders to their troops when they came under attack. As a result, many soldiers are killed. These reasons, coupled with the delay in payment of allowances weaken the moral of the soldiers. Worst still is the fact that the soldiers earn less than the enemies.[40] All these problems have made the work uninteresting to the troops.

Boko Haram and Bandits have series of networks both within and outside the continent where they get their arms and ammunitions, tactics, recruitment, strategy and so on.[41] Every soldier is given a weapon with which to fight, the soldier must regard his weapon as the most important equipment in his possession. He is expected to keep the

weapon and ammunition in his custody safe. However, some soldiers sell their ammunition while some even supply arms and ammunitions to these groups.[42]

Fields Research have shown that these group's activities would not come to an end very soon because of the huge amount of money they collect as ransom from the family members of their kidnapped victims. They use the monies realized to buy more sophisticated weapons and other necessities.[43] While some of the soldiers sell their ammunitions, some help the enemies to raid and break their armory. With this development the enemies always have enough arms and ammunition while the soldiers run short of them.[44]

Furthermore, bad governance in Nigeria has plunged a lot of people in to abject poverty and hunger. This has made majority of the people to engage in crime for survival. No wonder when the criminals give a small token to the locals, they harbor them and hide information from the soldiers. Not only that, many of the locals join these groups just to make ends meet.

Corruption is also being speculated within the hierarchy of Nigerian army. Some of the recruits trained in the Nigerian Depot are said to be members of these groups. It is alleged that Boko Haram leaders pay huge sums of money for their members to be enlisted and to scale through the hurdles of the tedious training.[45]

Another important factor is the religious ideological belief of majority of the Boko Haram members and Bandits. They believe that when one dies in such engagement, he would automatically gain entry into paradise where he will find virgins waiting for him.[46] Furthermore, the terrain in which they operate is forested and characterized by hills and valleys. This, no doubt provides the desired cover needed by the bandits and Boko Haram members. It also places them in a vantage position when it comes to physical confrontation with the soldiers because they know the area more than the troops.[47]

Again, the huge amount of money paid as salary to the Boko Haram members and bandits serves as a means of attracting unemployed youths and deserters to join them. This explains why their population keeps growing despite the killing and arrest of majority of them by the security agencies.[48] Research revealed that yet another problem is the fact that during most of the engagements, these group members outnumber the troops thereby giving them an upper hand over the troops. This is because in such engagement only few soldiers are selected to go for combat.[49]

Closely linked to this is the insincerity on the part of the government officials in checkmating the influx of foreigners into the country. The introduction of National Identification Number (NIN) was aimed at checkmating this but government has failed in carrying out this objective with all sincerity of purpose.

More so, people like Sheik Ahmed Gumi and others have shown sympathy for Bandits and Boko Haram members. He has protected them from being labeled as terrorist. This has further strengthened and encouraged them to carry on with their nefarious activities.[50]

The selective attack by the troops on places known as "enemy area" is yet another problem. In some cases, the soldiers operate based on religious sentiments. This is evident of the fact that there are instances where soldiers inclined to a particular religion,

refuse to attack the enemies because majority of the people in that area share the same faith with them. By so doing, it would not be out of place to say that there is double standard in the military's mode of operation.[51]

Boko Haram and Bandits recruit women who serve as sex workers. These women are based in the civilian dominated areas. The criminals often meet them there not just for paid sex but to also get information on what the people are saying about them which helps them in preparing their strategy.[52]

Thus, the inability of the military to locate and target these groups, coupled with the support they get from the locals, some well to do individuals in the society and government officials have made it difficult to end Boko Haram and Banditry in Nigeria. For this to be achieved, the military needs to be given a new orientation, and equipped with modern sophisticated weapons and gadgets that would aid them in their fight against the groups.

Ways Out of Boko Haram and Banditry

If the government truly wants to put an end to Banditry in Nigeria, it is important to note and accept that majority of these bandits are Nigerians by the constitution. If they are truly Nigerians, government should hear them out with a view of proffering solutions to the major problem that have caused their grief as explained by Ado. This can be done by assisting them with the desired training needed for them to start ranching as a way of rearing their animals rather than moving from one place to another in search of pasture for their animals which results to either loss of their animals or conflict between them and the farmers. This is in line with views of Alhaji Hassan Atahiru (Emir of Bungudin in Zamfara) who advocated for peaceful negotiation with the bandits.[53] If all efforts at peaceful resolutions fails', then the government should adopt the following stringent measures as a way of putting an end to their inhuman activities.

Government, the wealthy and well spirited individuals in the society need to pull resources together to fight this insurgency. The bandits should be starved of food. If all avenues of them getting food are blocked, hunger can make them surrender.

The training and retraining of the security personnel on strategy, weapon handling, intelligence gathering will yield the desired result in putting an end to banditry and Boko Haram. Sophisticated cameras should be installed in specific areas that are prone to attacks by these criminals. We must collectively act to deal with the situation at hand. Government on its part should be transparent and treat all citizens equal without fear or favour.

Government should be more proactive and treat terror as terror. All criminal elements must be exposed. It is no news that some highly placed individuals in the society assist in sponsoring some of these criminals. Such persons should be exposed and called to book. Troops should be sent to go after these criminals in their hideouts. The country's borders should be well secured since most of these insurgents are illegal aliens.

Nigeria security agencies should remain united in the fight against terrorism. Terrorism is a crime against both Christians and Muslims. They should strictly adhere

to their guiding principle which says a soldier has no religion and deals squarely with the situation at hand without sentiments.

The paper discussed some modern technologies and how it can be applied to fight the new insecurities and crimes in Nigeria and thereby proposed the use of a central base as a backbone model serving as a central part of reference for all law enforcement agencies.

Analysts are of the view that the use of vigilante and hunters would be of help to curtail the powers of bandits and Boko Haram. It is alleged that these groups of persons possess super natural powers that can contain these evil monsters.

It is alleged that government is shielding this terrorist groups that is why they are becoming stronger and stronger by the day. If the government should pursue them to a logical conclusion, their strength will be reduced to the minimum. Thus, there should be no sacred cow in the fight against these criminals.

Yet another important point is the fact that government is being accused of not being hard in the courts of law to secure convictions that would serve as a deterrent to others that are willing to join these criminals.

Similarly, the release of repentant Boko Haram members and bandits is not a welcome idea. It is alleged that those repentant members study the society and later go back to their groups or serve as informants.

It is a popular saying amongst Kano indigenes that any bad thing that enters into the city will be consumed. That is why Boko Haram and Bandits would not survive in the city. Any body found involved in the nefarious activities would pay with his or her blood. In fact, if other states would adopt the strategy of Kano people the menace would reduce to the barest minimum.

The use of some modern technologies can be applied in the fight against these criminals. The Nigerian army should employ the international standard as stated by Umar and Bari, they advocated for the use of modern technology like ICT in order to fight against insecurity by tracking, detecting and disseminating information about the terrorist groups. They went further to state that the nation's security agencies such as the police, armed forces and others should be trained on the use of technology in their operations which may include surveillance cameras, social media platforms, telecommunication systems and other technologies for data collection and analysis.[54]

Nigeria's insecurity is worsening and increasing on a daily basis, necessitating an immediate technological intervention similar to that used in developed countries. Ismail, reaffirmed that technology can help Nigeria solve most of its security and economic problems in a short period. He argued that Nigerian government can use effective identity management to provide social security, create law and order and a well-organized nation.[54]

Again, Onudare, Omolara, Umar, Kemi, encouraged the use of ICT tools in Nigeria's security. These ICT tools according to the authors include mobile phone, internet, close circuit television (ICTV), surveillance cameras, social network analysis, satellite image, biometric surveillance, IP devices, fax machine, television, radio, data mining. That with public security communications system (PSCS), public safety network (PSNS) and National Security Information Centre (NSIC), the applicability of

ICT tools such as satellite remote sensing (SRS) technology will enhance present security efforts.[55]

Omede and Omede, in their work, "Terrorism and insecurity, laid emphasis on moral values and religious education as a panacea. They emphasized that moral is the code or customs of a people, the social glue that defines how individuals should live together. They argued that moral virtues such as honesty, responsibility and respect for others should be the domains of moral education which have been neglected for long.[56]

Use of intelligence as an approach is also advocated for in curbing insecurity in Nigeria. This is explored by Umar, Machina, Ibrahim, Nasir, Salahudeen, Mustapha and Shaibu, in their work, "fighting crime and insecurity in Nigeria; An Intelligent Approach". Insecurity and crime have been a significant issue in Nigeria. The country successfully dealt with the past insecurity challenges conveniently. The present government has failed to contain the new insecurity and crime challenges. These authors are of the view that the use of outdated strategy would bring out the desired results.[57]

Summary

The summary of this work is based on the findings that were revealed from oral interviews, field survey, newspaper reports, TV interviews, internet and journals used for this research. Due to security threats, most of the interviewees' names and identities are withheld.

However, information gathered from this research work reveals that Boko Haram and Banditry poses a serious threat to security in Nigeria. This is evident of the fact that their activities have negatively affected education, farming, economic and religious activities as well as the social wellbeing of the people in some parts of country.

The study further reveals that challenges being faced in defeating these terrorist groups includes, sabotage and corruption on the part of Nigerian security agencies, collaboration by some individuals and some government officials to support and encourage the activities of these groups. Others are the abject poverty and hunger faced by majority of Nigerians as a result of bad governance, religious ideological beliefs of majority of the Boko Haram members and Bandits just to mentioned a few.

Finally, the study suggests some ways of putting an end to the activities of these bandits.

Conclusion

Boko Haram and Banditry are a great threat to development in Nigeria, they have destroyed the northern part of Nigeria and their activities are now spreading to other parts of the country. If they are not comprehensively stopped, Nigeria cannot attain the desired development. To this end, it has become imperative for the government to look into the remote and immediate causes that led to the emergence of these groups with a view of addressing the problems without fear, sentiments or favour, be it amicably or otherwise thereby putting a permanent end to their nefarious and inhumane activities.

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Connecting Art and Visual Culture to Economic and Cultural Uplift for Present Day Reality

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Abstract

A rt and Visual culture established enabling expression for true indigenous way of life and belief that transferred from ancient to present. They enable the understanding of the past, present and envisioning of the future. Among other essential values, they also assist to healthy food on the table, strengthening cultural identity, nurturing health and contributing to economic opportunity for development. Due to the Western civilization, presently, the appreciation of the true African cultural heritage is going down every day that if care is not taken might result to the end of study of Art and Visual culture in Nigerian schools. This paper is aimed at projecting Art and Visual culture as the best and fastest means of reaching out to modern day reality in development as well as promoting African cultural importance to the entire world. It also aimed at promoting African cultural heritage to avoid tempering with Western civilization. The research methodology adopted in this study is by review of related existing literature on culture and values, and establishing the need to up hold the indigenous heritage and the problems facing Art and Visual culture presently in the society and education sector. Recommendations were made and one among others is that Government should also try to see that Art Sectors is favored by yearly Budget in order to equip Art sections in various Nigerian schools for cultural and economic uplifting for sustainable development of the country.

Key words: Aesthetic, Art, Culture, Economic-uplifting, Nation, Development, Values, Visual-culture

Introduction

Art and Visual culture stand as engine for economics and cultural uplift for present day reality which entails sustainable nation's development. They serve as mirror for projecting of African traditional Art with the need to recognizing the cultural values. They are forms of African expression for cultural identity and promotion of cultural heritage. True Art and Visual culture can improve a physical place, stifle broad creativity and bring economic benefit to a homogeneous community and also serve as essential tools for reshaping, building community and beautification of environment (Okenna, 2018). In low-income communities, Art and Visual culture contribute to healing trauma, fostering shared vision for community and other essential values to the

citizens (Ogbeme, 2016)**.** They touch all human endeavors that world without them, life would have been empty not only to Nigerians, Africans but also to the globe at large.

However, the major problem facing African countries is the best way to achieving sustainable development and Nigeria is not out of the scene. Obviously, cultural heritage is known enviably as rich and full of inspiration, and can stand as strong tower to achieve rapid sustainable development which Art and Visual culture can offer. But, it is seemly not or properly channeled to the ladder (quest towards nation-building, cultural and economic uplifting) that will help in busting its vitality to the world. This paper examines the concepts (Art and Visual culture) as living tradition, valuable and precious wealth that need to be upheld, positioned, transformed and channeled towards developmental perspective for sustainable national development. It also serves as engine for transferring of cultural identities to unborn generation in order to uphold, maintain, and uplift indigenous cultural values in this new millennium for the recognition of the importance of Nigerian culture as well as Africans at large to the world. To achieve the set purpose of this paper, the conceptual clarifications such as: the location of Nigeria in African Continent, the meaning of Art and Visual culture, the culture and cultural values were examined. Meanwhile, all other discussions are carried out, explicated and inclined towards development.

Nigeria as a Nation and its Location

Studying about the Nigerian culture creates room to know about geographical location of Nigeria as a country. Nigeria is one of the African countries that located at West African region of the African continent. Nigeria is simply known as the giant of Africa, reach in natural resources, numerous ethnic groups and tribes, filled with diverse unique culture. The uniqueness of Nigerian culture is found in its similarities, in spite of its wide diversity. For instance; the values, morals, religion as well as the strong respect held for the elders, especially the Kings and Chiefs. The land, water, air, and sun add to the economic wealth of Nigeria and apart from the natural resources, human resources are abounding in all units of life (Okenna 2018). To understand the need to embrace Visual art works and uphold on cultural heritage, there should be need to understand the meaning of Nigerian culture.

The Nigerian Culture

The culture of Nigerians is to be understood as the way of life of the people. It entails a totality of traits and characters that are peculiar to a people which differentiate them from other people. These peculiar characters can be found in the people's language, religion, clothing, music, work, arts, dancing, and their eating habits and so on. It also involves people's history, social norms, values, taboos, poetry, symbols, proverbs, philosophy, psychology, medicine and health care delivery, ecology, various arms of the traditional government, ethics, economic and education, military strategies, mathematics, even science and technology and so on. In fact, it covers all aspect of life (Karenga, 2016). Etuk (2002) is of the opinion that culture is "an entire way of what life would embody, among other things, what the people think of them and the universe in which they live, in other words, how they organize their lives in order to ensure their

survival". Culture also serves as a tool to distinguish a people from others, and Aziza (2001: 31) asserts that:

> Culture refers to the totality of the pattern of behavior of a particular group of people. It includes everything that makes them distinct from any other group of people for instance, their greeting habits, dressing, social norms and taboos, food, songs and dance patterns, rites of passages from birth, through marriage to death, traditional occupations, religious as well as philosophical beliefs.

The true Nigerian culture is the true identity of the Nigerian people which can be defined as the way of life which involves life of a particular people, race or tribe that makes them distinct from others. With the above insertion, it could be seen that there are no people or society without a culture. Nigerian culture is unique and embraces the totality of life in all its forms and ramifications. It has history, religion and even philosophy. That is why the western colonists that colonized Nigeria believe that Nigerians have no history, religion and philosophy. Meanwhile, all these are embodied in Nigerian culture and they know it, even the fruitiness, vitality and the values of it. More so, instead of Nigerian culture to be accepted by them it was rejected and categorized as "primitive", and tried to replace it with their own. This shows that no matter how civilization smutches on Nigerian culture, there is need to uphold it which unveils its values and true Nigerian cultural heritage any true Nigerian child should be proud of and passed on to unborn generation.

Nigerian Cultural Values

There is no culture without values and the vitality of Nigerian culture is based on their values. According to Nweike (2013), as people differ in their own side of conception of life reality, so, the values of their conception may also differ from another. Values here talk about beliefs that are held about the importance of life. It simply describes it as "the worth" of a thing that can be good or bad, right or wrong and even acceptable or unacceptable (Ezedike, 2009). A value can be seen as what man can live with and die for. It permits every aspect of human life like that of culture. With this, it is observed that there are many values which can be seen in man's daily ways of life. It stands as guide through whom the society forced man to live in order to know what is good, right and acceptable in his environment. This means that each person has some sense of values and there is no society without some value system (Idang 2007). Etuk (2002) is of opinion that "no group of people can survive without a set of values which hold them together and guarantee their continued existence". In corroboration to Etuk (2002), Antia (2005) writes that "what a people hold to be true, right or proper with regard to those things explains much of the cultural traits by which they become identified". The "traits" here can as well be called values and anyone who refused to conform to these immediate society's values are always called to order.

Having seen the centrality of values in Nigerian culture, one can say that the cultural values are what give it uniqueness and identity. It is what makes African culture acceptable. Hence, Idang (2009: 142) in view of cultural values affirms that "culture is

seen as all the material and spiritual values of the people in the course of history and characterizing the historical stage attained by the people in the developments" This simply means that there is a peculiarity in way of life and the values that are typically Nigerians. Thus, one can talk about aesthetic, moral, religious, education and so on values of a culture that makes it Nigerians.

However, there is need to explicate and connect the place of Nigerian Art and its Visual cultural values towards cultural and economic uplift and nation development. In this way, the vitality of Nigeria cultural heritage and values will be upheld, maintained and spread to the world at large, even generations to come.

Art and Visual Culture for Nigeria Development

From the look of things, if works of Art are generally accepted and properly positioned for, they will go a long way in contributing for rapid sustainable national development. Thus, the focus is based on the following space of life;

Education: Knowledge about Art and Visual culture values were revealed to Africans and races through education. How people see Art works as well as life is also projected to the world at large through education. Knowledge of Art and Visual culture develop in the learner is for necessary imaginative, intellectual, theoretical and practical skills and competencies for continued personal and professional development (Ajibade, Enamhe & Oloidi, 2011). UNESCO (2015) is of view that "Education for self-actualization" allows every human being to acquire the knowledge, skills, attitudes and values necessary to shape a sustainable future". That is to say that a nation's development could not have been possible without man's advance in imaginative, intellectual practical skills acquired from Art and Visual culture.

Employment: Employment emphasizes on things to do to earn daily living. This is one of the values of Arts and Visual culture passed down to present generation. The knowledge prepares an individual with employment opportunity which is the one and fastest means of nation's development. It also creates opportunity for development of skills for self-reliance that will serve an individual with the knowledge for life which is one of the aims for study of Art in Nigerian schools. When the youths of a nation are massively employed the societal crises will be reduced and the nation's development will be on a peak. Olawale (2016) pinpoints that "unemployment, imbalanced development, corruption, weak judicial system, and porous coastal borders as causes of insecurity in Nigeria". Therefore, through Art and Visual culture, the opportunity of an individual with such knowledge is not only assured of self-employment, but also employment of the labor thereby contributing to economic uplift and nation's development.

Language: Language creates means of communication with different dialects, connecting people all over the world under a canopy. Communication is power and no activities can take place without communication. It is another crucial symbolic aspect of living daily lives and connecting people in the society. It creates way for speed development through business opportunities and transaction. For instance, through Information Computer Technology, a lot of links were made and transaction of business takes place successfully. Through this means works of Art can be advertized, publicly

spread worldwide and sold online. Communication quickens knowledge, commerce and rapid development. With the aid of the new technologies in Art, knowledge could be transmitted to intended audience without their physical presence (Ortese, 2004). Indeed, the aesthetic and meaningful messages from Art and Visual Art works attracted foreign bodies into buying these Art works, thereby establishing international business with Nigerians. Through this means cultural heritage, economic growth as well as nation's development are promoted.

Aesthetics: This reveals the mind of people to true Nigerian environmental cultural identity as well as beautification of the indigenous environments. It also entails materials used and its functionality as well as the creativity. For instance, the use of white chalk "Nzu" and "Uli" in Art work production and body decorations tell lot of stories about Nigerian traditions especially Igbo tribe of Eastern part of Nigeria and Okene in Central part. Through this means, the values of cultural heritage as well as indigenous materials are projected to the world. Aesthetics attracts the buyers and investors. Some come as Art collectors and opened a contact office for transaction of their business.

Recreation of cultural Spaces: Recreation of cultural spaces is another means of promoting national development through Art. Creation of cultural museums, parks, plazas as well as historical memorials promotes cultural support and magnets visitors for tourism. This also enhances a nation rapidly on economic and cultural uplifting as well as nation development.

The Problems Facing Art and Visual Culture in Nigerian Society as well as Education Sector

From the above explanation, the position of Art to man is enough to put anything that concerns Art and Visual culture in the fore front of education for development in Nigeria. But surprisingly, the revise is the case. The challenges, the course as a discipline, is facing in Nigeria education and environment cannot be over looked, thus:

i. **Lack of recognition and neglect by Government:** In Nigeria, Art discipline seems not to be given full support by the Government. Lack of full recognition and support of Art by the Nigerian Government has affected the way in which Art Departments and Units in Nigerian schools are handled. The government and ministry of education never consider Art section in education as an area to invest. If Art is fully accepted in Education and Art Departments and Units are well equipped like their fellow Science counterparts, undoubtedly, all branches of Art will be generating unexpected funds for schools and government. The neglect of Art in Nigerian schools has also caused majority of Nigerian schools not to offer Art and this really demoralizes the interest of the young ones who are interested to study Art. On the other hand, policy makers and other government officials understand Art and Visual culture as money yielding machines in the country. This is why they are considered in Nigerian school's curriculum and Art centers like museums, Arts and Cultural centers, Art galleries and so on, yet, there is no year Nigerian Budget favored Art discipline or Artists in Nigerian schools

like that of their Science counterparts that always considered in almost every Budget in the country.

ii. **Lack of appreciation and neglect of Art by the Society:** Works of Art are never appreciated by Nigerian society. Only but few that have interest can ascertain for that and if closely examined should be as a result of the person's exposure. This results to low demand and sales of Art works. For instance, a textile work that its production price is #5,000 may be priced #3,000 by an individual, knowing very well the creativity in the work is not a day work and quality of materials used in the production is above the #3,000 price offer. The same with other Art works, what people enjoyed most times about Art work is that "it is dashed to me by the artist". Even as a free gift, they never see the worth of it; rather, it always turns a dumped Art piece at a corner of the house.

iii. **Quest for Wealth:** Road side artists and local designers also contribute in demoting works of Art in the society by producing Art piece with inferior materials and selling at a giveaway price just for greed of money.

iv. **Lack of encouragement by the Parents:** On the other hand, parents never feel pleased to allow their children to offer Art in higher level of education. To them, Art is seen as a course without hope in the society, and see artists as poor without hope of survival therefore discourage their children from studying Art in school. If youth are not interested in studying Art in schools, definitely, the development of creative skills and cultural heritage cannot be promoted or passed to unborn generation.

v. **Lack of Knowledge of Indigenous Culture:** Meanwhile, apart from skill acquisition, one of the aims of including Art in Nigerian school curriculum is to promote indigenous cultural heritage. Yet, it is surprising that most of Nigerian youths of today are shinning away from knowledge of cultural identity. Observation shows that some of the students of Art discipline cannot differentiate their environmental materials from that of western world. For instance, in a situation an assignment is given to produce an art work with the use of indigenous motifs, and some students are discovered using western world motifs in the production. This totally shows that such students did not have knowledge of cultural background. Something needs to be done to correct this in order to up hold the indigenous identities and avoid replaced with western culture.

Conclusion

This paper has attempted to identify some causes and seemly implications of what can prevent Art and Visual culture contributing for cultural and economic uplift for nation's development. There is the saying that the great achievement of a nation lies in the hands of the government and the citizens of the society. This implies that when a person refuses to accept what needs to be accepted and wisely act on it for successful life, the person's life turns to be questionable, and when the government fails to invest where should be invested for nation's development; there must be delay in development

of such a nation. It is of no use watching situation that can easily be handled to crumble. Until when there is political will that embraces Art and Visual culture as solution for great achievement in the area of cultural and economic uplift as well as development sustainability, invest on it and other developmental challenges confronting the country, Nigeria will continue to face unrealized and dwindling faith in development as well as failure in cultural transmission to contemporary society and generation to come.

Recommendations

With the above discussions, it is recommended that;

1. Government should try and give full recognition and support of Art in education by equipping art discipline like that of science sections of education. This will not only promote self-reliance among the graduates of Art discipline but will also create room for promotion of creative skill prowess for job satisfaction for sustainable national development. Policymakers should also endeavor to see that there is a strong policy that levied on public concerning Art and Visual culture on commercial development not only to support artists and the role of art in the society, but also to enhance knowledge on Arts and cultural practices for uplifting of culture, economic and nation development which will help greatly in promoting indigenous cultural identities that stand for true nature of Nigerians. Government should also try to see that Art Sectors is favored by yearly Budget in order to equip Art sections in various Nigerian schools for cultural and economic uplifting as well as development of the country.

2. Nigerian citizens should try to encourage promotion of Art by appreciating and patronizing of art works and designs as this will encourage the interested students to specialize in Art study and the knowledge of the skill developed will help them contribute their own quota for national development. Minister of education should endeavor to see that there is establishment of cultural sector into government schools Art programs, which will encourage advanced practice of connecting Arts and Visual culture to infrastructure and development by offering competitive funding streams that allow creative innovation as this will go a long way in encouraging the youth for Art study.

3. Artists and designers should try and reform themselves to form legitimate group in the society which can help them to undertake freelancers of creative environment by creating a one-man political opportunity for production, grading of quality production and selling of works of art in the country in order to avoid struggle for sell of Art works.

4. Parents are the chief disorganizers of children's talents. To achieve sustainable development in Nigeria through Art, parents should try to encourage their children to study Art, watch and see where it will take them to.

5. Art lecturers and teachers should try to know the need to hold on cultural identity and base learning and production of art works on indigenous materials, as this will help in spreading of cultural heritage through Art and design that attract foreign patronage and inventors that will encourage national development through investment.

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