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OFFICE EDUCATION CURRICULUM IN RIVERS STATE UNIVERSITIES AND THE 21ST CENTURY WORK PLACE CHALLENGES

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Abstract

The study investigated Office Education Curriculum in Rivers State Universities and the 21st Century Workplace Challenges. The study adopted the descriptive survey research design with a population of eighty (80) respondents in two state owned universities in Rivers State. The 80 Business Educators in the two universities were sampled to address the two research questions and two hypotheses. A structured research instrument titled: 'Office Education Curriculum and Workplace Challenges Questionnaire (OECWCQ)', was designed for the collection of quantitative data. Mean and standard deviation were used to answer the research questions while the hypotheses were tested using Z-test at a significant level of 0.05. Based on the analysis, the findings revealed that to a low extent, the critical thinking skill content of Office education curriculum, prepares students to meet the 21st century work place challenges. However, to a moderate extent, it prepares students with technological literacy to meet the 21st century work place challenges. Based on the findings, it was recommended among others that: the existing curriculum of office education operated in different universities should be innovated to foster student's critical thinking skill. This competency majorly preferred by employers will enable them meet the 21st century workplace challenges. Nevertheless, the office education curriculum in Rivers state universities should incorporate modern technological-based activities to enhance technological literacy among students to a very high extent.

Keywords: Office Education, Curriculum, 21st Century, Workplace Challenges

Introduction

Teaching is the transmission of information, ideas, skills, and beliefs from experienced to less experienced learner. It is the logical, strategic and institutional act of passing information, skills and values from the teacher to the learner. In a formal educational system such as the universities, the lecturers are the agents through which the teaching processes passes through to the

learner, and this is achieved through a well-structured curriculum. It is the content of a curriculum the teacher transmit to the learner in order to prepare them for the world of woks. The quality of what the learner learn, depend to an extent on the content of the curriculum. A well-structured curriculum will produce a good outcome on the learner. A curriculum is chronological outline of what is expected of a learner to

know to qualify to be a practitioner in a particular field. The new millennium has been characterized by unprecedented explosion in knowledge and technology. The 21st century challenges have called for new paradigms and “maps” of engagements in all spheres of life to which the educational sector is not exempted. Meeting the demand of the 21st century work environment is one of the major focus of the tertiary institutions through the introduction of office education. Office education is one of the option offered under the business education curriculum in many universities in Nigeria. In some universities, office education is referred to as office and information management. Koko (2019) opined that office education is a programme that provides students with opportunity to learn the basic skills to function in the world of works. The curriculum design of any programme of study is dependent on the philosophy and orientation of the institution and office education programme is not an exemption.

Office Education in particular, play a pivotal role in ensuring national and global survival and growth through its curriculum planning and implementation. The main challenge for Office Education curriculum implementation in the 21st century is moving to learning by doing. To ensure the development of 21st century skills, curriculum must address the numerous technological challenges embedded in the 21st century developmental strides. Akimo (2020) opined that 21st century office worker is expected to acquire creative skills, critical thinking, collaborative and technological literacy to be able to perform in a 21st century work environment. The office education curriculum prepare students to be able to face the realities of the world of works.

The office education curriculum exists to respond to societal problems, the curricula used to train the 21st century students are inadequate. According to Abraham, (2013), students in general are yet to adapt to the 21st century age of information communication technology. The emerging consensus has been that curriculum content is one of the most, if not the most significant factor for student learning, academic achievement and educational improvement. Evidence points to the preparation, induction and continuous development of the curriculum content as being imperative for producing quality workforce needed in the 21st century.

However, many of the African countries are struggling to change their pedagogical practices mainly because of political, social beliefs and lack of resources. The office education curriculum in universities teach obsolete skills that are not needed in the digital era. Many graduates are leaving university without having a minimum set of cognitive and non-cognitive skills that can make them function effectively in technological offices. The entire structure of university and the content of curriculum, is dominated with outgrown characteristics of pre-digital age technologies. In many countries, especially the developing countries, teachers and students are stuck with a curriculum that is highly outdated to prepare the students for entrepreneurship, technology, innovations and collaboration. The emergence of the knowledge-based society, knowledge-based economy and knowledge-based laborers has led to a high demand for innovation, collaboration, critical thinking and technological literacy to drive the 21st century work environment (Azih, 2013). Rapid advances in knowledge, technology and innovative skills, are today key drivers of development, a good office education curriculum could produce citizens with the capacity to

identify problems and work in multi-disciplinary teams to manage complex and multidimensional tasks that requires innovative thinking, synthesize ideas, collaborate and communicate effectively. In the 21st century, the crucial challenge for nation's education is to align curriculum and learning to a whole new economic model to respond to the emerging global challenges of the work place (Fabric & Soleine, 2018). To accomplish this, it is imperative to transform learning processes in and out of university to engage learners to acquiring 21st century skills and knowledge. Education devoid the existing curriculum will strengthen the teaching and learning to foster thinking skills, collaboration, innovation, technological literacy in contextualized learning environments. However, the emergent of institutionalized teaching and learning, along with its critically significant summative examinations, has been found to weaken students ability to acquire the core 21st Century skills of high-order thinking, communication, collaboration, technological literacy, creativity, innovation, problem solving and confidence. Ikegbusi, (2014) opined that "the most important single factor for the quality of education and thus for the efficiency and quality of the learning, is the quality of the curriculum. Keller, (2012) posited that the 21st century work place come with challenges emanating from critical thinking, collaboration, innovation, technological literacy, among others. It is the content of the office education curriculum that foster students ability to posses employable skill that enable them surmount these challenges. Koko (2019) opined that the office education is one of the prerequisites for employment in office operations today. However, despite the importance of office education, the 21st century has been characterized with high rate of

unemployment, inadequate thinking skills among employees, lack of collaboration and low technological literacy to function in modern work environments. This research is thus designed to discuss the office education curriculum in response to the 21st century workplace challenges with focus on critical thinking skills, and technological literacy.

An office is an integral functional aspect of organizational management. Koko (2019) opined that an office is related to environment that provides opportunity to office workers to perform their assigned duties. Office provides the environment where management plan, coordinate and execute its major functions as such, there is need to acquire useful skills that can enhance activities of an office. The scholar further reiterates that office education is a programme of instruction aimed at developing skills, knowledge, and understanding that are necessary to facilitate business information control and processing. The office education is designed to prepare students with skill, aptitude and knowledge functions of the office to meet the challenges and demand of the society. Office education is one of the prerequisites for employability in office operation. The recent trend and development in science and technology makes it mandatory for every office to improve on the standards and quality of its services delivery for the 21st century work place demand. This can be achieved through a well-structured office education curriculum. Nevertheless, office education is a program designed for the acquisition of skills, ideas, values and literacy to meet the demand for effective service delivery.

The 21st century brought with it globalization and technological advancements that have invaded every sphere of human life especially the workplace. It is

observed that office education curriculum in Universities remains the way of bridging the technological development that followed the 21st century. Office education prepare students with required skills for an office management expert. The 21st century of office requires a lot of skills. A growing number of business leaders, politicians, and educators are united around the idea that students need "21st century skills" to be successful today. It's exciting to believe that we live in a time of technological revolution that require application of new and different abilities in the work place. The skills students need in the 21st century such as Critical thinking and problem solving, technology, global awareness, are fundamental human competencies for improved performance, and economic growth. Information Technology in addition to mastery of different kinds of knowledge, ranging from facts to complex analysis are crucial for problem solving. Many students are taught these skills, those who are fortunate enough to attend highly effective schools or at least encounter great teachers' .unfortunately, the learning of these skills has become a matter of chance rather than the deliberate design of our school system. Koko (2019) posit that office education is a sure way of training or retraining in the major aspect of human management. If we are to have a more equitable and effective public education system, skills that have been the province of the few must become universal. The 21st century work environment is demanding. Technological innovation and globalization has taken over all facet of the economy. The demand for critical thinking skill, collaborative skills, technological literacy, among others, has made it difficult for ill trained graduates to function in the 21st century work place.

As life is becoming more dynamic, more complex in educational, socio-cultural,

industrial and commercial due to increasing technological advancement, the office education profession is out to provide supportive role to business activities. The job of secretaries appears at first sight amongst those threatened because of high adaptation of technology and machine thereby making them to face challenges of redundancy, retirement and retrenchment. Presently, Nigeria is undergoing technological industrialized revolution just like every other developing country around the world. This technological advancement has actually revolutionized most office activities and procedures. Until recently, office education programme was based mainly on shorthand, typewriting, and office practices. A lot of scholars of office education practices reiterated major structural defect in the curricula offering office education which must be corrected if the goals are to be achieved

All over the world, curriculum has been the utmost instrument for academic advancement which is characterized by unprecedented breakthroughs in knowledge and technology. The 21st century challenges therefore calls for new paradigms and "maps" of engagements in all spheres of life. Office Education in particular, continues to play a pivotal role in ensuring national and global survival and growth through its curriculum planning and implementation. The main challenge for office Education curriculum at the turn of the 21st century is moving away from knowing to doing. To ensure efficiency of the school system and the development of 21st century skills that can surmount the 21st century work place challenges, our schools need to facilitate curriculum development. The curriculum exists to respond to societal problems but unfortunately the evolution of some of these problems and demands on the work system tend to be overwhelming. It is observed that

most of our curricula still continues to train for the 20th century in the 21st century with little or no preparation to meet the demand of the 21st century work environment. According to Atumolobi (2021), the demand of the 21st century work environment is yet to be met as a result of inadequate qualified manpower. Odia, and Omofonmwan, (2017). Buttressed this fact that the multitude of graduates turned out of tertiary education in Africa are less technological skilled to meet the need of the 21st century work environment. This could be as a result of poor curriculum content. Koko (2019) decried that the office education curriculum focuses on basic secretarial skill and services of an office. Keyboarding technique, information and communication management and record management were outlined as the major focus of office education. Internationally, all the debates and research in education have as its corollary the emerging consensus that office education curriculum is one of the most, if not the most significant factor for student learning, achievement and educational improvement to meet the work place challenges. Evidence points to the preparation, induction and continuous development of the curriculum as being imperative to achieving that quality. The verdict is clear: attract the best, shape them to be the best and continuously develop them to give their best once they graduate from schools. This is the 21st century classroom orientation and this can only be achieved when an adequate curriculum is employed. The 21st century work place challenges revolve from the advancement in technology all over the world. Communication, socialization and all facet of human endeavor revolve around technological knowhow. Industries as well as ministries/ agencies uses technology to attend to customers and render services. A graduate who is not technologically inclines

may not be able to function effectively to render services in the 21st century work environment. Ofojebe (2017) opined that the 21st century work environment is an environment characterized by innovations, collaboration, critical thinking, good leadership style and professionalism. A 21st century professional positioned for employment will also have to recognize the evolution and new age application of collaboration and communication. Collaborative skills will help in blending the responsibilities of leadership into every work environment. A 21st century curriculum should be able to prepare Learners to acquire a set of skills and adopt certain characteristics in order to become successful in 21st century society. Okeke, (2018) opined that a 21st century graduate should possess creativity/innovative skill, Collaboration and Communication skill, critical thinking & Problem Solving skill, and Technology Literacy. These skill can only be incorporated to the student via good office education curriculum.

Creativity is as important in education as literacy and we should treat it with the same status (Okoiye et al., 2016). Today, creativity and innovation are critical skills for students to possess (Delp, 2011). Not only are these capacities fundamental drivers in the global workforce, but they are rapidly becoming key requirements for success personally and professionally. According to the National Education Association (NEA, 2012), a graduate leaving school without having innovative capacity and not knowing how to be creative, is at risk of being underprepared for the 21st century workforce and challenges that society brings. Creative skills and innovation are highly desired in the 21st century learner. A 21st century graduates need to be able to think creatively, work creatively with others and also implement innovation in their everyday

lives. This means that the office education curriculum should be able to prepare students to be capable of developing creative solutions to the many problems and challenges that they may face and that the 21st century brings. A 21st century office education graduate need to be able to think creatively, develop new ideas that are entwined with originality and inventiveness and demonstrate imagination and curiosity in their world of works. The 21st century office education graduate should also be able to work creatively with others, being able to develop and implement their creative ideas through communication and collaboration with clients. They should be able to act on their creativity and make creative contributions to areas where innovation occurs and this can be achieved through the office education curriculum.

These aspects of creativity and innovation should be promoted in the classroom via the curriculum content. The office education curriculum content needs to foster and support the development of creative skills and give 21st century learners the opportunities to pursue creativity and innovation. The curriculum need to provide learners with an education that allows for them to take part in creative exploration and discovery. By giving learners challenging problems from the curriculum content, they are encouraged to use more of their potential creativity, using innovation and to overcome the 21st century work place challenges. 21st century office education students should view failures and mistakes as productive and as opportunities to learn and enhance their creative thinking capability (Okoye, & Umezuluike 2014).

The world today is a world where communication, collaboration and teamwork are essential. Due to the increasing improvement of technology and economic globalization, these skills are

now absolutely necessary, without them, university graduates would not succeed in modern society (NEA, 2012). Effective collaboration requires students to learn to respect each other's differences and use their different personalities. This allows graduates who are employed in an office to collectively solve problems as a team, creating and innovating. Learning to collaborate effectively will greatly increase any given student's employment opportunities in the future as the collaboration of knowledge is a key factor in today's global corporate world.

The ability to communicate effectively is an essential ingredient in any successful collaboration between students. Students need to have the ability to present their ideas articulately through a range of oral, written and non-verbal communication platforms. In order to become an effective communicator, students must first learn to listen effectively. Listening effectively will aid in the development of communication within a team environment, where communication and collaboration is used in a range of team and 'pair-and-share' activities, as well as in group and partner discussion. Using communication in a group context will enable students to teach one another, sharing skills and knowledge to develop the group's overall intelligence.

Once communication and collaboration is being used effectively, students must learn to adapt their skills for a range of purposes in a variety of diverse environments including the work environment. Collaboration and communication can be further developed through the use of multimedia and technology by students to achieve collaborative and communicative outcomes (Olowodun, 2019).

The 21st century learner already has a collaborative advantage due to their

increased exposure to technology from a young age, allowing them to collaborate with a wide variety of peers across their nation and globally. The technological advances 21st century learners have access to allow them to learn and collaborate within different contexts and cultures, broadening their learning experience beyond just the classroom. Collaboration and communication are necessities in any 21st century classroom. These skills need to be developed on a daily basis in order to prepare students for the reality of today's globalized society. In later life, students will need to work with diverse cultures in an array of different contexts to achieve their personal and business objectives. 21st Century learners in essence cannot survive in today's world without these two absolutely essential skill sets, the ability to communicate and collaborate effectively drives creativity and innovation; skills which modern society demands and practices globally on a daily basis and this can only be achieved with the help of the office education curriculum.

In a constantly changing world, students need the ability to think critically and solve any problem which may occur in their lives. Constant technological advancements mean that students need to be prepared to adapt to any change and continue to perform at their potential, both in their education and future employment. To be able to adapt to change effectively, students need to have the ability to make connections between information and arguments, interpret information to draw conclusions and reflect critically on learning experiences and processes. To adapt, students need to have the ability to solve problems in both a conventional manner and through the use of innovation. This ability will allow students to adapt to any changes in future employment, allowing them to continue as an effective team member. In addition to this, students

need to make judgments and decisions, based on effectively analyzing and evaluating evidence, arguments, claims and beliefs. Making these decisions will give students the ability to innovate in order to problem solve, allowing them to adapt to changing social and technological factors in both their current and future lines of employment.

Whilst these skills are all quite traditionally based, 21st century learning changes their level of importance as advanced technology is now available for acquiring, creating, changing, maintaining, storing, communicating and analyzing various different types of information. Teaching critical thinking and problem solving to 21st century students is essential, as it leads students to develop other more important skills, such as high levels of concentration, increased ability to analyze information, and an improvement in the way students process thoughts and information. The curriculum content is a yardstick for achieving this objective.

In the 21st century, technology has completely revolutionized the way we live our lives. It has reinvented the way we work, learn, shop and how we are entertained. Advanced technology and all forms of digital media are completely integrated into modern society and are an integral aspect of a 21st century learner's life, whether it be in how they learn, work or even socialize. With instant access to a vast array of information via the internet, smart phones and other devices, today's students are digital learners and will adapt to technological change far easier than any generation beforehand. 21st century students are accustomed to frequent changes in technology and welcome any technological innovations as they occur (Robert-Okah, 2014)).

The rapid advances of technology in modern society mean that students need to learn the skills necessary to exceed in a technology rich environment. Students need the ability to access information efficiently and effectively, navigating through 'waste' to find the correct and relevant information for each situation. This means using information accurately and creatively whilst still managing the relevance of information coming from a wide variety of sources. In addition to this, they need to then have the ability to critically and competently evaluate any information they come across, learn what is relevant and what to discard so they can then present this information to fellow classmates and co-workers as definitive research (Tunji, 2012) In a world where virtual tools and open-source software eliminate learning boundaries for students, it is important that they learn to use technology as an effective research tool to organize, evaluate and communicate information to a wide range of different audiences

Statement of the Problem

The globalization and technological advancements that invaded every sphere of human life has equally changed the classrooms and the work environment. The researcher observed that the 21st century work environment placed a high demand on the workforce for innovative thinking, critical thinking, synthesizing ideas, effective collaboration and communication, cloud computing skills, technological literacy, to mention but a few. It was also observed that despite research findings on new teaching methods and classroom technology that could help prepare students to face the 21st century work place challenges, the office education curriculum in Nigeria remains quite inadequate in contrast to employers expectations. This assertion is affirmed by Makinde, (2010)

which state that the curriculum is inadequate to prepare students to be able to face the 21st century work place challenges. The implication of this is that more than 70% of all resources invested for curriculum implementation are merely for examinations rather than developing the students cognitive skill, communication skills, critical thinking and technological abilities to function in hi-technological office environment. This should not be the case in the 21st century when everything in education has been technologically centered. Muodebelu, (2018) opined that the standard required from office education graduates are yet to be met as a result of the looming poor performances of graduates in the workplaces. Conclusively, it does imply that office education curriculum rather than prepare students for employment is increasingly contributing to unemployment. This research is conducted to assess Office Education Curriculum and the 21st Century Work place Challenges in Rivers State.

Purpose of the Study:

The purpose of this study is to determine:

- (1) the extent the critical thinking skill content of the office education curriculum stimulate students to meet the 21st century work place challenges
- (2) the extent the technological literacy skill content of the office education curriculum prepares students to meet the 21st century work place challenges

Research Questions

The following Research questions have guided the study:

- (1) To what extent does the critical thinking skill content of the office education curriculum stimulate students to meet the 21st century work place challenges?

- (2) To what extent does the technological literacy skill content of the office education curriculum prepares students to meet the 21st century work place challenges?

H ypothesis

Ho1: there is no significant difference in mean rating of lecturers in RSU and IAUE on the extent critical thinking skill content of the office education curriculum stimulate students to meet the 21st century work place challenges

Ho2: there is no significant difference in mean rating of lecturers in RSU and IAUE on the extent the technological literacy skill content of the office education curriculum prepares students to meet the 21st century work place challenges

Methodology

The study adopt the descriptive survey research design. The population of the study consists of eighty (80) lecturers in the Department of Business Education in Rivers State Universities. The entire population was used as sample for the study since the population was not much. The instrument for obtaining primary data was a questionnaire entitled: Office Education Curriculum and Work place challenges (OECWCQ). The questionnaire was designed in a four point rating scale with four response options such as: Very High Extent (VHE), High Extent (HE), Moderate Extent (ME) and Low Extent (LE). To determine the content and face validity of the questionnaire, the instrument was submitted to one experts in Measurement

and Evaluation and one in Business Education Department in Rivers State university. Their comments and responses were used to effect corrections on the final copy of the questionnaire before administration to the respondents. The reliability of the instrument was determined through test-re-test method. The questionnaire was administered twice to Business Education lecturers in federal University Otueke, Bayelsa State to which two set of scores were correlated using Pearson Product Moment Correlation Coefficient (r) to determine the reliability of the instrument. A coefficient of 0.88 was obtained which indicates high level of reliability. A total of eighty (80) copies of the questionnaire was administered. The data collected which was based on the research questions that guided the study were analyzed, using the mean statistics and standard deviation while the hypotheses were tested using Z-test at 0.05 level of significance. A mean of 2.50 and above was considered high extent and any mean less than 2.50 were considered low.

Result

Research Question 1

To what extent does the critical thinking skill content of the office education curriculum stimulate students to meet the 21st century work place challenges?

Table 1: Mean Ratings of extent critical thinking skill content of the office education curriculum stimulate students to meet the 21st century work place challenges

		RSU=	20		IAUE	=	60	
		X	SD	RMK		X	SD	RMK
1	The curriculum promote students ability to solve problems.	2.2	0.21	LE		2.4	0.27	LE
2	The curriculum helps students to make decisions.	2.4	0.24	LE		2.1	0.24	LE
3	The curriculum develop student's ability to evaluate evidences.	1.6	0.25	LE		1.8	0.32	LE
4	The curriculum help students to arguments, claims and beliefs	2.3	0.22	LE		2.1	0.30	LE
		2.1				2.1		

From the table, it would be seen that the item-by-item analysis shows that item 1 up to 4 showed a mean below the decision mean of 2.5. Also the Grand Means for respondents in RSU and IAUE are 2.1 and 2.1 respectively, which is also < the bench mark mean of 2.5. This implies that to a low extent, the critical thinking skill content of the office education curriculum promote students ability to solve problems in both a conventional manner and through the use of innovation, helps

students to make decisions, develop students ability to evaluate evidences, and develop students ability to effectively arguments, claims and beliefs.

Research Question 2

To what extent does the technological literacy skill content of the office education curriculum prepares students to meet the 21st century work place challenges?

Table 2: Mean Ratings of extent the technological literacy skill content of the office education curriculum prepares students to meet the 21st century work place challenges

		RSU=	20		IAUE	=	60	
		X	SD	RMK		X	SD	RMK
4	The curriculum promote students ability to access information with technologies.	3.2	0.21	ME		3.4	0.27	ME
5	Students use modern technology to find relevant information.	3.5	0.24	ME		3.1	0.24	ME
6	The curriculum help students to manage information coming from a wide variety of sources.	3.1	0.25	ME		3.8	0.32	ME
7	Students use technology to present information.	3.3	0.22	ME		3.1	0.30	ME
	Grand mean/STD	3.5				3.1		

From the table, it would be seen that the item-by-item analysis shows that item 4, 5up to 7 showed a mean above the decision mean of 2.5. Also the Grand Means for respondents in RSU and IAUE are 3.5 and 3.1 respectively, which is also >the bench mark mean of 2.5. This implies that to a high extent, the technological literacy skill content of the office education curriculum promote students ability to access information efficiently and effectively, helps students to navigate through ‘waste’ to find the correct and relevant information for each situation, develop students ability to using information accurately and creatively whilst still managing the relevance of information coming from a

wide variety of sources and develop students ability to critically and ability to critically and competently evaluate any information they come across, learn what is relevant and what to discard so they can then present this information to fellow classmates and co-workers as definitive research.

Test of Hypotheses

Hypothesis 1: there is no significant difference in mean rating of lecturers in RSU and IAUE on the extent critical thinking skill content of the office education curriculum stimulate students to meet the 21st century work place challenges

Table 3: Z-test of Mean rating of respondents in RSU and IAUE on the extent the critical thinking skill content of the office education curriculum stimulate students to meet the 21st century work place challenges

Variables	N	Mean	SD	Df.	t-calc	t-crit.	α	Remarks
RSU	20	3.3	0.22					
				78	6.99	1.96	0.05	Significant
IAUE	60	3.1	0.24					

The table above reveals a computed Z-value of 6.99 at 0.05 level of significance with 78 degrees of freedom. The value is higher than the tabulated value, hence the null hypothesis is rejected and the alternative hypothesis accepted. The implication is that there is a significant difference in mean rating of respondents in RSU and IAUE on the extent critical thinking skill content of the office education curriculum stimulate students to

meet the 21st century work place challenges

Hypothesis 2

There is no significant difference in mean rating of lecturers in RSU and IAUE on the extent the technological literacy skill content of the office education curriculum prepares students to meet the 21st century work place challenges

Table 4: Z-test of Mean rating of respondents in RSU and IAUE on the extent technological literacy skill content of the office education curriculum prepares students to meet the 21st century work place challenges

Variables	N	Mean	SD	Df.	t-calc	t-crit.	α	Remarks
RSU	20	3.3	0.22	78	6.99	1.96	0.05	Significant
IAUE	60	3.1	0.24					

The table above reveals a computed Z-value of 6.99 at 0.05 level of significance with 78 degrees of freedom. The value is higher than the tabulated value, hence the null hypothesis is rejected and the alternative hypothesis accepted. The implication is that there is a significant difference in mean rating of respondents in RSU and IAUE on the extent the technological literacy skill content of the office education curriculum prepares students to meet the 21st century work place challenges.

Findings

- (1) the critical thinking skill content of the office education curriculum stimulate students to meet the 21st century work place challenges to a low extent
- (2) the technological literacy skill content of the office education curriculum prepares students to meet the 21st century work place challenges to a Moderate-xtent

Discussion of Findings

The findings of research question three revealed that to a low extent, **critical thinking skills content** of office education curriculum in Rivers State Universities stimulate students to meet the 21st century work place challenges. This implies that the content of the curriculum does not

adequately promote students ability to solve problems in both a conventional manner and through the use of innovation, helps students to make judgments and decisions, it is not designed such that to develop students ability to effectively analyze and evaluate evidences and enhance the ability to effectively arguments, claims and beliefs. This findings is in line with Yususf (2019) who opined that the curriculum in tertiary institution is yet to achieve the yardstick for Teaching critical thinking and problem solving to 21st century students is, as it yet to leads students to develop other more important skills, such as high levels of concentration, increased ability to analyze information, and an improvement in the way students process thoughts and information.

The findings of research question four (4) revealed that Office education curriculum in Rivers State Universities prepared learners with technological literacy to meet the 21st century workplace challenge in a moderate extent. In the 21st century, technology has completely revolutionized the way we live our lives. It has reinvented the way we work, learn, shop and how we are entertained. Advanced technology and all forms of digital media are completely integrated into modern society and are an integral aspect of a 21st century learner's life. Though, a lot of graduates lack a

dequate skill to operate technological devices that can aid the world of works, but the regular exposure of office education students to computer appreciation and other technological devices such as u-tube, face book, what sap, projector among others has increased students technological abilities to a Moderate-extent. However, there is need for better introduction of technology to the curriculum to fit in other sophisticated machine. This findings is variance to Subair, (2019) who opined that lack of technological literacy is the cause of high rate of unemployment of graduates in Nigeria. A 21st century students should be accustomed to frequent changes in technology and welcome any technological innovations as they occur .However, this findings is in line with Uwaifo,(2012) that the modern educational system in Nigeria has the capacity to equip the learners with technological skill to function in the 21st century work environment. To this, the curriculum content in rivers state universities does prepare the students with technological skill to meet the world of works.

Conclusion

Based on the findings therein, this study makes the general conclusion that the office education curriculum in Rivers State universities is yet to adequately stimulate students critical thinking skill to function in the 21st century work place. There is need to effective innovate the office education curriculum in Rivers State universities to help improve the students critical thinking skill. However, adequate technological literacy is a bit lacking among graduates as the curriculum content only prepare student with technological literacy to meet the 21st century work place challenges in a moderate extend, rather than a high extent.

Recommendations

- (1) The existing curriculum of office education operated in different universities should be innovated to foster student's critical thinking skill.
- (2) .The office education curriculum in Rivers state universities should incorporate modern technological-based activities to enhance technological literacy among students to a very high extent.

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QUALITY CONTROL MEASURES IN PERSONNEL MANAGEMENT

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Abstract

Human is a complex and changing being therefore, the management of man becomes challenging in terms of human resource practices. Human resource management is an approach and system that focus on effective employee management at all level in an organization to achieve organizational goals. This paper focused on quality control measures in personnel management as; personnel planning, motivation, discipline, instructional supervision, staff development, departmentalization and suggested personnel motivation and reward system, personnel instructional supervision, creating personnel development programmes, proper funding by government, proper administrative fund disbursement, division of labour and establishment or disciplinary measures as way forward for quality control measures in personnel management

Introduction

Every educational system at every level depends greatly on the human resources for execution of its programme. Human resource management in education therefore speaks volume of the end result of the educative process which is determined by effective teachers. Human resource management is an organizational formal system design in using human skills and talents to accomplish the goals of an organisation. Human resources management is the set of organisational activities directed at attracting, developing and maintaining an effective workforce (Griffin, 1997). Human resource management is an approach and system that focus on effective employee management at

all level in an organization to achieve organisational goals. Wright (2011) views human resource management as employing, developing their functional capabilities, utilizing, harnessing, maintaining as well as motivating them in line with the job and organisational requirements. Any form of management that involves recruitment, staffing, welfare, maintenance, training and re-training (personnel development), placement, promotion, motivation, relationship, compensation, rewards, transfer and discipline of personnels for effective and efficient realisation of organizational goals (school) is called human resources management (Igocharacha, 2021).

Personnel Management in Education

Personnel management means human resources management. According to Igocharacha (2021) when staff (teaching, non-teaching) and students are managed in the school, it is known as personnel management in education. He went further to assert that personnel management is an aspect of human resources management which entails the judicious utilization of available personnel's for the pursuit of school organisational goals. Human resources is a strategic component of the educational resources management process. The human resources here are considered to be staff (lecturers/ teachers,) and students in the school system (Igocharacha, 2021). Nwaka and Ofojebe (2010) posit that teachers are the critical resources for effective implementation and realization of the educational policies and objectives at the practical level of classroom. Omojunwa (2007) stated that it is teachers who ultimately interpret and implement policies as presented in the school curriculum, which is designed to actualize educational goals. According to Sall (2004) the value added by the academic staff to the university is considered the main motive to accomplish a sustainable competitive position for the university. Robertson (2004) asserted that most countries concentrated on teacher education as means to improve the educational knowledge which impacts on the labour market quality and the development processes. Chukweemeka (2008) posit that the knowledge and skills possessed by an employee are important in determining his job performance. It is also important to note that the quality of students who becomes manpower's in the society (graduates) is a result of the quality of academic staff thus the need for staff development.

Human resources management is mainly concerned with three major area;

- ➔ Assessing the need for staff as well as satisfying their needs.
- ➔ Assessing the needs for students and satisfying their needs
- ➔ Managing, maintaining and improving staff (teaching and non-teaching) and students services.

Goals of Human Resource Management in Education

The goals of human resources management in education is to develop personnel's in the school and contribute to goals achievements in education.

Roles of Human Resource Management in Education

The following are roles of human resource management;

Strategic Role: Unlike before when human resources were attended as third in priority to finance and technological materials. This is no longer the case now in this trending times because every material resources needed for organisational success is to be utilized by human resources in such organization. Supporting this view, Onah (2008) submits that strategically, human resources must be viewed in the same context as the financial, technological and other resources that are managed in an organization. The strategic role of HRM involves planning recruitment, selection, supervision, induction, promotion or reward. Wei (2016) defines strategic human resource management as the process whereby human resource function of an organisation or institution is linked with its strategic plan or objectives in other to ensure improved performance performance. While for Keating (2011), it is traditional

and transactional nature as it concerns itself mainly with the provision of administrative support in terms of recruitment, staffing, compensation, incentives and benefits. Strategic human resource refers to those activities that influence the actions of individuals in their efforts to formulate and implement strategic plans as a way of achieving the goals of the organisation (Katou & Budhwar, 2016). Strategic human resource practices like recruitment, training, development, work arrangements, appraisals, and reward systems influences the motivation of workers as McMahan (2010) supported this view by asserting that the use of motivation is a tool for enhancing employee performance.

Scholarly, there are three primary school of thoughts or approaches for the implementation of strategic human resource management and practices. They are:

Universal Approach: This universal approach is an approach that assumes that a linear relationship is existing between variables and such relations can be extended.

Contingency Approach: This approach prefers interaction other than linear relationship.

Configured Approach: The various strategic human resources management practices and their overall effect is known as configurational approach. Although, this approach have theoretical relevance but lack statistical significance. Some of the practices have been enumerated as;

Internal Career Opportunities: Refers to the hiring of workers within the organization. It is any opportunity given to an internal worker of an organization based on the credibility and trust.

Training: this is the quality and quantity of training given to a worker in an organization to professionally equip them as experts for goal actualization of the organisation. This practice accounts for up to 13 percent variance in performance of an organization.

Employee Participation: The practice of employee participation in decision making increases turnover rate. There is a direct association between employee participation and organisational performance (Shay, 2016).

Result-Oriented Appraisals: Two types of appraisal approach exist, the behavioral based approach which is accessed by using the best match for a job and the result based approach is a reward of employees using some kind of incentives for them to perform and achieve objectives.

Profit Sharing: There is a significant relationship that exist between profit sharing and workers performance in an organization. When profit is shared most times to employees in an organization there is every tendency for effectiveness in services.

Employment Security: In strategic human resource management, employees' security is very necessary. When the employee have job security or employment security, it encourages commitment and hard work on the part of workers.

Job Description: This refers to the specification of the duties of each employee in an organization. All task of workers must be defined or described for organisational performance.

Operational Role: The operational can also be called personnel function. This role of human resources management is tactical and administrative in nature because it

involves implementation or execution of the legal perspective of labour laws such as personnel's relation and rights (employee/employers relationship), equal employment opportunities, labour laws observations, training, orientation and induction of personnels, health and safety problems observation, administration of wages and salaries, compliance to rules and regulations.

Quality Control Measures and Human Resources Management Functions in Education

Quality control measures simply means better ways of managing human resources or personnel's in education. According to Igocharacha (2021) function of human resources management in education is to effectively and efficiently manage personnels in the school setting thus the concept Total Quality Management (TQM). The area of human resources management in terms of function are production, financial and marketing management (Mathias, 2016). Human resources manager performs managerial and operative functions. The managerial functions refers to the activities of departmental heads while the operative function refers to special functions like managing ethical and legal issues that relates to human, job analysis and job design selection and recruitment process, career opportunities in healthcare, motivation of employees, dialogue with organized labour, engagement and disengagement of employees, and equitable distribution of due benefits to employees. McKinnies (2012) stated the following as functions of human resource management:

Resourcing: Includes planning for human resource management, management of talent, planning for succession, management of retirement, redundancy and employment contract termination.

Performance: Includes individual and team performance management, workers management and quality appraisal to determine organisational goals achievement.

Reward System: Managers of human resources are charged with the responsibility of designing and implementing financial, non-financial incentives and reward systems at both group and individual levels.

Learning and Development: This includes individual, group and institutional identification as well their development programme strategies such as planning, implementing, evaluating, monitoring and training.

Employment Relation: Human resource management function also includes employee management in terms of interpersonal relation and communication, union management relations, employee welfare management, conflict resolution and discipline.

If his views must be expatiated on, it will be clearer to state that human personnel's in schools are staff and students. The general coordination of the efforts and activities of these people to achieve the goals for which the school is established is the function of human resources in education. These functions as presented by Igocharachacha (2021) includes;

Staff Procurement or Selection: Apart from human resource planning, staff procurement and selection becomes the first responsibility of the human resource

managers. It involves careful scrutiny and selection of best educational personnel's with the right skills, abilities, knowledge and experience to interpret and implement the curriculum programmes. This is done either by the private school administrator, local government, state government and federal government respectively. Example of this selection process are interview and aptitude test.

Staff Maintenance and Development:

This is a function of appraising the performances of staff in order to ascertain areas that need training and development thereby enhancing their skills, talents and knowledge for better performance in the school. This function is usually done by the Human resource manager because the success of every educational organisation is dependent on the strength and quality of staff. Example of such trainings are in-service training, seminars, conferences and workshops. Also, maintaining staff in the educational setting is a prerequisite for performance. The maintenance practice by the human resource manager should include; provision of health services benefits, motivations like wage drop and housing allowances, staff safety, security, transfer, promotion, salaries and wages payment as when due and general wellbeing of the environment is a necessity for staff performance and productivity.

Staff Relations: Communication and relations are necessary factors in the school organisation. With the help of communication, employees are constantly informed, about school activities and progress. Through communication process, staff are oriented on how to react to clients (students and their parents) in terms of their needs, interest, needs, emotion, justice, fairness and equity.

Students Relations: With the help of communication, students are constantly informed, about school activities and progress. Through communication process, students are oriented on how to relate to staff (teaching and non-teaching) in terms of their needs, interest, emotion, as they are treated justly, fairly and equitably. Through this means, the students are oriented on their rights and privileges, how to maintain them and others.

The personnel relationship variable is better understood using the Human Relations Theory by Mary Parker Follet in 1868. For Mary Parker in her human relations theory,

Every organization is a social system therefore, instead of focusing on work and work place technology, the human side of the enterprise should also be emphasized.

Analysing Parker's View' it means that the success of any organization is to a large extent dependent on the human variables in such an organization. Therefore, organisations that must achieve or attain its goals and objectives must focus on human relations with system. This human relations within the system must focus on the psychological needs of the human beings or personnel's in that organization. In the school system, it is administrator and the government who is in charge of personnel management and must see to a cordial relationship that exist amongst teachers, non-teaching staff, school heads and students for educational goals attainment.

Students Selection and Enrollment: This is similar with the concept of staff procurement and selection. But this function of human resource management is concentrated on the selection of the right kind of students for enrollment into the school. The essence is to test the child's ability to know to knowledge ability which

will help the school administrator or manager to enroll such student into the right and perfect class he or she belongs to. Without this practice, students may be admitted into any class which he or she may not be able to cope with this learning experiences hampered. Exam are aptitude test and other pre enrollment exams.

Students Maintenance and Development: The function of appraising the performances of students in other to ascertain areas that needs training and improvement thus enhancing their skills, talents and knowledge for better performance in the school is also a function of human resource management. These students must be developed all round to include psycho motor, cognitive and affective domains. It must also involve appraisals, supervision and inspection from time to time to ensure knowledge sustainability by students.

Job Performance or Reward system: Reward system refers to incentives and motivations. The lecturer/teacher, non-teaching staff and students are all personnel's in the school and must be managed in the following areas;

Motivation: This involves all forms of encouragement and support given to both staff and students in the educational setting. This incentives help to improve their performance amongst the personnel's in the school and also increase productivity this quality education delivery. To effectively manage personnel's in the school especially the teaching staff, professional development is an important area to practice. Several training programmes should be designed and implemented for attitudinal change, value re-orientation and consentization. This will instill in them the right spirit, ethics thus productivity in the school because they are the greatest aid to

learning process of which any shortage in this area will reduce curriculum effectiveness and delivery.

Victor Vroom in 1964 developed a theory called Expectancy Theory. Its premise is based on that people prefer to put more effort, if only such effort is going to result to higher performance and rewards. For Victor, 3 key concepts are to be understood properly: expectancy, performance and reward. Humans are always expectant in nature. This means that staff is willing to work for high performance or productivity because of the reward he or she expects at the end thus the correlation between expectancy, performance and reward which brings job satisfaction. This correlation is the key to understanding the process behind expectancy theory.

Also, a psychologist Frederick Herzberg developed motivation-hygiene theory and dual-factor theory) which states that there are certain factors in the workplace that cause job satisfaction while a separate set of factors cause dissatisfaction, all of which act independently of each other.

The two-factor theory is explained under: Motivators and Hygiene Factors

Motivators: For Hersberg examples of this are challenging work, recognition for one's achievement, opportunity to do something meaningful, responsibility, involvement in decision making, sense of importance to an organization. All these give positive satisfaction, arising from intrinsic conditions of the job itself like recognition, achievement and personal growth.

Hygiene factors; He listed the following as examples of hygiene factors;

- ➔ Status,
- ➔ Job security,

- Fringe benefits
- Work conditions
- Good pay
- Paid insurance
- Vacations

For him all these will give positive satisfaction or lead to higher motivation. The reason it was called "hygiene" is because they are used as maintenance factors and are extrinsic to the work itself. These factors includes;

Company policies

Supervisory practices

Wages/salary. Herzberg often referred to hygiene factors as "KITA" factors, which is an acronym for "**kick in the ass**", the process of providing incentives or threat of punishment to make someone do something.

According to Herzberg, hygiene factors are what causes dissatisfaction among employees in the workplace. In order to remove dissatisfaction in a work environment, these hygiene factors must be eliminated. There are several ways that this can be done but some of the most important ways to decrease dissatisfaction would be to pay reasonable wages, ensure employees job security, and to create a positive culture in the workplace.

The hygiene factors were considered in a scale of preference is higher and lower:

Company policy,

Supervision,

Employee's relationship with their boss,

Work conditions,

Salary, and relationships with peers.

Analysing Herzbergs, 1964 two factors Theory

Job characteristics is related to what an individual does meaning the nature of the work one performs apparently have the capacity to gratify such needs as achievement, competency, status, personal worth, and self-realization, thus making him happy and satisfied. In the absence of such gratifying job characteristics does not appear to lead to unhappiness and dissatisfaction. Instead, dissatisfaction results from unfavorable assessments of such job-related factors as company policies, supervision, technical problems, salary, interpersonal relations on the job, and working conditions. Thus, if management wishes to increase satisfaction on the job, it should be concerned with; the nature of the work itself, the opportunities it presents for gaining status, assuming responsibility, and for achieving self-realization. If, on the other hand, management wishes to reduce dissatisfaction, then it must focus on the workplace environment, policies, procedures, supervision, and working conditions. If management is equally concerned with both, then managers must give attention to both sets of job factors. (Igocharacha, 2021)

When dissatisfaction is eradicated, it is done only on one half of the task of the two factor theory. The remaining half would be to increase satisfaction in the workplace. This can be done by improving on motivating factors. Herzberg also further classified our actions and how and why we do them, for example, if you perform a work related action because it must be done by you then that is classified as "movement", but if you do a work related action because you want to do them that is classified as

"motivation". Herzberg thought it was important to eliminate job dissatisfaction before going onto creating conditions for job satisfaction because it would work against each other. Job satisfaction of the employees can have multiple positive effects for the organization. For example, when the employees share their knowledge, they satisfy their social needs and gain cohesion within the group. Furthermore, sharing knowledge helps others to create new knowledge, which helps in reinforcing the motivating factors thus organizations innovation activities. (Igocharacha, 2021)

According to the Two-Factor Theory, there are four possible combinations:

High Hygiene + High Motivation: This is when employees are highly motivated and have few complaints.

High Hygiene + Low Motivation: Employees have few complaints but are not highly motivated.

Low Hygiene + High Motivation: Employees are motivated but have a lot of complaints. A situation where the job is exciting and challenging but salaries and work conditions are not up to par.

Low Hygiene + Low Motivation: This is the worst situation where employees are not motivated and have many complaints.

Unlike Victor Vroom, who offered little explanation to support his ideas, Herzberg have presented considerable empirical evidence to confirm the motivation-hygiene theory, although the work has been criticized on methodological grounds but the theory concentrates on the importance of internal job factors as motivating forces for employees. He designed it to increase job enrichment for employees. Herzberg wanted to create the opportunity for employees to take part in planning,

performing, and evaluating their work. He suggested to do this by:

Removing some of the control management has over employees and increasing the accountability and responsibility they have over their work, which would in return increase employee autonomy.

Creating complete and natural work units where it is possible. An example would be allowing employees to create a whole unit or section instead of only allowing them to create part of it.

Providing regular and continuous feedback on productivity and job performance directly to employees instead of through supervisors.

Encouraging employees to take on new and challenging tasks and becoming experts at a task.

Motivation is important in the school system and it is a professional approach to managing human resources. Adeniya (2008) noted that where one gets motivated, obtains satisfaction, and consequently performs better from getting additional responsibilities assigned, another may feel much better valued and encouraged to higher performance. Most academic staff in the educational system who have succeeded in their role performance are properly motivated by way of a range of mechanisms like promotion, recognition, advancement for personal and organisational growth through professional development and creation of a working environment (Igocharacha, 2021).

Discipline: The staff (teachers) and students need discipline for the school to achieve its goals. Therefore, it is a way of managing personnel's in the school for educational delivery. Discipline is the ability of an individual to conform to norms

of the society. Discipline in an organisation like university reflects the members respect for authority, rules and regulations, commitment to them and the maintenance of an established standard of behavior in the university system (Egwuasi, 2011). Discipline is an aspect of staff motivation as it enhances their performance in working to meet expected goals of the school (Osilem, 2016). The respect of faculty members on constituted authorities and working in accord to establish standards for total quality management (Egwasi, 2011). Discipline connotes self-discipline, self-control and self-critical (Moses, 2011). A teacher is expected to be a role model to students (Lindgren, 1980). Therefore, issues of staff and students discipline in the school should be taken very seriously since the ivory tower is character molding ground (Moses, 2001). Staff and students discipline is better illuminated using Max Webers 1947 Bureaucracy Theory.

The fundamental of the theory lies in Hierarchy and Division of Labour. Bureaucracy theory is based on the principle of assigning organisational tasks to members as official duties based on already existing rules, area of specialization and division of labour in an organization

Analysing this theory in relation to school organization, the staff/teachers and students are two people with different hierarchy that function in their areas of specialization. The area of specialization is what encourages division of labour. The assumption of the theory highlights administrative acts, decisions making and stipulates that rules and regulations must be formulated, implemented, recorded as all members of the organization are expect to comply with such rules and procedures. This theory is necessary in the school setting because it clearly states the hierarchy between staff and students, area of specialization between

staff and students, division of labour between staff and compliance to rules and regulations between staff and students thus the concept Discipline.

Instructional Supervision: the word supervision is vast in scope and involves the checking and evaluation of the personnel's in the school system. Instructional supervision is a symbiotic relationship that exist between the staff and students to enhance teaching and learning activities. Instructional supervision involves the task of ensuring that organised teaching is effective in the school system (Mgbodile, 2004). Instructional supervision is an aspect of managing personnel's in the school system. Both staff and students must be supervised if the instruction goals must be realised and quality assured. Odeyele (2005) found out that must lecturers do not cover their scheme and the students are left to study on their own. Every student is a client to education and as such needs to be guided properly in terms of learning experiences which is dependent on curriculum content and teachers instructional abilities hence the need for supervision and inspection. For Igwe implementation of curriculum means implementing academic staff. Igwe (1990) asserted academic staff are the most important element in an educational system and that this element must be with the best of all facilities; books infrastructures, other materials and equipment's as the aim of education may still not be achieved if the implementation of curriculum (Academic Staff) are incompetent.

Development of Staff: This means staff development and it is another area of managing humans as a resource in education. These includes myriads of training programmes implemented by school administrators or managers for quality output productivity. In the school

setting, teachers become more productive when their needs are met. Also, when the school provides for them the needed incentives, rewards, job security and cordial environment, and training programs like conferences, Seminars, Workshops, staff meetings, mentoring and others. It increases their morale and performance. No wonder, Abraham Maslow in his needs hierarchy theory identified 5 levels of needs.

1. **Physiological Needs:** Which includes hunger, thirst, sex, shelter, and other bodily needs.
2. **Safety Needs:** This includes security, self-preservation, protection from physical and emotional harm, threat and freedom from deprivation.
3. **Belongingness and Love Needs:** The love and care he gets from people and society
4. **Esteem Needs:** Includes, respect and value he attaches to himself as a member of the society. It also explains the stage in a man's life where he reserves some kind of worth and pedigree for himself.
5. **Self-Actualization:** The level where he as a man feels satisfied in his achievements.

Departmentalization: Division of labour, see page for the explanation of Max Weber's bureaucracy theory.

Challenges of Personnel Management in Education

The negative implications of personnel management includes inadequate allocation of funds to the school system, and even if this fund are released in their little form, there is still problems of misappropriation, mismanagement, diversion of funds and cross misconduct on the part of the

administrator who is in charge of managing both human and materials resources. Other challenges in personnel management are demonstration and protest by personnel's in the school, administrative disbursement of funds, population density, demographics, political and policy constraints, problems of staff procurement and poor working condition, poor recruitment process, regular transfer of staff and non-adaptable to the trends in change and innovations (ICT and others).

Way forward

The following are ways for quality control management of personnel's in the school setting

1. Personnel motivation and reward system
2. Personnel instructional supervision
3. Creating personnel development programmes
4. Proper funding by government
5. Proper administrative fund disbursement
6. Division of Labour and
7. Establishment or disciplinary measures.

Conclusion

Unlike before when human resources were attended as third in priority to finance and technological materials. This is no longer the case now in this trending times because every material resources needed for organisational success is to be utilized by human resources in such organization. Therefore, for total quality management to be achieved, both strategic and operational functions for managing personnels must be considered.

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FACTORS INFLUENCING THE PRACTICE OF EXCLUSIVE BREASTFEEDING AMONG WOMEN OF CHILD BEARING AGE IN ETCHE LOCAL GOVERNMENT AREA OF RIVERS STATE.

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Abstract

This study investigated the factors influencing the practice of exclusive breastfeeding among women of child bearing age in Etche Local Government Area of Rivers State. The descriptive cross-sectional survey design was adopted for the study. The population of the study consists of all women of child bearing age in Etche Local Government Area. A multi stage simple random sampling technique was used to select four hundred and twenty five participants for the study. Data was collected using a structured questionnaire and analyzed using simple percentage, mean and standard deviation, ANOVA and Z-test statistics at 0.05 alpha level of significance. The finding of the study showed that socio-economic status influences the practice of exclusive breastfeeding. The tested hypothesis showed that there is a significant relationship between socio-economic status and the practice of exclusive breastfeeding ($F(2,378) = 0.222, p = 0.101$). The result of this study showed that among those who practice exclusive breastfeeding, 48 (24.1%) had secondary education and 63(17.2%) had tertiary education. The tested hypothesis on this showed that, there is a significant relationship between educational qualification of mothers and the practice of exclusive breastfeeding among women ($Z\text{-cal} = 9.93, Z\text{-tab} = 1.19$). In conclusion, other socio-cultural practices and ill health influences exclusive breastfeeding among women of child bearing age. It was recommended among others that, government through the different health facilities should make substantial improvements in the postnatal care of mothers exposed to low socio-economic status. Such improvement should include better allocations and prioritization of resources to meet the needs of the more vulnerable mothers and infants.

Introduction

Exclusive breastfeeding is when a baby is fed with only breast milk, either directly from the mother or expressed. Exclusive breastfeeding, according to the World Health Organization (WHO, 2004) occurs when a newborn gets no food, drink, or even water other than breast milk, either expressed or fed, throughout the first six months of life. However, despite its obvious advantages, attempts to encourage its use

have achieved mixed results. Breastfeeding, according to Gupta and Arora, (2007), is the most important strategy for minimising infant mortality and guaranteeing children's healthy growth and development. Exclusive breastfeeding for 6 months is the best strategy to feed newborns. This demands that infants should receive other food such as cereals, fruit juice, vegetable soup, mashed banana, mashed and boiled yam and water with continual breastfeeding up

to 2 years of age or beyond (The American Academy of Pediatrics, 2010).

Breastfeeding is beneficial to both mothers and infants, according to the World Health Organization, (2001) and the American Academy of Pediatrics, (2010) in underdeveloped nations, exclusive breastfeeding has lowered infant mortality by lowering diarrhoea and other illnesses. When compared to mixed feeding, it has also been found to prevent HIV transmission from mother to kid. Infants that are exclusively breastfed eat 6-14 times per day. The amount of milk consumed by newborn ranges from 30 to 90 ML every feed. Babies above the age of four weeks consume around 129ML every feeding.

According to Osman, Elzein, and Wick (2009), breastfeeding rates in the first four months of life range from 1 to 90%, depending on where the infant is born. Cultural views, socioeconomic level, ethnicity, education, urbanisation, modernity, and local feeding habits all have a substantial impact on breastfeeding patterns. According to Danso, (2014) educational status would give detailed information on the practise of exclusive breastfeeding among working mothers. According to the Danso, professional working mothers find it exceedingly difficult to breastfeed their newborns exclusively, as recommended by the World Health Organization. It was suggested that health care practitioners should continue to educate the general public about the importance of exclusive breastfeeding in removing harmful familial influences, particularly for women in their prenatal period. Ekanem, Ekanem, Asuquo, and Eyo, (2012) found that exclusive breastfeeding rates were highest in tertiary institutions with 10 (41.66 percent) mothers, followed by primary and secondary institutions with 6 (25

percent) each, and illiterate mothers had the lowest EBF rate of 2 (8.33%) (Ekanem, Ekanem, Asuquo, & Eyo, 2012). When compared to illiterate mothers, a greater maternal educational level was found to favour EBF considerably (P 0.05). This might be influenced by their knowledge of the health effects of EBF on children. According to the Ekanem et al, the mother's work and marital status were significant factors of the length and practise of exclusive breastfeeding. Clinical nurses and midwives should focus their efforts on educating women on the benefits of exclusive breastfeeding for at least the first six months of a baby's life.

Nursing mothers with little or low level of educational background may not be knowledgeable enough to practice effective exclusive breastfeeding because they would not understand the benefit of breastfeeding their babies. The numerous advantages of breastfeeding have been well documented in the literature, and new benefits are still being discovered. New study suggests that longer periods of exclusive breastfeeding are associated with greater mother and baby advantages (AAP, 2012; Chung, Raman, Trikalinos, & Lau 2009). The current study aimed at assessing the influence of socio-economic status, occupation, educational qualification, marital status; on the practice of exclusive breastfeeding among women of child bearing age. Similar studies carried out by Ekanem, Ekanem, Asuquo and Eyo, (2012) in Calabar, Nigeria to determine attitude of working mothers to exclusive breastfeeding suggested that women of lower socioeconomic class may hardly practice EBF. This shows that socioeconomic status of women have influence on their practice of EBF irrespective of their environment including Etche Local Government Area of Rivers State.

Socioeconomic position has been identified as one of the impediments to exclusive breastfeeding in several research. Ekanem, Ekanem, Asuquo, and Eyo, (2012) carried out performed a research in Calabar, Nigeria to investigate the attitudes of working women toward exclusive breastfeeding. The study's goal was to learn more about working mothers' attitudes about exclusive breastfeeding (EBF) in Calabar, Cross River State, Nigeria. Mothers made up the sample size of 100, and the methodology employed was a structured questionnaire. The statistical programme for social sciences (SPSS) version 17.0 was used to analyse the data. According to the findings, lower-income mothers had the greatest EBF of 14 (58.33 percent), followed by middle-income mothers with 6 (25 percent), and upper-income women had the lowest EBF of 4. (16.6 percent). Finally, various demographic and socioeconomic factors has impact on working mothers' attitudes about exclusive breastfeeding. The attitudes of women who are not planning to start EBF or who are only partially supporting it should be respected through modest involvement by health personnel through effective counselling. This research is connected to the current study, which looks at the impact of socioeconomic status on exclusive breastfeeding among women of child bearing age.

According to Onah, et al, (2012) the majority of the mothers polled were from a lower socioeconomic level and had just a secondary school education. Lower socio-economic class has 185 (46.3%), middle socio-economic class has 150 (37.5%), and higher socio-economic class has 65 percent (16.2 percent). It was also underlined that socioeconomic status had an inverse relationship with EBF practise. A lower rate of EBF practise was linked to a higher socioeconomic position. Breast-

feeding support groups should be formed so that women are sent to them after being discharged from the hospital or clinic for adequate education on exclusive breastfeeding practise. Some women are farmers who need help from family at the farms. According to a research conducted by Neji, Nkemadilim, and Ferdinand, (2015) 53 percent of the 312 mothers surveyed were unable to exclusively breastfeed their newborns owing to high family sizes, and 72.6 percent due to low income and employment. The researcher explored the barriers to exclusive breastfeeding habits among nursing mothers in Etche Local Government Area of Rivers State based on this study.

Statement of Problem

In developing nations like Nigeria, the problem of inadequate breastfeeding among women and newborns is on the rise. Even in the Etche Local Government Area of Rivers State, undernutrition, underweight, anaemia, and newborn morbidity have been seen. Exclusive breastfeeding for both mother and child has many benefits and it is universally accepted, despite all the efforts made to promote Exclusive breastfeeding has yielded less result. The women of child bearing age in Etche Local Government Area of Rivers State find it difficult to practice exclusive breastfeeding. If even they practice; it is not practice adequately, because they believe that breast milk is not food and cannot satisfy their baby adequately. Hence, they introduce water during breastfeeding, give formula, fed with feeding bottle, and also give cereals early. This therefore, results in poor growth, acute respiratory infections and diarrheal diseases, sudden infant death and high mortality rate.

Considering the importance of breastfeeding, it is necessary to identify

factors which can influence exclusive breastfeeding, and that is what this study is meant to achieve. It is based on this background that the researcher intends to examine factors influencing the practice of exclusive breastfeeding among women of child bearing age in Etche Local Government Area of Rivers.

Purpose of the Study

The purpose of this study is to examine the factors influencing the practice of exclusive breastfeeding among women of child bearing age in Etche Local Government Area of Rivers State. Specifically, the objectives of the study include the following.

1. To examine if socio-economic status of women of child bearing age has influence on exclusive breastfeeding in Etche LGA of Rivers State.
2. To determine if educational qualification of women of child bearing age has influence on exclusive breastfeeding in Etche LGA of Rivers State.

Research Questions

1. To what extent does socio-economic status influence exclusive breastfeeding among women of child bearing age in Etche LGA of Rivers State?
2. What influence has educational background on exclusive breastfeeding among women of child bearing age in Etche LGA of Rivers State?

Hypotheses

1. There is no significant difference between socio-economic status and practice of exclusive breast-feeding among women of child bearing age.

2. There is no significant difference between educational qualification and practice of exclusive breast feeding among women of child bearing age.

Methodology

The study adopted descriptive cross-sectional survey design. The potency of this design is that it yields data that can be useful for the study within the period of time. The population of the study consists of eight thousand, two hundred (8,200) women of child bearing age in Etche Local Government Area of Rivers State. A multi-stage sampling technique was adopted for the study to select four hundred and twenty five women of child bearing age. These women took part in the study as they had neonates, infants/children between the ages of 0 - 6 months and 24 months.

The technique involved three stages. At the first stage, simple random sampling technique was used to select two health centers from each of the 5 clans that made up Etche Local Government Area. Secondly, non-proportionate stratified sampling technique was used to select five health centers using the clans as strata. Thirdly, simple random sampling technique without replacement was used in selecting the respondents in the chosen health centers.

The standard statistical formula for calculating sample size was used to determine the sample size for this study. The formula is given as $n = \frac{Z^2 P q}{d^2}$ Where: n = sample size, z = confidence level 95%, p = proportion 50% = 0.5, $q = 1 - P = 1 - 0.5 = 0.5$, d^2 = confidence interval = 5% -- $0.05^2 = 0.0025$ Adjusting for a non-compliant rate of 10% Total = 425. This total was rounded up to 425 in order to give each strata equal figure. The research instrument

used for data collection was Self-Structured questionnaire. Out of four hundred and twenty five 425 questionnaire sampled, only four hundred was retrieved and used for data analysis. In order to determine the consistency of the instrument obtained using Cronbach alpha. The coefficient value of 0.72 was

obtained which shows the instrument is reliable. Data analysed was done using descriptive statistics such as simple percentage and frequencies and inferential statistics such as ANOVA and Z - test Statistics at 0.05 alpha level using SPSS software.

Result

Table 1: Socio-demographic characteristics of Respondents

Socio-demographic Characteristics	Frequency (F)	Percentage (%)
Age		
15-24	54	13.5
25-34	118	29.5
35-44	131	32.8
>45	97	24.3
Total	400	100
Mean age = 37.71±2.07 years		
Marital status		
Married	237	59.2
Single	102	25.5
Divorced	47	11.8
Widowed	14	3.5
Total	400	100
Level of education		
No formal education	61	15.2
Primary	83	20.8
Secondary	119	27.8
Tertiary	104	26.0
Non response	33	8.2
Total	400	100

Occupation		
Farming	138	34.5
Civil servant	101	25.2
Self-employed	94	23.5
Fishing	33	13.3
Non response	34	8.5
Total	400	100
Religion		
Christianity	315	78.8
Islam	11	2.7
Tradition	52	13.0
Non response	22	5.5
Total	400	100
Number of children		
One	75	18.7
Two	96	24.0
Three	114	28.5
Four	47	11.7
Five and above	40	10.0
Non response	28	1.1
Total	400	100
Husband's level of education		
No formal education	39	9.8
Primary	68	17.0
Secondary	157	39.2
Tertiary	103	25.8
Non response	33	8.2
Total	400	100

Table 1 showed that socio-demographic characteristics of the respondents. 131(32.8%) of the respondents were within the age range of 35-44 years, 118(29.5%) were aged 25-34 years,

54(13.5%) were aged 15-24 years while 97(24.3%) were aged 45 years and above with a mean age of 37.71 ± 2.07 years. More than half 237(59.2%) were married, 102(25.5%) were single, 47(11.8%) were

divorced while 14(3.5%) were widowed. The result on the level of education showed that 119(27.8%) of the respondents had secondary education, 104(26%) had tertiary education, 83(20.3%) had primary education while 61(15.2%) had no formal education. The table also shows the occupation of respondents as follow: farmers 138(34.5%), civil servants 101(25.2%), self-employed 94(23.5%) and fishers (13.3%). The religious affiliation of respondents showed that more than three quarter 315(78.8%) were Christians, 52(13%) were traditionalist while few

11(2.7%) were Muslims. The number of children shows that more than one quarter 114(28.5%) of the respondents had three children, 96(24%) had two, 75(18.9%) had one child while 40(10%) had five children and above. 157(39.2%) of the respondents husbands had secondary education, about half 103(25.8%) had tertiary education while 68(17%) had primary education.

Research Question 1

Does socio-economic status influence exclusive breastfeeding among women of child bearing age?

Table 2: Socio-economic status and exclusive breastfeeding among women of child bearing age

Items*	SA	A	SD	D	Mean	S/D
Nursing mothers who are not employed may not practice exclusive breastfeeding	113(29.0)	105(26.9)	94(24.1)	78(2.0)	2.3	1.1
Nursing mothers with emotional problem may not practice. exclusive breastfeeding	178(48.1)	121(32.7)	32(8.6)	39(10.5)	2.9	1.0
Mothers with low income status find it difficult to practice exclusive breastfeeding	114(28.5)	155(38.8)	76(19.0)	55(13.7)	2.9	1.0
Mothers who cannot afford good food may find it difficult to practice exclusive breastfeeding	183(45.8)	142(35.5)	34(8.5)	41(10.2)	2.4	1.0
Grand mean					2.6	1.0

*Non responses excluded.

Table 1 showed that the grand mean = 2.6. The result showed that the grand mean (2.6) is greater than the criterion mean = 2.5. This showed that the socio-economic status influences the practice of exclusive breastfeeding.

Research Question 2

Does educational qualification of mothers influence the practice of exclusive breastfeeding among women of child bearing age?

Table 3: Educational qualification and the practice of exclusive breastfeeding among women of child bearing age

Educational qualification	Practice of exclusive Breastfeeding		Total
	Yes F(%)	No F(%)	
No formal education	22(6.0)	39(10.6)	61(16.6)
Primary	31(8.4)	52(14.2)	83(22.6)
Secondary	48(24.1)	71(19.3)	119(32.4)
Tertiary	63(17.2)	41(11.2)	104(28.3)
Total	164(44.7)	203(55.3)	367(100)

Table 2 revealed that among those who practice exclusive breastfeeding, 48(24.1%) had secondary education, 63(17.2%) had tertiary education, 31(8.4%) had primary education while 22(6.0%) had no formal education.

Hypothesis 1

There is no significant difference between socio-economic status and exclusive breastfeeding among women of child bearing age in Etche Local Government Area of Rivers State.

Table 4: One-Way ANOVA of socio-economic status and exclusive breastfeeding

Source	SS	Df	MSS	F-cal	P-value	Decision
Between groups	2.150	2	1.075	0.222	0.101	Reicted
Within groups	1482.115	378	5.370			
Total	1484.265	380				

***Significant**

Table 4 shows One-Way ANOVA on socio-economic status and exclusive breastfeeding. The finding of this study shows a significant difference at $p > 0.05$ level $F(2,378) = 0.222$, $p = 0.101$ in the practice of exclusive breastfeeding as regards socio-economic status. The null hypothesis which states that there is no significant difference between socio-economic status and exclusive breastfeeding among women of child

bearing age in Etche Local Government Area of Rivers State is rejected.

Hypothesis 2

There is no significant difference between educational qualification of mothers and the practice of exclusive breastfeeding among women of child bearing age in Etche Local Government Area of Rivers State.

Table 5: Z-test Summary of difference between Educational background and practice of exclusive breastfeeding

Group	N	Mean	SD	Df	z-cal	z-tab	Decision
Good education	112	1.97	2.23	379	9.93	1.19	Rejected
Poor education	255	1.53	1.11				

* **Significant.**

Z-test was used to explore the significant difference between Educational qualification and practice of exclusive breastfeeding. The table shows that Z-calculated is 9.93 and Z-tabulated is 1.19. Therefore, Z-cal (9.93) is greater than z-tab (1.19) at 0.05 level. The null hypothesis is therefore rejected. This shows that, there is a significant difference between educational qualification of mothers and the practice of exclusive breastfeeding among women of child bearing age in Etche Local Government Area of Rivers State.

Discussion of Findings

The finding of this study showed that socio-economic status influences the practice of exclusive breastfeeding. The tested hypothesis showed that there is a significant difference between socio-economic status and the practice of exclusive breastfeeding ($F(2,378) = 0.222, p = 0.101$). The finding of this study corroborates that of Ekanem et al (2012) where it was also found that socioeconomic status influenced the practices of exclusive breastfeeding. The finding of this study is also in line with the result of Flacking, Nyqvist and Ewald, (2017) which showed that socio-economic status is strongly associated with breastfeeding.

The result of this study on the influence of educational qualification on exclusive breastfeeding showed that among those

who practice exclusive breastfeeding, 48 (24.1%) had secondary education, 63 (17.2%) had tertiary education, 31 (8.4%) had primary education while 22 (6.0%) had no formal education. The tested hypothesis on this showed that, 'there is a significant difference between educational qualification of mothers and the practice of exclusive breastfeeding among women ($Z\text{-cal} = 9.93, Z\text{-tab} = 1.19$). This finding is in keeping with the finding of Ekanem et al (2012) which showed that a higher maternal educational level was observed to favour exclusive breastfeeding among women. The finding of this study is also similar to that of Neji et al (2015) who identified educational qualification as a factor which has significant influences exclusive breastfeeding.

Conclusion

Based on the data and the findings, it was concluded that; various factors such as socio-economic status, educational qualification, marital status, occupation, influences exclusive breastfeeding among women of child bearing age.

Recommendations

The following suggestions are given based on the findings of this study:

1. The government, through its various health institutions, should make significant advances in the postnatal

care of low-income mothers. Better resource allocation and prioritisation should be part of this improvement in order to satisfy the needs of the most vulnerable mothers and newborns.

2. The Federal Ministry of Health should create Breastfeeding Support Groups so that mothers are directed to them after being discharged from hospitals or clinics for adequate breastfeeding instruction.
3. The Federal and State Ministries of Health, as well as other employers of labour, should establish creches or day care centres in their ministries, parastatals, and other workplaces so that working women can breastfeed their children while at work.

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EFFECTS OF CIRCUIT TRAINING ON CARDIOVASCULAR FITNESS OF UNDERGRADUATE NON-ATHLETES OF IGNATIUS AJURU UNIVERSITY OF EDUCATION, RUMUOLUMENI, PORT HARCOURT.

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Abstract

Regular participation in physical activities have been proven to be beneficial to the health of both young and old. The study investigated effects of A – 12 week circuit training on cardiovascular fitness of undergraduate non-athletes of Ignatius Ajuru University of Education Rumuolumeni, Port Harcourt. The population for this study was eleven thousand, seven hundred and ninety one (11,791) non-athletes from Ignatius Ajuru University of Education. The sample size was seventy (70) volunteer who were randomly assigned into experimental and control groups. What is the effect of circuit training on cardiovascular endurance of undergraduate non-athletes guided the study. Pearson product moment correlation (PPMC) was used to test the reliability of the test instruments. Descriptive statistical tools of mean and standard deviation provided answers to the research questions, while analysis of covariance (ANCOVA) was used to test the hypotheses at 0.05 alpha level. The findings established that circuit training has effect on cardiovascular endurance, flexibility and speed of undergraduate non-athletes exposed to exercise training. Gender did not significantly affect circuit training abilities of non-athletes. Based on the findings, it was concluded that circuit training is beneficial to male and female undergraduate non-athletes, exercise training facilitates the correction of poor body postures and increases physical fitness level of undergraduate non-athletes. Based on these findings, it was recommended among others that regular exercise training should be emphasized among the undergraduate non-athletes in the university communities, both in the state, federal and private owned universities. Exercise physiologists can be entrusted with the exercise prescriptions, designing of exercise trainings, creating awareness on the benefits of circuit training as one of the best methods of exercise training that promotes overall health and wellbeing.

Introduction

The overall health and wellbeing of the undergraduates are of great importance to a given society; when the human body functions well in good health, and attains complete physical fitness level, that same human body is capable of achieving good health when engaged in regular exercise

training. The undergraduate non-athletes can contribute greatly to the society in which they belong to, when they are physically active and disease free. The ability to carry out daily tasks with vigour and alertness and with ample energy to enjoy leisure time and to meet unforeseen emergencies is essential in the life of every undergraduate non-athlete. It is therefore

the responsibility of every country to promote physical fitness programmes among the undergraduate non-athletes taking cognisance of these in the university communities (Reddy & Jyoti, 2012).

Circuit training is one of the exercise training methods which aims at increasing the participant's physical fitness within the sports activities in the university communities and the larger societies. It is a training method in exercise that depends on organized domains of continuous, interval and duration (Reddy & Jyoti, 2012). Circuit training is an exercise training method, in which exercises are structured, designed and planned for the participants to perform based on their fitness level and individual differences. The participants move from one exercise station to the other on completion of the prescribed exercises in each station, which has five to ten different exercises. In a nutshell, circuit training is a combination of five or more different exercises whereby participants engage in and move to the next exercise station; duration, interval and time are considered.

Cardiovascular fitness is a health – related physical fitness component, which is the ability of the heart, lungs and blood vessels to supply oxygen (O_2) rich blood to the working muscles, as well as the muscles utilizing the oxygen (O_2) delivered by the blood supply as a source of energy for movements (Frank, 2010). A participant's ability to deliver (O_2) to the working muscles is affected by the physiological parameters which include: the heart rates, (HR), Stroke Volume (SV) Cardiac Output (CO), and Maximal Oxygen consumption (VO_2 Max), according to National Physical Activity Guidelines (2010).

Onuoha, Ilo and Nwadike (2020), reported that circuit training facilitates the development and improvement of

cardiovascular endurance (VO_2 max) among the under graduate non-athletes. Again circuit training is necessary to make the cardio respiratory fitness training effective and feasible, permitting at the same time regular activities of daily living; and a great strategy to improve cardiovascular endurance and its maintenance.

Cardiovascular fitness is important to circuit training because it delivers oxygen, nutrients, hormones, and other important substances to cells and organs in the body. It plays an important role in helping the body to meet the demands of physical activity, exercise and stress. It also helps to maintain body temperature among others (Go, Starr & Satiani, 2019). Cardiovascular endurance measures how well the participants' body performs during long periods of exercise, it is an indicator of how fit and healthy the participant's heart, lungs and muscles work together. The cardiovascular endurance is measured as an indicator of how well participants' body can take in and utilize oxygen (O_2) which influences the participant's performance in physical activity (Cheng, Chin & Su, 2019). The test measurement for cardiovascular endurance is the 12-minute run/walk test. The choice of this test was that the participant's heart, lungs and blood vessel will indicate his/her fitness level during exercise during.

Circuit training consists of normal circuits, timed station circuits and stage circuits. The normal circuits involves the participants go through the signed exercises orderly until a set is completed. The timed station circuit describes specific exercises done for a specified amount of time before the participants move to the next exercise station for a different exercise. The stage circuit is the type whereby participants engage in one type of exercise which makes a set, and muscle groups are worked

intensively in a short period of time (Goulding, 2019).

Circuit training is beneficial to the participants because it improves cardiovascular fitness, and aids social interaction, facilitates exercise performance, elevates heart rate of participants (Al-Haliq, 2015). The undergraduate non-athletes are the group who have not participated in any sport competition in the school, Ignatius Ajuru University of Education, Rumuolumeni Port Harcourt. The provision of good Health for everyone in the University community is one of the most important issues in each country (Barnett, Ferguson & Coulson, 2011).

Exercise in its totality, is a sub category of physical activity which is structured, planned, repetitive and purposeful (WHO, 2016). Exercise entails participating in physical activity, no matter 'how and where'. People who make exercise as an essential part of their routine are happier and efficient than others. Again, exercise is useful in preventing or treating depression, obesity, diabetes, weakness, weakness, coronary heart disease and osteoporosis.

Go et al. (2019), explained cardiovascular fitness as the system that delivers oxygen (O₂) nutrients, hormones and other important substances to cells and organs in the body, which helps the body to meet the demands of activity, exercise and stress, helps to maintain body temperature among other things. Cardiovascular fitness has cardiovascular endurance which is concerned with physical exercises of low to high intensity that depends primarily on the aerobic energy generating process.

The aim of this study was to determine effects of circuit training on cardiovascular

endurance of undergraduate non-athletes of Ignatius Ajuru University of Education.

Statement of the Problem

The undergraduate non-athletes consist of a larger population of a given nation. The prospect of any nation lies in the hands of the active undergraduates who are healthy and disease free. The undergraduate non-athletes if not physically active at this stage of life would not engage in school activities, ranging from attending lectures at the various areas, which demand climbing stair cases, walking from long distances from their hostels or not without being fatigued. When these undergraduate non-athletes in university communities are caught at this stage to engage in circuit training, would correct their life styles as they engage in regular exercise training. In other-words circuit training would improve their life styles and gain healthy living and enjoy wellness.

Objectives of the Study

The objectives of this study sought to find out effects of circuit training on cardiovascular fitness of undergraduate non-athletes of Ignatius Ajuru University of Education, Rumuolumeni, Port Harcourt. The study identifies effects of circuit training on cardiovascular endurance of undergraduate non-athletes of Ignatius Ajuru University of Education Rumuolumeni, port Harcourt. The study also, identified effects of circuit training on cardiovascular endurance of undergraduate non-athletes of Ignatius Ajuru University of Education based on gender.

Methodology

A pre-test, post-test control group and experimental design was used to carry out the study. The population was all the

undergraduate non-athletes which was 11,791. The sample size was 70 volunteers who were randomly assigned to control and experimental group through balloting with replacement. Each group consists of 23 males and 12 females for experimental groups. 16 males and 19 females for control groups. 150 informed consent forms were distributed to the undergraduate non-athletes of Ignatius Ajuru University of Education.

Technique: random sampling technique was adopted in order to get the sample size of 70 volunteers.

Data collection: the 12-minute run/walk test was used to measure aerobic fitness of the participants, which aided the determination of cardiovascular endurance of the participants based on age and gender. The equipment and facilities used were stop watch, standard 400m track, recording sheets and whistle. The participants' respiratory and circulatory systems efficiency were measured in order to

determine the supply of oxygen (O₂) to the working muscles during the 12-minute run/walk test, and other physical activities lasting for a long period. The males were rated at 2800m excellent, and females 2700m at excellent level.

Data analysis: data collected were analysed using descriptive statistics of mean, standard deviation and percentages for research questions, while analysis of covariance (ANCOVA) was used to test the hypotheses at 0.05 alpha level of significance.

Results and Discussions

The effect of circuit training on cardiovascular endurance of undergraduate non-athletes is shown on the table below.

Gain scores of the effect of circuit training on cardiovascular endurance of non-athletes in Ignatius Ajuru university of education.

Table 1: Gain scores of the effects of circuit training on cardiovascular endurance of non-athletes of Ignatius Ajuru University of Education

Group	Strategy	N	Pretest		Post test		Mean gain score	
			Mean	SD	Mean	SD	Mean gain	Gain %
Experimental	Circuit training	35	1.42	0.66	5.42	0.86	4.00	58.5
Control	Without circuit training	35	1.09	0.61	2.06	0.64	0.98	31.0

The results presented in the table above showed that the mean gain scores on cardiovascular endurance of non-athletes exposed to circuit training was 58.5%, while those who are not exposed to circuit

training had a mean gain score of 31.0%. This implies that circuit training had an effect on cardiovascular endurance of non-athletes in Ignatius Ajuru University of Education.

Table 2: The effects of circuit training on cardiovascular endurance based on gender of undergraduate non-athletes of Ignatius Ajuru University of education

Gain scores of the effects of circuit training on cardiovascular endurance of non-athletes of Ignatius Ajuru University of Education based on gender.

Group	Strategy	Gender	N	Pretest		Post test		Mean score gain	
				Mean	SD	Mean	SD	Mean gain	Gain %
Experimental	Circuit training	Male	23	3.76	0.80	5.76	0.80	2.00	20.9
		Female	12	2.67	0.43	4.72	0.43	2.05	27.9
Control	Without circuit training	Male	16	1.10	0.61	2.11	0.61	1.01	31.6
		Female	19	1.07	0.63	2.02	0.68	0.96	31.0

The results in the table above showed that mean gain score for the cardiovascular endurance of male non-athletes exposed to circuit training was 2.00 (20%), while their female counter parts had a mean gain score of 2.05 (27.7%). The female non-athletes therefore had a slightly higher mean gain score than their male counter parts with a

mean gain difference of 0.5 or 6.9% similarly, the male non-athletes who are not exposed to circuit training obtained a mean gain score of 1.01 or 31.6% against their female counterparts who had a mean gain score of 0.96 or 31.0%. The male however, had a slightly higher mean gain than their female counter parts with a mean gain difference of 0.05 or 0.6%.

Table 3: There is no significant difference on the mean scores of male and female non-athletes cardiovascular endurance in Ignatius Ajuru University of Education

A two-way analysis of covariance was employed in testing the hypotheses. The results are presented below in table 3.

Summary of a 2-way ANCOVA on the difference on the mean scores of male and female non-athletes cardiovascular endurance in Ignatius Ajuru University of Education, Rumuolumeni, Port Harcourt.

Source	Some of squares	DF	Mean square	F	P value
Model	2.35.994	4	58.999	10713.057	.000
Intercept	11.948	1	11.948	2169.500	.000
Pretest 1	29.556	1	29.556	5366.765	.000
Group	4.437	1	4.437	805.656	.000
Gender	.003	1	.003	.549	.462
Group gender	0.12	1	0.12	2.100	.152
Error	.358	65	.006		
Total	1217.056	70			
Corrected Total	236.352	69			

A.R² square = .998 (Adjusted R. Squared = .998)

Table 3 showed that the calculated F-value for gender was 2.100 at degree of freedom of 1 and 65 the calculated F-value is significant at 0.152 probability level which is greater than 0.05 level of probability ($F=2.100$, $df = \frac{1}{65}$, $p>.152$). This implies that there is no significant differences on cardiovascular endurance of male and female non-athletes exposed to circuit training in Ignatius Ajuru University of Education. Hence the hypotheses was retained.

Discussion of Findings

The findings in Table 1, revealed that the mean gain scores on cardiovascular endurance of non-athletes exposed to circuit training was 58.5%, while those who were not exposed to circuit training had a mean score of 31.0%. This implies that circuit training has an effect on cardiovascular endurance of non-athletes in Ignatius Ajuru University of Education. The finding was not surprising because circuit training is needed by the non-athletes in order to increase their cardiovascular endurance. The finding supports that of Uchenwoke, Onuoha, Ilo, Nwadijibe, Neboh and Ogbueche (2020), which reported that a-6 week circuit training program among the apparently healthy adult females showed a significant improvement in the cardiovascular endurance of the participants. The finding agrees with that of Romero-Arenas, Martinez-Pascual and Alcaraz (2015), which indicated that there was a significant improvement in cardiovascular endurance of the adult females, and a short rest period during circuit training ends to supplement improvements in the Vo_2max .

The results in Table 2, showed that the mean gain score for cardiovascular endurance of male non-athletes exposed to circuit training was 2.00 (20%), while their

female counterparts had a mean gain score of 2.05 (27.7%). The female non-athletes therefore had a slight higher mean gain score than their male counterparts with a mean gain difference of 0.5 or 6.9%. Similarly, the male non-athletes who were exposed to circuit training obtained a mean gain score of 1.01 or 31.0%. The males however, had a slightly higher mean gain than their female counterparts with a mean gain difference of 0.05 or 0.6%. The finding was expected because Uchenwoke et al, reported that they found a slight improvement in the quality of life of the experimental group, which showed no significant change. This implies that circuit training programme among the apparently healthy adult females did not statistically improve their overall quality of life.

The results in Table 3, showed that the calculated F-Value for gender was 2.100 at degrees of freedom of $\frac{1}{65}$. The calculated F-value was significant at 0.152 probability level, which was greater than 0.05 level of probability ($F=2.100$, $df= \frac{1}{65}$, $p>.152$). This indicates that there was no significant difference on cardiovascular endurance of male and female non-athletes exposed to circuit training. A-two analysis of covariance was employed in testing the hypotheses as it was retained. This finding was not in line with the findings of Onuoha, et al (2020), who reported that circuit training for 6 weeks among healthy adult females improved the cardiovascular endurance of healthy adult females.

Conclusion

Based on the findings of the study; it was concluded that circuit training is beneficial to male and female undergraduate non-athletes. Circuit training can facilitate the correction of poor body posture, can increase physical fitness level of the

undergraduate non-athletes, and reduce the risk of injuries and deaths. Circuit training exposed the participants to enjoy life free from disease and attain to daily tasks optimally.

Recommendations

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

1. Exercise physiologists should recommend that regular exercise among the undergraduates in the University communities should be emphasized both in the state universities, federal universities and private owned universities.
2. Exercise physiologist should be fully involved in the admission of fresh undergraduates, so that fitness tests would be carried out, each student being tested physically before fully registered, so that students who are not physically fit, would be identified.
3. The university authorities should ensure that students identify themselves with a particular sporting activity, as this endeavour would increase their health condition through participation.
4. The universities should promote the establishments of sporting centres; such as sports 'village,' sports 'hostels,' and sports institutes and give interested students the opportunities and access to train in sport complex by the experts.
5. The government both state and federal should establish more recreational centres, individuals should be allowed to establish recreational centres, fitness centres, and provision of facilities and equipment should not lack in these areas.

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EFFECTS OF AQUATIC POLLUTION ON THE HISTOPATHOLOGY OF *PERIOPHTHALMUS PAPILLO* (MUDSKIPPER) ORGANS, ELECHI CREEK, PORT HARCOURT, NIGERIA

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Abstract

In recent times there has been increase in the pollution of our water bodies, this has led to the contamination of aquatic lives. These contaminants accumulate and biomagnify across the food chain. Accumulation of trace and Non-essential metals in the Gills of *Periophthalmus Papillo* (Mudskipper) from Elechi Creek and its Histopathological effect were investigated for 12 months, samples of *P.Papillo* were collected quarterly from five stations. Station 1 Eagle Cement, Station 2 Saipem, Station 3 Master Energy, Station 4 Agip and Station 5 Ogbakiri. Concentrations of Lead (Pb), Chromium (Cr), Cadmium (Cd), Nickel (Ni) and Vanadium (V) were determined in the gill of *P.Papillo* using GBC Avanti Atomic Absorption Spectrometer (AAS). One way ANOVA was used to do mean separation and Tukey HSD tests was used to determine stations that were statistically significant. Histological examination of the gill samples were done and images were acquired with a Lecia DFC280 Digital Camera attached to a light microscope (Lecia 6000B). The mean concentration of heavy metals in the gills were as follows: Station 1: Cr 16.75±2.74mg, Pb, 14.97±2.57mg, Cd, 0.80±0.12mg, Ni 6.05±1.25mg, V 0.29±0.02mg Station 2: Cr 19.78±3.56mg, Pb 16.52±4.51mg, Cd 0.88±0.18mg, Ni 4.10±0.80mg, V 0.19±0.02mg Station 3: Cr 17.79±1.34mg, Pb 10.39±0.62mg, Cd 0.56±0.02mg, Ni 4.41±0.50mg V 0.22±0.02mg Station 4: Cr 16.89±1.78mg Pb 1.89±1.14mg, Cd 0.74±0.09mg Ni 3.83±0.60mg V 0.18±0.02mg Station 5: Cr 16.15±1.94mg, Pb 7.52±1.51mg, Cd 0.40±0.08mg, Ni 1.18±0.13mg, V 0.06±0.005mg. Histopathological micrographs showed severe organ degeneration. The concentrations of these metals exceeded international standards and these are alarm signs that need urgent intervention from government agencies and the public health managers.

Key words: Heavy Metals, *Periophthalmus*, Mudskipper, Elechi Creek

Introduction

Anthropogenic activities have increased lithogenic deposits exposing man and his surroundings to the harmful effects of heavy metals. Living organisms in the water bodies are therefore at high risks of exposure. Humans on the other hand have a higher risk because of bioaccumulation and biomagnification along the food chain.

This is due to the capacity of some aquatic organisms to concentrate heavy metals up to 105 times the concentration present in the water (Nwoka, Ukiwe & Oshoakpeme 2014).

Industrial activities, including agriculture and mining, are recognized as sources of heavy metal pollution in aquatic environments. Pollution of aquatic

ecosystems by heavy metals is an important environmental problem, as heavy metals constitute some of the most dangerous toxicants that can bioaccumulate (Soegianto, Charmantier-Davies & Trilles 2009). According to Saeed and Shaker (2008), pollution of the aquatic environment by inorganic and organic chemicals is a major factor posing serious threat to the survival of aquatic organisms including fish. Pollutants discharged into streams and rivers can be transported over long distances thereby affecting ecosystems several kilometers from the point of discharge.

The bio-accumulation of a metal in an organism depends on many physicochemical as well as biological factors. Metal availability is influenced by the chemical speciation of ionic metal forms, the chemistry of water and relative distribution of metals between soluble and particulate fractions. The chemistry of the water itself influences the speciation of heavy metals in both marine and limnic environments. Factors such as hydrogen ion activity (Hakanson, 2000; Bacini & Suter, 2009), hardness (Kinkade & Erman, 2005; Bell, 2006; McCarthy, Henry & Houston, 2008; Calamari, Marchetti & Vailatie, 2010; Somero, Chow, Tancy & Snyder, 2007) are reported to be crucial in this respect. Furthermore, the presence of organic compounds and suspended particles may change the activity of free metal ions (Hirose & Sugimura, 2005; Bernhard & George, 2006; Gachter & Davis, 2008). The ability of heavy metals to bind to, and be released from sediment (Gardiner, 2004; Patric, Gambrell & Khalid, 2005; Sakata, 2005) also affects the availability of metals to aquatic life.

Elechi Creek is a major tributary of the Bonny Estuary which flows across the industrial areas of Port Harcourt with oil-

based and agro-allied industries sited along its banks. Industrialization and urbanization have proceeded rapidly during the past two decades in Port Harcourt, including the development of large harbors and residential areas resulting in the deterioration of surrounding mangrove habitat

Mudskipper (*Periophthalmus papillo*) is an amphibious fish that uses its pectoral fin to walk on land. The fish is adapted to intertidal habitats. Abundance and distribution of mudskippers on land as well as in coastal waters could be considered as direct indication of habitat health (Ansari *et al.*, 2014). This study was set up to determine the histopathological effects of the bioaccumulation of five heavy metals on the gills of *Periophthalmus papillo*, an organism known to be extensively consumed by the adjoining communities of Elechi creek.

The heavy metals studied include Chromium(Cr), lead(Pb), Cadmium(Cd), Nickel(Ni), Vanadium(V). Cr is listed as a toxic heavy metal by International Agency for Research on Cancer (IARC ,2014); adverse effects on the skin may include ulcerations, dermatitis and allergic skin reactions. Pb is a poisonous metal, it is toxic to all organisms. Cd has been classified by (IARC 2014) as a category 1 human carcinogen; Sensitivity to Nickel poisoning is 3-5 times higher in women than in men (Cempel & Nikel, 2006), and chronic effect leads to contact atopic dermatitis (Narayanan, 2011). Vanadium effects include increase blood pressure, decreasing number of red blood cells, (Amorim, Welz, & Costa, 2007).

Elechi Creek is within the upper reaches of the Bonny Estuary which lies between longitude 6°58'10.83" to 00°23.64" E and latitude 4°4'11.34" to 4°4'43.33" N.

Methodology

Study Area

The study stations were the industrial points along Elechi creek.

Study station 1: This was the Eagle Cement Water Front, situated at latitude 4° 47'41.85" and longitude 6° 56'29.43". Eagle Cement is a cement manufacturing company.

Study Station 2: Saipem Water Front was chosen as station 2. This station was situated at latitude 4°46'24.55" and longitude 6° 58'50.49". Saipem is a multinational company involved in Engineering, Construction and Fabrication.

Study Station 3: This was the Master Energy Water Front situated at latitude 4° 46'30.27" and longitude 6° 58'45.80". Master Energy, a petroleum product marketing company, receives petroleum products from oil vessels.

Study Station 4: The Nigerian Agip Oil Company (NAOC) Water Front was situated at latitude 4° 47'55.68" and longitude 6° 58'15.76". NAOC is a land and offshore oil producing company.

Study Station 5: Ogbakiri Water Front was chosen as station 5 and also served as the control station for the study. It was situated at latitude 4° 47'37.69" and longitude 6° 54'37.

Sampled fish (*Periophthalmus papillo*) were collected from the creek at each of the sampling stations during the period on quarterly basis i.e., 4 times in the twelve months sampling period covering wet season and dry season. *Periophthalmus papillo* was caught with the aid of jik trap (commonly used method in the community). It was washed and kept in a labelled container in an ice chest cooler.

The samples were transported to the laboratory. Two grams of the gill were cut and accurately weighed into a dish and oven dried at 500°C to ash. The ashes were digested with 5mls of 10% HNO₃ and warmed on a water bath to dissolve. The mixture was filtered and made up to 50ml using distilled water. The filtrate was stored in plastic bottles for metal analysis

The filtrate were analysed for Ni, V, Pb, Cr, and Cd using the GBC Avanta Atomic Absorption Spectrophotometer.

For histopathological examination, fish samples were dissected under sterile conditions and the gill weighed and dropped immediately into Alcoholic Bouin's fixative. Samples of gills from all stations were labelled and fixed in 10% neutral buffered formalin at room temperature for 24h. After serial dehydration steps in alcohol, samples were embedded in paraffin. The blocks of embedded tissue were sectioned at 5µm, and sections were routinely stained with haematoxyline and eosin (HeE) and mounted on DPX. Images were acquired with a Leica DFC280 digital camera attached to a light microscope (Leica 6000B).

One way ANOVA was used to test mean significance of the heavy metals in the gills of *P.papillo*, post hoc comparison was done with Tukey HSD to determine the stations that were statistically significant.

Results

Heavy metal concentrations in the sample

Chromium (Cr) concentration in the gills ranged from ...16.15±1.94mg/kg. to 19.78±3.56mg/kg with an overall mean value of 17.47±0.63mg/kg. Comparing the concentrations in each station, the highest mean value (19.78±3.56mg/kg) was recorded in station 2 (that is, Saipem water

front) the lowest mean concentration was recorded in station 5 (Ogbakiri water front) with a value of $16.15 \pm 1.94 \text{ mg/kg}$. Meaning is there is no significant difference in Cr concentration between the stations.

Lead (Pb) concentrations ranged from $1.89 \pm 1.14 \text{ mg/kg}$ to $16.52 \pm 4.51 \text{ mg/kg}$ with an overall mean value of $10.93 \pm 2.73 \text{ mg/kg}$. The highest mean concentration per station was achieved in-station 2 (Saipem) with a value of $16.52 \pm 4.51 \text{ mg/kg}$ and the lowest ($1.89 \pm 1.14 \text{ mg/kg}$) was recorded in station 4. There was a significant difference between the stations. Stations 1 (Eagle Cement) and 2 (Saipem) were similar but different from station 4 (NAOC).

Cadmium (Cd) concentration were lower than those of other metals investigated, except Vanadium. It ranged from $0.4 \pm 0.08 \text{ mg/kg}$ to $0.88 \pm 0.18 \text{ mg/kg}$ having an overall mean concentration of $0.67 \pm 0.08 \text{ mg/kg}$. As is the case with the other metals, station 2 (Eagle Cement) also had the highest concentration ($0.88 \pm 0.18 \text{ mg/kg}$) of Cd while station 5 (Ogbakiri) had the least concentration

($0.4 \pm 0.08 \text{ mg/kg}$). There was no significant difference between the stations.

The concentrations of Nickel (Ni) were between $1.18 \pm 0.13 \text{ mg/kg}$ to $6.05 \pm 1.25 \text{ mg/kg}$ and an overall mean of $3.91 \pm 1.06 \text{ mg/kg}$. The highest mean concentration of Ni was recorded in station 1 (Eagle Cement) with a value of $6.05 \pm 1.25 \text{ mg/kg}$ and the least was recorded in station 5 (Ogbakiri) with a value of $1.18 \pm 0.13 \text{ mg/kg}$. There was a significant difference between the stations; station 5 was different from station 1.

The lowest metal concentrations were recorded for Vanadium (V); it ranged from ($0.06 \pm 0.005 \text{ mg/kg}$ to $0.29 \pm 0.02 \text{ mg/kg}$) and had an overall mean value of $0.19 \pm 0.04 \text{ mg/kg}$. Like Ni, the highest mean concentration of V ($0.29 \pm 0.02 \text{ mg/kg}$) was recorded in station 1 (Eagle Cement) while the lowest ($0.06 \pm 0.005 \text{ mg/kg}$) was recorded in station 5 (Ogbakiri). Stations 1 (Eagle Cement) was significantly different from station 5 (Ogbakiri). The concentrations of the metals are presented in Table 1.

Table 1: Mean Metal Concentrations in Gills of *P. papillo*, Elechi Creek, Port Harcourt, Nigeria

-Stations	Heavy metal concentration (mg/kg)				
	Cr	Pb	Cd	Ni	V
1	16.75 ± 2.74	$14.97^a \pm 2.57$	0.80 ± 0.12	$6.05^a \pm 1.25$	$0.29^a \pm 0.02$
2	19.78 ± 3.56	$16.52^a \pm 4.51$	0.88 ± 0.18	$4.10^{ab} \pm 0.80$	$0.19^{ab} \pm 0.02$
3	17.79 ± 1.34	$10.39^{ab} \pm 0.62$	0.56 ± 0.02	$4.41^{ab} \pm 0.50$	$0.22^{ab} \pm 0.02$
4	16.89 ± 1.78	$1.89^b \pm 1.14$	0.74 ± 0.09	$3.83^{ab} \pm 0.60$	$0.18^{ab} \pm 0.02$
5	16.15 ± 1.94	$7.52^{ab} \pm 1.51$	0.40 ± 0.08	$1.18^b \pm 0.13$	$0.06^b \pm 0.005$

Results of the histopathology tests (Plates 1-5) showed varying levels of damage to the gills of the fish samples collected from the study stations. The gill samples from station 1 (Eagle Cement) exhibited hypertrophy/

hyperplasia, and disorganization of secondary lamella. Vascular congestion, necrosis and hyperplasia were observed in gills from station 2 (Saipem), while fusion of secondary lamellae, hyperplasia of

respiratory epithelia cells, edema and sanguineous congestion were reported for gills from station 3 (Master Energy). In those from station 4 (NAOC), vacuolation, also had edema.

necrosis and hyperplasia was observed. Samples from station 5 (Ogbakiri), the control station, were better but

Histopathology results of heavy metals in gills of *P. Papill*.

(All the photomicrographs presented in this article are original documents from the authors desk)

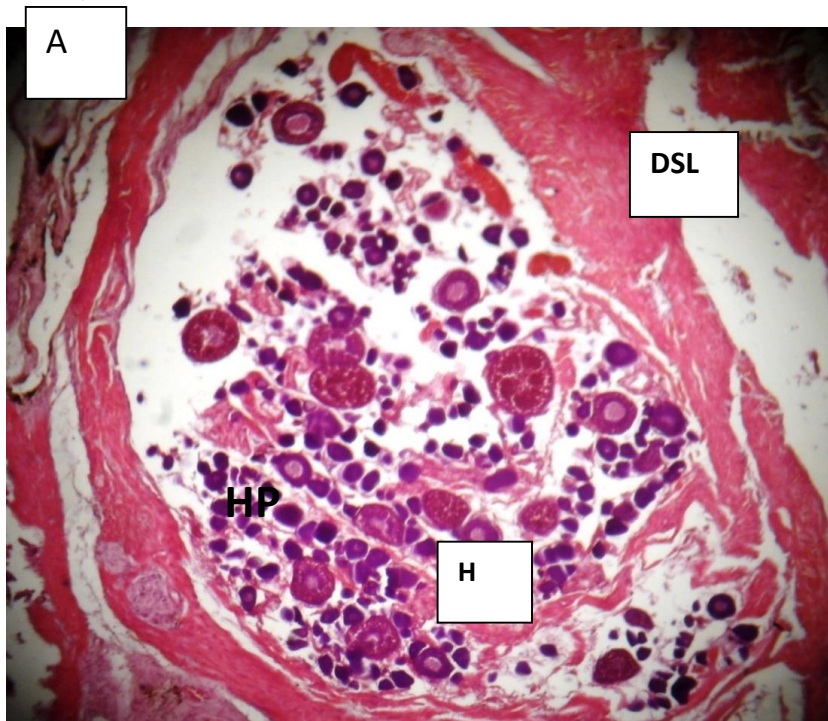


Plate 1: Micrograph of *P.papillo* Gills from Station1 (Mag.H&EX100)

Key: H-Hypertrophy/Hyperplasia, DSL-Disorganisation of Secondary Lamella, A-plate 1

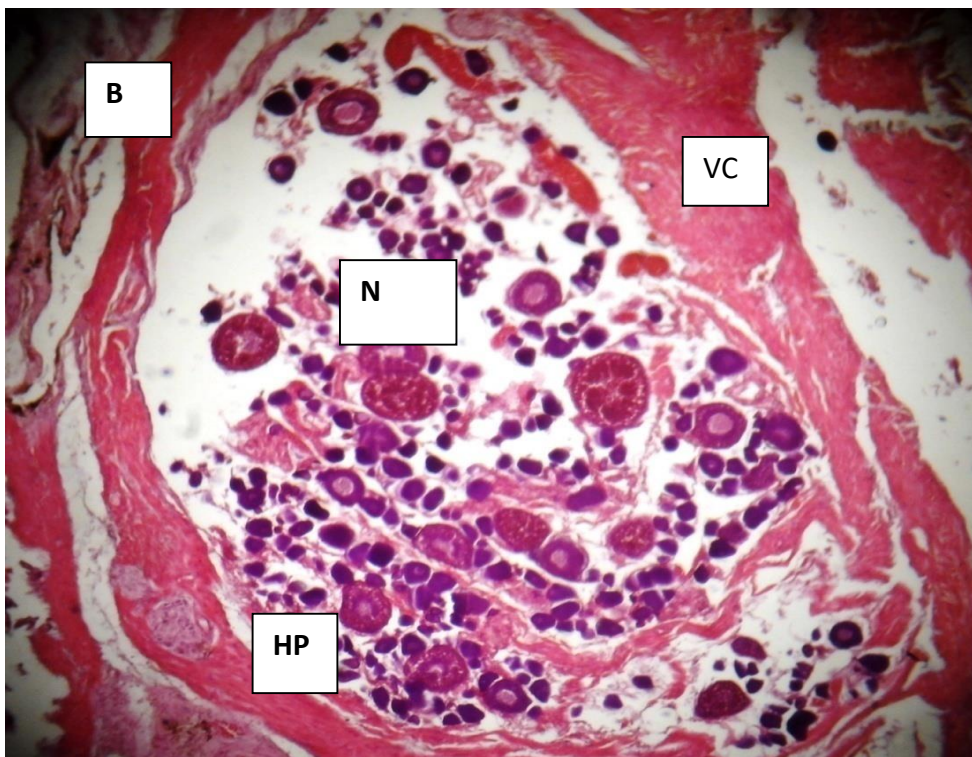


Plate 2: Micrograph of *P. papilio* Gills from Station 2 (H&EX100)

Key: VC-Vascular congestion, N-Necrosis, HP-Hyperplasia, B- plate 2

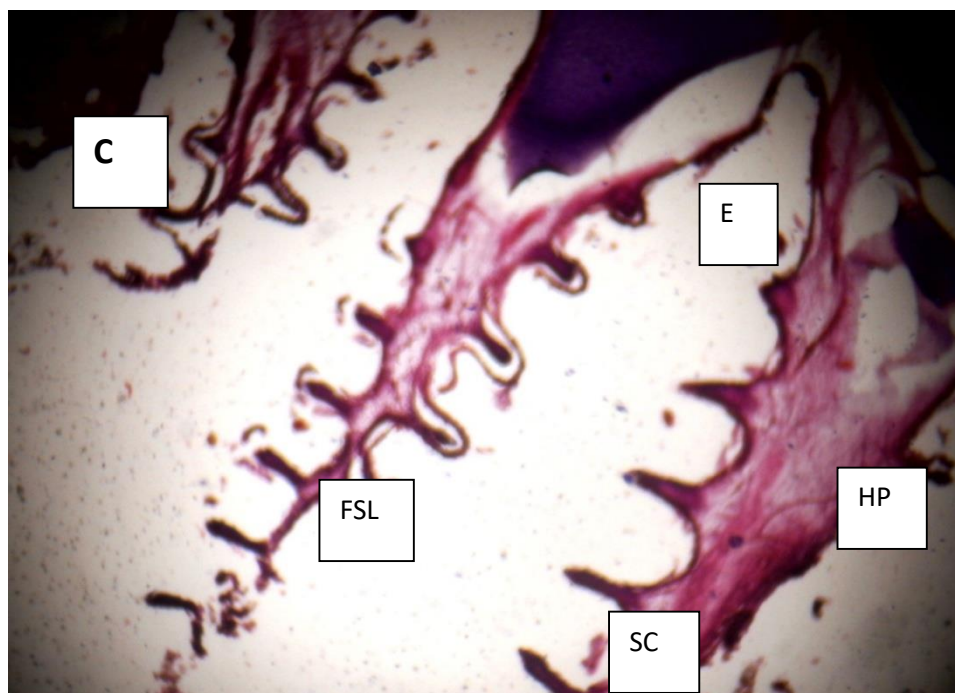


Plate 3: Micrograph of *P. papilio* Gills from Station 3 (H&E.X100)

Key: FSL-Fusion of Secondary Lamellae, HP-Hyperplasia of Respiratory Epithelia cells, E-Edema, SC-Sanguineous Congestion, C-plate 3

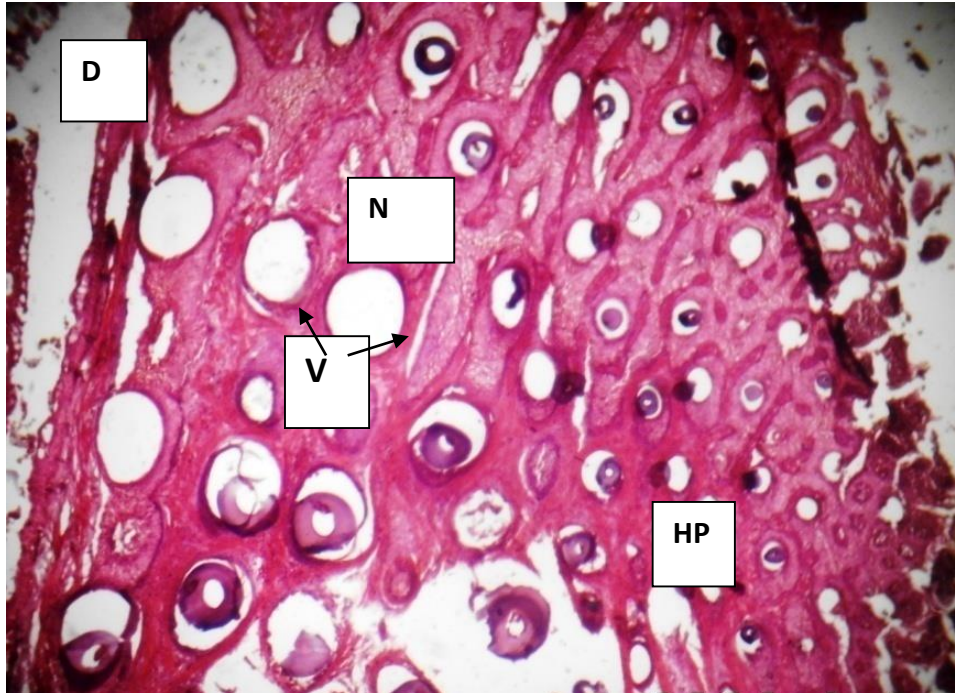


Plate 4: Micrograph of *P.papillo* Gills from Station 4 (H&E.X100)
Key: V-Vacuolation, N-Necrosis, HP- Hyperplasia. D-plate 4



Plate 5: Micrograph of *P.papillo* Gills from Station 5 (H&E.X100)
Key: PE-Primary Epithelium, SL-Secondary Lamellae. E-plate 5

Discussion of Findings

The metal concentration in the gills, exceeded the World Health Organization (WHO) (2003), Federal Environment Protection Agency (FEPA) (2003) and Food and Agricultural Organization (FAO) (2003) permissible limits. The findings of this study is in agreement with the result of Javed and Nazura (2014) who reported high concentrations of Cr in the gill, muscle and liver of *Channa Punctatus*. Cr is listed as a toxic heavy metal by International Agency for Research on Cancer (IARC, 2014); adverse effects of the hexavalent form of Cr on the skin may include ulcerations, dermatitis and allergic skin reactions. Pb is a poisonous metal, it is toxic to all organisms. Target organs are bone in adults and brain in children. Cd has been classified by (IARC 2014) as a category 1 human carcinogen; exposed humans will never get rid of the Cd in their bodies because it will take 20-30 years to get rid of 50% of the Cd, 40-60 years to get rid of 75% and 60-90years to get rid of 87.5%. Sensitivity to Nickel poisoning is 3-5 times higher in women than in men (Cempel & Nikel, 2006). The chronic effect leads to contact atopic dermatitis (Narayanan, 2011). Vanadium cannot be destroyed in the environment but can only change form to become particulates in air, water and sediment, the effects include increase blood pressure, decreasing number of red blood cells, (Amorim *et al.*, 2007).

The photomicrograph of the fish gills were shown in plates 1-5. In Station 1(plate 1) the fish gill showed a fairly normal primary lamellae but there was fusion and disorganization of secondary lamellae with lifting of respiratory epithelium. Gill from this station showed hypertrophy and hyperplasia of the gill epithelium and

fusion of secondary lamella in some areas. There was also strong edema. In Station 2, (plate 2) the fish gill micrograph from this station showed moderate to severe alteration of structure, fusion of primary lamella and vascular congestion with foci of necrosis. In Station 3, fish gills showed fusion of secondary lamellae. There was hyperplasia of respiratory epithelia cells, edema of the stroma, and sanguineous congestion. Fish gills from Station 4 showed alteration of structure and fusion of primary lamellae in addition to complete loss of both primary and secondary lamellae there was epithelia lifting and necrosis in some areas. Photomicrograph of gills from Station 5 showed normal appearing of secondary filaments and epithelia cells with mild alteration of the structure of the primary lamellae as well as the fusion of the primary and secondary lamellae.

Patric *et al.* (2005) in his laboratory research on fish (*Cyprinus carpio*) gill observed disintegration and fusion of primary lamellae, extensive vacuolization with disruption of epithelia lining after 28 days with 4.3ppm of PbNO₃. On the effect of 1.6ppm of CdCl on the gills of same fish specimens, Patnaik *et al.* (2011) also observed hyperplasia of bronchial arch, vacuolization and congestion of blood vessels after 28 days. Gbem *et al.* (2001) in his work on effect of Pb on fish (*Cyprinus carpio*) gill histology observed, edema, considerable mucous and granulated eosinophilic cells in their cytoplasm: The degeneration order of the gill was as follows station 4 > 3 > 2 > 1 > 5.

The concentrations of these metals exceeded the WHO maximum permissible limit and it could cause a health risk to the public if consumed with the gills.

Conclusion

This study has established that the fish *P. papillo* accumulated high concentration of the heavy metals investigated. Comparison with international standards showed that the metals far exceeded the permissible limits in the gills of the biota. Histological findings revealed that the gills of *P. papillo* were in their secondary degeneration stage some tending towards tertiary degeneration. The order of degeneration in the stations were as follows: 4>3>2>1>5. Though *P. papillo* practices cutaneous respiration when sitting on the mud, it uses its gills for respiration while in the burrow. Therefore, any degeneration on the gills could lead to impaired respiration which can endanger the organism.

Recommendations

The following are recommended;

1. Gills of *P. papillo* should be removed before consumption to reduce the risk of heavy metals consumption;
2. Individuals living around the creek are advised to discontinue with illegal oil activities and indiscriminate dumping of refuse in order to reduce the amount of heavy metals discharged into the water body.
3. Companies operating along the shores of the creek should be compelled by environmental managers to treat their wastes and effluents properly before discharge.
4. The government, environmental managers, and regulatory agencies should intensify their monitoring and evaluation of the estuary and the biota associated with it.

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INNOVATIONS IN NIGERIA SECONDARY EDUCATION SYSTEM: AN OVERVIEW

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Abstract

Innovation has been given many definitions by many authors. It is the art of improving the culture that is transmitted to the young generation so that they will be able to deal with the challenges of today and tomorrow. It is also any idea, practice or object which is perceived as new. This means that innovation is change in the direction of new behavior. Secondary school education is the type of education that students receive after primary school education before proceeding to the tertiary institution. The various areas of innovations in the Nigeria secondary school educational system were discussed under the following: (i) innovation in policies and structure (ii) innovation in curriculum development (iii) innovation in instructional strategies (iv) innovation in evaluation. A number of obstacles to the innovation in Nigeria secondary school education include among others: (i) Economic factors (ii) Political factors (iii) Failure to involve teachers and school administrators in decision making (iv) Fear of the unknown (v) Inability on the teachers' part to effect the desired changes. To remedy the secondary school educational system for present and future generations, it is necessary to implement educational innovations so as to achieve specified goals. The Nigerian government through the Federal and State Ministries of Education should device the means of sustaining reforms and innovations. Successive governments ought to build on previous projects and take decision for continuity.

Introduction

Innovation has been given different definitions by different authors. Innovation may be viewed as any idea, practice or object which is perceived as new. This means that Innovation is change in the direction of new behavior. Ogunleye (2001) defined innovation as the byproduct or technological outcome of creativity; while creativity is the generation of novel and appropriate ideas, products, processes or solution. Ofoefuna (2005) defined educational innovation as "the art of improving the culture that is transmitted to the young generations so that they will be

able to deal with the challenges of today and tomorrow". Innovation can also be explained as being synonymous to technology which can be used to improve educational outcomes, improve working relationships or process as within the school system or even reduce the cost of education significantly without reducing the quality or quantity of the desired results, Mkpa & Izuagba, (2004). Enaibe and Imonivwerha (2006), see innovation as a change that is deliberate, purposeful and can be on a small or large scale. Innovation means to introduce something new and making some changes that is geared at improving the

existing way or pattern or even conditions of doing things to make them more efficient and effective than before, (Duru, 2012).

Secondary education is the type of education that students receive after primary school, before the tertiary level. The aims and objectives of Nigerian Secondary education is to develop various abilities in the Nigerian youths. These abilities as outlined by Fafunwa (1982) are:

1. To think effectively
2. To communicate their thoughts clearly
3. To make relevant judgment
4. To play their part as useful members of the home and family
5. To understand basic facts about health and sanitation
6. To understand and appreciate their roles as citizens of a sovereign country
7. To understand and appreciate their cultural heritage
8. To develop economic efficiency, both as consumers and as producers of goods.
9. To acquire some vocational skills
10. To recognize the dignity of labor
11. To develop ethical character
12. To appreciate the value of leisure
13. To understand the world outside their environment
14. To develop scientific attitudes

15. To live and act as well-integrated individuals.

The various innovations in Nigeria's secondary education sector are discussed under the following headings:

1. Innovation in policies and structure
2. Innovation in curriculum development
3. Innovation in instructional strategies
4. Innovation in evaluation.

A. Innovation in Policies and Structure

The National Policy on Education was among the many policies that brought about changes in the Nigerian educational sector. It brought about change in the structure of secondary education. It prescribed a new structure based on 6-3-3-4 model, where there will be six years of primary, three years of junior secondary, three years of senior secondary, and four years of tertiary school education.

Secondary education under this policy was with two broad goals which are:

1. to prepare students with necessary skills for employment,
2. to give the students opportunity for further education.

In 1982, Nigeria adjusted her Secondary education system to encompass diversified curriculum that integrated academics with technical and vocational subjects intended to empower the individual for self-employment (Igwe, 2000). The vocational education at the SSS (Senior Secondary School) level which is a three-year program follows the junior secondary school

certificate and leads to the National Technical Certificate, National Commercial Certificate or the National Vocational Certificate, depending on the students' area of study.

On September 30th 1999, President Olusegun Obasanjo flagged off the UBE (Universal Basic Education) which is Nigeria's strategy for the achievement of Education for all, and the education-related Millennium Development Goals (MDG). The Universal Basic Education Commission (UBEC) was formally established on 7th October, 2004. This new system 9-3-4 Model replaced the 6-3-3-4 system. This was to ensure unfettered access to more years of formal basic education, six (6) years of primary and three (3) years junior secondary school. The provision of free universal basic education for every Nigerian child of school age, ensuring the acquisition of appropriate levels of literacy, numeracy, manipulative, communicative and life skills as well as the ethical, moral and civic values needed for laying a solid foundation.

Disintegration or Disarticulation of Junior Secondary from Senior Secondary

Another innovation in the structure is the disintegration or disarticulation of the junior secondary school from the senior secondary school.

In the old system of five (5) years secondary education, all the levels were integrated and interdependent. Integrated in the sense that curriculum planning, provision of classrooms, teachers' recruitment were co-ordinated by the same principal and vice-principal. But recently the junior and senior secondary sessions were disintegrated with two different principals, two different vice-principals, different teachers and even

different buildings, with totally different management and administration.

Various arguments have been raised for and against the implementation of the separation of junior secondary school from the senior secondary school. The arguments for the disintegration of the junior secondary from the senior secondary include:

- (i) The establishment of the UBE has made the junior secondary to have greater links with the primary school.
- (ii) The junior secondary is jointly funded by the state and federal government as against the sole funding of the senior secondary by the state.
- (iii) There has been increase in the development and building of many facilities like workshops for pre-vocational subjects in the junior secondary.

The arguments against the disintegration of junior secondary from the senior secondary include the following:

- The education system is a pyramid and the secondary is in the middle, the separation of the junior secondary from the senior secondary is only for convenience in curriculum management.
- The separation leaves the impression that the senior secondary staff is superior to the junior secondary staff.
- Conflicts result in planning, administration and supervision when two principals share the same facilities.
- Costs are saved when junior secondary school and senior secondary school are merged under the same administration

ensuring effective, maximum use of facilities

B. Innovation in Curriculum Development

Doll, (1998) defines Curriculum as a formal and internal contact and process by which learners gain knowledge and understanding, develop skills and alter attitudes, appreciations and values under the auspices of the school.

Educationists all over the world are making earnest efforts to realign educational endeavor to equip learners with the necessary competences and skills for effective life in a knowledge dominated society. To achieve this, lifelong education model that is aimed at developing the learner to be able to effectively create, acquire, use and transmit knowledge for the promoting of human activities in a knowledge dominated society is needed. The curriculum should be based on development of basic skills (reading, writing, listening and speaking), thinking skills, interpersonal management and communication skills, social competences and other personal qualities, such as responsibility, self-management and integrity and self-esteem (Stinson,1994).

The introduction of thematic approach to the selection of curriculum content is another innovation in curriculum development. This is the use of themes to generate the curriculum content of the educational program. Ivowi, (1995) stated that the thematic approach was used in the revised junior secondary school Integrated science in 1985 with six (6) themes. This selection was based on themes as against concept or topics. Ivowi (2009) stated that the entire curriculum for UBE developed between 2005 and 2006, and the senior secondary curriculum developed between 2007 and 2008 were based on thematic

approach of curriculum content selection. The computer studies curriculum is also organized in themes. At the basic level the themes include computer operation and concepts, computer application, computer ethics and human issues. At the senior secondary level, the themes are: fundamentals of computer, computer evolution, computer hardware, computer software, developing problem solving skills, ICT, operating computer and computer application. The thematic approach is used so that students can learn holistically with deep insights into subjects.

The Nigerian government recognized the prominent role of ICT and integrated ICT into education in Nigeria. According to NERDC (2006), computer studies curriculum at the secondary level was planned, among others to:

- a. equip students with basic computer skills in the use of keyboard, mouse and operating system.
- b. facilitate learning electronically, using computer
- c. develop reasonable degree of competence in computer application, which will engender entrepreneurial skills.

At the junior secondary school level, computer has been made a pre-vocational elective and a vocational elective in the senior secondary school level. It is also the intention of the government to provide necessary infrastructure and training for the integration of ICT in the secondary school system. The Federal Ministry of Education launched an ICT-driven project which is known as School Net. The intension was to equip all schools in Nigeria with computers and communication technology.

Introduction of family life and HIV education into secondary education curriculum:

This was introduced into the secondary school classroom in January 1990. Its main goal is the provision of opportunity for learners to make healthy decisions about their reproductive health and behavior etc, Oluwole (1990)

NERDC (2006) defined family life education as an educative process designed to assist people in the physical, social, emotional and moral development as they prepare for adulthood, marriage, parenthood, ageing, as well as their social relationships in the socio-cultural context of the family and society.

The quest for the achievement of an education that prepares learners for effective life in a knowledge-based economy brings about emerging issues in curriculum development in Nigeria. These issues according Akudolu (2012) include:

- (a) Curriculum development in education for peace
- (b) Education for global citizenship
- (c) Electronic learning
- (4) Teaching education gender issues and enrichment of learning outcome.

Peace Education has two arms which are being implemented in most societies. They are, education in peace: this has to do with the school process of building/inculcating in the learners the knowledge, skills attitudes and values to be able to live in peace (harmony) with oneself and others by adopting peaceful resolutions to intra-personal and inter-personal conflicts.

Education about Peace: This is peace as a subject in schools. Peace education is not offered as a separate subject in Nigeria curriculum development process, but topics from it are added to social studies curriculum which is taught in primary and junior secondary school level Akudolu (2012).

C. Innovation in Instructional Strategies

Educationists advocate the need for teachers to move away from the traditional 'chalk and talk' and minds-on approaches to hands-on and learning by doing approaches. The teacher-centered and textbook-driven instructional strategies that have dominated teaching in Nigeria is no longer appropriate in inculcating in the students the needed skills and values for effective living. To prepare learners for an effective life in the 21st century, the instructional strategies are shifting from teacher-entered strategies to learner centered strategies. Akudolu, (2012) stated that a learner-centered strategy puts the learner in charge of his learning; he develops autonomy in learning. To help the learner develop a sense of identification with the learning content, interactive strategies for effective teaching and learning are encouraged. These include co-operative learning, team teaching concept mapping, scaffolding and computer assisted instruction. Nwankwo and Okafor (2015) listed some innovative teaching strategies which encourage creativity, to include conceptual change model teaching with analogy, inquiry-based models, field trips; these models help students to explore their environment, ask questions and propose answers. Abonyi (2005) advocated that, problems rooted in real life situations are used to motivate students to discover important concepts, their interconnections and make generalizations. Agomuoh and Ifeanacho (2013) assessed innovative

teaching strategies that enhance achievement in Physics and Mathematics it was discovered that among the innovative teaching strategies are inquiry method, discovery learning, discussion, role play, simulation, team teaching and brain storming.

D. Innovation in Evaluation

Evaluation is the main determinant of how well (extent) the learner has attained the objectives of teaching, the content of instruction relative to the objective (Ali, 2005). The principal purpose of evaluation is to provide information concerning how the various alternatives are likely to affect the student's performance. Nwana (2012) proposed that for a proper evaluation to have been carried out, it must include the following: (a) students, (b) teachers and (c) program.

The National Policy on Education published in 1977 and revised in 1981, 1998, 2004 and 2013 brought in an innovation in the form of the continuous assessment instead of the practice of single terminal examination. Continuous assessment is the systematic and objective determination of the progress of students in their course, their skills, attitudes, values from day one at school to the last day of their stay in school. Osokoya (2010) itemized the following characteristics of continuous assessment procedure for evaluation:-

1. Overall ability and performance
2. Comprehensive cumulative
3. Guidance oriented

Obstacles to Innovations in Secondary Education in Nigeria

There are many obstacles to innovation in secondary education. Some of these obstacles as itemized by Duru (2012) include:-

1. **Economic factor:** Money is needed for the purchase of innovative materials, training of the teachers/manpower for the implementation, monitoring of the innovative program, where the fund is not provided, the implementation of the innovation will not be possible, thus, the abandoning of the new program.
2. **Political Factor:** Education and politics are interwoven with each other; the factors listed below are among the political factors that may affect innovations in education negatively:
 - lack of interest in educational innovation by political leaders,
 - lack of understanding of educational innovation by political leaders
 - frequent change of government
 - Fear that innovation may require a lot of funds which the state and local government may not be willing to provide.
3. **Failure to involve teachers and school administrators in decision-making:** The teachers and the school administrators are the ones who implement whatever innovative programs/processes that are introduced, involving them in the decision making process, seeking their input and suggestions will no doubt improve and strengthen their eagerness in

helping in the success of the program.

4. **Fear of the unknown that grips many school teachers and administrators concerning the innovation;** that is, the fear that they may not be able to cope with the new technique introduced or that it may pose much task for them.
5. **Lack of incentive for the teachers,** where there is no incentive, the teachers will not be motivated to carry on with the extra task resulting from the innovation.
6. **Inability on the teachers' part to effect the desired change.** New curriculum or method calls for new knowledge, understanding or other abilities that the majority of the teachers do not have, a new curriculum may fail to be adopted if the teachers have no knowledge of the desired change, and are incapable of effecting the change. The success of innovation depends on the adequacy of training or orientation given to the teachers concerning the new material.

Summary

There are innovations in various program areas in secondary school education system in Nigeria as discussed. These innovations include; structure and policies, curriculum development, instructional strategies and evaluation.

To remedy the educational system for present and future generations, it is necessary to implement educational innovations so as to achieve the specified goals. Nigerian government, through the Federal and State Ministries of Education should device means of sustaining reforms

and innovations. Successive governments ought to build on previous projects and decisions for continuity.

Let us all do the best we can to encourage and bring to actualization all these innovations for a better and sustainable educational system that will meet the need of our children and students in the 21st Century.

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ENSURING EFFECTIVE QUALITY ASSURANCE AND CONTROL IN CURRICULUM DEVELOPMENT AT THE SECOUNDARY LEVEL: IMPLICATION FOR QUALITATIVE VOCATIONAL EDUCATION IN THE 21ST CENTURY.

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Abstract

Qualitative vocational education is an important tool for economic growth and long-term development since it stresses the acquisition of skills. In the establishment of vocational education curriculum, quality assurance and control are concerned with high performance activities involving vocational skills such as infrastructures, student attitudes, and the full curriculum implementation in academic programs. Qualitative vocational education refers to input and output of the programme, the expressions of standard by which certain objectives can be achieved. Good quality vocational education is very necessary in the total development of the students, which ensures proper development, job prospects and the realization of educational goals and objectives. The purpose of this paper is to highlight the concept of effective quality assurance and control in secondary school curriculum development and its implications for quality vocational education in the 21st century education, as well as the challenges to its realization, suggested solutions for the future, and recommendations for ensuring quality assurance. The paper concludes that if the quality assurance in vocational education must be achieved in the secondary school level, there is need for effective curriculum development to be taken towards reformation of the programme to meet the 21st century educational standard which will make the citizens to be self-reliant and responsible, thereby reducing poverty in the society.

Keywords: *Vocational Education, Quality Assurance and Curriculum Development.*

Introduction

Curriculum development is a crucial component of any education and training activities, it is a road map to knowledge, and it builds knowledge topology. Curriculum development includes consideration of aims, intended learning outcomes, concise

content, learning and teaching methods, and assessment. The curriculum development must be based on the needs of stakeholders, founded on clearly defined skills and competences.

According to Akhuemonkhan, Lukman and Dada (2014), Curriculum development in

vocational education is developed to meet the needs for knowledge and 'know-how' emerging from changes in economies and societies which is aimed to support lifelong learning among students in secondary level. Curriculum development from developmental perspective is an instrument for attaining economic growth and sustainability. The various perspectives of curriculum development focused on improving sound quality assurance in educational mechanism. The term quality assurance is a critical examination of the objectives, attitudes, procedures and institutional control systems with a view to ensuring that set standards and quality are maintained. The essence of quality assurance is to enhance the effectiveness of education system towards achieving set standards. Meaning that with effective application of curriculum development in vocational education, quality assurance in the learning environment will provide deeper understanding of skills with set goals and expectations.

According to Sarikaya and Ali (2019) Vocational education at secondary level aims to promote craftsmanship, practical experience, and practical problem-solving abilities, as well as to prepare students for employment in higher-level through the supply of job-specific skills and technical professionals and managers can also further their careers. Integrating vocational education into secondary school curriculum development serves to improve students' knowledge, skills, attitudes, and capacities while also empowering them to be lifelong, critical, and reflective learners for the purpose of society's employability. The authors continued that developing curriculum with appropriate practical skills is very imperative in secondary level, it will reduce the increasing rate of social ills and other negative consequences associated with joblessness. Indeed, it is generally

believed that the acquisition of the requisite skills in education is a means of increasing the productive power of a nation hence every citizen should be equipped with practical skills to contribute effectively to the economic growth of the country. Development of relevant skills in curriculum can open doors to economically and socially rewarding jobs and can help the development of small informal-sector businesses, allow the re-insertion of displaced workers and migrants, and support the transition from school to work for school drop-outs and graduates which eventually lead to progress in reducing poverty. Therefore, curriculum development with qualitative vocational education of job-related skills is a key component of many countries' human resource policies, as well as their economic growth and poverty-reduction plans.

The Concept of Curriculum Development

According to Watters (2015), to improve economic productivity and competitiveness, particularly in the context of educational system, national governments need to ensure effective curriculum development. In order to prepare sufficient numbers of learners with the relevant knowledge and know-how needed in the present and the near future, a good curriculum must be characterized by relevance, equity and efficiency. Good curriculum development responds to the skills needed in national economies to ensure effective quality assurance and control that will help to support the development and maintenance of good educational systems.

According to Statt (2021), Curriculum development is defined as the step-by-step process used to create positive improvements in courses/ subjects offered by a school, college or university. It

involves implementing different instructional strategies and organizational methods that are focused on achieving optimal student development and student learning outcomes. In developing curriculum, the knowledge and skills that a student needs to master in order to move to the next level is considered. In terms of form and structure, it is neither dogmatic nor strict. Conforming to a prescribed pattern is neither uniform nor standard. It is differentiated by its variety and flexibility, and it is suited to the needs of students of all ages. It improves students' awareness of their surroundings, allowing them to better integrate into community life. As a result, more integrated group relations are ensured. The secondary education commission has also pointed out clearly the nature and conception of the desired curriculum: "It must be clearly understood according to subjects, contents and experiences of the learners.

Vocational Education at Secondary Level in the 21st Century

According to Ayonmike, Okwelle and Okeke (2015), vocational skills and knowledge are vital tool for economic growth and social development of any nation in this 21st century. The National Policy on Education in Nigeria states that the goals of education are building a united, strong and self-reliant nation, a great and dynamic economy, a just and egalitarian society, a land full of bright and full opportunities for all citizens and a free and democratic society. Some of these goals may not be achievable without a solid and sustainable implementation of vocational education in curriculum development. It holds the key to training the skilled and entrepreneurial workforce needed for the changing technological workforce. Vocational Education is used as a comprehensive term referring to those

aspects of the educational process involving in addition to general education, the study of technologies and related sciences, and the acquisition of practical skill, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life. It is concerned with the acquisition of knowledge and skills for the world of work to increase opportunities for productive empowerment and socio-economic development in knowledge economics and rapidly changing work environment. Vocational education thus, equips students not only with technical and vocational skills, but with a broad range of knowledge, skills and attitudes that are now recognized as indispensable for meaningful participation in work and life.

According to Okoye and Ekpereobong (2015), vocational education at secondary level can be seen as the diversification of a previously liberal arts or general academic curriculum of the secondary schools to include an increased amount of vocational skills that aimed at improving learners' capacity for employment in the labour market. It is the process of increasing the vocational oriented skills and components of education for all students in secondary schools. Vocational education at secondary level thus refers to the introduction of vocational subjects and practical skills into the secondary school curriculum. Vocational education has received considerable emphasis in secondary level to develop in the students the skills and confidence to construct, produce, and carry out certain practical tasks base on their own ideas to enable them acquire more abilities through their own effort.

Vocational education, according to Osuala (2004), is defined as training or retraining, which is given in schools or classes under public supervision and control or under contract with a state board or local

education agency. Osuala maintained that it is conducted as part of a programme designed to prepare individuals for gainful employment as semi-skilled workers or technicians or sub-professionals in recognized occupations and new and emerging occupations or to prepare individuals for enrolment in advanced technical education programmes. In a nutshell, vocational education simply refers to any form of education whose major purpose is to prepare individuals for gainful employment in any occupation. It encompasses programmes that provide participants with skills, knowledge and aptitudes that enable them to engage in productive work, adapt to rapidly changing labour markets and economies, and participate as responsible citizens in their respective societies.

Adeyemi, Adisa, Ndububa, Olawoyin and Adedokun (2017), defined vocational education as training and learning intended to equip persons for a specific vocation in industry, commerce, IT and/or that which specifically seeks to develop knowledge and skills in learners to operate successfully in the world of work. The acquisition of the appropriate practical skills that vocational education offers is a means by which the productive power of a nation can be increased, which will result in economic growth of the nation.

As a result, equipping students with these necessary practical skills is critical to reducing the rising number of social vices and ills, as well as the negative consequences of unemployment in society.

Quality Assurance in Curriculum Development of Vocational Education in the 21st Century

According to Wafuduand Kamin (2017), Quality assurance has become an important aspect in the curriculum development of

vocational education and practices over the years because of the role vocational education plays in human capital improvement and technological advancement for national development. It provides support for economic growth, poverty reduction and wealth creation amongst societies, and to enhance its productivity, particularly at the context of globalization, government need to ensure effective vocational education provision through quality assurance.

According to Ethel (2013), quality can be described as standards of something as compared to other things that is the degree of excellence. Quality in development of curriculum can be regarded to be effectiveness in teaching and learning if the result in student behavior, skills and knowledge is satisfied. Quality curriculum development in vocational education therefore ensures that students acquire the knowledge, skills and competences that are appropriate for their area of responsibility. Quality assurance is an essential tool required to ensure efficient curriculum development in vocational educational programme at secondary level for the achievement of manpower development and skill acquisition in our societies.

Adebayo and Adesoji (2009), opined that Quality assurance in curriculum development can be described as ways of managing the educational sector, the service provided to ensure that they are kept at high standard that will positively affect its learners. It is a process used to maintain the laid down procedures in the educational system on how work should be done to achieve a specified standard. It involves injecting quality into the process of teaching and learning from the very beginning to ensure that the learners meet a specified standard in this 21st century. For vocational education to attain quality, it requires

working with already established procedures and standards as established by regulatory agencies in the country. Quality assurance curriculum development in vocational education must be viewed holistically from requirements of entry into the programme, duration, quality and number of teachers, facilities, instructional materials available, school environment/accommodation, examinations, results, certificate, grading system, exam question items, supervision, moderation etc. It has to be a total package to ensure a meaningful product. The concept of quality assurance hinges on education monitoring, which aimed at systematically linking planning, analysis and control. Vocational education is considered efficient as long as it meets the needs of the students and the society. Students need quality education in order to meet competency levels required by the workplace. From vocational education, industry expects quality training in priority skills for their future workers. Therefore, it must involve internal and external influence to ensure efficiency and benefit desired for sustainable development of the nation.

Implication of Vocational Education in Secondary Level in the 21st Century

According to GaziMd (2019), Vocational education is basically life and need based education which can convert an unskilled inexperienced and illiterate population into human resources. It is very much necessary to evaluate vocational education so that we can determine the extent of its success to poverty reduction as it is considered the best way to bring about longer lasting socio-economic change and self development in this 21st century. Thus, the following are some of the implications:

- i. It Provides technical knowledge and vocational skill necessary for

agriculture, industrial, commercial and economic development.

- ii. Gives an introduction to professional studies in technical skills and other technologies.
- iii. Gives room for young men and women to have an intelligent understanding of the increasing complexion of technology.
- iv. Provides training and impacting of necessary skills leading to the production of craft man, technicians and other skilled personnel who will be enterprising and self-reliant.
- v. Provision of trained manpower in applied sciences, technology and commerce, particularly at sub-professional levels.
- vi. provides students who apply scientific knowledge to the improvement and solution of environmental problems for the use and convenience of man.
- vii. Restructuring the educational system at all levels to respond effectively to the challenges and managing the impact of the information age, and in particular the allocation of development fund to education at all levels.

Challenges for Realization of Quality Assurance in Vocational Education

According to Okeye and Arimonu (2016), Vocational education can be thoroughly dealt with, only if the issues affecting its implementation to the educational sector are sorted. Vocational education can contribute to the reduction of poverty, hunger and unemployment if the challenges are addressed. Below are some of the

challenges of vocational education in secondary schools level.

- i. **Inadequate qualified trained teachers:** Most secondary schools lack qualified teachers that can handle vocational subjects which play a significant role in ensuring that students enjoy quality practical learning.
- ii. **Insufficient facilities: Secondary schools in Nigeria** do not have the facilities or workspace to train and educate students. They lack the amenities needed to teach vocational studies to students which makes it difficult to provide high-quality vocational education. By providing these facilities to students, their creative skills will more likely develop.
- iii. **Lack of training and incentives to staff:** Most educational institutions do not educate and train their teams on vocational education. Training is an essential aspect of education and provides an opportunity for teachers to expand their knowledge. Without appropriate training, teachers can become de-motivated and this may impact negatively on the learning process. Educational institutions should consider training their staff in vocational education to boost their knowledge and motivate them to teach these subjects. Aside from training staff in vocational education, schools should look into providing incentives to teachers that perform exceptionally well.
- iv. **Lack of interest from political office holders:** Political office holders in Nigeria show lack of concern in introducing vocational education into secondary school's curriculum. It will take technical educators to convince lawmakers to give priority to providing the required resources for such programmes. Lawmakers' attention to vocational education is negligible; their devotion to the success of the economy is focused on other sectors. The effort to get political holders to pay more attention to vocational education has proved difficult over the years.
- v. **Nigerian value system:** Nigerians have this mentality that educational certificate is more important than technical or social training. There is too much emphasis on getting a degree qualification, not bearing in mind whether the holder possesses the required knowledge and skills. In Nigeria, people go to school with the mindset that education will give them the opportunity to contribute to society.
- vi. **Societal Attitude towards Vocational Education:** Positive attitude towards any subject contribute to ensuring quality assurance. Meaning that there is still a strong tendency towards white collar jobs as a result of low status associated with most kind of vocational education. In the light of the importance of vocational education and to enhance societal attitude government should endeavour to raise the vocational teacher's socio-economic status, there should be increased public awareness of the value and benefits of vocational education and what role it is expected to play in the nation's technological development.

Conclusion

Vocational subjects in secondary education is a very practical approach for empowering youths for paid or self-employment. It is the bedrock to national development. Quality assurance and control are required in order to deliver education that has an impact on the development of human resources, which can be the driving force for the nation's technical and economic growth. Various factors have been identified as the challenges of attaining quality of vocational education in Nigeria secondary schools. Also strategies for addressing the challenges of attaining quality vocational education were identified in this study. As a way forward, a workable quality assurance mechanism and system that will help to foster quality and control in every aspect of vocational education in Nigeria secondary schools is advocated.

Thus, it is expected that if the strategies proposed in this study are implemented effectively, secondary vocational education would reach its aims in a short period of time, and the issues of unemployment and youth restlessness will be a thing of the past in the 21st century.

Suggestions

According to Ahmodu, Sheu and Adeyemi (2017), vocational education can be improved in the following ways:

- Teachers should be trained to handle the vocational subjects recently introduced into the secondary schools curriculum.
- Some of the vocational subjects such as GSM maintenance and leather goods manufacturing and repair which are yet to be offered in many teacher training institutions in the country should be offered in relevant teacher training institutions in the country to ensure adequate supply of teachers for these subjects.
- Infrastructures such as classrooms, computers, technical workshop, and equipment should be provided to all secondary schools to facilitate effective skill acquisition.
- There is need for effective implementation of the policy of vocationalization of secondary education by ensuring that all forms of impediments and challenges are removed.
- Concerted efforts should be made by the government through relevant ministries, departments and agencies to enhance the efficiency, resourcefulness, and competence of teachers and other educational personnel through training, capacity building, and motivation.
- Teachers in vocational education should be motivated to enjoy the profession instead of enduring it in their salaries, allowances and their entitlements like promotions, in-service training should be given to them as at when due. The vocational teacher should be encouraged in order to ensure this optimum performance of the job which will ensure quality teaching in schools.
- Government should ensure that there is an orientation in form of sensitization to the non vocational principals so as to change their attitude towards vocational subjects.
- The curriculum taught in our vocational education institutions should be reviewed to meet the demands of the labour market.

- Adequate resources should be allocated to technical and vocational education. Inadequate funds affect the provision of essentials such as well – equipped laboratories and workshops, relevant textbooks and training manuals.
- Vocational education requires skilled and proficient teachers. Teachers preparation should be given a priority attention. There is the need for regular in – service training for teachers of technology to upgrade their skills. Periodical industrial training for teacher is a sine-qua-non in other to keep them abreast with the technological changes in the industry.
- There is the need for our technical institutions to establish good relationship and linkages with similar institutions abroad as this will promote cross – fertilization of ideas and enhance technologytransfer. By doing this the technical institutions will have access to new developments, exchange programmes and other numerous benefits available at those institutions whose technical programmes are well developed.
- When there is collaboration between vocational schools and industries, the relationship will enable the parties appreciate and understand their needs and proffer the right solutions for the benefits of the society.
- The curriculum taught in our vocational education institutions should be reviewed to meet the demands of the labour market.

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STUDIES ON THE PREVALENCE OF INTESTINAL PARASITES IN PRIMARY SCHOOL CHILDREN IN FOUR COMMUNITY OF EMOHUA LOCAL GOVERNMENT AREA, RIVERS STATE

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Abstract

The prevalence of intestinal parasites in public primary schools' children in Emohua Local Government Area of Rivers State was carried out to determine the impact of some factors such as age, sex and two growth parameters (weight and height) related to these infections. The study examined 200 stool specimens of public primary school children in the area. The researchers used concentration technique to process the faeces. One hundred and twenty-one (121 - 60.5%) samples out of the two hundred (200) stool samples were positive for various intestinal parasites with *Trichuris trichura* accounting for 61.2%; *Ascaris lumbricoides* 54.4% and Hookworm species 38.8%. All of these parasites found were helminthes but no protozoa found. Cases of *polyparasitism* were also detected but none of the pupils had more than three parasite species. Sex and age did not affect the pattern of infections ($p < 0.05$) in the table since the parasites were similarly found in both sexes and all age groups through with observable varying degree. The study concluded that average school children in Emohua Local Government Area carry heavy intestinal parasites burden. It is recommended that government should provide quality toilet facilities around school environment to reduce open defecation that helps in spreading the parasite.

Keywords: Intestinal Parasites, Infections, Contamination, Primary School Children.

Introduction

The term intestinal parasites refer to those parasites that populate the gastro-intestinal tract in humans and other animals (hosts). They can live throughout the body, but most prefer the intestinal wall. Means of

exposure include ingestion of under cooked meat, drinking infected water, and skin absorption (web definition). They feed on their hosts' tissues and cause harm to them (to the host). Evidence accumulated shows that intestinal infection can impair nutrition

and growth. Intestinal parasites have been grouped into protozoan and helminthes. The helminthes are nematodes, cestodes, and trematodes. Among the nematodes are the *Necator americanus*, *Ancylostoma duodenale* (hookworms), *Trichuris trichiura* (whipworm), *Strongyloides stercoralis* (threadworm), *Ascaris lumbricoides* (giant roundworm), *Enterobius vermicularis* (pin worm) etc. Common cestodes are the tape worms *Taenia solium* and *Taenia saginata*, *Hymenolepis nana* etc. Common trematodes are: *Schistosoma mansoni*, *Fasciola ssp.* Common protozoan parasites are *Entamoeba coli*, *E. histolytica*, *Giardia lamblia*, *Endolimax nana*, *Enteromonas hominis*, *Retortmonas intestinalis*, *Trichomonas tenax*, etc. (Cheesbrough, 2005; Arora, 2007).

Nigeria is a developing tropical country with her peculiar vegetation and climatic and environmental condition that favour the survival of parasitic organisms. From the political and socio-economic viewpoint Nigeria is regarded as third-world country which implies her low standard of living due to poor management practices in financial condition.

Human populations that develop great worm burdens especially in the rural areas suffer great morbidity and mortality from the effects of these parasites. Parasitic infection of the intestine is widespread in rural Nigerian communities because of the low level of sanitation, ignorance and poverty, (Paniker, 2007; Houmsuo, Amuta, & Olusi, 2006).

Helminth infections are extremely common, and occur at high intensities in school age children. The impacts of intestinal parasitic infection on physical growth and development (weight and height; parameters) have rarely been shown or quantified, Bundy and Guyatt (1996).

Many studies have been conducted on the prevalence of intestinal parasites in Nigeria and other parts of the world, (ISPUB.com/journal). This study was carried out to investigate the prevalence of intestinal parasitic infection in primary school children. It is also to relate the level of infection with sex of children and pattern of parasitic infection among primary school children. It is also to observed the prevalence in age (between 5-14 years) among the school children and to deduce the possible effects of these parasitic infections on two growth parameters (weight and height) among the primary school children in Emohua Local Government Area.

The transmissions of most of these parasites have been attributed to filthy habits and ineffective methods of faecal disposal as reported by WHO expert committee (2002). Ikon and Useh, (1999), stated that children might suffer several years retardation in physical and mental development with puberty long delayed. The mental retardation results in stupidity and backwardness in school and there are sometimes other nervous manifestations such as dizziness, insomnia, optical illusion, general nervousness and fidgety movements.

Udonsi (1992) recorded the mean prevalence rate of 47.30% among school age children of 5-15 years. Prevalence data obtained from studies based on hospital patients in Port Harcourt metropolis also show a high prevalence of 43.3% among school age children in this urban area (Udonsi et al 1996).

Halimatu, (1997) recorded high prevalence of intestinal parasites of school children in Samaru; Zaria in Kaduna State, Nigeria. A total of 200 children were involved in the study. 145 (58.0%) were reported infected

with one or more parasites. Prevalence based on individual parasites showed that *Entamoeba histolytica* has 30.4%, *Ancylostoma duodenale* (24.4%), *S. mansoni* (6.4%); *Ascaris lumbricoides* (5.2%); *T. trichiura* (4.4%); *Hymenolepis nana* (2.0%); *S. stercoralis* (0.8%); and *E. varmicularis* (0.8%). This distribution pattern was suggested to be influenced by age; sex, hygiene practices, and water supply. This explains the risk involved in keeping domestic animals, which as Udonsi *et al* (1996) observed are capable of carrying eggs and larval of worms into the homes.

Mafian, (1993) studied ascariasis among school pupils in lewo-orile; Ogun state of Nigeria. Although the number of children examined was not stated, 52% of the pupils were recorded as infected. A similar study by Oparaocha and Odaibo, (1994) focused on intestinal helminthes among school children of Irewole LGA of Osun state, Nigeria. 300 children were studied based on random selection; of these; 222 (74%) were reported positive for one or more intestinal helminthes. The highest prevalence of 82.9% was recorded among the 6-10 years old children. The prevalence of individual intestinal parasites showed that *A. lumbricoides* showed the highest prevalence of (61.3%); *T. trichiura* (20.7%); hook worms (15.3%), *S. stercoralis* (0.7%); *S. mansoni* (0.7%), and *Taenia saginata* (6.7%). An important feature of this study is that it made one of the first attempts in analyzing cases of multiple infections.

In spite of the numerous studies on intestinal parasites at school age children only few of such studies have addressed the issue of sources of infection. One of such studies is that of Agbor *et al*; (1995) who identifies waterleaf as a veritable source of Gastro-intestinal tract infection among school in Uyo. This study focused on seven

staple vegetables. The result showed that *Talinum triangulare* (water leaf) harbour the highest number of viable helminth ova and or cysts. Helminth eggs recovered include *Ancylostoma* (31.1%); *Trichuris* (1.7%); *Ascaris* (20.0%); *G lamblia* (0.4%), while the infection prevalence among children were *Ancylostoma* (56.1%) *Ascaris* (37.5%) *Trichuris* (24.3%); *strongyloides* (3.2%), and *Giardia* (2.9%). Although the parasites were recovered from waterleaf, the study did not actually clarify how the children acquired the infection in view of the fact that vegetables are not usually eaten raw. However, it highlighted the importance of some vegetable foods in the transmission of parasites.

Elekeh *et al*: (1996) also studied the prevalence of intestinal helminthes among primary school children in Ngwo, Enugu State, Nigeria. A total of 149 children were involved in the study. The direct and zinc sulphate concentration method were used. The result produced 5 species of helminthes namely *Ascaris lumbricoides* (30.2%) and *S stercoralis* (0.6%). An overall prevalence of 51.6% was recorded, with 52.7% and 50.6% for male and female respectively. The age group 8-11 years recorded the highest prevalence of 54.1%. Differences in prevalence values were attributed to varying degrees of personal and environmental hygiene observed from the children.

Intestinal parasites have accounted for most of the clinical manifestation of many unhealthy people, such features as anaemia, asthma, arthritis, bough cancer, diarrhea, oedema, fever sickness, haemorrhage, hypertension, intestinal blockage, nausea, pneumonia pains (intestinal, liver, muscular etc) sore, ulcer, and rectal prolapsed etc.

Purpose of Study

The present study was embarked upon with the following aims in mind.

- To investigate the prevalence of intestinal parasitic infection in primary school children.
- To relate the level of infection with sex of children and pattern of parasitic infection among primary children
- To also observe the prevalence in age (between 5-14 years) among the school children and
- To deduce the possible effects of these parasitic infection on two growth parameters (weight and height) among the primary school children in Emohua Local Government Area.

Research Questions

The underlisted questions were raised for the study

- Does age affect the prevalence of parasites infection in children?
- Is the sex of children a determinant in the prevalence of parasites infection?
- Does age and sex affect the distribution of the prevalence of parasites infection?
- Is the prevalence of parasites infection determine by growth parameters like weight and height?

Hypothesis

Four hypotheses were formulated in the study

- There is a relationship in the prevalence of parasites infection with age among children.

- There is no significant relationship in the prevalence of parasites infection with sex of the children.
- There is a relationship in helminths parasites infection distribution with age and sex among infected children.
- There is no significant relationship between the weight and heights of infected children with the uninfected.

Methodology

The study area is located within $-5^{\circ}.52'N$ latitude and $-5^{\circ}.00'E$ longitude. It is within the tropical forest zone, a warmth temperature. Annual rainfall is about 110mm. The dominant ethnic group in Emohua is Ikwerre. The area is rural but a few communities are transforming into semi urban. The people live in villages. Living houses are linear. The pattern of settlement is clustered type where people live together in compounds. In the villages, people share common ideas and other facility which includes believes cultures, relaxation and recreational centres, compound halls. The majority of the people keep domestic animals mainly on the free range and the semi-extensive system, which harbour some infective parasites. The level of illiteracy is high, being between the old people and the youth. Sources of drinking water are wells, rivers, streams, occasionally bore holes, and pipe borne water installed by the council in some communities. Toilet facilities include pit latrines, bush toilets, water system, and the traditional type of using stick to open the soil.

The study population was drawn from Emohua community comprising four schools namely: state school 1 Emohua, state school Isiodu Emohua, state school Elibrada Emohua and state school Oduoha. The major occupation of the people

farming, and other forms of occupations in area includes fishing, teaching etc. Geomorphology and soil structure is level, loamy soil. The language spoken by the people is Ikwerre.

Materials of Study

Microscope, slides, cover-slip, applicator sticks, dropping pipette, cotton wool, test tube-rake, normal saline, detergent, lugol's iodine, handgrooves nose mask and brine solution (saturated solution of NaCl), formaline, centrifuge etc

Stool samples were collected from 200 pupils aged 5-14 years for parasitological analysis in the laboratory. Stool samples were collected from different school on different days. On each morning of samples recovery, the pupils were weighed on a balance scale; the stool was preserved with 10% formalin and their height taken with a calibrated rule. Each specimen bottle was assigned a number corresponding to the serial number of the child on the questionnaire.

The stool samples were brought back to the school laboratory and examined immediately but preserved ones were allowed the next days.

Microscopic examination of faecal samples

This method has been described by many workers (Agi and Arene, 2000; cheesbrough, 2005 and Udonsi, 1992). In this method, about 2g of faeces, which has been previously sieved to remove debris is mixed with physiological saline on a clean microscope slide. The preparation can be repeated using lugol's iodine. A coverslip is placed over each preparation and examined, first under low power and later with high power of the microscope. In the unstained preparation, intestinal protozoa, helminth

eggs, strongyloides larvar and amoebic cysts can be observed. In stained preparation, cyst, trophozoites and eggs of these parasites are clearer in the orange background of the iodine. It is however an unsatisfactory diagnostic technique because of its lack of sensitivity in detecting infection of low intensity.

In situation of low intensity therefore, special concentration techniques are employed. Among these are:

- 1) Formol-Ether concentration technique
- 2) Zinc sulphate floatation technique
- 3) Formol detergent method
- 4) Saturated sodium chloride method
- 5) Kato technique.

For the purpose of my work, I consider the formol-Ether technique:

Formol-Ether concentration technique

In this method, about 2g of faeces is emulsified in physiological saline. The mixture is passed through a sieve, to remove large debris, into a centrifuge tube. About 10ml of 10% formalin is added and 5 minutes later 3ml of ether is added and the mixture is centrifuged at 1500 or 2000 revolutions per minutes (rpm) for 2 minutes. The supernatant is poured out. A firm of the sediment is placed on a slide, a drop of iodine stain is mixed with it, and the preparation is mounted with a cover glass for examination. This method is good for concentrating cyst of protozoa and eggs of helminthes. But motile cysts, trophozoites and larvae can not be seen because they have been killed by the formalin. Agi and Arene (2000); cheesborough (2005).

Result

Fig. 1: General Prevalence of Helminthes Parasites

Research Question 1: Does age affect the prevalence of parasites infection in children?

Table 1: Age Related Prevalence of Parasites Infection among the Children

Age (yrs)	Numbers examined	Helminth positive with percentage	Helminth negative with percentage
5	-	-	-
6	2	1 (0.5%)	1 (0.5%)
7	18	11 (5.5%)	7 (3.5%)
8	24	12 (6.5%)	12 (6.5%)
9	29	20 (10.5%)	9 (4.5%)
10	36	24 (12.5%)	12 (6.5%)
11	47	30 (4.5%)	17 (8.5%)
12	20	9 (4.5%)	11 (5.5%)
13	16	9 (4.5%)	7 (3.5%)
14	8	5 (2.5%)	3 (1.5%)
Total	200	121 (60.5%)	79 (39.5%)

A total number of 200 children aged between 5-14 years were examined for parasites. Children from all the ages were infected; except age 5 with all helminths but I did not identify any protozoa parasites present. A total number of 121 (60.5%) children had helminths infection; while 79 (39.5%) had no helminths infection. Helminths infections were widespread among all ages except age 5. The results

were summarized in the table 1 above. This answers research question 1, that age affect prevalence confirming hypotheses 1, that there is a relationship in the prevalence of parasites infection with age.

Research Question 2: Is the sex of children a determinant in the prevalence of parasites infection?

Table 2: Sex Related Prevalence of Parasites Infection Among the Children

Sex	Number examined	Helminth positive with percentage	Helminth negative with percentage
Male	110	67 (60.9%)	43 (39.1)
Female	90	54 (60.0%)	36 (40.0%)
Total	200	121 (60.5%)	79 (39.5%)

A total number of 67 (55.37%) males were positive for helminth infection while 54 (44.63%) females were positive for helminth infection. There was a high prevalence of infection among males than females. The difference was not statistically significant, $p < 0.5$ This is an indication that

among primary school age children, infection with parasites may not be influenced by sex. The results are summarized in table 2 above. This answers research question 2, that sex is not a major determinant of prevalence confirming hypotheses 2, that there is no significant

relationship in the prevalence of parasites infection with the sex of the children.

Research question 3: Does age and sex affect the distribution of the prevalence of parasites infection?

Table 3: Age Related Distribution of Helminth Parasites among Infected Children

Age (yrs)	Numbers examined	Number infected	<i>A. lumbricoides</i> with percentage	<i>T. trichiura</i> with percentage	Hookworm with percentage
5	-	-	-	-	-
6	2	1	0 (0.0%)	0 (0%)	1 (0.8%)
7	18	11	5 (4.1%)	5 (4.1%)	4 (2.3%)
8	24	12	6 (5.0%)	8 (6.6%)	7 (5.8%)
9	29	20	13 (10.7%)	12 (9.9%)	6 (5.0%)
10	36	24	12 (9.9%)	13 (10.7%)	7 (5.8%)
11	47	30	18 (14.9%)	18 (14.9%)	11 (9.1%)
12	20	9	5 (4.1%)	8 (6.6%)	5 (4.1%)
13	16	9	5 (4.1%)	7 (5.8%)	5 (4.1%)
14	8	5	2 (1.7%)	3 (2.5%)	1 (0.8%)
Total	200	121	66 (54.5%)	74 (61.2%)	47 (38.8%)

Three commonly occurring helminth parasites were reunified in the children. The prevalence of these parasites are as follows: *Ascaris lumbricoides* 62. (54.54%), *trichuris trichiura* 74 (61.2%), Hookworm (*Ancylostoma duodenale*) 47 (30.0%). These parasites were found in all age

brackets. The results are summarized in table 3 above.

Research Question 4: Is the prevalence of parasites infection determine by growth parameters like weight and height?

Table 4: Sex Related Distribution of Helminth Parasites Among Infected Children

Sex	Number examined	Number infected with percentage	<i>A. lumbricoides</i> with percentage	<i>T. trichiura</i> with percentage	Hookworm with percentage
Male	110	67 (60.9%)	36 (32.7%)	43 (39.1%)	25 (22.7%)
Female	90	54 (60.0%)	30 (33.3%)	31 (34.4%)	22 (24.4%)
Total	200	121(60.5%)	66 (54.5%)	74 (61.1%)	47 (38.8%)

The distribution of these helminth parasites according to sex shows that 36 (32.7%) of males and 30 (33.3%) of females had *Ascaris* infection; 43 (39.1%) of males and 31 (34.4%) of females had hookworm (*A. duodenale*) infection; while 25 (22.7%) of males and 22 (24.4%) of females had *trichuris* infection. These results are shown

in table 4 above. Table 3 and table 4 above answers research question 3, that prevalence distribution is influenced by age and sex, confirming hypotheses 4, that there is a relationship in the distribution of helminths parasites infection with age and sex among children.

Table 5: Relationship Between Infected Children with Weight Uninfected with Weight

Age (yrs)	Numbers examined	No infected	Number uninfected	Average weight (kg) of infected children	Average weight (kg) of uninfected children	x^2	y^2
5	-	-	-	-	-	-	-
6	2	1	1	18	19	324.00	361.00
7	18	11	7	20.64	22.29	426.01	496.84
8	24	11	13	24.46	25.58	598.29	654.34
9	29	21	8	26.05	27.75	678.60	770.06
10	36	24	12	28.63	29.92	819.68	895.21
11	47	28	19	32.46	33.42	1053.63	1116.90
12	20	11	9	34.15	35.00	1166.22	1225.00
13	16	9	7	36.40	38.14	1344.69	1454.66
14	8	5	3	38.40	41.67	1474.56	1736.34
Total				259.46	272.77	7885.70	8710.40
Mean				25.95	27.28		
SD				11.32	29.75		

At $P = 0.5$, the difference between infected and uninfected weight in children is not significant. It is might be possible that with

larger number of samples, a significant result may be obtained.

Table 6: Height of Children Infected with Helminth Parasite with Normal Uninfected Children

Age (yrs)	Numbers examined	No infected	Number uninfected	Average height (m) of infected children	Average height (m) of uninfected children	x^2	y^2
5	-	-	-	-	-	-	-
6	2	1	1	1.20	1.30	1.44	1.69
7	18	11	7	1.21	1.26	1.46	1.59
8	24	11	13	1.5	1.37	1.82	1.77
9	29	21	8	1.32	1.27	1.74	1.61
10	36	24	12	1.32	1.28	1.74	1.64
11	47	28	19	1.37	1.36	1.88	1.85
12	20	11	9	1.32	1.34	1.74	1.80
13	16	9	7	1.40	1.43	1.96	2.05
14	8	5	3	1.44	1.50	2.07	2.25
Total				11.93	12.07	15.85	16.25
Mean				1.19	1.21		
SD				0.42	0.43		

At $P = 0.5$, the difference between the heights infected and uninfected children is not significant.

by weight or heights confirming hypotheses 4, that there is no significant difference in the prevalence of parasites infection in weight and heights among infected and uninfected children

Table 5 and table 6 answers research question 4, that prevalence is not determine

Discussion

Parasitic infections continue to account for a large part of human illness in the tropics. Although individuals of all ages are involved. Trichuris infection, the highest observed in this study occurs mostly in tropical and subtropical regions of the world usually involving school children associated with unsanitary conditions such as lack of sanitation facilities especially latrines. This results in the contamination of the soil with eggs and larval of the parasite to which these children are exposed. The loamy soil and rainfall observed in the study area contribute to the envelopment of oval and larval stages of the parasite and its possible transmission to man. It is known that loamy soil supports agriculture, like farming and any form of cultivation which aid in the development and movement of larval in the soil and rainfall provides soil moisture which aid migration of infective larvae to the soil surface and penetration of the host's skin. It's also shown that the optimum temperature for the development of hookworm larvae is between 70 & 310C and is observed in the study area.

- The occurrence of polyparasitism in this study compares favourably with that of Med (1994), survey of the prevalence of intestinal parasites in school children of primary school age. The commonest was the combination of Hookworm and Ascaris lumbricoides; Hookworm and Trichuris trichiura; Ascar's lumbricoides and trichuris trichiura which seems to be norm in many Nigeria parasite supporting communities. This may be due to the fact that an already established parasite through its activities may create an environment within the host which will be suitable for just a few other parasites since only 6.61% had up to three parasites in this survey. Our finding indicates that children between 12 years recorded

higher prevalence of infection than older ones. Pupils in these age groups often spend more of their leisure time in contact with contaminated sand and eat indiscriminately with unwashed hands. In contrast the low prevalence of infection observed in the 12-14 years age group may be due to puberty which makes them to become more hygiene-conscious, and hence are able to avoid as much as possible what would lead to infection.

- The distribution of parasites among sex groups showed that more males were infected than females. This agrees with the findings of Ikon, and Useh, (1999). This high prevalence associated with males may be due to the fact that they are often engaged in predisposing activities such as football, barefoot and playing in streams or ponds.
- The use of growth parameters (weight and height) to access the effect of parasitic infections in children has been emphasized by Bundy, and Guyatt (1996). This is because different parasitic diseases have been known to have their impact on the growth and development of children. Frequent diarrhea with its resultant dehydration causes weight loss. Therefore, one would expect heavily infected children to suffer growth impairment. Although the results shown in fig. 1. and fig 2 indicate a lower weight for age and a lower height for age in infected children; the difference is not statistically significant ($p=0.5$). This means that the weight and height of infected and uninfected children are not significantly different, given a situation of high infection prevalence among the children one would expect a significant different in growth parameters. However, the results suggest that the infected children did not show normal growth rate.

Conclusion

It is well known that intestinal parasitic infections are more common in children. These infections deteriorate the psychological and physical development of the children and the spread of these parasites are aided through contact with contaminated soil, eating of unwashed fruits and eating with contaminated hands. Children with intestinal parasitosis become an infection focus for the community. If left untreated serious complications and even death may occur due to the high load of these intestinal parasitic infections.

Recommendations

Based on the findings, the following recommendations are made:

1. Government should always ensure that children are allowed to learn in a safe and conducive environment to reduce the spread of these intestinal parasitic infections.
2. Government and ministry of education should endeavour to carry out deworming exercise to reduce the parasite load in the body of school children.
3. All head teachers and teachers should ensure that the children get health education to enable them reduce contact with dirty environment.
4. Poor toilet facilities should be avoided around school environment to reduce open defecation that helps in spreading the parasite.

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ETHICAL LEADERSHIP: A PREREQUISITE FOR QUALITY SERVICE DELIVERY

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Abstract

Service delivery bothers on satisfying customer's needs in forms and ways that uniquely offer value based on established thresholds. A great deal of success in this area is premised on a variety of factors, one of which is the extent to which the firm's leadership feels, is willingly and considers itself morally obliged to engage decisions that serve the interest and goals of the firm. This paper addressed the relationship between ethical leadership and quality service delivery. The review bothered on the implications of leader's motive, influence strategy and character on the outcomes of quality service delivery – drawing from the leader-member exchange theory, which served as the theoretical framework for this paper. Evidence from related studies are adopted to reinforce perspectives, specifying the imperatives and the role of moral and ethical-based actions, tendencies and actual behaviour on the part of the firm's leadership in the actualization of quality service delivery – Based on the discussion, it was concluded that the focus on developing ethical leadership provides for improved outcomes of selflessness and the expressions of features which impact positively on the organizations capacity for improved quality service delivery. The paper recommended that ethical leadership should be practiced in the organizations as this will enhance the business operations and trigger the actualization of the set goals. That ethical leadership should be preached and monitored in the organization as this will foster quality service delivery.

Keywords: Ethical Leadership, Service Quality Delivery, Leader Motive, Character and Influence Strategy.

Introduction

The dynamic nature and competitiveness of today's business context is such that has over the years shaped organizational forms,

systems, structures and choices. As open systems, Gowan, Seymour, Ibarreche and Lackey, (2001) argued that organizations are able to thrive when their behaviour and

actions mimic the dominant values of their societies – thus effectively aligning their actions with the overarching norms of their social context. While this is imperative for validation and trust from other parties, groups and various stakeholders of the organization that are affected by its behaviour and service delivery forms (etc customers and employees), it is most important for understanding and clarifying on related quality standards and threshold (Brown, Ryan & Parker, 2000). Reports (Raga & Taylor, 2005) and business outcomes however suggest that a great deal of service delivery outcomes bother not just on the expectations and considerations of the customers or stakeholders of the organization but also on the leadership – particularly the ethical values and by that, moral inclinations of the leadership of the organization.

Ethicality in leadership is prescriptive. That is to say, it suggests what is morally acceptable and generally considered as acceptable behaviour in the leadership of the organization (Brown & Mitchell, 2010). Bello, (2012) opined that the concept of ethical leadership is one which identifies the sensitivity attached to the position and responsibilities of the leader and as such stresses not only on character but also values. However, Demirtas and Akdogan, (2015) argued that ethicality can be challenging, especially when overarching societal values are dominantly perverse, degenerate and with poor interpretations of right and wrong. According to Demirtas and Akdogan, (2015) organizations do not exist in a vacuum, nor do leaders. Relationships are important and the leader's capacity for followership in various ways reflects its effectiveness – thus suggesting conformity and acceptance as a basis for engaging followership. Contrary to this view, Huhtala and Feldt, (2016) in their study demonstrated that leadership which

inspires through examples and which motivates through standards is important for channelling the organizations resources towards the achievement of its goals but at the same time, building and bringing out the best in its followers. This agrees with Ofori, (2009) earlier position that ethical leadership is a most sought after ingredient in most African countries where reports abound of the rot, decay and increasing lack of morals which have over time crystallized into norms and values majority uphold even within public offices.

Literature on the ethical leadership has most often approached the concept from a more character-based perspective – focusing on features such as integrity, transparency, trustworthiness (Trevino & Brown, 2004; Chang & Lee, 2007; Huhtala & Feldt, 2016); but as stated earlier, a great deal of ethical behaviour is premised not on the character but on the underlying values and tendencies of the individual. These as Fu, (2015) argued are reflected in the motives of the leader, their strategy for influencing subordinates or followers, and also the character of the leader. This view approaches the concept of ethical leadership from a more intrinsic perspective bothering on the underlying factors that shape the leaders decisions and interpretations of their relationships within the workplace (Fu, 2015). However, there is a paucity of literature or research which has examined ethical leadership from this narrative, moreso, its role in advancing outcomes of quality service delivery. This paper, contributes on the basis on content and clarity on the conceptualization of ethical leadership and its role in enabling improved outcomes of quality service delivery. Thus, the objectives of this paper are to:

- i. Examine the leader-member exchange theory as a theoretical framework in assessing the

relationship between ethical leadership and quality service delivery

- ii. Discuss the concepts of ethical leadership and quality service delivery
- iii. Review literature on the relationship between ethical leadership and quality service delivery

Theoretical Framework

Leader-Member Exchange Theory

Leadership bothers on significant others, primarily because the idea of leadership is borne on the premise of a social context; wherewith the leader is able to connect with and stimulate others in ways that attracts them and allows for the leaders influence over them (Burch & Guarana, 2014; Schyns & Schilling, 2013). The leader-member exchange theory is one amongst other social exchange theories which however, specifies the content of the interaction between the leader and subordinate as imperative for advancing outcomes favourable to both parties and also beneficial to the organization. Cropanzano and Mitchell (2005) posited that the health of most workplaces was intrinsically connected to the nature of communication and collaboration between the organizations leadership and its subordinates – more especially, the values emphasized and in the same vein expressed by the leadership. This corroborates Freeman and Auster's (2011) argument that the leader, apart from the clearly stated goals and responsibility of controlling, coordinating and directing the organizations resources (financial and non-financial) towards the attainment of its goals, the leader also has the social responsibility. This involves the conditioning and effective structuring of social outcomes that are healthy, supportive and progressive within the organization.

The leader-member exchange theory elaborates on the significance of the link between leaders and their subordinates, and by that, the importance of character and motivation. Burch and Guerana, (2014) asserted that leaders are expected to set examples through their behaviour and communication with their subordinates. As figure heads, the leader represents everything the organization stands for and all that it values – thus, they should embody the key features that not only distinguish them from other members of the organization but should also present them as the standards for other members of the organization. Aside the development and inspiration of members, the leader-member exchange theory also affirms to the exchange or relationship between leaders and their subordinates as the basis through which leaders can effectively drive or stir their followers in a much favourable path and through that achieve desirable goals such as that of quality service delivery (Burch & Guarana, 2014). Thus, the leader-member exchange theory applies in various ways towards knowledge development on the imperatives of working relationships between the leadership of organizations and their subordinates – as well as how this relationship can be used to motivate and stimulate the required behaviour and actions in the workforce and also channel their efforts cohesively towards the goals of the organization.

Ethical Leadership

Ethics covers a range of moral dispositions, actions, values and beliefs which at the end shape and determine principles, choices and of course character (Bello, 2012; Barsemoi, Mwangagi & Asienyo, 2014). The pursuit of ethics, according to Caz, Barker and Cameron, (2014) is a pursuit of excellence not only with regards to character but also in reference to functions, roles and

obligations. Ethical leadership as such describes the infusion of moral values and qualities in the control, coordination and management of the organizations resources (by resources one refers to the financial and non-financial including the human resources of the organization). It implies a choice to act responsibly towards situations and others, as well as the decision to be fair and just in ones judgement and treatment of others (Naomi & Pirya'ee, 2010). As such, one could argue that ethics necessitates "right decisions" in business such as hiring the right and competent people for roles, being transparent about the financial activities of the organization, promoting qualified workers in their due time, and also ensuring protocols and significant processes are consistently followed and applied in the workplace. Guillen and Gonzalez, (2001) posited that ethical leadership captures a variety of actions and dispositions that are necessary for the health and wellbeing of the organization – noting that it creates an atmosphere of trust and openness where intra-organizational groups are more trusting of others and where there is a strong level of integration by these groups within the work environment.

Ethical leadership therefore provides not only behavioural yardsticks for workers to emulate, it also funnels the actions and resources of the organization – effectively aligning such within predefined principles and values that serve the interest and goals of the organization (Piccolo, Greenbaum, Hartog & Folger, 2010; Brown, Trevino & Harrison, 2011). Fu, (2015) opined that ethical leadership is such that does not emphasize on the command approach but one which demonstrates expected lines of action through its own behaviour and action. Fu, (2015) further identified three dimensions of ethical leadership (a) leaders motive or intention – which describes the underlying basis for leaders actions and

preferences. The motive for actions – no matter how appealing or good, may be selfish or based on greed and thus as such superficial and a poor reflection of ethical values and morality. Ethical motives are such that are guided for the consistent focus on responsibility towards others, fairness and accountability; (b) influence strategy – describing the various approaches and methods through which leaders are able to motivate or stir their workers into action or in line with expected functions. This bothers on concerns of manipulation, coercion, threats and even blackmail as means of influencing or driving the workers towards attaining organizational objectives; (c) leader character, which bothers on the use of tendencies and actions of the leader – especially such expressed within the social setting and which has a direct impact on the wellbeing or perceptions of subordinates.

Quality Service Delivery

Quality according to Fourie and Poggerpoel, (2016) is often equated to standards or thresholds which serve as the basis for judgement and comparisons between a particular action and what is expected. While some argue that it is relative as what is considered adequate in one context may yet be considered as inadequate in another context – studies however argue that within the boundaries of business service actions and delivery, there are certain factors or features which demonstrate or reflect quality in the behaviour or delivery actions of an organization. Dominant amongst these factors include the likes of reliability, durability, performance, conformance, durability, and aesthetics. These offer a shared position on what is expected with regards to quality forms and manifestations. According to Torres and Pina, (2002) quality is also anchored on value and as such identifies with how the organization is

able to bridge existing service delivery forms with the gaps in customer expectations.

Bold et al, (2011) in their study established that quality service delivery not only predicts satisfaction but also leads to increased patronage and repeat purchase. From their perspective, Amin and NAsharuddin, (2013) argue that quality is also dynamic in nature just as human needs and wants – that is say, standards and thresholds which equate to quality are constantly reviewed and upgraded in line with innovation and development within the context or market of the organization. The authors argue that this is linked to increasing competition, evolution in servicing and product packaging, as well as all round growth and development in human and business societies. Quality assessments are as such considered an important function in organizations as they engage various parties and processes aimed at establishing standards and ensuring that service delivery forms match with those standards (Gowan et al, 2001).

Ethical Leadership and Quality Service Delivery

Blind (2011) in their study observed that despite knowledge acquisition and learning activities, some organizations yet find the implementation of quality challenging and daunting. One reason for this according to the authors is lack of managerial buy-in or poor support from the leadership of the organization. Studies (Babalola et al, 2017; Cuilla, 2004; Caza et al.2014) suggest that while cases exist of sincere considerations of the implications of leader adoption of ideas or change development on the wellbeing and functionality of the organization, other scenarios have also played out that have demonstrated greed, unethical values and selfish goals as a basis

for non-compliance or support from leadership.

Abdullahi, (2013) corroborated this observation in stating that leadership – especially ethical leadership provides the necessary framework and conditioning for genuine quality initiatives in the organization. The author argued that where the motive is sincere and the leader is accountable to the organization, primary interests will shift from individual concerns or group bias to the organization, ensuring the necessary policies and reinforcing actions are institutionalized. Following this thought-line, Abdullahi, (2013) argued that the pursuit of quality is one that is inclusive and by that transparent. It does not build on closed door or exclusive positions but rather emphasizes on increased involvement for enhanced creativity through idea pooling and human capital engagement.

Research (Huhtala et al, 2013; Bello, 2012; Change & Lee, 2007) has shown that there is a strong sense of direction and purpose in organizations with strong vision, ethical values and discipline especially when it comes to the quality of their products or services. Studies (Change & Lee, 2007; Freeman & Auster, 2011) indicate that some of the most trusted and consistently referred brands over time are such that have expressed strong leadership values and principles in ways that have enhanced the level of cohesion within the organization – strengthening and reinforcing service delivery forms that meet with the expectations of their customers. Ethical leadership is such that prioritizes value over the interest of any particular group in the organization. Hence, while it may be common to have pressure from external parties and various stakeholders with selfish agendas geared towards the benefit of specific groups, it is nonetheless the responsibility of leadership to ensure that

the organizations actions are consistent with its values of fairness, justice and quality.

Conclusion

Ethical Leadership is imperative for several reasons – primary of which includes its impact on workplace relationships and the development of healthy and positive support systems through exemplary behaviour and actions. This is integral for sustained focus, including the deliberate choice of responsibility towards the organization based on fair, just and transparent actions or decisions. This discussion identified ethical values, as necessary for emphasizing on the organizations goals and interest over the biased interests and concerns of other groups, internal or external to the organization. Drawing on the leader-member exchange theory, it was noted that the strengthening of ethical values over individual or group interests offers more in terms of healthier workplace relations, the effective management and channelling of the organizations resources (financial and non-financial), and the inspiring or motivation of workers to be better through established behavioural standards and thus improved intra-group collaborations and work environment. Based on the fore-going it is concluded that the focus on developing ethical leadership provides for improved outcomes of selflessness and the expressions of features which impact positively on the organizations capacity for improved quality service delivery.

Suggestions

The paper recommended that ethical leadership should be practiced in the organizations as this will enhance the business operations and trigger the actualization of the set goals.

That ethical leadership should be preached and monitored in the organization as this will foster quality service delivery.

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ETHICS AND POLITICS IN EDUCATION

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Abstract

There should be a necessary condition between ethics and politics in education. This has been the case from the time of Socrates, Plato and political thinkers among others. The politics has remained an ethical society. In the present situation, the link of the two words has become a mirage and this is accountable for the low level of moral rectitude obtainable in many political settings in the society especially in Africa. Civil society cannot be separated from ethics or from education. Nor can education be separated either from ethics and political society. Any education that is devoid of political ethics is incomplete and useless; the education is even harmful both to the individual who requires it and the society they lives. Rousseau meant that the education of those “learned men” was not imbued with ethics. Men with high standard of education but very low standard of ethics, that is, men who are “intellectual giants” but at the same time “moral dwarfs” are dangerous to the society. Such include the misrepresentation of the people’s interests (especially in representative governments), disrespect for the constitution, unnecessary tenure elongation and more. In view of this, there has to be an ethical reorientation by way of education in political ethics both the candidates and electorates in order to make society better.

Keywords: Ethics, Politics and Education.

Introduction

The quest for ethics and politics in education is no longer a serious issue in the globe both practically and theoretically. Activities in the political sphere of the society attest to this. Every circumspect observers of the political terrain will know that corrupt practices have permeated the art of governance and leadership. If education is to fulfill its purpose of caring for some aspects of human needs in the society, it must be imbued with ethics in a very high degree otherwise it would do more harm than good to the society. Many developing countries especially in Africa which have experienced series of military regimes will

attest that corrupts and unethical practices were rife in government processes. The civil servants who work under such regimes have been unintentionally disoriented. The politicians who equally served with the juntas were infested with anomalous leadership strategies and system. In essence, the stability of any society depends on its political interface with morality. However, the issue of social cohesion and control remains the watch of a society that needs progress and development in the face of global competitiveness. There has to be a gradual ethics orientation with all steadfastness. The political sector of the society cannot avoid operating without

moral standard and still expecting to have a sanitary society.

What is Ethics?

Ethics is concerned with the question of right and wrong in human behavior. It deals with how men ought to behave, and why it is wrong to behave in certain ways and right to behave in certain other ways. In other words, ethics studies the reasons why certain kinds of actions are morally wrong and commendable. The study of ethics is of the utmost importance because the importance of the question of right and wrong, good and bad in human conduct cannot be over emphasized. Human being is so constituted that it is not all kinds of actions that befit his nature and lead to happiness and self-fulfilment. It is clear to all right thinking Nigerians that the basic problem of the nation is a moral one. This moral problem, which is basically the problem of corruption, is the root cause of all our social, political and economic problems. There are certain actions which all of us would condemn as morally wrong and ought not to be done by anybody, for example, armed robbery, embezzlement of public funds, bribery and corruption, stealing, neglect of one's duties and dishonesty etc. even those who indulge in these kinds of actions would agree that the actions are morally wrong- they know that they are wrong actions which nobody ought to perform, hence they try to escape and avoid being caught.

Many Nigerians who are without being caught believe that there is nothing wrong in stealing government money or the money belonging to a company, an institution or any large organization if one is "lucky" to find oneself in a position to do so.

What is Political Ethics?

This falls within the scope and field of applied philosophy and especially in the branch of ethics known as applied ethics. This put simply that it is the application of ethical principles and methods in the field of politics and political engineering. It is a strand of the argument that morality should not be divorced from politics. This position stems from the fact that during the Greek origin of philosophy and political philosophy, politics was not separated from ethics. There is a common stand point among philosophers that the *polis* was an ethical society. In view of this, there were many methods of social and ethical controls, these made the Greek society to thrive and become a model for many nations. It can be deciphered that ethics influences all levels of political administration and government of the society both in the public and private sphere, sports, education, security outfits and networks etc. In the preceding, man's complex nature is the foundation of knowledge, education and civil society. But man's nature as a rational and social being is also the foundation of morality. Man is a moral being by nature. Morality, in other words, has its roots in the rational and social nature of man. If man were not a rational being or a social being, there would be no such thing as morality.

The Essence of Ethics and Politics in Education

The essence of political ethics is not only to make politicians moral but to ensure the adequate realization of the common good. Politics is geared towards the achievement of a well ordered society for the sake of the common good for all. The knowledge of morality must be an end in itself; it should be the means of motivation of moral behavior. Martinsson (2011) equally

believes that ethical norms are very important for the success of all societies. Penth (2011) also argued that:

One of the biggest impediments to anti – corruption efforts is the fact that corrupt practices have become so institutionalized in everyday society the citizens view it as a fixed and incontestable. To breakdown such an entrenched mindset, the public’s ignorance of their rights cynicism, fear of reprisal and mentality of submission to the status must first be defeated¹.

Almost all political issues have ethical implications and likewise all ethical issues ought to have impacts on political matters and likewise politics is all absent conscious human activities that affect reflections on choice. These point to the ineluctability of ethical reasoning in political processes in almost all spheres of life. The politician addressing issues of fundamental human rights should be able to understand and sustain the ethics behind the contentious issues of gay marriage, commercial surrogacy, sale of body organs of condemned criminals and many others. The political conditions are already apprehensive of these situation, thus, they equip themselves with the necessary monetary wherewithal for a successful campaign. Panth (2011) also agreed on that: Cynicism fear of reprisal and mentality of submission to the status quo must first be defeated: This leads to the next issue of sponsorship of candidates by corporate organization, pressure groups, and private wealthy individuals. This also leads to the issue of god-fatherism in Africa political settings. Sponsorship is not inherently bad but sometimes it constitutes a source of

moral blind alley for the candidates. If after being sponsored successfully and issues arises at the parliament or executive office to the level that demands a morally good decision and action which goes contrary to the interest of the sponsors a big dilemma ensues within the electorate or citizens bear the brunt in the name of political crises.

The issue of campaign promises needs serious attention. There is need to persuade candidates to keep their promises and respect the constitutions. This is a moral obligation. Bear it in mind, the unfortunate political scenario of the electorate and the issue of sponsorship of political candidates. Political ethics can be pursued through academic curricula, the general studies and for various disciplines. It could also be pursued through civic education and enlightenment; even seminar can be organized and conducted by professionals for all executive, judicial and legislative office holders even intending ones are not to be left out. These become a necessary condition to education to achieve a morally political society. In specific area of government and administration the practice of moral was introduced to curtail political excesses of politicians and rulers and other public office misfits.

This notable method of social control was exercised through a democratic process. In the private and social sphere both ethic and politics were introduced during times of pandemic and plague and in interpersonal relations. To deal with excesses of public officials and stem corruption and its practice, especially ripping them in the bud, Plato² introduced his concept of both communism of properties and wives. This was to ensure that the philosopher king can end the guardians remained corruption free. To ensure the success of communistic society he introduced concept of justice. This justice followed his division of the

society into professional classes based on the dominant nature of each individual's social being. To ensure that avarice and unbridled power is curtailed or avoided what we introduced the idea of justice to ensure that all remain of their respective classes. For Plato, an artisan leaving the producing class, an army officer leaving the guarding functions and a philosopher king losing focus of the ruling functions for any other functions of the other classes or being in one class and pursuing the interest of another class is ethically unjust. This is the summary of injustice in Plato's political ethics³. Aristotle was a student of Plato; he followed his master in the same line of political ethics with justice as a base⁴.

Aristotle can be interpreted as having said that to give an imputable man a football boot at the expenses of the football with healthy legs is unjust. In essence, a man who is not capable or disqualified for leadership should not be bestowed with leadership. This position is supported by the political philosopher of Michael Sandel. For Sandel, the summary of Aristotle's theory of justice means giving people what they deserve and of course who deserves what depends on the kind of thing being distributed⁵. All these have ethical understanding and implications. Every aspect of politics for that Aristotle had an ethical understone whether they were tunable or not. There is a clear indication that Aristotle never divorced ethics from politics. This is also made evident by the fact that one cannot understand Aristotle's politics in isolation from his *Nicomachean Ethics*. Aristotle classical statement that "man is by nature a political animal" implies that man is by nature an ethical, social and political animal⁶. This is because he believed that Aristotle does not agree to the divorcing of ethics from politics. The *polis* is there for the achievement of the

common good which is the end of both man and the *polis*.

Morality and politics "remove justice" says St. Augustine the great African philosopher and a theologian, "and what are kingdoms but gangs of criminals in a large scale". What St. Augustine mean here is that justice is so essential to government. Without justice, there can be no government. Any group of people who come together to form a government without justice is a gang of criminals on a large scale. On this note, "remove morality, honesty and public accountability and what is government made up is dishonest and fraudulent people whose main purpose of coming to government is to enrich themselves. In other words, once morality is taken away from government we do not have government any more.

Ethics and politics are indispensable to education and to development. Moral education must be part of formal education and it must be given priority. Ethics generally deals thematically with human acts, the deliberate human acts. The sectors in politics include the political candidate, the individuals within the electorate, and the electoral machinery. In essence, this points to the fact that political ethics can only be feasible in a democratic or semi – democratic settings. There must be dual relationship of the government and the citizens. The *politics* is for the achievement of the common good which is the end of both man and the *politics*. There is a clear indication that Aristotle never divorced ethics from politics.

In relation to democratic values there must be citizenship participation in the formation of governments and increase in citizen agency through deliberations. There must be obtainable characteristics of what *Powell called contemporary democracies*

citizenship participation is the hallmark of contemporary democracies and this makes the polity morally accountable. The fore – going is just an effort to make the legislative aspect of political engineering become moral or ethical⁷. This can form the starting point of moral orientation in politics. When one is conscious of the values and orientation of one’s society, the issue of morality starts to enlarge into the wider society and as far as rationality is attributable to all humans. This could checkmate the contentious allegations that leadership and democratic in African operate on the level where the rich make laws and policies for the poor. There is also the case of “dirty hands” in the field of politics. There is need for a clear appreciation of the demands presented on politics by the demands of dirty hands. What does one do when confronted by the tasks of office when such conflict with one’s ethical beliefs and principles of morality? Do the possession of an office vindicate one from the guide of dirty hands?. People hide under the shadow of office responsibility and commit atrocities or acts inimical to ethical standards of human relationships. There are issues that a strong education in political ethics would take care of. There are issues various leaders take for granted without fully being aware of its grove ethical implications in the aspect of leadership and government.

A look at these cases will reveal the needed cogency for political ethics. Many African governments are being run as family business and as perpetual birth rights. Whenever and wherever, this is obtainable the freedom of many of the citizens becomes a mirage. This is ethically unjust. In some cases there is no moral courage to resist unholy plans to elongate tenures. Cabinet and parliament members simply succumb to such entreaties at the expenses or detriment of their constituencies. Why do

some leaders perpetuate themselves in office?. Is it because of fear of prosecution? Is it because there are capable successors to be found or groomed. These are critical questions that needed to be addressed to underuse the need for political ethics in developing nations and nascent democracies. It may not be out of order to say that democratic values have to be taught to the citizens, the citizens are both the politicians and their electorates. It becomes an inclusive political ethics education for a total realization of a morally political social engineering; many of the political misfortunes of many African nations are due to lack of education in democratic values. They grow gradually; it is due to the fact that there is no training and exposition to democratic values that these abnormalities aggravate to uncontrollable crisis which in most cases become endemic and catastrophic. If there is this training, many of these political ills would be averted. They would be in a position to foresee the spoors of such decays. These are informed by the fact that education is the bedrock of the development of any society.

Many African countries, especially those that operate a democratic system of government have similar aims and objectives the pursuance of such aims and objectives is the problem facing many of these nations. This is why there is a broad lack of knowledge and appreciation of democratic values. It is not worthy that due to the socio-cultural valves already imbibed in many developing countries like African, campaign periods are periods of many spinning for a significant percentage of the electorate. From observation, the higher the amount of money spread among the electorate decides who receives the highest aviation and support we need to appreciate the carious circumstances surrounding the electorates. Consider a situation where a poverty-stricken family that can’t boast of a

square meal for days is given a cup of rice or half bay of rice for a candidate and on the other hand, an agent of the opponent candidate comes preaching empty-handedly about the sincere good qualities of his candidate.

This latter aspect makes no meaning both political and morally to the family that only knows and is perturbed by the *democracy of the stomach*. The average electorate who is better off meanwhile would like to exploit the situation to make extra income for the rainy days. Those who equally nurse the idea that after campaigns no one sees these politics anymore and that moreover if the candidate wins, the candidate would recoup from the public treasury. These constitute a greater percentage of the mental and economic climates of the electorate in many developing countries. There is no modal impingement on these people as far as these issues and considerations are concerned. In consideration of citizenship welfare maximization, the common good is needed to be appropriate. Aristotle in his *politics* made us to understand that the polis and indeed politics is a partnership of all the citizens. Thus, for one man to dominate the polis by way of perpetual leadership as is seen the cases cited above becomes an ethical anomaly. The common good approach calls for the priority and preference of common interest over individual ones.

Recalling the argument in the section on legislative process, any members in parliament that follows this common good approach will realize the importance of projecting the people's interest and views no matter how informed his personal views. If the members in the parliament has a well knit logic for gay rights as against its detest by the greater majority of his constituency, to project such views as representing the views of his constituency becomes ethically unacceptable as far as the common good

approach to political ethics is concerned. For any political officer to handle public issues arbitrarily is a negative exploitation of the people's mandate.

Theoretical Approaches to Ethics and Politics in Education:

Democratic values call for certain virtues for their realization. Citizenship welfare maximization is the watchword of a government that strives to the realization of the common good. In democratic, the majority rule principle remains a significant one that it determines almost all major decisions and policies within the setting. In other to keep these cherished values and principle alive, active and fully regulated, there are certain ethics approaches that need to serve as guidelines. These pedagogical approaches are few of the approaches used in teaching and approaching ethical issues in general. They can be used to analyze and address critically many of the well-known democratic principles and tenets thereby subjecting them to moral scrutiny.

The Utilitarian Approach to Ethics and Politics in Education

In view of the majority rule principle of democratic government, the utilitarian approach to political ethics comes to limelight. This is a democratic virtue and value. This principle of utility will ensure that any and every decision and action embarked on must have the approval of the greater number of citizens. If it is beneficial to a greater number of citizenry, it becomes morally justifiable. This shuns arbitrary interest of public office holders. The people perpetuate themselves in office at the detriment of other capable one in the society, is a clear arbitration from the spirit of utilitarianism. In many African societies political office holders make policies that are not people -orientated. Many of the policies benefit only a particular sector of

the society especially the already – rich. They embark on self – enriching policies at the detriment of the common good.

The Justice Approach to Ethics and Politics in Education

The justice approach in political ethics has remained on traditional one since the Socrates. It was a significant subject of debate between Socrates and the sophists. This should be the harmonizing virtue and approach. The peon is justice cannot be fully elaborated or exhausted here. In political ethics, it stresses that public office holders who have the peoples mandate should be the mandate to benefits and not exploit the people. The *Nigerian National Policy in Education*: stressed the need for the inculcation of moral and spiritual values in interpersonal and human relations, it also stressed in its philosophy of education the objectives of achieving a free and democratic society, a just and egalitarian society⁸.

Also, the Nigerian educational objectives emphasis the needs of the right type of values and attitudes for the survival of the individual and of the society. There is a clear ground for the proper education in political ethics specifically that which is not seen in any curricular in the Nigerian academic circle. The ethics of justice is totally relegated to oblivion wherever there is domination of leadership by one individual who lords it over all the other citizens of the society. However, few appear importantly significant when one talks of the keywords round which the concept of democracy revolves. These can form starting points for any significant method of analyses in political ethics. They should be authenticated improved on or redirected as long as efforts are being made to make it an autonomous discipline or branch of philosophy or political science.

Conclusion

The military is not so welcome in politics and many scholars do not subscribe to military ethics. Best role the military is supposed to play is that witnessed in the case of successful operation appointed a civilian to be in charge of the transitional government. This could be the only concession given to the military in politics and in ethics. Efforts to address political crises in many African nations need a serious moral evaluation. It appears ludicrous that when there is power crises resulting from coup d'états and constitutional reviews for the sake of tenure elongation many of the delegates nominated. Some politicians are not worthy of statesmanship recognition by any standards or criteria in democracies. This amounts to the extorting of leadership vices. This is why there has been a real moral reevaluation of the African political setting. The current juntas and rebel leaders who are the cause for sending envoys by these regional powers will definitely in the future become envoys for these same bodies that are confronting them. This would become ironical. Is this not a glaring example of ethical bankruptcy that is being campaigned?.

The political evolution of many developing nations particularly in African is very significant in discussions of African politics. Their cultural pluralism is a big case in point in the appreciation of its political growth. This is why many have adopted the policy of rotational government to carry everybody along so that the minorities would not forever remain in political limbos. This can only be achieved if these leaders and the people's representatives perform their jobs well to the delight of the people. These are only possible if there are real ethical orientations towards the issues of government as service

to the people. It has to be borne in mind that the good of the people remains the supreme good. Not one person knows what is good for the people save the peoples themselves. This good of the people could only be appreciated through a functional representation. This is the current portend of the millennium democracies.

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QUALITY ASSURANCE IN NIGERIAN UNIVERSITIES: A PATHWAY TO NATIONAL DEVELOPMENT

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Abstract

The strategy for enhancing national development is through qualitative education and these qualitative education comes through quality assurance in the universities. The university is a place where individuals are trained and molded for intellectual and capacity development. The quality of education received by the undergraduate (input) in these centers of excellence, through an academic process, invariably, influences the graduates (output) to the wider society to achieve national development. Quality assurance in the universities education through its tenets and quest to achieve standards in the universities has facilitated the quality and product of university graduates for societal national development. The importance of quality assurance in the university education in national development cannot be over emphasized. This paper therefore, seek to shed light on quality assurance in the universities as a pathway to national development in Nigeria.

Keywords: Quality Assurance, University and National Development.

Introduction

The first university to be established in Nigeria was the university college Ibadan in 1948, with an enrolment of 210 students. Since then, the number of universities in Nigeria has skyrocketed to 198 universities across the nation, with 45 federal; 54 states; and 99 private universities in 2021. With the increase in the number of universities and students seeking admission into the institutions, it became apparent that quality standards are needed to be established and maintained in these universities.

Globally, university education is held in high esteem and it is recognized as a center of excellence where knowledge is not only acquired, but also disseminated to all in need of it. Adegbesan (2011) asserts that

one of the major objectives of the university is to produce a qualified, skilled and globally competent workforce for the labour market of business and industry which is a critical factor to national growth and development. University education is for enlightenment, self-reliance and national development. Thus, the role quality assurance plays in the universities to standardize its educational antecedents for national development cannot be ignored.

The Concept of Quality Assurance

Quality is the ability or degree with which a product, service or phenomenon conforms to an established standard and which makes it relatively superior to others. For a service or product to be approved it must conform to some certain established standard, when

it is compared to other things, like it. On the other hand, assurance is the act of giving confidence, the state of being certain. Quality assurance therefore, is the ability or degree to which university education conforms to the established standards and appropriateness of inputs available for the delivery of the system, Akpan (2016). Quality assurance as opined by Okebukola (2012) is an umbrella concept for a lot of activities that are designed to improve the systems input, process and output of education. Adu-Oppong (2014) defined quality assurance as a means by which Nigerian educational system is being checked and given a standard. Quality assurance has been a major concern for more than two decades in the universities system.

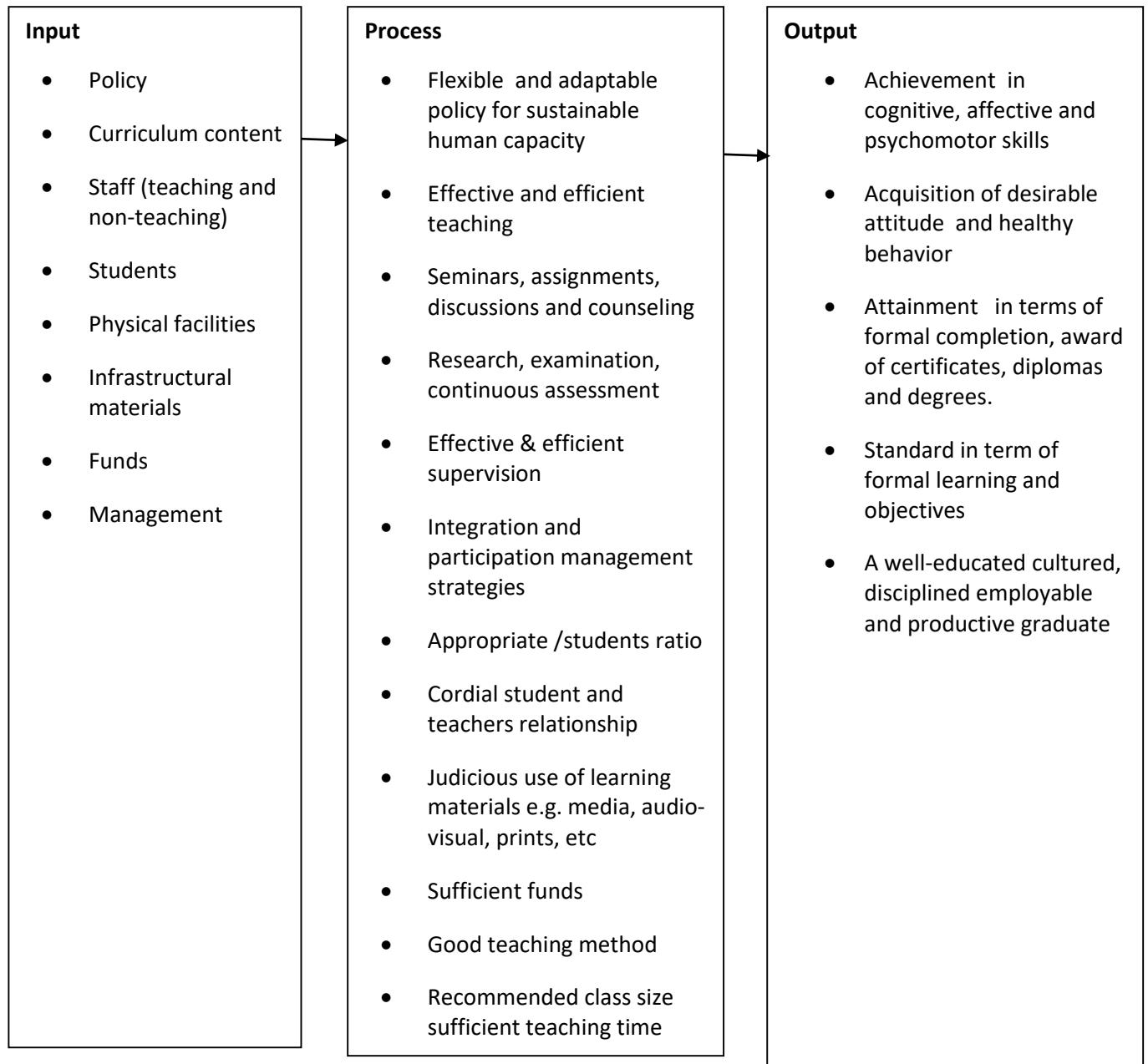
Quality assurance is a way of measuring, improving and maintaining the quality of any human activity that has value. In other words, quality assurance is a means of ensuring that the best practices are encouraged in the university system. Quality assurance in the university system implies the ability of the institution to meet the expectation of the users of manpower in relation to the quality of skills acquired by their output Ajayi and Akindutire (2007). From the definitions above, quality assurance involves the selection of inputs (students) in the university, a processing method of teaching and learning interaction, in order to realize desirable output or outcomes that are qualified products of the university. These products are what determines the development of the nation, in other words, when these things are done the right ways in the universities it guarantees confidence in the programme of study given by the universities, that standards and quality are being maintained and enhanced for national development.

The reasons for the growing concern for quality assurance within the expanding global university system as noted by Adu-Oppong (2014) are rapid expansion of students numbers, growing public expenditures on university education, the demand for better public services, increasing competition within the university for resources and students, the tension between efficiency and quality, increasing public demand for the accountability of university education amongst others. The quality in university depends to a large extent also, on quality of staff, students, programmes, infrastructures and academic environment. Adu-Oppong (2014) went further to enumerate the indices of ensuring quality in university system as: quality and quantity of lecturers; student as input quality; textbooks; learning materials; quality and quantity of instructional facilities; quality and contents of instruction and curriculum; workload, student-teacher ratio; quality of management and quality of monitoring; and supervision and evaluation as quality outputs.

Quality Assurance involves putting in place certain techniques and procedures to ensure quality of product. Akpan (2016) describes the concept quality assurance as involving all the policies, system and processes directed to ensuring the maintenance and enhancement of the quality of education provided in the university. Akpan (2016) noted that quality assurance is about effectiveness in the university educational system, while quality deals with 'what', quality assurance deals with 'how'. For example 'what type or kind of output (graduates) do we want to produce from university? How do we go about producing the, desired output? Quality assurance measures strategies, procedures to be employed, to guarantee success in the desired output. It deals with how people at

different universities, department faculties, institutes, schools in the university system, constitute to accepted standard of output, which is quality. It therefore involves a well-coordinated quality assurance system.

Below, comprises the activities and exercises designed to improve on the system input, process and output of the university system. Akpan (2016) in the assessment of the system tabulated.



Assessment of Quality in University Education

Input process output model for assessing Quality University Education Adapted from Akpan (2016)

This model shows how inputs influence processes and how processes influence output in the university system. Input-output gives rise to quality conversion process which would produce qualified graduates. Hence, assessment of quality in university education should start with inputs and ensures the output are quality standard.

Agencies and Bodies for Quality Assurance in Nigerian Universities

Quality assurance process in the university can be either external or internal. The main aim here is to ascertain if standard are being maintained and improved upon.

External quality assurance entails an assessment by an authorized agency or expert body to authenticate if the universities are working in line with the laid down minimum academic standard while internal quality assurance refers to the policies and mechanism by the university in ensuring that it is fulfilling its purposes as well as standards that apply to the universities in general.

In Nigeria, the external bodies responsible for quality assurance are the National Universities Commission (NUC), Joint Admissions Matriculation Board (JAMB) and Professional Regulatory Bodies.

National Universities Commission (NUC)

The National Universities Commission (NUC) came into existence through the provision of Decree No. 16 of 1985 to lay down minimum academic standard for all the academic programmes taught in the

Nigeria universities and also to be accrediting universities to inculcate the spirit of high standard and quality into the universities education. One of the ways by which the Commission does this, is through programme regulation which entails the enforcement of government regulation, stipulating that for any university to commence an academic programme or establish an academic unit, it must obtain the written approval of the NUC.

The NUC is responsible for Minimum Academic Standards and Subject Benchmarks, accreditation of undergraduate programme, ranking of universities, accreditation of postgraduate programmes, programme verification, accreditation of academic programme of institutions, monitoring, assessment and evaluation of existing staff, students and facilities, capacity building for teaching and non-teaching staff, exchange programmes for personnel, external moderation systems, reviews and production of instruments on minimum academic standards.

NUC developed minimum academic standards in the thirteen broad disciplines taught in the Nigeria universities in 1989. A benchmark statement after the conference on curriculum review held in April 2001, were sent to the universities for their inputs and comments. NUC is expected to emerge the minimum academic standards with the benchmark statements as a single document for accreditation examination in each of the discipline. NUC is also in charge of accreditation of undergraduate programmes, ranking of universities, postgraduate accreditation and programme verifications in the universities.

Joint Admissions and Matriculation Board (JAMB)

This body was established by the Act 20 of 1978 (as amended by Act 33 of 1999) to

regulate the admission of students into the Nigerian universities. The role of JAMB in quality assurance are ensuring high quality matriculation examination and making sure only those who prepared well and scored marks of 180 to 200 gain admission into the universities and other higher education institutions. JAMB has been bridging the gap between the entrants and the universities.

Professional Bodies

The Pharmacist Council of Nigeria (PCN), The Institute of Chartered Accountants of Nigeria (ICAN), Medical and Dental Council of Nigeria (MDCN), and The Council for the Regulation of Engineers in Nigeria (CREN), Teachers registration Council of Nigeria (TRCN) amongst others are involved in quality assurance process in universities. These bodies visit the universities to verify the quality of their curriculum content, practical, physical faculties, staffing, laboratories and offer advice to the universities on how to improve on their areas of deficiencies. They form part of the NUC accreditation teams. However, most of these professional bodies conduct examination for university graduates before they are reposted.

Internal Mechanism for Quality Assurance in the Universities

i. Programme Development

Basically academic programme and examination system in the universities is to control quality in the universities. A thorough procedure of course and programme development and approval is needed. Besides, there should be continuity in what the external bodies has done.

ii. Entrants

- a. The present JAMB and university screening of entrants into the university is one of the internal ways of controlling quality in Nigeria universities.
- b. With the current pressure to enter universities by students, it is important that entry level of students is appropriate for the programmes.

iii. Educational Resources

- a. **Human Resources:** In the universities, the academic staff is the most important human resource. The staff members must be evaluated thoroughly of their qualifications and experience at work before appointments. There is an annual appraisal of each member of staff for formative and developmental purposes. Regular professional development of all members of staff is important to maintain a high quality of service provision to this process. Adequate technical and administrative support staff, non-academic staff should also be available.

b. Physical Resources

Universities should ensure adequate provision of physical resources appropriate to the programmes being offered. There should be adequate classroom, well equipped laboratories, library holding recent books and periodical, and other learning

Management Team

The management is to put into practice all the policies and programmes of the institution. For result oriented management, the management must perform the

followings: Enhance good communication within university and with stakeholders outside the institution. Be responsible for the implementation and initiation of policies agreed upon by the governing council. Create effective organization and management of the work of the university. Execute the elements of strategic plan and adhere to its periodic review and; Continue to monitor all aspects of the work of the university.

Quality Assurance Unit

Each university in the county have a quality assurance unit within the institution. The duties of this unit shall include

1. Encouragement and support for self-assessment
2. Organization of quality assurance reviews of graduate programmes
3. Conduct audit of the teaching and learning settings.

The audit covers

- Staff and students liaison committee to other facets of students' participation
- Career advice system
- Academic and personal tutorial system
- Registration procedures
- Provision of information technology resources
- Operation of libraries and laboratories
- Staff development and training

Generally, the quality assurance unit proposes and reviews the mechanism for ensuring quality in the operation of the university and conducts periodic audits of the mechanism and follow up traits for the university.

However, quality audit to be carried out in the department or the faculty so as to know

whether the quality procedures in place are adequate to assure quality. Quality audits is conducted by quality assurance unit or an in-house basis to make it as comprehensive as possible.

Consequently, the following important elements of quality assurance procedures had been indirectly established in the universities to equip the graduates in order to effect national development

1. Publication of a set of clearly defined aims and objective and the systematic and effective monitoring of the achievement of these aims and objectives.
2. Monitoring of the standards learning experiences including teaching/ learning methods.
3. Collection and use of student feedback
4. Collection and use of quantitative data on standard performances
5. Collection and use of external opinion
6. Rapid response to issues identified
7. Appropriate and effective orientation arrangement for all new staff
8. Identify training needs of all staff
9. Participation of staff in development activities and the
10. Systematic documentation of involvement in quality assurance procedures

Strategies for establishing Quality Assurance in University Education

1. **Monitoring:** Collecting data at intervals about projects to assess level of performance to find out how far the objectives are met.
2. **Evaluation:** It is based on available data which are used to form conclusion, to see how the system has improved or assisted to do better.
3. **Supervision:** An attempt to bring out improvement in the quality of instruction to advising, grinding,

- encourage, refreshing and stimulating staff.
4. **Inspection:** Assessment of available facilities/resources with a view to establishing how far the universities have met prescribed standards. It is more of assessment than improvement.
 5. **Quality Control:** Are done through examining the qualification of lecturers, teachers by gender, the adequacy of the curriculum, availability of equipment, proper use of the processes involved to ensure the finished products are of high standards.

Quality Assurance and National Development

Since quality assurance validates the outputs against the inputs or requirements to ensure standards of the university products, which are the graduates, it then means that these products are the ones that would go out to the society to effect the needed positive changes, creativity skills and innovations in what had been taught and learnt in the universities in order to develop the nation.

National development is a process of transforming a nation to a better and more developed economy. Hagen in Ofeme (2008) equates development with achievement motivation. Ofeme (2008) reiterates that development is a multidimensional process involving man in his political, economic, socio-cultural and psychological relations in an effort to master and control nature to achieve a qualitative wellbeing. It is in these areas, that development starts. Development can be ascertained in two major analytical levels- the individual and the nation, both of which are mutually re-enforcing each other.

National development according to Sele (2013) is the capacity of the country to raise the standard of the living of its residents

through provision of basic livelihood requirements and employment. It can also be defined as the ability of a country to improve the social welfare of the people, by providing quality education, medical care, portable water, electricity, transportation among others. It includes all the aspects of life of an individual or nation. It includes full growth and expansion of industries. Development is a process that creates growth and brings in progress and positive change. How else can one contribute to national development, if not through the quality that had gone through the university education to effect positive changes in the nation? The income per capita is the important attribute for national development and it is by quality standards that one can be employed or create jobs for employment.

The federal government of Nigeria says 'Education in Nigeria is an instrument 'par excellence' for effecting national development' (NPE, 2013). To this end, the federal government and other stipulated bodies are doing their best to uplift the Nigerian university education. Bearing in mind, no nation can rise above the quality of its education. Emphasis would continually be on quality standards from the universities, because it is on this premise, that the quality becomes the key to national development. The main recipients or stakeholder of the services of the university graduates are the individuals and the nation. Other recipients include the government, students, employers, professional bodies, parents and the society at large. It is only when an individual had become useful and successful, through the knowledge acquired and applied from the universities, that the same individual can become useful to the society and the nation, hence, the graduated students from the universities should be complimented with corresponding duties, obligation, growth, positive changes and

responsibilities for the nation. Consequently, the Nigerian universities had reformed their pedagogies through quality assurance to make effective producers and impactful graduates who can contribute to national development.

Besides, quality assurance serves two primary purposes of improvement and accountability according to Kis (2005), and it is expected that a graduate from any of the Nigerian university understands what it means to improve and be accountable to any worthwhile and noble programme. Naturally, a lot of things had gone wrong in the country and besides being an undeveloped country, there are insecurity problems in the country, lack of job, high poverty rate, hunger, regional inequality, social and political unrest, corruption, high inflation, and high illiteracy rates. It is the products from these quality assured universities that are very likely to facilitate the development of the country and this comes by

1. Strengthening the foundations of economic growth
2. Revitalizing the private sector
3. Improving the quality of life
4. Strengthening good governance and security
5. Provision of quality education
6. Medical care
7. Portable water
8. Transportation infrastructure

Whichever way one looks at it, the graduates from these quality assured universities remains the most important tool for development of any nation socially, economically and politically, because at an individual level, education helps students to fulfill their personal potentials, acquire crucial knowledge, attitudes and skills for their lives. Importantly also, these graduants are assumed to build esteem and

reduce poverty by increasing productivity. This cannot be realized if students do not learn effectively to achieve the aims and objectives of quality university education. So, it is vital to invest in quality assurance university education and get rid of all obstacles that hinder students' effective participation, learning and good achievement, in order to ensure that the kind of education provided meets the expectation of an individual student and the needs of the nation as a whole.

Quality Assurance: A Pathway to National Development

University administration provides the matrix which binds together various integral and important parts of the nation. Investment in human capital according to Ezeude (2014) is the bedrock of meaningful national development. According to Ezeude (2014), human resources development through quality assurance is crucial in achieving a labour force and managerial know-how, capable of putting the nation on the right track to enviable economy. Sele (2013) asserts that if the citizens are well educated, they readily see through the difficulties that beset them and meet emergencies as they arise, 'therefore, with a qualitative university education, almost every any improvement and good is possible for the nation. With quality assurance, national development is sure. Quality assurance serves different and important purposes in the university system. According to NUC (2004) quality assurance is a mechanism for building institutional reputation in the competitive local and global arena and a necessary foundation for consumer protection. Among universities roles is to develop and turn out relevant and impactful graduates with skills, knowledge and disposition needed to meet the requirements for national development. Education is the

foundation of any serious nation's development, and it is these students that would strive to contribute their quota to national development through the enhancement of their skills, talents and potentials. The more the students are enlightened, the more they would abstain from practices that would endanger the nation's efforts to national development.

The following may be seen as the reason for the desired attention to improving the quality of university education in Nigeria;

- i. Quality assurance ensures and maintain high standards in students' work performance
- ii. Quality assurance assists to determine the material resources and infrastructures needed to be in place for the smooth running of the universities.
- iii. It helps in keeping everyone on their toes through monitoring and evaluation processes
- iv. It enhance transparency and stakeholders confidence
- v. Enhance capacity to compete with other universities regionally and globally
- vi. Management by processes and facts
- vii. Continuous teaching and learning processes to determine the quality of input and output,
- viii. Better quality of graduates
- ix. Feedback from clients and consumers products and services
- x. It leads to attitude change and reformation amongst staff
- xi. Quality assurance, thorough sensitization workshops leads to better work ethics amongst stakeholders

Benefits of Quality Assurance in the University Education to National Development

Quality assurance involves the systematic review of educational provision to maintain and improve its quality, standard, equity and efficiency. Quality assurance encompasses not only self-evaluation, external evaluation, evaluation of inputs, processes and output, but also, teachers, and students' assessments. The major elements of quality assurance are the accreditation, assessment of the universities and programmes and the audit of the institutions. It is a global term used to incorporate the quality policy, quality management and quality control functions in the universities. Subsequently, the benefits of university education amongst others according to Sele (2013) includes:

1. The improved process control established by quality assurance in the universities produces standard individuals
2. Quality assurance increases and strengthens the students creative and critical thinking skills
3. Smoother regulatory audits and accountability processes helps individuals to be accountable
4. An internal system of checks and balances for the quality of products to ensure that are released into the society to make the needed changes.
5. Improvement and collaboration with all stakeholders
6. Better employee and management training that would facilitate job creation and employment
7. Increased worker engagement and commitment to work would lead to quality service delivery
8. The graduates should use their talents to serve the country

9. Make sure governments policies should be implemented
10. Develop global partnership for development

Conclusion

University education through its multipliers effect plays an important role in concerting and enhancing national development. This is because quality education equip an individual with the intellectual capacity and capability to gain knowledge, skills, mastery and control over the environment to achieve an improved and contented life and influence the environment. The issue of quality assurance in Nigerian universities has come to stay. It is a continuous process that is sustained even after universities had gotten full accreditations for all the programmes. The universities are still expected by the process to continue to work comprehensively to maintain the standards already achieved to international level. The Federal Government through the NUC and other bodies should continue to set the standards and ensure that quality is achieved in the Nigerian universities for better academic attainment in the learners and for national development. The internal quality mechanism should be continuous by all universities to continue with the external mechanism that had been well established. The overall effect of these will enhance national development resulting from qualitative university education in the country.

Suggestions

1. Education is the bedrock of every society, therefore any university involved in quality assurance should be able to produce quality students/ graduates that can affect the nation positively.
2. Students should be involved for effective internal quality assurance to

enable understand what quality and standard means and be able to apply it in the daily lives.

3. The university should continually review the curriculum and make it responsive to the learners need and it should also be relevant to the 21st century world of work
4. Quality assurance should continually focus on optimal teaching and learning process, development of skills, values, morals, attitudes, capabilities and knowledge of the students with emphasis to those relevant to the universities and the nation and must continue.
5. Supervision, inspection, monitoring and evaluation of universities should be a continuous and progressive exercise to achieve the aims and objectives of the process and to maintain keep the universities system on their toes.
6. Government should support university graduates with start-up funds in the bid to encourage entrepreneurship in the country.

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IMPROVING TEACHERS' EFFECTIVENESS FOR QUALITY SERVICE DELIVERY IN PUBLIC SECONDARY SCHOOLS IN BAYELSA STATE, NIGERIA

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Abstract

The study examined ways of improving teachers' effectiveness for quality service delivery in public secondary schools in Bayelsa State, Nigeria. Two research questions and two corresponding hypotheses were used to guide the study. The study is descriptive. The population of the study comprised of all the teachers in public secondary schools in Bayelsa State which have a total of 3,678. A sample size of 368 teachers (male teachers 200 and female teachers 168) was drawn representing 10% of the entire population using proportionate stratified random sampling technique. A self-structured questionnaire tagged, ITEQSDPSSBQ was used as the instrument for data collection which yielded a reliability index of 0.88 using Cronbach Alpha Statistics which guarantee the use of instrument for the study. Mean and standard deviation were used to test research questions while z-test was used to test the hypotheses. The study revealed among others that giving incentives to deserving and hardworking teachers is very essential for quality school service delivery in public secondary schools in Nigeria. Based on the findings, it was recommended among others that government should give incentives to deserving and hardworking teacher to boost their teaching performance in public secondary schools in Bayelsa State, Nigeria.

Keywords: Improving, Teachers' Effectiveness, Quality Service Delivery and Bayelsa State.

Introduction

Teachers all over the world in the field of education are character molders of pupils and students. They are referred as headmasters at solving personal and societal inherent problems. These teachers help and train students to learn the basic rudiments that will

the primary school level while called school teacher often time at the secondary school level that helps students to acquire knowledge, competence or virtue amidst

in turn reshape them to become useful for themselves and the society. What defines and differentiates teachers is his/her strength and

ability to teach students that will produce positive influence on them and the society. The role of teachers particularly in school goes beyond classroom teaching, in today's learning; teachers are role model, sharing knowledge, external parent (in loco parentis), final thoughts and among others. Teachers indeed are dedicated professionals who have a long lasting impact on students. In the midst of these, teachers need ways of improving their effectiveness in teaching.

More so, teachers in the educational system are the driving force; they are the human element in the school organization that is responsible for the effective and efficient realization of school goals and objectives. Consequently, improving their effectiveness in teaching helps perform their key roles which include students' academic performance, students control and behaviour, transmission of basic knowledge, classroom management and among others. They are expertise in their profession; this is because they have undergone rigorous training and as such possesses the prerequisite and extant knowledge, competence and skills to pass on to the students. Simply put, they are pivotal in the implementation of school curriculum (the totality of all experiences which the school offers to the students). All these activities of the school depend to a large extent on the teacher.

However, in the midst of all this daunting tasks of teachers and for the fact that they are the decisive force in the teaching-learning process; the issue of improving their teaching capabilities through strong leadership, incentives, supervision, school climate control, training and development, adequate welfare packages and among others is sine qua non. This is in line with the views of Umeano (2010) that teachers are the most crucial of all the elements involved in educational process; they are the

implementer of the education programmes, policies and curriculum and as such the ways of improving their effectiveness in teaching must be provided. To this, managers and administrators of schools as well as the government should consider ways of improving teachers' teaching effectiveness. This include organizing periodic training and development programmes, providing incentive to performing and deserving teachers, rewarding hard working teachers and also adding value to their work through responsibilities. These aforementioned will spur or improve teachers' effectiveness to achieve quality service delivery in secondary schools particularly Bayelsa State,

Concept of Teachers Effectiveness

Teachers' effectiveness seemingly provides some insights into the qualities that connect quality school service delivery, students' academic achievement, excellent performance, discipline and among others. This also include effective instructional delivery, teachers' personal quality, motivation, subject-content-knowledge, school environment classroom control and among others. Asiabaka and Emenalo in Ojiako (2014) supports the view that teachers as the human catalyst who intentionally influences the interaction among the teacher-learner and the environment of the learner by restructuring the environment of the learner in such a way that the learner will acquire desired knowledge, skills and attitudes and meaningfully contribute to the development of humanity at an appropriate time. The activities translate to teachers' effectiveness.

Teachers' effectiveness is a set of personal attributes and combination of characteristics, competencies, and behaviours of the teachers at the educational levels that influence students reach desired outcomes, which include the attainment of specific learning objectives and goals. Teacher effectiveness

plays an important role in teaching and learning process. An effective teacher contributes to student achievement, classroom control and behaviour. They exhibit certain skills and qualities that include verbal ability, knowledge of special needs and content knowledge of specific subjects to be taught. Instructional planning, allocating time for academics, using appropriate instructional strategies, monitoring learning and differentiating learning of individual students are all inherent traits of an effective teacher.

However, in the midst of achieving all these as mentioned above, government need to provide ways to cushion their teaching effectiveness. Training and development, incentives and other welfare packages are ancillaries to teachers' effectiveness. Quality service delivery is a function of teachers' effectiveness in teaching and learning. In essence, teachers' effectiveness is determined by learners' performances in standard tests (Ojiako, 2014). This is supported by Durkin in Ojiako (2014) that teachers' effectiveness is essentially concerned with how best a teacher brings to bear the desired learning on the learner by some educational activities. In the educational activities, the teacher requires certain training and incentives as modifiers to actualize the desired learning.

Egu (2013) is also of the view that, an effective teacher is one who has been properly prepared, trained that is expected to exhibit certain qualities. These include appropriate lesson preparation, task orientation, students' engagement in the learning process and success. However, they can only improve upon teaching and learning through period training, providing incentives and rewards and active participation in school decision making. When the aforementioned ways of improving teachers' effectiveness are sustained, students can

perform well in internal and external examination.

Okorie (2012) and Ojiako (2014) maintain that, there are positive ways to determine teachers' effectiveness. These are otherwise called indicators. They are teacher's dedication to students attention and plight, high morale in teaching, satisfaction of teachers, dedication to teaching job, responsible to students' academic achievement and progress, subject mastering, low student dropout rate, good interaction between teacher-student-students, thorough discipline of the students, and cordial relationship between students' parents/guardians, among others. An effective teacher is one who learns from teaching rather than the one who assumes that he has finished learning how to teach (Asiabaka and Emenalo in Ojiako 2014). The following are the ways of improving teachers' effectiveness to the achievement of quality service delivery in school. These include periodic teachers training and development which will result to the acquisition of more knowledge, skills and teaching methods, and also incentives which are intervening variables that spur the mind of the teachers to be more dedicated in teaching, job enrichment, mentoring, inspections and among others.

Incentives, training and rewards serve as inducement to workers. Obasi (2013) see incentives as another way of improving teachers' effectiveness for the achievement of quality service delivery in schools. Incentives are intervention packages that are utilized to motivate teachers, it helps to improve and encourage them to be committed to their specific work tasks. This of course brings teachers' effectiveness in teaching. Every teacher who would put his/her best in the classroom management, student discipline and effective teaching expects appropriate commendation through

reward and incentives by the school management. Teachers want to be recognized in his/her services to school goals achievement, they want to be rewarded or accorded with some certain incentives to spur their teaching capabilities and services. Incentive simply is a performance enhancer and its deployment of strategy in human resource management. This corroborates with the view of Robbins & Coulter (2013) who sees incentive as a motivational approach by which a person's efforts are energized, directed, and sustained toward attaining a goal.

Similarly, the essence of incentives and rewards according to Obasi (2013) is to attract and retain teachers in teaching, it helps motivate teachers to make different professional decisions while they are actively engaged and also to utilize teaching practices that are believed to represent better pedagogy. Incentives are most useful tools in attracting and retaining teachers that include: direct financial remuneration, improved deployment practices, job security, free or subsidized housing, special allowances. Incentives are energizer, encouragement, an enabler or an aid of improving teachers' effectiveness so as to achieve school quality service delivery.

Reward is basically designed to motivate teachers to remain in teaching professional as well as improving their effectiveness in teaching. Improving teachers' effectiveness through incentives greatly improves the overall quality of the education system. There are two kinds of incentives which have been identified to have particular relevance to teachers effectiveness. Monetary incentives could be direct or indirect and non-monetary incentives. Salaries and allowances are basically referred to direct monetary incentives which teachers receive for their work. It brings dedication,

Training also another way of improving teachers' effectiveness; it helps develop the full potentials and commitment of teachers to service. Therefore, teachers' training according to Uzonwun (2014) is an organized programme to update the knowledge and skills that were acquired during their pre-service education. It compasses activities in which teachers engage in deliberately designed training programmes to enhance their knowledge, skills, and capabilities to perform their role as teachers and to build up their personal and professional capacities and competency in order to benefit themselves and the schools. Starrat in Uzonwun (2014) further avers that, in-service as form of training such as conferences, seminars, workshops, symposium, among others involves provisions made by the administration of an institution to improve the quality of their teachers and that of the school organization. It involves teachers training exercise which enhances teachers effectiveness, capacity in terms of competence, commitment and capacity to change which are fundamental to sustainable achievement of school organization goals. Nwokamma (2017) also sees training as strategies, ways and methods that enable them to carry out their responsibilities as effectively and efficiently as possible. This includes all activities intended to increase the skills and capabilities of teaching.

In addition, Iloabuchi (2014) view training as a way of improving teachers' effectiveness in a bid to attain the goals of the school. Training may be viewed as related to immediate changes in school organizational effectiveness to achieve results, goals and objectives. Training brings about efficacy of teaching, ability and skills to achieve secondary school goals. In other words, training is a learning activity that is focused towards the acquisition of specific knowledge and skills for carrying out

specific job/task geared towards development is a way improving teachers' effectiveness. It could be said to as a set of programmes that helps employees learn specific knowledge or skills to improve performance in their current roles, jobs, duties, functions and tasks.

Training helps in the improvement of quality and effectiveness of teachers in schools, this is because they play significant role in the actualization of educational goals and objectives by satisfying their present knowledge status and enhancing their morale in teaching. Training is done to correct deficiencies and weakness of teachers. Training is the set of equipping teachers with necessary methods and techniques to enable them perform competently in their present or future jobs so as to increase efficiency and output of the organization as well as obtaining self satisfaction. In the school setting, it is an institutional efforts aimed at helping an employee (teacher) to acquire basic skills required by him to execute his assigned duties efficiently.

Training teachers for quality school goals achievement is very important. It helps orient new teachers to have increase understanding of the job. It helps to improve the teaching skills in work places and assure better performance of the staff as well as increase in productivity. It also helps to promote job competency, simply put, enhance quality service delivery and reduce the need for close supervision. Training also reduce the incidence of teachers turnover; increase in personal growth through job satisfaction of the teachers; and also to acquire new skills and prepare staff for promotion/ for new job roles/ future personnel needs. Training is also important for employee helping to solve operational problems in school organization, and increase institution needs; and also to boost staff morale/ motivate the staff to renew their interest in the job.

According to Erero in Illoabuchi (2014), training has become a necessity due to the growing complexity of the work environment, fast and constant change in organizational and technological advancement. On that note, it is expected to help teachers to acquire, possess and utilize the knowledge and skill needed for effective and efficient teaching method. Teachers training, Emechebe in Illoabuchi (2014) note its usefulness to the areas of increased teachers productivity, quality service delivery, exposure of teachers to current issues in school organization, teachers' adaptation to change; and also exposure of teachers to new teaching methods and skills relevant to their jobs. It also gives teachers high morale as well as increased teaching confidence. Furthermore, training encourages teachers to acquire professional competencies to meet the needs of the society for national development. It also helps to improve the quality and standard of educational output.

Statement of the Problem

Teachers are the driving force in every school organization; they impart and transmit knowledge to students to change our societies. They are one of the most vital aspects in school administration particularly secondary schools; this is because they are the human element that passes on the in-depth knowledge to student in the midst of achieving academic performance and excellence. However, new ways of teaching and learning are evolving arising from technological invention, therefore, ways of improving teachers' effectiveness in teaching and learning with those new teaching technology such as computer, virtual learning, teleconferencing, internet and among others is sine qua non. Periodic training, incentives and rewards to performing and deserving teachers are ways of improving teachers' effectiveness in

teaching and learning as well as classroom management.

However, in the midst of these daunting tasks of teachers, training, incentives and rewards system are no longer practicable in public secondary schools particularly in Bayelsa State. This is a direct result of government lackluster attitude in sponsoring training. Obviously, the state government has provided an enabling environment for teaching to flourish, salaries are up-to-date, promotions are implemented and other welfare has been prioritized. Nonetheless, teachers training and provision of incentive to deserving and performing teachers have not been prioritized. Payment of salaries as well as creating an enabling environment for teachers are necessary; however, teachers still regard periodic training and incentive for hard work as ancillary to their teaching effectiveness. In the midst of this, teachers have developed cold feet to school goals objectives leading to poor performance of students in internal and external examinations. This can be seen from the 2018 West African Examination results. The state which was placed 5th in overall best performance has dropped to 6th place in the performance table. Could these cold feet from teachers be a direct result of government's inability to conduct period teachers training? Could it also be government's inaction to give out reward and other incentives to performing and deserving teachers for their outstanding performances?

It is on this premise that the study set out to examine the ways of improving teachers' effectiveness for quality school service delivery in public secondary schools in Bayelsa State, Nigeria.

Aim and Objectives of the Study

The aim of the study was to examine the ways of improving teachers' effective influences quality service delivery in public

secondary schools in Bayelsa State, Nigeria. Specifically, the objectives sought to:

1. determine the ways training improves teachers' effectiveness for quality service delivery in public secondary schools in Bayelsa State, Nigeria
2. ascertain the ways incentives improves teachers' effectiveness for quality service delivery in public secondary schools in Bayelsa State, Nigeria

Research Questions

1. In what ways do training improves teachers' effectiveness for quality service delivery in public secondary schools in Bayelsa State, Nigeria?
2. In what ways do incentives improves teachers' effectiveness for quality service delivery in public secondary schools in Bayelsa State, Nigeria?

Hypotheses

1. There is significant difference between the mean ratings of male and female teachers on the ways training improves teachers' effectiveness for quality service delivery in public secondary schools in Bayelsa State, Nigeria
2. There is significant difference between the mean ratings of male and female teachers on the ways incentives improves teachers' effectiveness for quality service delivery in public secondary schools in Bayelsa State, Nigeria

Methodology

This study adopted a descriptive survey design. The population of the study comprised of all the teachers in public secondary schools in Bayelsa State. A total number of 3, 678 teachers in the public

secondary schools in Bayelsa State constituted the population. The proportionate stratified random sampling technique was deployed to select total teachers' population were randomly selected. The study sampled comprised 200 male and 168 female teachers; this gave a total of three hundred and sixty eight (368) respondents.

The instrument for data collection was a 19-item researcher developed questionnaire titled, "Improving Teachers Effectiveness for Quality Service Delivery in Public Secondary Schools Questionnaire (ITEQSDPSS)." The instrument was face-validated by three experts, one in measurement and evaluation, and two from Educational Management from Niger Delta University, Bayelsa State. The comments from these experts were taken into consideration in the final modification of the instrument. The instrument has two sections (A&B), section A contained demographic information while section B comprised questionnaire items constructed based on the variables of the study. The questionnaire gave index of 0.84 using Cronbach alpha statistics to obtain the

respondents for the study that included all the teachers in public secondary schools in Bayelsa State. Ten percent (10%) of the

reliability coefficient which guaranteed the use of the instrument for the study. The questionnaire was patterned according to modified Likert-scale of Strongly Agree (4), Agree (3), Disagree (2) and Strongly Disagree (1) points respectively. Two hundred and sixty eight copies of the instruments were sent out and two hundred and sixty copies were retrieved for analysis. The instruments were administered by the researchers and three trained research assistants. The researchers used standard deviation and mean to answer the research questions and z-test to test the hypotheses at 0.05 level of significance. A mean of 2.5 and above was accepted as determinant and vice versa.

Results

Research Question 1: In what ways could training increase teachers' effectiveness for quality service delivery in public secondary schools in Bayelsa State, Nigeria?

Table 1: Mean and standard deviation scores on the ways training increases teachers' effectiveness for quality service delivery

S/N	Items	Male Teacher = 200			Female Teachers = 168		
		Mean	STD	Remark	Mean	STD	Remark
1	Gives room for updating teachers' knowledge	3.89	0.92	Agreed	3.86	0.90	Agreed
2	Helps teachers earn special skills in teaching	3.87	0.89	Agreed	3.88	0.89	Agreed
3	Enhances teachers competence in classroom learning	3.68	0.86	Agreed	3.60	0.78	Agreed
4	Enhances teachers' effectiveness	3.42	0.76	Agreed	3.36	0.72	Agreed
5	Corrects deficiencies of teachers	3.58	0.78	Agreed	3.52	0.82	Agreed
6	Equips teachers with necessary teaching methods	3.72	0.82	Agreed	3.88	0.88	Agreed
7	Equips teachers with various techniques in classroom management	3.88	0.91	Agreed	3.86	0.89	Agreed
8	Improves teachers' performance	3.76	0.78	Agreed	3.84	0.81	Agreed
9	Helps orient new teachers to increase the understanding of their job	3.64	0.74	Agreed	3.70	0.73	Agreed
10	Helps to understand the growing complexity of school environment	3.62	0.73	Agreed	3.56	0.71	Agreed
	Total	37.06	8.19		34.06	8.13	
	Grand mean	3.706	0.819	Agreed	3.406	0.813	Agreed

Data on table 1 showed that all items (1-10) had mean scores above the criterion mean of 2.50 and adjudged as the ways training of teachers increases teachers' effectiveness in public secondary schools in Bayelsa State. In summary, with a grand mean of 3.706 and 3.406, and standard deviation of 0.819 and 0.813 respectively, the findings revealed that training helps update teachers' knowledge, it helps teachers to earn special skills in teaching, it enhances teachers' competence in classroom learning, it enhances teachers' effectiveness, improves teachers' performance, corrects their

deficiencies, equips teachers with necessary teaching methods, equips teachers with various techniques in classroom management, help to orient teachers to increase understanding of their job and also help to understand the growing complexity of school environment.

Research Question 2: What are the ways in which incentives can improve teachers' effectiveness for quality service delivery in public secondary schools in Bayelsa State, Nigeria.

Table 2: Mean and standard deviation scores on the ways incentives improve teachers' effectiveness for quality service delivery in public secondary schools in Bayelsa State

S/N	Items	Male Teacher = 200			Female Teachers = 168		
		Mean	STD	Remark	Mean	STD	Remark
11	Improves teachers effectiveness in teaching	3.62	0.84	Agreed	3.72	0.76	Agreed
12	Helps achieve quality service delivery	3.84	0.78	Agreed	3.82	0.86	Agreed
13	Motivates teachers' commitment to tasks	3.68	0.82	Agreed	3.70	0.84	Agreed
14	Enhances teachers' performance	3.42	0.73	Agreed	3.46	0.75	Agreed
15	Brings the best of teachers in classroom management	3.82	0.93	Agreed	3.80	0.92	Agreed
16	Improves teachers' dedication to work	3.76	0.82	Agreed	3.80	0.86	Agreed
17	Gives teachers job satisfaction	3.62	0.71	Agreed	3.58	0.73	Agreed
18	Increases job productivity	3.57	0.76	Agreed	3.52	0.75	Agreed
19	Helps to promote job competency	3.60	0.68	Agreed	3.56	0.69	Agreed
	Total	32.9	7.07		32.96	7.16	
	Grand mean	3.655	0.786	Agreed	3.662	0.796	Agreed

Data on table 2 showed that all items (11-19) had their various mean values above the criterion mean value of 2.50 and were agreed by the respondents as ways in which incentives improve teachers' effectiveness for quality service delivery in public secondary schools in Bayelsa State as determined by the grand mean values of 3.655 and 3.662 respectively. The findings revealed that incentives improve teachers' effectiveness in teaching, it helps to achieve quality service delivery, it motivates

teachers' commitment to tasks, it is teachers' performance enhancer, it brings the best of teachers in classroom management, improves teachers' dedication to work, gives teachers job satisfaction, increases job productivity and helps to promote job competency in public secondary schools in Bayelsa State.

Hypothesis 1: There is no significant difference between the mean ratings of urban and rural teachers' opinion on the ways training increases teachers'

effectiveness for quality service delivery in public secondary schools in Bayelsa State, Nigeria.

Table 3: Z-test Statistics on the mean ratings of urban and rural teachers' opinion on the ways training increases teachers' effectiveness for quality service delivery in public secondary schools in Bayelsa State, Nigeria

Teachers	N	Mean	Std	Df	z-cal	z-crit	Decision
Urban	200	3.706	0.819	366	0.76	1.96	Ho1 Accepted
Rural	168	3.406	0.813				

Data on table 3 revealed that urban teachers have mean and standard deviation scores of 3.706 and 0.819, while rural teachers have mean and standard deviation scores of 3.406 and 0.813 respectively. With a degree of freedom of 366, the calculated z-test value of 0.76 was less than the critical table value of 1.96, therefore, the null hypothesis is accepted. By implication, there is no significant difference between the mean ratings of urban and rural teachers' opinion

on the ways training increases teachers' effectiveness for quality service delivery in public secondary schools in Bayelsa State, Nigeria.

Hypothesis 2: There is no significant difference between the mean rating of urban and rural teachers' opinion on the ways incentives improves teachers' effectiveness for quality service delivery in public secondary schools in Bayelsa State

Table 4: Z-test statistics on the mean ratings of urban and rural teachers' opinion on the ways Incentives improves teachers' effectiveness in public secondary schools in Bayelsa State, Nigeria

Teachers	N	Mean	Std	Df	z-cal	z-crit	Decision
Urban	200	3.655	0.786	366	0.82	1.96	Ho2 Accepted
Rural	168	3.40	0.78				

Data on table 4 revealed that urban teachers have mean and standard deviation scores of 3.655 and 0.786 while rural teachers have mean and standard deviation values of 3.662 and 0.796 respectively. With a degree of freedom of

366, calculated z-test value of 0.82 was less than the critical table value of 1.96; therefore, the null hypothesis is accepted. By implication, there is no significant difference between the mean ratings of urban and rural teachers' opinion on the

ways incentives improves teachers' effectiveness for quality service delivery in public secondary schools in Bayelsa State, Nigeria.

Discussion of Findings

The findings of the study revealed training as one way of improving teachers' teaching effectiveness for quality service delivery in public secondary schools in Bayelsa State, Nigeria. The result included that training: updates teachers' knowledge, helps teachers to earn special skills in teaching, it enhances teachers competence in classroom learning, it enhances teachers' effectiveness, it enhances teachers' effectiveness, it corrects the deficiencies of teachers, it equips teachers with various techniques in classroom management, improving teachers performance, it helps orient new teachers to increase the understanding of their jobs, and it helps to understand the growing complexity of the school environment. The findings nevertheless agree with Erero in Illoabuchi (2014) and Emechebe in Illoabuchi (2014) that training is necessary because of complexity of the work environment, fast and constant change in organizational and technological advancement. They also maintained that training improves teachers effectiveness, it also increase teachers productivity, quality school service delivery, exposed to current issues in school organization, helping teachers to adapt readily to change; it also exposes teachers to new methods and skills relevant to their job, and by giving teachers high morale in their jobs, increase in confidence and to improve the quality and standard of educational output.

The further indicate that incentives are ways of improving teachers' effectiveness for ensuring quality service delivery in public secondary schools in Bayelsa State, Nigeria. The result included incentives: improves

teachers effectiveness in teaching, helps to achieve quality service delivery, motivates teachers' commitment to tasks, it is performance enhancer, it brings the best of teachers in classroom management, it improves teachers' dedication to work, it gives teachers job satisfaction, it increases teachers job productivity, and it helps promotes teachers job competency. This agrees with the studies of Obasi (2013) and Robbins in Coulter (2013) which indicated that incentives improve teachers' effectiveness for the achievement of quality service delivery. It is an intervention packages aimed to motivate and encouraged teachers and be more committed to their specific work tasks. Incentives are also an enabler and enhancer to teachers' spirit to work.

Conclusion

Considering the foregoing findings, improving teachers' effective through periodic training and incentives for quality secondary service delivery in Bayelsa State, Nigeria cannot be overemphasized. Certain variables are important for quality service delivery in public secondary schools in Bayelsa State, Nigeria. The variables which have been investigated by the present study such as the teachers training and incentives are very essential for quality school service delivery. The study concludes that these variables are of immense importance for quality service delivery in public secondary schools in Bayelsa State, Nigeria. However, the aforementioned variables have not been periodically provided for teachers, and have negatively affected their morale and passion for the profession.

This situation calls for government's attention to conduct periodic training for teachers in a bid to achieve quality service delivery in public secondary schools in Bayelsa State, Nigeria.

Also, government should give incentives to deserving and hardworking teachers in public secondary schools to boost their teaching performance.

Recommendations

From the findings of this study, the following recommendations were proffered:

1. Government should conduct periodic teachers training for knowledge update and acquisition of new teaching methods and skills for quality service delivery.
2. Government should give incentives such as worthy items, promotion, bonuses, increase allowances, and among others to deserving and performing teachers in a bid to boost their morale to enhance job performance.

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ADEQUATE FUNDING AND ACADEMIC STAFF COMMITMENT TO TEACHER EDUCATION IN RIVER STATE UNIVERSITIES

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Abstract

This study examined the relationship between adequate funding and academic staff commitment to teacher education in universities in Rivers State, Nigeria. Two research questions and two hypotheses were formulated to guide the study. The population of the study comprised all the academic staff of the faculties of education in University of Port Harcourt and Rivers State University and entire academic staff of Ignatius Ajuru University of Education, Port Harcourt, which have a total of 790 academic staff. A sample of two hundred and fifty (250) academic staff was drawn representing 30% of the entire population using a stratified random sampling technique was drawn. The study adopted a correlational survey research design. Questionnaire titled “Adequate Funding and Academic Staff Commitment to Teacher Education Questionnaire (AFASCTEQ) were validated. The reliability coefficient of the instruments was 0.94 and 0.89 respectively using Cronbach Alpha Statistics which guarantee the use of the instruments for the study. The Pearson Product Moment Correlation Coefficient was used to answer the research questions while the two hypotheses were tested at a probability level of 0.05 using Pearson Product Moment Correlation Coefficient. It was found out among others that adequate funding has a high relationship with academic staff commitment to teacher education in universities in Rivers State. Recommendations among others, was that government should allocate adequate funds to teacher education in universities in Rivers State, Nigeria.

Keywords: adequate funding, academic staff commitment, teacher education, financial benefits and facilities provision.

Introduction

Funding is an essential and weighty economic resource that cannot be undermined in the education industry. Funding is indispensable to the running of all aspect of education. It helps every country to sieve and obliterate the setback,

barriers and fallen standard of education. The attempt to overlook or under-fund education will vehemently deter educational goals in every given country, be it developed or developing. Agabi and Onyeike (2008) defined funding as an economic term that refers to the application

of money as a resource input to any productive process. Asodike (2017) stated that funding involves the providing of financial aids as a form of responsibility to the education sector. It implies that funding is a necessary and focal economic resource that education sector, especially the teacher education in the university demands and uses to achieve their enlisted goals. It also implies that without funding no meaningful success can be recorded in the education industry. Funding is a major determinant on which the success and failure of educational system depends, be it tertiary, universities, polytechnics, monotechnics, colleges of education and other relevant or corresponding institutions, secondary and primary levels of education.

Obviously, university level of education especially the teacher education, due to its peculiarities of preparing teachers for the task of teaching, guidance and counseling, administrative and other relevant jobs needs prodigious measure of funding to achieve its goals as a productive process. That was why Agabi and Onyeike (2008) stressed that as a necessary part of productive process, money applied in adequate measure is expected to positively influence productivity in quality and quantity. This assertion implies that without adequate money supply, quality and quantity of products will be absconded in the education sector. This explains the rationale why all human activities in recent times agitate for adequate measure of funding and also, due to the importance individuals place on money.

Nigerians value education, but the governments at all levels always fail to invest good volume of funds to it. If good measure of fund is allocated to the education sector, it will facilitate teaching and learning processes, academic staff remuneration will be paid as and when due

with attractive salary, facilities will be provided sufficiently and happiness will engulf the entire staff to impart positively on the students to solve the problem of fallen standard of education.

It was due to the above assertion that the United Nations recommended that every member state should commit 26% of her annual budgetary allocation to education. But Nigeria is still very far below the 26% recommended by United Nations. From the above assertion Agabi and Onyeike (2008), posits that money applied in adequate measure is expected to influence productivity in quality and quantity. This implies that, it is precarious not to bankroll good measures of funds (adequate funding) to education sector.

Adequate funding is the provision of money or finance in a sufficient and commensurate measure to an institution for the functional existence of educational programmes and objectives. Adequate funding is obligatory to every nation in ensuring that education process especially teacher education which unlocks the barriers to education. Teacher education unlocks the backwardness, barriers and fallen standards of education by giving quality education to the trainee teachers who will in return impart the right educational concepts to both potential and current students for national gains.

Adequate funding of education ought to be given paramount concern due to the fact that education is the aggregate of all the processes by which a child or young adult develop abilities, attitudes and other forms of behaviours which are of positive values to the society in which he lives (Fafunwa in Achuonye, 2007). Agina-Obu in Alete-Omoni (2018), also stated that education is therefore the process of awakening the innate but latent potentialities of an individual, and nourishing and sustaining

them for personal social competence. Education remains the most germane and important factor that invigorates an economy to achieve rapid economic development. In the light of this, Major in Ginkel in Alete-Omoni (2015) observed that the key to sustainable development is education. It is the gateway to human, social, economic, political, technological and environmental development.

Education funding ought to be adequate due to its personal and national achievements. Adequate funding of education stimulates academic staff interest to work assiduously, dedicate and commit their best to teacher education. Teacher in this context is a formally trained person who has certified and registered to teach the learner in order to acquire apposite knowledge, desirable skills and attitude using diverse ways in an organized setting. The teacher is indispensable and necessary in any teaching-learning outcome. The quality of the teacher is determined through his/her ability to perform proficiently and eruditely well. Such qualities are very unique; they are not inherent in every person. They are acquired through formal training programmes at the colleges of education, education institutes and faculties of education in universities known as teacher education.

Teacher education is the specialized training given to would be teachers in a formal school system, so as to nurture them for the great tasks ahead Achuonye, (2007). Teacher education is very pertinent in any given nation, and it cannot be overlooked. This is the reason Federal Republic of Nigeria (FRN, 2014) stated that no education system can rise above the quality of its teachers. Essien in Achuonye (2007), stated that for education to enhance national development depend largely on the quality of teachers, as no matter how well

organized an educational system may be, and no matter how well equipped the institution may be, not much will be achieved by way of manpower training in the absence of adequately trained and well motivated teachers.

The standing fact is that, the achievement of adequately trained and motivated teacher is possible through adequate funding of teacher education in the universities and other relevant institutions for the training of teachers in the society. Adequate funding should be given top precedence in order to motivate teachers (academic staff) through huge pay package (financial benefits) which will enable them achieve their needs, acquire additional knowledge by attending conferences, seminars and workshops as well as to teach in a good or conducive environment with conducive physical facilities to produce active and productive citizens who will contribute adequately and indefatigably to national development. Adequate funding invigorate good conditions of service that act as a fuel to propel academic staff to higher commitment to achieve quality teacher education. It implies that adequate funding is related to higher commitment.

Commitment to the institution in education manifest itself in identifying with the school, feeling like part of the school and loyal to the school (Glickman in Alete-Omoni, 2018). Absence of huge pay package and poor condition of facilities and equipments make academic staff unhappy. Conversely, whenever teachers are unhappy, they show less commitment to teacher education in various universities or colleges. Commitment is regarded as the strength of an individual's involvement in an organization. Mowday, Porter and Steers in Otakogu (2018). Commitment is "one of the attitudes, including affect, belief and behavioural intention towards his work"

(Cohen in Wokama, 2018: pp.5). Commitment is the investment of teachers in their profession (Tyree, Woods in Obodo, 2018). In this context, commitment is the emotional reaction towards equipping and training of the minds and achieving quality education. Commitment is praiseworthy because, it stimulates students to study harder, facilitates learning and it is rewarding to academic staff and entire society, as students contribute to nation building. Commitment is a crucial responsibility and requirement which teachers owe the students and society in which they live.

Teacher's commitment is the inextricable emotional bond between the academic staff/teacher, subject matter, students, and school. Crosswell in Obodo (2018) is of the opinion that teachers' commitment is one of the major professional characteristics that influence an educator's success. This demystifies the fact that teacher's commitment includes commitment to school authority and their delegations, students, subject matter(s), guidance and counseling, other school obligations, career continuance and professional knowledge foundation. It can be seen also as teacher's involvement in the impartation of the best values, knowledge and attitudes to the crude resources (students) as well as their loyalty and energy to the school. Teacher's commitment and engagement have been identified as a crucial factor that leads to the success and failure of any level of education. Academic staff of teacher education ought to make ardent effort to enhance their professional competence by attending professional conferences, workshops, seminars and impart same knowledge acquired to the students for knowledge advancement. All these are achievable when academic staff financial benefits are given regularly and teaching in

a conducive environment as a result of adequate funding of education institutions.

Financial benefits increase the morale of teachers in the sense that money is a strong backbone that engenders commitment. Akintoye and Mathias in Alete-Omoni (2018), confirms that money remains the most significant motivational strategy. Ebong in Alete Omoni (2018), stated that finance plays a crucial role in the development of educational goals. Proper funding in combination with a good supply of qualified teachers can greatly enhance facility index of an instruction (Kosemani and Fadipo in Ebong in Alete-Omoni, 2018). Worthy of note is the fact that qualified academic staff without giving adequate financial entitlement to them, achieving educational goals will be a mere fallacious dream and absolute delusive to the entire society. Yumas in Asodike (2014), opined that finance is very vital in the promotion of the quality of education in any given school system. Teacher education which is the specialized training given to trainee teachers in a formal school ought to be funded adequately to motivate the academic staff to high commitment. This assertion corroborates with the view of Yumas in Asodike (2014), that the finance of the school therefore has a direct implication on the outcome of students in school.

Financial benefits can also be referred to as financial reward. Wonah (2014) opined that salary is an incentive that helps in the boosting of staff morale. He also opined that financial reward is the amount of money an individual receives as a result of work done. These financial rewards are salary, allowances, bonuses etc. He also opined that promotion increases teacher's job satisfaction through his/her elevation to a new status that attracts higher financial

benefits in form of higher salary, allowance and higher prestige.

Facility provision is very pertinent to the entirety of educational institution which provides and stimulates staff to higher commitment. The attempt to overlook the provision of facilities in school will cause a serious mayhem that downturns the progress of the school system. Facility provision is essential in contributing to teachers' commitment in teacher education in various universities. Kpee (2014) opined that they are those vital facilities needed for the take-off and sustenance of a school. He also describes it as all infrastructures and resources (except human) needed by the school for it to be established. Facilities needed in school for its survival are school buildings, accommodations for teachers, hostels, classroom blocks, libraries, laboratories, equipments, furniture, staff offices and toilet facilities. School facilities can also be seen as school plants. Agabi in Alete-Omoni (2015), opined that school plants includes all educational facilities existing within the educational system that contributes either directly or indirectly to the teaching-learning process. Nwaeke (2008) opined that it is putting together of facilities to protect the physical well-being of individual associated with the school.

Viewing it from the above definitions and dictum explicated, it can be stated that the role school facilities plays are indispensable to the improvement and promotion of teaching-learning process. Igbinedion (2014), asserts that one of an organization's goals is adequate provision and maintenance of physical facilities. Onyeagbako (2014), asserts that the provision of school facilities is very essential and is of paramount importance for effective teaching and learning. He also asserts that facilities for teaching, learning, administration and habitation are therefore

essential elements needed in the education system if an ideal outcome is expected. In the light of the above overview, the researchers are to investigate the relationship between adequate funding and academic staff commitment to teacher education in universities in Rivers State.

Statement of the Problem

Researches and experiences have proved that there seem to be steady deterioration in the commitment and performance of academic staff in all the teacher education in the universities in Rivers State. Academic staff are no more spending quality times in preparing the best lesson and present same to the students, not equipping themselves for the training of student's morality, mental capability and behaviour modification. They are also not stimulating the interest of the students to study harder and give practical demonstration for the student's academic success. Where financial benefits of the academic staff do not accrue promptly and sufficiently, facilities are dilapidated and antiquated crying for repairs and proper erection, can academic staff be happy working efficiently? The researchers therefore are not satisfied with the deleterious situation of affairs in teacher education in universities in Rivers State and decided to investigate the relationship between adequate funding and academic staff commitment to teacher education in universities in Rivers State.

Aim and Objectives of the Study

The aim of this study was to examine the relationship between adequate funding and academic staff commitment to teacher education in universities in Rivers State specifically, the study sought to:

1. Determine the relationship between financial benefits and academic staff

commitment to teacher education in universities in Rivers State.

2. Ascertain the relationship between facilities provision and academic staff commitment to teacher education in universities in Rivers State.

Research Questions

The following research questions were formulated to guide the study

1. What is the relationship between financial benefits and academic staff commitment to teacher education in universities in Rivers State?
2. What is the relationship between facilities and academic staff commitment to teacher education in universities in Rivers State?

Hypotheses

The following hypotheses were tested in this study.

1. There is no significant relationship between financial benefits and academic staff commitment to teacher education in universities in Rivers State.
2. There is no significant relationship between facilities provision and academic staff commitment to teacher education in universities in Rivers State.

Methodology

The design for this study was correlational, because it collected, presented and explained events as they occurred. It also sought to establish the relationship between adequate funding and academic staff commitment to teacher education in universities in Rivers State. The population of the study comprised all the academic staff of the faculties of education, university

of Port Harcourt, Rivers State University and Ignatius Ajuru University of Education, Port Harcourt. The total number of academic staff in the faculty of education of the two universities and the entire academic staff of IAUOE is eight hundred and forty three (843), which is divided into male 485 and female 328. A sample of 250 academic staff representing 30% of the entire population using stratified random sampling technique. 250 academic staff were used as respondents from institute of education in the three universities in Rivers State. The instruments used were self-structured questionnaire based on Likert four points scale of Strongly Agree, Agree, Disagree and Strongly Disagree. The title of the questionnaire was Adequate Funding and Academic Staff Commitment to Teacher Education Questionnaire (AFASCTEQ). It was made of sections, Section A- bio data, B – information on adequate funding and section C- job commitment index. It was 16 items for adequate funding and 10 items for academic staff job index. The items were ranked as follows Strongly Agree = 4points, Agree = 3points, Disagree = 2points, and Strongly Disagree = 1point respectively. It was validated by three experts in the Department of Educational Psychology (Measurement and Evaluation). The reliability coefficient of the instrument of financial benefits and facilities provision questionnaires were 0.94 and 0.89 respectively, using Cronbach Alpha statistical method. The research questions and hypotheses were analyzed and tested using Pearson product moment correlation coefficient (r). The instruments were administered by the researchers and two trained research assistants. The results came from the answers to research questions and testing of the hypotheses.

Results

Research question 1: What is the relationship between financial benefits and academic staff commitment to teacher education in Universities in Rivers State, Nigeria?

Hypothesis 1: There is no significant relationship between financial benefits and academic staff commitment to teacher education in universities in Rivers State.

Table 1: The relationship between Financial Benefits and Academic Staff Commitment to Teacher Education in Rivers State, Universities, Nigeria

Variables	n	df	R	level of Sig	Sig(2tailed)	Remark
Financial Benefits	250	248	0.89	0.05	0.01	Ho ₁ Rejected
Academic Staff Commitment						

Table 1 revealed that the Pearson Product Moment Correlation Coefficient of the relationship between financial benefits and academic staff commitment to teacher education in universities in Rivers State, Nigeria was calculated to be 0.89, the result showed that there is a high relationship between financial benefits and academic staff commitment to teacher education in universities in Rivers State, Nigeria. This implies that an increase in independent variable (financial benefits) leads to a corresponding increase in the dependent variable (academic staff commitment),

The significant value of 0.01 ($p \leq 0.05$) reveals a significant relationship. Based on that, the null hypothesis was rejected. Therefore, there is a significant relationship between financial benefits and academic staff commitment to teacher education in universities in Rivers State, Nigeria.

In testing the hypothesis, the correlation coefficient ($r=0.89$) between financial benefits and academic staff commitment to teacher education in universities is high.

Research Question 2: What is the relationship between facilities provision and academic staff commitment to teacher education in universities in Rivers State, Nigeria?

Hypothesis 2: There is no significant relationship between facilities provision and academic staff commitment to teacher education in universities in Rivers State.

Table 2: The relationship between facilities provision and academic staff commitment to teacher education in Rivers State universities, Nigeria

Variables	n	df	R	level of Sig	Sig(2tailed)	Remark
Facilities provision	250	248	0.80	0.05	0.04	Ho ₂ Rejected
Academic Staff Commitment						

Table 2 revealed that the Pearson Product Moment Correlation Coefficient of the relationship between facilities provision and academic staff commitment to teacher education in universities in Rivers State, Nigeria was calculated to be 0.80. The result showed that there is a high relationship between facilities provision and academic staff commitment to teacher education in universities in Rivers State, Nigeria. This implies that an increase in the independent variable (facilities provision) leads to a corresponding increase in the dependent variable (academic staff commitment).

In testing the hypothesis, the correlation coefficient ($r=0.08$) between facilities provision and academic staff commitment to teacher education is high. The significant value of 0.04 ($p<0.05$) reveals a significant relationship. Based on that, the null hypothesis was rejected. Therefore, there is a significant relationship between facilities provision and academic staff commitment to teacher education in universities in Rivers State, Nigeria.

Discussion of Findings

Financial benefits and academic staff commitment to teacher education:

The findings of the study showed that there is a high relationship between financial benefits and academic staff commitment to teacher education in universities in Rivers State. The r-value of 0.89 shows that, there is a high relationship. More so, the calculated 2-tailed significant value of 0.01 is less than the critical value of 0.05, therefore, the null hypothesis is rejected. The findings agree with the assertion of Akintoye and Mathias in Alete-Omoni (2018) that money remains the most significant motivational strategy. Wonah (2014) also opines that financial benefits can also be referred to as financial reward.

He further stated that salary is an incentive that helps in the boosting of staff morale.

Facilities provision and academic staff commitment to teacher education:

The findings of the study showed that there is a high relationship between facilities provision and academic staff commitment to teacher education in universities in Rivers State with the correlation coefficient of 0.80. More so, the calculated 2-tailed significant value of 0.04 is less than the critical value of 0.05; therefore, the null hypothesis is rejected. The findings agree with the assertion of Onyeagbako (2014) that the provision of school facilities is very essential and it is of paramount importance for effective teaching and learning. Igbinedion (2014) also asserts that one of an organization's goals is adequate provision and maintenance of physical facilities.

Conclusion

Based on the findings of the study, it was concluded that adequate funding has a significant relationship with academic staff commitment to teacher education in universities in Rivers State. It is obvious that if funding of teacher education is adequate, financial benefits and provision of facilities will be possibly achieved and commitment of academic staff is sure in universities in Rivers State.

Recommendations

In the light of the findings, the following recommendations are offered.

1. Government should allocate adequate funds to teacher education in universities in Rivers State.
2. Government should ensure that academic staff receive all their financial benefits as and when due, such as attractive salaries, prompt payment of

salaries, constant payment of bonuses, allowances, promotion, arrears and other fringe benefits.

3. Government should also ensure that all facilities are provided to teacher education in universities in Rivers State such as adequate classroom blocks, laboratory, library, relaxation centre, housing, offices, toilet facilities, etc.
4. Academic staff should demonstrate high commitment to teacher education to produce better quality of output.

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NATIONAL DEVELOPMENT IN NIGERIA 21ST CENTURY: IMPLICATIONS TO PRIMARY EDUCATION

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Abstract

The study examined national development and primary education in Nigerian 21st century. National development is a process whereby individuals in the society have the capacity to provide for its citizenry in such a way and manner in which poverty is being eradicated in the society. It is based on this premise that this paper therefore delves into primary education which is necessary and paramount to the school child. Primary education is a tool and weapon which sharpens national development in a bid to tackle national development, the primary school child has to be equipped with ideas, skills and knowledge to develop itself and the society at large. The paper provides an insight into various challenges confronting education in Nigeria such as gender inequity in education, unqualified teachers, inadequate infrastructures, overcrowded classrooms etc. The study recommended among others that primary should be given enough allocation of funds that should be able to equip the child in order to function and be productive in the society.

Keywords: Education, National Development and Primary School

Introduction

Primary education and other levels of education in all forms constitute a vital tool for addressing almost all global problems. Education is not only an end in itself and in the views of Bolag and Umoh (2002), it is a key instrument for bringing about changes which embodies knowledge, values and behaviours including life styles that are required to achieve sustainability and stability within and among countries.

In the same view, Aminu (1995), sees education as the greatest force that can be used to bring about changes and observed that the greatest investment a nation can make for the development of its economic,

sociological and human resources is that of education. Education can be seen in the context of this study as a way which provides in people the necessary knowledge and skills which when they possess will be able to win a nation's state and to even export brains. This also explains why the Federal Government of Nigeria geared a policy towards attaining national development. The National Policy on Education (2004) has as one of the objectives that education shall continue to be highly rated in the national development plans because education is the most important instrument for change in any fundamental change in the intellectual and social outlook of any society has to be preceded by an education revolution.

The above statement shows that education is an important instrument for change and national development in the 21st century. Against this background, this paper presents a discussion on the implications of primary education as an agent of national development in the 21st century, its challenges and the way forward.

Concept of Primary Education

Primary education is the aspect of the basic education primarily offered to every child of school age between the ages 6 to 11. It is the foundation of education, where children are prepared for post primary education and tertiary education. At this level of education, pupils are taught the basic skills of learning, and it is at this level of education that pupils are expected to acquire the literacy that will prepare them for the next level of education.

Education has been conceptualized in various ways by scholars, hence primary education is seen as the light that drives away the darkness of ignorance and enables mankind especially children to find its ways through the tortures and labyrinth of development and civilization (Ikechukwu, 2016). Also UNESCO (2000), refers education as the total process of developing human ability and behaviours. It is an organized and sustained instruction designed to communicate a combination of knowledge, skills and understanding value for all activities of life. In the same vein, UNESCO (2019) conceptualized primary schools as playing an important role in children's socialization and in developing their appreciation of exchanging fairness, mutual respect and cooperation. In primary education, this forms the foundational values and competencies that are the building blocks towards the understanding of concepts such as justice, democracy and human rights. Primary education refers to

what can be used by man to solve his problems to improve his life and make it comfortable in the younger years. It is one of the several ways that man employs to bring change in to his all-round development. It therefore demands efforts and discipline. In the view of this paper, it is also a formidable tool for man's survival. Primary education in Nigeria starts at about the age of 5 and a child is expected to spend at least six years in it. After the six years, they graduate with a First School Leaving Certificate (FSLC) which they most at times do not complete according to the views of Sule, Emmuel, Alabi, Adebayo, Titus & Bashi (2019), where the skip primary six.

Some subjects that are taught in the primary education in Nigeria include, English, mathematics, home economics, social studies, basic science, vocational studies etc. Ayu (1991), sees education in the primary level as what brings about the moral development and spiritual upliftment of the human personality and of the community as a whole. He stressed further that education in the primary level makes mankind more creative and enables him to live a more fulfilling life through interaction. In recognition of the importance of primary education in Nigeria, there comes the need for the system to be fortified with the necessary facilities to help facilitates the goal of primary education in Nigeria. In meeting this objective, institutions were established to oversee the operations and functions of primary education in Nigeria. Such institutions are as follows:

National Primary Education Commission

NPEC was established by the government to undertake some salient duties with a view to ensure that primary education in Nigeria operate smoothly.

The body was to guide against the collapse of the primary education in Nigeria, as well as work with a view to maintain high standard in the system. Its primary obligation was to develop the primary education system in its entire ramification.

State Education Board

This body was also established to oversee the operation of the primary education at the state level. Some of its functions were to recruit teachers, train teachers, promotes teachers who meets up with the job criteria set up by the authority.

Local Government Education Authority

The body was set up to take up the management of primary education at the local government level. The Local Government Education Authority was to administer the same duties as in the case of the state education board.

The Concept of National Development

The term national development is very vast as it comprises all aspects of the life of an individual and a nation. It is holistic and it is a process of reconstruction and development in various dimensions of a nation and development of individuals. In the view of Vaizey (1975), national development implies development of a nation as a whole. It can be best defined as the all-round and balanced development of different aspects and facets of the nation viz. political, economic, social, cultural, scientific and educational. The most interesting aspect of development is the fact that it puts into consideration the present conditions of people as well as not compromising those that come later. Therefore, the concept of national development remains the modern parameter of measuring development. The Bruntland Commission (1987), defined development

which is sustainable as the development that meets the needs of the present without compromising the ability of the future generations to meet their own needs.

In another definition by Munasinghe (2004), national development is a process of improving the range of opportunities that will enable individual humans and communities to achieve their aspirations and full potential over a sustained period of time while maintaining the resilience of economic, social and environmental systems. Age (2005), identified some objectives which sustainable national development is expected to realize. These are increase capital income and employment, promoting human welfare satisfying basic needs and protecting the environment. Considering the path of future generation, achieving equity between rich and poor and participation on a broad basis in development and decision making is important.

From the above definitions, there is common phenomenon which they all shared; that is prioritizing the development of the present generation without compromising the future generation.

The Relationship of Primary Education and National Development

Having stated above, the various definitions of education generally and also in primary education with national development, it is imperative to examine the relationship between the two concepts. In all nations, Nigeria inclusive, education remains the instrument for effective national development. Development is championed through education, which is often assumed to have significant influence. Education entails the enlightenment of people in their various ways of pursuit in life. Development is also associated with a positive change in the condition of either

individual groups, communities or even a country as a whole in the view of Victor (2002).

Education and national development which is sustainable are interwoven, intertwined, and interconnected. While on the one hand, development is geared towards producing or creating something new or more advanced for the society and its members. On the other hand, education is a tool which can enhance the desired sustainable development. Victor (2002) therefore, refers education and development as two sides of the same coin. The fact that education and development shows glaring connectivity probably explained why scholars emphasized the need for education for the purpose of achieving the desired development in a society.

As expressed by Ebong (1996), education is a systematic procedure for the transfer and transformation of culture through formal and informal training of people in the society. In addition to that, education deals with mental, physical, psychological and social development of the citizens in a given society in the view of this present study. He further stated that the goal of education in manpower development is aimed at national growth and development. Continuing also, for any country therefore, to attain sustainable national development, there is therefore the need for skilled manpower and these skills required are the basic ingredients for national development and can only be acquired through education.

In another view, Olubadewo (2006), sees education as the provision of consciousness, awareness and enlightenment to individuals in order to properly pursue their aspirations and yearnings. It is also mentioned that it is only educated population that can command skills necessary for sustainable economic growth

and a better quality of life. National development attainment may therefore be seen as the target goal since it is meant for the society and its members; education however remains the instrument for achieving and attaining the target goal.

From the above, education seems to directly determine whether national development is going to be achieved or not and therefore, the need for a well structured educational system that will enhance the achievement of the aforementioned development.

Challenges of Primary Education in Nigeria

At this level of education primary schools, pupils are taught the basic skills of learning, and it is at this level of education that pupils are expected to acquire the literacy that will prepare them for the next level of education. According to Tahir, (2006) any nation which has recorded tremendous feats in the world heavily relied on the instrumentality of education especially in the primary sector. However, in Nigeria there seems to be a daily decline of educational standards in Nigeria which is stalling national development and some are discussed in this study and they are as follows:

i. Gender Equity in Education

Gender disparity is a well-known feature of Nigerian educational landscape. Educational policies and practices in Nigeria are to say the least gender insensitive and thus not fashioned to achieve gender balance in schools. This is where the issue of girl child is predominant in the educational sector in Nigeria. This could be seen in the northern areas of Nigeria where it is considered a taboo and waste of money to send the girl child to school. This makes the girls not to attend primary school and acquire the much

desired growth in the national development according to Igbuzor (2006).

ii. Shortage of Teachers: It is a well-known fact that no educational system in a nation can rise above the quality of its teachers. In other words, the success of the system rests on the availability of good and qualified teachers who are internally motivated. Increase in children's enrollment in primary schools in Nigeria has posed great deal of challenge to primary education in Nigeria, as the ratio of teachers to pupils is about 1: 40, thereby disallowing effective learning environment, as well as the efficiency of primary school teachers.

Wasagu (2006), stated that teachers are the way to improvement since they are the final brokers when it comes to educational policy. Former Minister of Education, Professor Ruqayyatu Rufai (2010) stated that lack of qualified teachers was responsible for the dismal performance of students especially in mathematics and English language. That poor performance turned out to be a child's play when NECO released its own SSCE results which showed that only 126,500 of the 1,260,765 candidates, just 10 percent of those who registered for the body's exams passed five subjects including English and mathematics. The statistics also showed that only about 234,682 out of the 1,260,765 candidates who sat for the exams made five credits in five core subjects the minimum requirements for the university admission in Nigeria. That means only two percent passed the exams with five credits including English and Mathematics. Therefore, where there are competent, capable and well-motivated personnel among other things, the educational system of a country can surely succeed including the primary sector.

iii. Over-crowding: The introduction of UPE brought in a sudden population

explosion in schools with its resultant effects on teacher-pupil or student ratio. Overcrowding in the classroom is now the order of the day from primary to university level. As a result of the overcrowded classrooms, there are usually not enough places for the number of students in class/lecture rooms. This type of atmosphere is not conducive for effective teaching/learning process. Effective teacher/pupils relationship may not be possible in an overcrowded classroom. This probably explains why teachers in primary schools of learning resort to the use of rote learning Akande (2004).

iv. Inadequate Infrastructure: This refers to the physical and spatial enablers of teaching/learning. They include classrooms, libraries, laboratories, workshops, play fields, school farms and gardens as well as provision of water and sanitation. These have to be of the appropriate quantity, size and quality to meet the minimum standards for promoting any meaningful teaching and learning condition. When these facilities are in lack, it affects the learning process of the pupils which will not meet the desire of learning objectives.

v. Funding of Education: The managers of primary, secondary and higher institutions in Nigeria are in consensus that these institutions are grossly underfunded. This menace could be seen in the degree of dilapidation that characterizes the primary school buildings in parts of the country. There is non-payment of teachers' salaries and allowances which most times result in strikes. There is also lack of necessary teaching and learning material at all levels of the educational system. Finally, the mismanagement and diverting of substantial resources from the educational system to other ends has caused under funding which has been criticized and attributed to several factors ranging from

military rule, diversion and mismanagement of funds and lack of focus (Victor (2002).

Also there have been cases of **lack of proper management of primary schools** in Nigeria and as such result to funds embezzlement by some public official, in whose offices, education funds were allocated to. So apart from irregularities in the payment of teachers' salaries, diversion of education funds to other programs of government was one of the problems.

vi. Lack of appropriate implementation of primary education policy: The National Policy on Education has clearly spelt out the objectives of primary education in Nigeria, and these policy, apart from being laudable has received commendations from the stakeholders but yet, the implementation of this policy by the relevant authorities has never meet the expectation of the Nigerian government. There is no continuity as the programme are being abandoned by the present government while the next one takes up another project.

vii. Lack of teachers training: Teachers are not well prepared to meet the challenge of primary school education in Nigeria, as institutions responsible for teachers' training lacks the basic learning facilities. In situations such as College of Education, faculty of education and universities of education are lacking in adequate infrastructure for the training of teachers. Taking other disciplines for example, like in Law and Medicine, students in these disciplines are allowed to undergo strenuous learning practice in order to prepare them adequately for their professional practices, but in the case of student teachers' preparation, the reverse in the case and this account for the level of in-

experienced teachers in Nigerian primary schools.

Prospects of Primary Education in Nigeria

Notwithstanding the problems and the challenges that are facing the development of primary education which is necessary for national development. The following are the prospects of primary education in the Nigerian 21st century.

1. Access to basic education by children of school age:

Children of school age in Nigeria have been given access to basic education. This is evident in the adoption and the launching of the universal basic education by the federal government, where education is made free and compulsory to all children of school age.

The increase in children enrollment has demonstrated the level to which Nigerians have appreciated the policy, and as well point to the future of Nigerian child in terms of education.

2. Quality impartation of Knowledge:

The education policy, as embraced by all the states in Nigeria, received support from state government as instructional materials were provided to schools for quality impartation of knowledge to primary school pupils.

3. Rigorous enlightenment on the importance of primary education:

There have been rigorous enlightenment programs by the government of the day, where parents, guardians and members of the public have been sensitized on the importance of primary education hence, parents and guardians were mandated to ensure that their wards are encouraged to be

at school during school hours, as defaulters were prosecuted by the government.

This development has led to the setting up of the monitoring team by the government for complete compliance to the education policy. Any child seen on the streets during school hours will be arrested, and their parents indicted.

4. Decrease in child labour:

By the virtue of this education policy, child labour is drastically reduced, even as the future of Nigerian children is considered to be colourful. The hope is that, they will be an equal footing with their counterpart anywhere in the world in terms of education.

Conclusion

The efficient management of primary education in Nigeria is everybody business therefore, every hand must be on deck as education is the cornerstone of achieving national development. There is no doubt that achieving national development is the goal of all developing nations. Nigeria inclusive. And as such there are the needs to invest, encourage and enlighten people on importance of primary education. The roles of government at all levels are to facilitate the achievement of any development.

Government should continue the contribution towards achieving this national development. However, the need for monitoring, supervising and ensuring that all the financial and other investment on education for the purpose of achieving development are not diverted for other purposes. This comes through provision of adequate school blocks, instructional materials, teaching aids, libraries, recreational facilities and school medical centers among other things for the sector to be successful.

The Way Forward

The way forward that could be used to achieve the desired primary education that will improve the national development in the 21st century include:

- There should be enough allocation of enough funds to various primary schools from the government for effective running of the schools.
- There should be a committee managing and supervising projects to ensure implementation of project design for a particular developmental programme in primary schools;
- For the purpose of achieving national development in education, there should be the provision for learning under a conducive environment. As such, the dilapidated infrastructural facilities in schools and colleges must be improved;
- Teachers who are to disseminate knowledge must be properly motivated to give and put in their best. And as such the need for salary increment and better working conditions should be provided by the government.
- The government at all levels federal, state and local must contribute their respective quota to the development of education by ensuring a speedy achievement of sustainable national development. Through provision of infrastructure and learning materials that will facilitate learning.
- Gender disparity and school drop out should be discouraged by a particular enlightenment programme using media (such as radio, television, and social media).
- More teachers should be employed by the government to reduce the pupil-teacher ratio so as not have overcrowded classrooms.
- The government should provide teachers workshops, seminars and

training to improve the quality of teachers that are teaching in primary schools and enhance their qualifications.

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THE IMPACT OF QUALITY ASSURANCE INDICATORS ON TEACHERS JOB PERFORMANCE IN PUBLIC SECONDARY SCHOOLS IN RIVERS STATE

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Abstract

The study examined the impact of quality assurance indicators on teachers' job performance in public secondary schools in Rivers State. Two research questions and 2 hypotheses guided the study. Descriptive survey design was used in the study. A self-designed 4-point rating scale questionnaire titled "impact of quality assurance indicators on the teachers job performance" was used for data collection (IQAITJPQ) was used for data collection. The population of the study comprised 6,893 teachers in 286 public secondary school in Rivers State: 3,490 males and 3,403 females. The sample size was determined using Taro Yamene's model to arrive at 378. Proportionate sampling technique was used to distribute the number appropriately to have 191 Males and 187 females. The instrument was subjected to validation by experts and tested for internal consistency using Cronbach Alpha which yielded a reliability coefficient index of 0.72. Mean and standard deviation were used to analyze the data and find answers to the research questions, while t-test was used to test the research hypotheses. The finding revealed that motivation of teachers has the highest influence on male and female public secondary schools teachers in urban and rural areas, followed by principals leadership style, availability and utilization of instructional materials. It was recommended that the teachers should be adequately motivated and encouraged, provision of instructional materials and conducive working environment amongst others for qualitative educational system in our public secondary schools in Rivers State.

Keywords: *Teachers Job Performance, Public Secondary Schools and Quality Assurance.*

Introduction

Education is seen as a powerful instrument for national development which is the reason all over the globe, the government strives to make it available to all her

citizens. Secondary education is an intermediary level of education between the primary and tertiary levels. It is meant to prepare the recipients towards useful living within the society for those who may not aspire further. To be able to achieve this

aim, quality in the system cannot be compromised. Quality in education is never an accident, it has always been initiated through planned and sincere efforts to accomplish a desired mission.

Quality is a means of designing what is needed to meet the required standard in order to meet the needs of the targeted audience. Quality assurance in education is an issue that has received considerable attention as indicated in the works of many scholars, according to Uche (2020) it is ensuring that what is produce is free from fault, during the process of production. For Okorie and Uche (2014) is about designing quality into the process to ensure that the product is produced towards the right direction and specification. They further explain that the need to enhance organizational effectiveness and efficiency has led to wider approach to quality, from the old view of quality control to quality assurance. Quality assurance is a set of events that every organization should under-takes to ensure that standards are attained persistently for a particular products or services over a period of time without adulteration. Quality assurance in education shows how a host of academic activities, such as school's instructional supervision, curriculum, availability and utilizations of educational resources, school plants, financial management among others, which are meant to improve the overall school system are being handled and managed. Moreover it can also be seen as the efficient management, monitoring, evaluation and reviews of the resource inputs and transformation process (teaching and learning) to produce quality outputs (students) that meet set standards and expectations of the society (Ayeni, 2012). Robinson in Oguntimehin and Adeyemi (2018) defines quality assurance as the set of activities that an organization, undertakes to ensure that a product or

service will satisfy given requirements for quality. In achieving this, there must be avoidance of faults at all levels by setting achievable standards that must be communicated to all concerned, including evaluation to ensure the attainment of standards required. Raouf (2008) opines that quality assurance in education is the process of ensuring continuous improvement in all aspects of education business, in an institution of learning to satisfy the needs and expectations of the institution's customers.

Education requires teachers of high quality. Qualified and highly skilled teachers creates a positive impact on the learner, academically and morally (Mezieobi and Nwankwo, 2017). Teachers are those people either male or female that are saddled with the responsibilities of imparting the rightful knowledge on the learner, they assist in molding the learner academically and otherwise A teacher is a well-trained person employed to impart knowledge to the students, create a positive change in their lives or behavior for their own good and the society at large. In view of this Gbamanja (2002) as cited in Olawolu and Uche (2015) asserted that a teacher is an educationist, who has a background in teacher education, including a good knowledge of the principles and practice of education. Therefore, a teacher is a person well trained to impart the rightful knowledge to the learner for her own growth and development

The teachers' job performance to a very great extent determines the degree of success or otherwise in achieving institution's goal or qualitative education. Performance can be regarded as an accomplishment of a specific task. In the opinion of Owan, (2018). Performance could be describe as an act of accomplishing a given task. Okunola in

Akinolulu, Damilola and Temitayo (2019) perceived teachers' job performance as the extent in which the teacher has impacted on the learner and for the overall attainment of school objectives. In the same light, Adeyemi (2008) also opined that job performance is ascertained by the worker's level of contribution in the day to day administration of the organization. Akinyemi (1993) and Okeniyi (1995) describe teacher's job performance as the ability of teaching personnel to combine appropriate inputs for the improvement of teaching and learning processes. It could be as an ability to combine skillfully, the right behavior towards the achievement of organizational goals and objectives. Olaniyan (1999) opines that the attainment of Secondary education goals and objectives lies on the performance of the teachers. The aspect of teaching that can be used to measure the teachers performance involve the use of instructional materials, mastery of their subject matter, class control, teaching method, regular assessment of the students, making lesson plan, teachers participation in co-curricular activities among others.

This study intends to assess the influence of four of these activities namely principal leadership style, motivation of the teachers, instructional materials and school environment on the job performance of teachers in secondary schools for quality assurance. The school heads (the principal) have the power to influence teachers' performance positively or negatively in their schools through their leadership style (Filak & Sheldon, 2003). Igbo (2002) noted that any authoritarian principal is likely to hamper the cooperation and lowers the teachers' zeal in her job performance. Most times teachers are not been recognized as professionals, not appreciated or overworked thus causing low teacher morale and low job performance. It is

believed and accepted that their leadership style of the principal, who is the figure head can mar the teachers' performance.

Non-motivation of teachers especially when compared to other public workers, irregular or no promotion, public impression of the teaching job, principal leadership strategies, insufficient teaching-learning facilities and supervision, lack of infrastructure, unresolved conflicts in schools, among others, depressed the morale of teachers. Teacher motivation is the act of creating the drive or energy that propels the teachers to perform specific actions towards the realization of education goals. Motivation in terms of regular payment of salaries as at when do, housing allowance and other compensation needed, for effective management of teachers is required in enhancing quality education. In addition, Ofoegbu (2004) propagates that teachers motivation is an important determinant for effective classroom and school. Therefore, motivation entails acknowledging the teachers effort in cash or in kind for an improved effort.

Supervision as a quality assurance indicator is an administrative process through which the principal ensures that all his staff are all contributing towards teaching and learning process. The National Policy on Education (2014) specifically prescribes supervision of instruction as one of the process for achieving quality education. Supervision can be seen as a process of assisting the classroom teacher to improve on his or her own competence in order to ensure a favorable setting for effective teaching and learning (Ogbonna & funmagbon 2010). According to Oguno (2000) supervision is a skilled and specialized services rendered to teachers to improve the teaching and learning process. In all this, the main purpose of supervision is for developing skills and also for improvement on their job.

Consequently, the duty of the supervisor is to help, guide, lead, stimulate, and advice teachers to improve on their teaching so as to enable student improve on their learning. Supervision is an integral part of managing teacher which involves monitoring and polishing of the factor resources for the maintenance of standard and quality. The importance of managing teachers through supervision for improvement of educational instruction cannot be taken for granted. The supervisor should be purposeful in thought, motivating, creative in nature, humanistic in approach and capable of seeing beyond the level of those whom he or she has to help.

Instructional materials are indispensable in the field of education. Instructional materials are teaching aids or tools used by teachers in teaching learning situations to motivate , guide, and enhance teaching and learning. They refer also all items or things that can be seen, or manipulated with the objective of enhancing teaching learning process. Instructional materials are alternative channels which the classroom teachers can use to concretize a concept during his or her lesson (Onah, 2003). These instructional materials can be in form of textbook, workbooks, charts, magazines, maps, journals, periodicals, pamphlets, newspapers and posters, it also include non –printed materials like films strips, mock –ups, slides, pictures, audio and video tapes, radio and television, various science apparatuses and chemicals as well as computers.

Furthermore, adequate utilization and management of instructional materials entails preserving and maintaining the instructional materials to avoid deterioration and for enhancement of learning.in order to achieve quality service delivery which can be done through: Planning, Organization, Purchasing, Maintenance, Safety measures. When all

these are adequately utilized and maintained well, it will lead to academic improvement of the learner.

School plant involves all the physical facilities that enhances teaching and learning process. Akpan (2003) opined that the environment, facilities, equipment and building constitutes school plant. According to Adeboye (2000) submits that the school facility consist of not only the physical structure and the variety of building systems, such as mechanical, plumbing, electrical and power, telecommunications, security, and fire suppression systems. It also includes furnishings, materials and supplies, equipment and information technology, as well as various aspects of the building grounds, namely, athletic fields, playgrounds, areas for outdoor learning and vehicular access and parking. Thus, modern school requires suitable classrooms, libraries, laboratories, recreational facilities, assembly hall, school farm, staff rooms, offices, vehicles etc for the comfort and conveniences of both staff and students. The nature, condition, adequacy and relevance of plant have direct impact on the teaching-learning process.

Statement of the Problem

The national policy on education clearly stated the broad goals of secondary education which are to prepare the individual for useful living, and also for higher education. Specifically providing trained manpower in the applied science, technology and commerce at sub – professional grades, among others. Public secondary schools has long ago and are still battling with the challenges of non-motivation of teachers, now availability of educational resources, un conducive working environment, which has lowered the teachers morale, invariably affecting the

students’ academic achievement which has depict non-implementation of quality assurance indicators for sustainable and qualitative educational.

Educational supervisors and inspectors from ministry of education, principals and other stakeholder involve in the supervisory roles and functions in order to ensure adequacy and effectiveness in schools. Despite this effort, the output of the secondary schools are still not performing to the required standard. Based on the foregoing, the study seek to investigate the impact of quality assurance indicators which include motivation, instructional resources and its utilization, conducive environment.

Purpose of the Study

The main purpose of the study is to determine the impact of quality assurances indicators on teachers’ job performance in public secondary schools in Rivers State. Specifically, the study sought to determine:

1. The influence of quality assurance indicators on male and female teachers’ job performance in public secondary schools in Rivers State.
2. The influence of quality assurance indicators on teachers’ job performance

in urban and rural public secondary schools in Rivers State.

Research Hypotheses

The following null hypotheses were developed for the study and were tested at 0.05 alpha level of significance:

- 1 There is no significant difference between the mean rating on the influence of quality assurance indicators on male and female on teacher’s job performance in public secondary schools in Rivers State.
- 2 There is no significant difference between the mean ratings on the influence of assurance indicators on teacher’s job performance in public secondary schools in Rivers State.

Research Questions

1. What are the influence of quality assurance indicators on male and female teachers’ job performance in public secondary schools in Rivers State?
2. What are the influence of quality assurance indicators on teachers’ job performance in public secondary schools in Rivers States

Table 1: *Descriptive analysis result of impact of quality assurance indices on male and female teachers’ job performance*

S/N	Quality assurance indicators	Male	Female	Mean	Std	Decision
Teachers job performance						
1	Supervisory role of the principal			3.65	0.66	Strongly Agree
2	Regular payment of teachers salaries as a motivator for both genders			3.68	0.62	Strongly Agree
3	Comfortable classrooms is a major concern for female teachers			2.91	0.44	Agree
4	Democratic leadership style of the principal			3.74	0.49	Strongly Agree
5	Availability of instructional materials			3.69	0.59	Strongly Agree
Grand Mean				3.53	0.56	Strongly Agree

Table 1 show that all the items except item 3 on avoiding were strongly agreed by the respondents. The mean scores ranged between 3.74 and 2.91 and the standard deviation ranged between 0.66 0.44, meaning it did not varies much from the mean scores. Also the grand mean (3.53) was found greater than the criteria mean of (2.50) and it was strongly agreed that quality assurance indicators has strong

influence on male and female teachers’ job performance

Research Question 2

What are the influence of quality assurance indicators on teachers’ job performance in urban and rural public secondary schools in River State?

Table 2: *Descriptive analysis result of influence of quality assurance indicators on teachers’ job performance on location*

S/N	Quality assurance indicators by Location	Mean	Std	Decision
6	Supervision	3.04	0.45	Agree
7	Motivation	3.12	0.54	Agree
8	Conducive learning environment	2.94	0.54	Agree
9	Principal leadership styles	3.67	0.59	Strongly Agree
10	Instructional materials	3.66	0.63	Strongly Agree
	Grand Mean	3.28	0.55	Agree

Table 2 show that the grand mean Value (3.28) was greater than the criteria value (2.50). This suggest that quality assurance indicators has influence on teachers’ job performance based on location. Table 3 revealed that the grand mean of the calculated-t (2.53) was greater than the critical-t value (1.96) based on the decision rule, the null hypothesis 1 was rejected and the alternate uphold. Meaning there is significant mean score difference on the

influence of on male and female teachers’ job performance in public secondary schools in River State.

Research Hypothesis 1

There is no significant mean score difference on the influence of quality assurance indicators on male and female teachers’ job performance in public secondary schools in Rivers State.

Table 3: *t-test result on quality assurance indicators on male and female teachers’ job performance*

ITEM	Gender	N	Mean	Std.	t-cal	t-critical	Decision
1	Male	191	3.77	0.52	3.47	1.96	Reject
	Female	187	3.54	0.76			
2	Male	191	3.79	0.52	3.25	1.96	Reject
	Female	187	3.58	0.70			
3	Male	191	2.93	0.39	1.19	1.96	Reject
	Female	187	2.88	0.49			
4	Male	191	3.81	0.40	2.63	1.96	Reject
	Female	187	3.67	0.56			
5	Male	191	3.75	0.54	2.11	1.96	Reject
	Female	187	3.62	0.63			
	Grand Mean				2.53	1.96	Reject

Table 3 revealed that the grand mean of the calculated-t (2.53) was greater than the critical-t value (1.96) based on the decision rule, the null hypothesis 1 was rejected and the alternate uphold. Meaning there is significant mean score difference on the influence of quality assurance on male and female teachers' job performance in public secondary schools in Rivers State.

Research Hypothesis 2

There is no significant mean score difference on the influence of quality assurance indicators on teachers' job performance in urban and rural public secondary schools in River State.

Table 4: *t-test result on conflict management techniques based on location*

ITEM	Location	N	Mean	Std.	t-cal	t-critical	Decision
6	Urban	208	3.02	0.46	0.64	1.96	Accept
	Rural	170	3.05	0.44			
7	Urban	208	3.09	0.54	1.30	1.96	Accept
	Rural	170	3.16	0.54			
8	Urban	208	2.94	0.54	0.10	1.96	Accept
	Rural	170	2.95	0.54			
9	Urban	208	3.64	0.58	0.73	1.96	Accept
	Rural	170	3.69	0.59			
10	Urban	208	3.66	0.61	0.01	1.96	Accept
	Rural	170	3.66	0.67			
Grand Mean					0.55	1.96	Accept

In Table 4, the grand mean of the calculated-t value (0.55) was found less than the critical-t value of (1.96). The null hypothesis 2 was retained and stated that There is no significant mean score difference on the influence of quality assurance indicators on teachers' job performance in urban and rural public secondary schools in Rivers State.

Discussion

In Table 1, the grand mean (3.53) was found greater than the criteria mean of (2.50) and it was strongly agreed by the respondents that supervision has great influence on male and female teachers' job performance. By implication, teachers perform their task better when they are consequently monitored. The finding was in line with Ghavife and Ibrahim (2014) who is of the

opinion that supervisory role of the principal in the aspect of classroom teaching, professional competencies, academic qualifications perform well even if they are not satisfied with the conflict management strategies of the Principal. The finding is supported by Farooq, Faridee, Batool and Yahya (2016) who revealed that there is relationship between principal supervisory roles with teachers' professional commitment.

Table 2 show that the grand mean Value (3.28) was greater than the criteria value (2.50). This suggest that supervision, motivation, conducive learning environment, principal leadership style and availability of instructional materials as quality assurance indicators has great impact influence on teachers' job performance. However, the testing of the

hypothesis suggested that there is no significant mean score difference on the influence of quality assurance indicators on teachers' job performance in urban and rural public secondary schools in Rivers State. This means that the qualitative education are achievable in both urban and rural areas. The findings failed to agree with Saiti (2014) that these indicators are more appreciated in urban schools than in other regions.

Similarly, Table 3 revealed that the grand mean of the calculated-t (2.53) was greater than the critical-t value (1.96) based on the decision rule, the null hypothesis 1 was rejected and the alternate uphold. Meaning there is significant mean score difference on the influence of quality assurance indicators on male and female teachers' job performance in public secondary schools in Rivers State. The finding revealed that quality assurance indicators influence male and female teachers differently. By extension, there is preference in the environment. The finding aligned with Habacı (2015) stating that female teachers generally prefer a well conducive learning environment, whereas male teachers adapt more in an environment as far as the pay or motivation is good enough.

All this buttress the point that if all the quality assurance indicators in education like motivation of teachers, provision of instructional materials, supervision of teachers among others are adequately harness in a most effective and efficient manner to ensure quality. This, will no doubt make a positive impact on the teachers' performance and also for the overall development of our society at large.

Conclusion

Quality assurance is a function for which all stakeholder within the education system most uphold. Because it is a management function, the principal in relation with other staff must ensure that all the activities are geared towards quality service delivery. It was concluded that quality assurance indicators like motivation, principal supervisory role, utilization of instructional materials, conducive learning environment, if adequately applied improves teachers' performance which contribute to achieving qualitative education at secondary school level. This signify that regular supervision of teachers, motivation, and availability of instructional material will go a long way in achieving qualitative education that is highly needed in public secondary schools in Rivers State.

Recommendations

The following recommendations were made:

1. School environment should be made conducive for academic learning and for school work by the principal and also the ministry of education, this will a long way to enhance the quality of teaching and learning.
2. Motivation of the teachers through regular payment of their salaries as at when due, reinforcement, promotion among others. This will enhance their emotional stability in discharging their duties effectively and efficiently.
3. Teachers should continuously update their knowledge through attending conferences, seminars and workshops in order to meet up with the current trends in the fast changing world.

- The government should endeavor to provide the instructional facilities and other infrastructure like classrooms, furniture, textbooks for effectiveness and efficiency in teaching and learning.

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DESIGN AND FABRICATION OF INSULATED CHARCOAL GRILL MACHINE

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Abstract

The design and construction of the insulated charcoal barbeque grilling machine is to enhance grilling. The grill was technically modified in other to reduce difficulties associated with grilling. The modern portable charcoal grill machine was majorly made up of the tables, stands, burner, cover, cooking grate, supporting wheels, vent, supporting legs. Considerations was made with respect to Fourier's and Hooke's law of heat transfer and material stress in the selection of fabrication materials. Galvanized iron was selected for the cooking grate, steel square pipes for the supporting legs and mild steel metal plate of 2mm thick with thermal conductivity of $0.08\text{WK}^{-1}\text{m}^{-1}$ was selected for the construction and fabrication of the burner drum and insulated with fiber glass and rock wool to reduce heat loss. The modern portable charcoal grill functions on the three principles of heat transfer, namely conduction, convection, and radiation. The charcoal which is the source of fuel was used to generate the heat energy (through fire triangle), which is then transferred to the cooking grate by conduction. The operation of the machine was experimentally tested to ascertain its performance level, using a fish of 330mm x 110mm size which was placed on the cooking grate, and was subjected under a direct high heat of between (450⁰F to 550⁰F) and left inside the grill for 13minutes to be cooked by convection and radiation before being taken out to be served, making it effective and efficient during grilling. All details were technically thought after, produced within a sustainable duration, constructed with its various designs as to achieve a possible degree.

Key words: Reduced Heat Loss, Experimental Analysis and Sustainable Duration

Introduction

A grilling machine is a device that cooks' food by applying heat from below. There are several varieties of grills, with most falling into one of three categories: gas fueled, charcoal, or electric. Grilling is a great way to cook healthy meals and enjoy the outdoors. Grilling can also help lower your calories intake and may even help with

weight loss. While grilling does not remove all the fat from meats, it causes the excess fat to melt and drip off the racks. The properties of the material for the fabrication of grill machine is important. According to Khumi, (2004) defined weldability as the properties of a metal, which indicates the ease with which two similar or dissimilar metals are joined by fusion. With or without

application of pressure, and with or without the use of filler metal.

There is a great debate over the merits of charcoal or gas for use as the cooking method between barbecue grillers as a simple machine. (Khumi, 2004 and Biitman, 2008) described a simple machine as a device which enables us to do some useful work at some point or to overcome resistance when an effort convenient point. The principle of grilling is based on heat transfer by conduction, convection and radiation. Razak (2021) said that the traditional grilling techniques usually associated with tedious work, time consuming, hot, dusty and smoky environment.

With an electric grill, the heating comes from an electric heating element. Neither coal nor briquettes is needed. Electric grilling is usually small so cooking for a large party could be a problem. There is no authentic barbecue flavor as would be obtained using charcoal grill. Gas-fueled grills typically use propane or butane (liquefied petroleum gas) or natural gas as their fuel source, with the gas flame either cooking food directly or heating grilling elements which in turn radiate the heat necessary to cook food (Norton, 1999). Gas grill have series of limitations as against charcoal grill. The majority of charcoal grills, however, fall into the following categories; It can be set on a "smoke" mode where it burns at 100–150 °F (38–66 °C) for slow smoking. It can also be set at 180–350 °F (82–177 °C) to slow cook or barbecue meats (like brisket, ribs and hams) or cranked up to a temperature of 450–500 °F (232–260 °C) for what would be considered low temperature grilling. Some high-end pellet grills can reach up to 700 °F (371 °C) for searing. According to Usman et al (2015) the conventional methods of barbecue using charcoal and metal cavity

assisted with skewer is with limitations like lower productivity, single temperature heat and time, worker fatigue, unhygienic food preparation, and cost-effectiveness.

Statement of Problem

The grilling machine as simple in its use is expensive, which makes it to be mostly used for commercial business. This design involves the design and construction of a charcoal grilling machine with specifications in strength, material and analysis.

Purpose of the Study

The research work centers on charcoal grilling with the purpose of

1. Designing a portable and low-cost charcoal grilling machine.
2. Ensuring safe operation of the machine for higher efficiency and serviceability.
3. To modify the existing designs into a new idea by adopting a new material and manufacturing method.
4. Eliminating the limitation associated with the use of other grilling categories.

Methodology

The selection of a proper material for engineering purposes is one of the most difficult problems for the designer. The best material is one which serves the desired objective at the minimum cost.

The mode of operation of the design grill is through the rate of heat flow in accordance with Fourier's law of heat conduction in solids states that the rate of heat flow per unit area across an isothermal surface is proportional to the temperature gradient across the surface. This law is mathematically expressed as

$$q = Q/A \dots\dots\dots (1)$$

$$= -K \delta T/\delta X \dots\dots\dots (2)$$

The stress of the material was analyzed using Hook’s law, stress (δ) is directly proportional to strain, e . mathematically denoted by:

$$\delta = F/A ; \epsilon = \Delta L/L$$

$$\delta \propto \ell$$

therefore

$$\delta = \ell E \dots\dots\dots (3)$$

Bending Stress formula (putting into consideration the bending of sheet metal)

$$\delta_b = 3FL/2WT^2 \dots\dots\dots (4)$$

but $F = Mg$

$F = \text{Force}$

$M = \text{mass of an object}$

$g = \text{acceleration}$

where

$\delta_b = \text{bending stress}$

$F = \text{Force}$

$L = \text{length of the sheet metal}$

$W = \text{weight of the grill}$

$T = \text{thickness } t \text{ of the plate.}$

According to (kreith eta al, 2011), the rate of heat flow through radiation is

$$Q = \epsilon \delta A T^4 \dots\dots\dots (5)$$

(δ (Stefan Boltzmann) = $5.67 \times 10^{-8} \text{ W/M}^2\text{K}^4$)

ϵ (emissivity of the cooking surface) = 0.21

The design consideration was carefully carried out, so that the design can be fabricated with ease and clarity of understanding. The design parameters involved; material design and selection, modelling and construction using CAD software (Omaru, 2010), fuel selection, mathematical modelling and design calculation, fabrication techniques, engineering analysis and evaluation, design specifications and proposed design. This portable mechanical grill is divided majorly into the following units, barbecue fuel burner, cover, barbecue stands, vent unit, cooking grates, shelves, supporting wheels, fixed table, folding table, upper grate, sloped cooking grates, large wheels and ash pan etc. Mild Steel pipes, steel plates and galvanized iron was used for the cooking grates. The selection of galvanized iron here became sacrosanct, because galvanization protects iron from rusting. Fibre glass and Rock wool material was used as an insulation material, which was fitted on the outside body of the machine to serve as a safety protection against heat burnt.

Results

Design Analysis

The specific size of barbecue is 28kg of net weight and 30kg of gross weight respectively, having the following dimensions;

Left hand side detachable shelf or table = 380mm x 240mm

Right shelf + left shelf + cooking grates = 1140mm

Upper cooking grates = 680mmx150mm

Main cooking grates = 705mmx350mm

$$\begin{aligned} \text{Detachable front shelf or table} &= 726273\text{mm}^2 \times 2\text{mm} \\ 690\text{mm} \times 240\text{mm} &= 1452546\text{mm}^3 \end{aligned}$$

Total height = 790mm

Stress Analysis

Bending Stress was put into consideration due to the bending of sheet metal

$$F = Mg$$

$$= 30 \times 9.8$$

$$= 294 \text{ N}$$

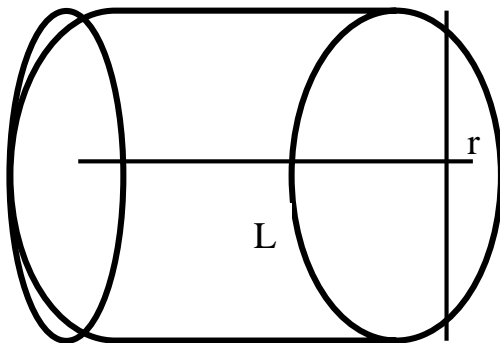
$$\delta_b = 3FL/2WT^2$$

$$\delta_b = 3 \times 294 \times 0.69/2 \times 298 \times 0.002^2$$

$$= 608.58/0.002384$$

$$= 255277 \text{ N.M}$$

Area of the Drum Burner



Considering the Area of cylinder, note that the drum burner forms a cylinder

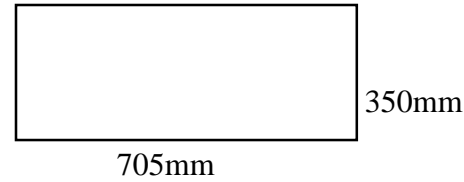
$$A_b = 2\pi rL$$

$$A_b = (2 \times 3.142) \times (167.5) \times (690)$$

$$= 726273\text{mm}^2$$

Volume of burner drum

$$V_d = A_b + T_t$$



$$\text{Length of cooking grate} = 705\text{mm}$$

$$\text{Width of the cooking grate} = 350\text{mm}$$

$$\text{Height of grill machine} = 790\text{mm}$$

$$\text{Thickness of the cooking grate} = 3\text{mm}$$

Detachable side shelves dimension

$$\text{Length of shelf} = 380\text{mm}$$

$$\text{Width of shelf} = 240\text{mm}$$

Top upper grill grate dimension

$$\text{Length of upper cooking grate} = 680\text{mm}$$

$$\text{Width of the upper cooking grate} = 150\text{mm}$$

Front detachable table dimension

$$\text{Length of the table} = 690\text{mm}$$

$$\text{Width of the table} = 240\text{mm}$$

$$\text{Thickness of the table top} = 20\text{mm}$$

Area of rectangle

$$A = WL$$

$$1. \text{ Area of the cooking grate} = A_{cg}$$

$$A_{cg} = 705\text{mm} \times 350\text{mm}$$

$$= 246,750\text{mm}^2$$

$$2. \text{ Detachable side shelves}$$

$$A_{ds} = L \times B$$

$$= 91200\text{mm} \times 2$$

$$= 182400\text{mm} \text{ (for the left and right sides table)}$$

Upper grill grate dimension

$$\text{Length of upper grate} = 680\text{mm}$$

$$\text{Width of upper grate} = 150\text{mm}$$

The area of upper grate

$$A_{ug} = 680\text{mm} \times 150\text{mm}$$

$$= 102000\text{mm}^2$$

Area of front detachable table or shelf

$$A_{ft} = L \times B$$

$$= 690\text{mm} \times 240\text{mm}$$

$$= 165600\text{mm}^2$$

Area total becomes:

$$A_T = A_{cg} + A_{ds} + A_{ug} + A_{ft} + A_b \text{ (mm}^2\text{)}$$

$$= 246750\text{mm}^2 + 182400\text{mm}^2 + 102000\text{mm}^2 + 165600\text{mm}^2 + 726273\text{mm}^2$$

$$= 1423023\text{mm}^2$$

Volume of charcoal grill machine. V_b

$$V_T = A_T \times T_T$$

$$= 1423023\text{mm}^2 \times 28\text{mm}$$

$$= 39844644\text{mm}^3$$

Weight of the charcoal barbeque grill machine, W_T

$$W_T = \rho V_T g$$

$$= 7800 \times 0.0039 \times 9.81$$

$$= 298\text{N}$$

Total mass of the coal barbeque grill machine

$$M = W/g$$

$$= 298/9.8$$

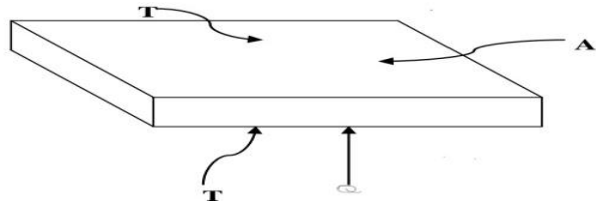
$$= 30\text{kg}$$

Therefore, the gross weight of this coal grill is expected to be around

30kg, which also represents the aggregate load on the supporting wheels.

Rate of Heat Flow Analysis

Let a heat flowing at a rate Q be applied at a temperature T , across the total surface area A , of the galvanized iron cooking grid. The transfer of heat through the grid is by radiation.



Heat Transfer by Conduction

$L = 2\text{mm} = 0.002\text{m}$ (mild steel plate thickness)

$K = 50.2\text{W/m.k}$ (thermal conductivity of mild steel)

$T_1 = 450^\circ\text{F}$ OR 232°C

$T_2 = 35^\circ\text{C}$ (ambient temperature)

$$Q/A = 50.2(232-35) / 0.002$$

$$Q/A = 494 \text{ WM}^{-2}$$

Resistance of heat transfer per unit cross sectional area

$$R = L/KA$$

$$R = 0.002/50.2(1) = 3.98 \times 10^{-5} \text{ Wk}^{-1}$$

The rate of heat loss at steady state from the drum burner

$$Q = -2\pi LK(\Delta T) / \ln(r_o/r_i)$$

$$Q = - (2 \times 3.142)(0.69)(50.2)(-197) / \ln(0.172/0.17)$$

$$Q = 3.667 \times 10^6 \text{ watts.}$$

Adding insulating material of Rock wool and fiberglass

$$\begin{aligned} Q &= -2\pi l(\Delta T) / 1/K_1 \ln r_1/r_i + 1/k_2 \ln r_o/r \\ &= -(2 \times 3.142) \times 0.69 \times -197 / \\ &1/50.21 \ln 0.172/0.17 + 1/0.04 \ln \\ &0.175/0.17 \\ &= 1.974 \times 10^3 \end{aligned}$$

Heat loss is reduced by a factor of

$$= 3.667 \times 10^6 \text{ watts} / 1.974 \times 10^3 \text{ watt} = 186$$

Discussions

The design calculations are strictly centered on the weights of the barbeque machine. These weights amount to the entire total weight of the completed portable mechanical charcoal barbeque machine. The total weight of the machine is then used to design the wheels and stands whose total weight in turn, counteracts that of the machine. The wheels and stands serves as supports to promote balance, movement and stability. The machine was able to grill and cook fish effectively and efficiently in reduced time. The design provided for adequate ventilation, heat production and heat transfer rate. Radiation heat transfer differs from that by convection and conduction because the driving potential is not the temperature, but the absolute temperature rose to the fourth power.

Conclusion

The machine was able to grill a fish faster without delays when operated. Grilling difficulties was reduced based on design consideration of the scientific grilling principles through the heat transfer mediums. Conduction, convection and radiation. In order for the machine to reach a longer operational span, adequate maintenance (preventive and correctional maintenance) and safety is need. In all we were able to develop a modern, simple and portable charcoal barbeque grilling

machine that can grill efficiently and effectively.

Recommendations

The following are recommended based on design

1. The charcoal grill is also suitable for use for only outdoor purposes during parties, picnics, and camping due to its operating conditions.
2. Destructive and non-destructive testing of the properties of the manufacturing material should be conducted.
3. Supporting wheels should be a part of the design, this is to aide the rolling and carriage of the charcoal barbeque machine.
4. Design and fabrication of modeled version to introduce more vents of smaller sizes in the manufacturing to allow more space for air circulation. These vents must be designed in such a way that the entry of air does not disturb the burning process.

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COMPARATIVE ANALYSIS OF GENDER EQUALITY IN ENROLMENT AND COMPLETION OF PRIMARY SCHOOL GIRLS IN ILORIN WEST AND ILORIN SOUTH

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Abstract

This study was conducted to investigate gender equality in enrolment and completion of primary school girls. The report in this study constitutes a comprehensive survey on the reason primary school enrolment rate for girls lag behind those of boys. The study also feature the post Millennium Development Goal Agenda, setting out recommendations for the education sector at the international, national and local level with the aim of transforming the experiences of girls at school. This empirical study contains some basic statistics on the level of girl's exclusion from education Ilorin West and Ilorin South. It presents statistical information on gender equality. It also presented the multi-faceted strategies necessary to address not only different dimensions of girls and women lives but understand gendered relationships and structurally entrenched inequalities between women and men, girls and boys. Also it analysed the way schools can perpetrate gender stereotypes and investigated how this can be prevented. A descriptive survey design was employed. A-9 four point Likert scale researchers questionnaire was used for data collection. The instrument consists of (9) items administered to 360 respondents. Out of the 360 questionnaires dministered, 357 questinnaires were returned. Data collected were analysed using mean ratings while each case study ended with conclusion and a set of policy recommendations. Therefore, it was recommended that post- MDG goals are not sufficient for what need to be done to address girls' and women education needs, setting the target population too low and still, only in terms of access not attendance, completion and equality. Thus, the paper discussed some of the key challenges in achieving real gender equality in education providing examples of initiatives in a range of context, including gender- responsive budgeting in primary education. It was concluded that gender inequality exist among nations as regards girl-child right. It was recommended that the government should ensure that girl-child education is given utmost priority as the education policies should be well regulated to promote gender equality.

Introduction

The governments of Nigeria supported by civil societies, the donor communities, UN agencies, and other partners have made a commitment to the goal of education for all (EFA), and to gender equity/equality in education. The United Nations Children's Fund (UNICEF) is facilitating the process to ensure girls are properly enrolled, stay in school and have quality education. They also agitated for a child friendly school, with an environment that is fun, healthy and engaging. A place where they can play, be protected from harm, express their views and actively participate in the learning process.

The goal of the Nigerian government especially in Ilorin West and Ilorin South is to remove gender disparity. In many countries, expansion of enrolments took place at the expense of the quality of the education that was provided. Children attended school where population were too large for learning to take place, teachers not properly trained and supported, as well as provision of learning materials grossly inadequate. Many were taken taken for granted, gender inequalities and difficult in schools meant that girls and children from the poorest families were sidelined in terms of learning provision. The stress of the MDGs on the expansion of enrolment meant that inadequate attention was given in policy and practice to other key areas of work in education (e.g curriculum teacher development, complimentary programmes) that contribute to progress for girls. Empowering girls at this level will help in

achieving the MDGs in that, it will foster progress on girl's education.

Looking into the expansion in provision of education for all children since 2000, and the special attention given to girls, it is difficult to separate out a casual impetus that can be linked to the MDGs, isolated from other contemporaneous initiatives. Some global frameworks that complimented the MDGs are associated with the Education for All (EFA) Dakar Platform of Action, also adopted in 2000, which has six key areas, and provided a perspective on girl's education. The goals for the Dakar platform of Action are:

- The expansion and improvement of early childhood education.
- Access to free compulsory education of good quality for all children.
- All learning to be appropriate for children and life skills included in learning.
- Improvement in levels of adult literacy.
- Gender disparities in Primary and secondary education to be removed.
- All aspects of quality of education, including measurable learning outcomes to be improved.

(Dakar Framework, 2000 pp. 5-17)

Thus, the convention on the Rights of the Child (CRC) set out protection for children from violence and exploitation, the Beijing Platforms of Action, which linked girls schooling with wider sites of learning for women and approaches to gender mainstreaming.

Table 1: Presents UNESCO figures on the decrease in the number of children out of school between 1999 and 2000, and the changing ratio of girls in different regions.

Demography	Children out of school in 1999 000	% girls out of school in 1999 000	Children out of school in 2010 000	% girls out of school in 2010. 000
Arab states	8423	59	5036	61
Central and Eastern Europe	1644	57	931	49
Central Asia	439	52	317	54
East Asia & Pacific	10344	51	6579	44
Latin America/Carribbean	3607	55	2652	50
N. America & West Europe	901	48	1267	45
South& West Asia	40081	64	13261	55
Sub-saharan Africa	42174	54	30641	53
World	107614	58	60684	53

Source: UNESCO, 2012, 354-5

It can be seen that in every region of the world the numbers of children out of school has come down, and only in one region (central Asia) were girls a larger population of children out of school in 2010 than in 1999. Concerted efforts to support girls to go to school have thus seen progress.

Statement of the Problem

The girl-child is faced with various challenges in the school environment and the society at large. As a result of this, there are gender imbalances that tend to take place among both sexes. There are various gender inequalities that preoccupies the system which ranges from violence to abuses, discriminations, bullying and so on. Even though the attainment of gender equality is not only seen as an end in itself, it is equally an end in ingredients to and a product for achievement of sustainable development of countries. (Akuezuiolo, 2012). Various discoveries have revealed

that gender inequality is a great challenge to Nigeria even as a developing country especially in Ilorin West and South. (Obayan, 2014). Studies also discovered that the girl-child is usually subjected to a lot of humiliation and relegated to the background. The cultural believe that the female child is inferior to the male child and that female education ends in the kitchen, is another very challenging issue that has led to gender segregation in our societies. The UN having established policies such as Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) for the purpose of nullifying the distinction, exclusion made on the basis of sex. UN itself still encounters various problems on gender disparity. It is against this background that the researcher deem it necessary to look into gender equality in enrolment and completion of primary school girls in Ilorin West and Ilorin Suthern part of Nigeria, haven discovered

that the girl-child has not been given her rightful position.

Aims and Objective of the Study

The aim of this study is to find out the gender inequality in the enrolment and completion of girls in primary school in Ilorin West and South. However, the specific objectives are to analyse comparatively the influence of gender disparity on enrolment and completion of girl's education in the primary school in Ilorin West and Southern part of Nigeria.

Research Hypotheses

HO1- There is significance difference in the enrolment and completion of male and female students in primary schools in Ilorin West and South.

HO2- There is no significance difference in the enrolment of female students and quality of education provided to the selected few learners in Ilorin West and South.

HO3- There is no significance difference in the completion rate and level of segregation between male and female primary school students Ilorin West and South.

Research Questions

1. What are the differences in the enrolment and completion of male and female students in the primary school Ilorin West and South?
2. How has the enrolment of female students in the primary schools helped to improve the quality of education provided to the selected few learners Ilorin West and South?

3. How has lack of completion in Ilorin West and South contributed to social segregation of male and female students?

Methodology

In undertaking this study and obtaining an answer to the guiding research questions to be answered, the descriptive survey research design was used. The population comprised 360 primary school girls in Ilorin West and South. 10 primary schools each in Ilorin West and South were selected using the purposive sampling techniques. The respondents consist of both male and female teachers. 180 respondents each were used in Ilorin West and South (181 male and 179 female each) respectively, making a total number of 360. Out of this respondents, 357 returned the questionnaires administered and that constituted the sample for the study. Modified four-point-likert scale researchers designed questionnaire was used for eliciting the needed data from the respondents. The questionnaire items were validated by experts in the Department of Arts Education, University of Ilorin and Ignatius Ajuru University of Education to ensure its face and content validity. This is in line with Sambo (2008) who maintained that the best procedure for validating research instrument is to give it to panel of experts. A test-retest reliability method was carried out with a sample of five primary schools within Ilorin metropolis. Two week interval period was given. The scores of the first were correlated with the scores of the second using Pearson's Product-Moment Correlation Coefficient and reliability index of 0.68 was obtained. The questionnaire contained two sections.

Bio-data of the respondents constituted the first section while the second contained 9 items with 4 points responses (Strongly Agree = SA, Agree = A, Disagree = D, Strongly Disagree = SD). The questionnaires were administered to the respondents. The data collected were analysed using mean ratings following a criterion mean score of 2.5.

Table 2: Responses on the differences in the enrolment of male and female students in primary schools Ilorin West and South.

N=357

S/N	ITEMS	SA	A	D	SD	MEAN Ilorin West	MEAN Ilorin South
1	The composition of boys are more than girls in primary schools enrolment Ilorin West and South	130	186	30	11	3.21	3.24
2	Primary schools in Ilorin West and South have more girls dropping out of school than boys.	217	93	37	10	3.31	3.49
3	More attention is being paid to boys than girls in the classroom in the teaching and learning process.	230	88	24	15	3.56	3.42

The above table shows the mean value of the respondents ranging from 3.2 to 3.4 which is greater than accepted mean value of 2.5. This is an indication that the enrolment of boys in the primary schools in Ilorin West and South are more than that of girls. The result also showed that more attention is being paid to boys than girls and

Results

The result of the analysis was presented in the tables below.

Research Question 1: What are the differences in the enrolment and completion of male and female students in primary schools in Ilorin West and South?

that girls dropped out of school than boys either due to poverty or pregnancy.

Research Question 2: How has lack of primary school completion of girls contributed to social segregation in Ilorin West and South?

Table 3: Responses on how lack of primary school completion of girls contributed to social segregation in Ilorin West and South.

N=357

S/N	ITEMS	SA	A	D	SD	MEAN Ilorin West	MEAN Ilorin South
1.	Most girls do not complete their primary education	160	177	10	10	3.55	3.66
2.	Females students find it very difficult to learn from their male counterparts	300	50	6	1	3.74	3.61
3.	The population which most primary schools accommodates does not give adequate representation of the larger population in the society	254	90	4	9	3.84	3.72

Table 3 reveals that the mean value of the respondents from 3.6-3.8, meaning that the fact that most girls do not complete their primary school education does not mean that the girl child is being discriminated against or segregated.

Research Question 3: How has the enrolment of female students in the primary schools helped to improve the quality of education provided to the selected few learners in Ilorin West and South?

Table 4: Responses on the quality of education provided for the girl-child in Ilorin West and South.

S/N	ITEMS	SA	A	D	SD	MEAN Ilorin West	MEAN Ilorin South
1.	Primary schools Ilorin West and South restricts boys and girls exposure	300	40	12	5	3.90	3.86
2.	Boys are provided with educational quality superior to girls	218	79	60	32	3.61	3.12
3.	Adequate freedom is given to the boy-child to learn at his own pace than the girl-child	260	50	30	17	3.74	3.42

Table 4 shows the mean value of respondent's assessment of the quality of education provided to the girl-child ranging from 3.1 to 3.8; this is greater than the accepted mean value of 2.5. This is clearly showing that there is difference in the quality of education offered to the boy child than the girl-child.

Discussion

For education to be prioritized in the post 2015 agenda, the UN High Level Panel (HLP) report must be implemented. The HLP report gives particular attention to gender in that it identifies addressing girls and women as an important aspect of cross cutting concerns with inequalities. It also stresses the need to attend the regional and socio-economic inequalities; hence girls and women must be empowered to achieve gender equality. Violence against the girl-child must be eliminated; ending child marriage, ensuring women can own property, engage in financial transactions and participate in the public sphere politically and economically.

It was discovered in this study that the duty bearers-parents and teachers deny the girl-child her rights. For instance, parents withdraw the girls if they cannot afford school fees for their son or sons. Some parents have the money but instead, they spend on other things like bride price, compensation payments, elections e.t.c. They also keep their daughters at home to assist in domestic chores. Parents also keep their daughters at home to work for money. The teachers also publicize the names of girls whose parents have not paid school fees, embarrassing them. The teachers and the male students harass the girls.

In addition, some parents cannot buy their uniforms, most girls only have one set of uniform, hence making the girls to go to school "in rough" or "rugged" clothes.

Also, textbooks are shared by two or three students. When the girls share the books with a boy, the boys intimidate the girls and gets to take the books home. The girls end up not being able to read the lessons and do the assignment resulting to poor performance in school.

The researchers also discovered that the prevailing attitude of parents that need to be overcome is the bride price and early marriages among girls. The parents tends to marry off their daughters at the onset of the girls monthly period in exchange for the "bride price" this is a cultural practice prevalent in Africa.

Recommendations

Based on the findings, the following recommendations were made;

1. The government should ensure that girl-child education is given utmost priority and that our education policies should be well regulated to promote gender equality.
2. Parents and community should acknowledge and uphold the right of all children to receive a basic education.
3. There should be school plan to accelerate girl's education and there should be door to door/ village to village awareness on girl's education.
4. There should be the establishment of girls clubs, girls' school captain e.t.c.

5. There should be monitoring of students absenteeism, performance, behavior and health. Girls that have left school should be encouraged by providing them a second chance to return and counseling session should be provided in schools.
6. It is also recommended that Primary schools should have a master list of school-age girls this will enable the community leaders and advocates of girl's education to easily identify and educate parents and guardians to send their daughters to school.

Conclusion

In all, it was concluded that gender inequality exist amidst nations especially as it relates to girl-education according to the UNESCO report. Educational administrators and policy makers have also device means of educating the girl-child in all facets of life in order to avoid gender disparity and segregation among boys and girls in primary schools. As such, for the achieving of the Millennium Development Goals (MDGs), particular attention must be placed on girl-child and women education all over the world.

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INFLUENCE OF DRUG ABUSE ON ACADEMIC PERFORMANCE OF PUBLIC SECONDARY SCHOOL STUDENTS IN PORT HARCOURT LOCAL GOVERNMENT AREA RIVERS STATE: IMPLICATION FOR COUNSELLING

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Abstract

The study examined the influence of drug abuse on academic performance of public secondary school students in Port Harcourt local government Area. The abuse of drug/substances has become a global issue, it's social and psychological implication to students cannot be quantified. A survey and expo-factor design was adopted for the study and a simple random sampling technique was used to select the schools. Three instruments were used for data collection. Drug Abuse Screening Test (DAST-20), WHO-Students Drug Abuse Questionnaire (WHO-SDAQ) and English Language performance test (ELPT) and Government Performance Test (GPT). Means scores and t-test were used to analyze the data at 0.05 level of significance. The findings of the study revealed that academic performance of students suffer great set-back as a result of drug abuse which leads to their lack of interest, attention and motivation for learning. The implication for counselling of this study states that among others that counsellors/Psychologist, school para-counsellors, NGOs, government, stake holders etc should support and involve students in educational guidance specifically, to teach them effective study habits, highlight the harmful effects of drugs on their academic performance. In conclusion the study revealed that tramadol, codeine syrup, marijuana, alcohol, cigarette, solution and solvent, coffee and kolanut were the commonly used drugs. It was however recommended that among others that drug abuse education and counselling should be incorporated into the school curriculum and drug free clubs should be encouraged to educate students on the negative effect of drug abuse.

Keywords: Drug Abuse, Academic Performance and Student.

Introduction

Drug abuse is now a burden that is becoming a public and global health issue and a source of concern to the society Nigeria, has witness serious problems and negative consequences with regard to drug abuse among youths for the past decades. Drug or substance abuse is the use of drug

in any method that is harmful physically, socially and psychological or otherwise. The word drug was taken from French word "Drogue which means 'Dry Herb' suggesting strongly, that drug were taken out from plant sources and animal products which the earliest people used to treat different kinds of diseases through some unconventional methods. According to

UNICEF and WHO (2010) substance abuse include the use of chemical in excess against the normal prescribed treatment dosage and frequency, even with the knowledge that they may cause serious problem that will eventually lead to addiction or death. Lewinshore, (2007) defined drug as any product other than food or water that affects the way people feel, think, see and believe because it is a substance that due to its chemical nature affects the physical, mental and emotional functioning of the body. It can penetrate the body through inhaling, smoking, chewing, rubbing and drinking. As (Mohammad et al, 2019) stated that the increased incidence of drug abuse among Nigerian secondary school students is a contributory factor in the ugly confrontation between school administration and students. Invariably, whenever students interact with a group with drug abuse tendency, they automatically become drug abuser likewise if they interact with non-drug tendency group they live as drug free members. According to the World Health Organization (WHO) substance abuse refers to the harmful or hazardous use of psychoactive substances including alcohol and illicit drugs.

It is now a major public health challenge all over the world and complications of drug abuse by students are dangerous, including increased odds of engaging in risky sexual behaviour, personality disorders, sexual violence, criminal tendencies and drug dependence among others (WHO, 2017). Drugs are abused so much in our schools today to the extent that students have lost focus in what they were sent to school to do. Most societies do not consider the use of some drugs which do not produce overt behavioural changes. However, despite the multicultural nature of the society there is a consistent outcry from the public, teachers, parents, health professionals, regulatory

agencies, preachers on the growing burden of drug abuse which affect behaviour everywhere. The recent call was that of the president of the pharmaceutical society of Nigeria (PCN, 2020).

To a great extent drug abuse influence students academic performance in school because the effect of drug to the brain results to a major decline in its proper functioning which leads to lack of concentration and interest in school and extracurricular activities. It also leads to absenteeism, truancy and even drops out of school. The intake of most psychoactive drugs like cocaine, Heroin, marijuana, meth, opioids, Hallucinogens, Ecstasy/MDMA, nicotine etc affect the decision making process of students, their creative thinking, development of necessary life and social skills.

Quite a number of research studies, revealed common drug abuse and its influence on students' academic performance in secondary school and even the tertiary institutions. A study conducted by researchelue.com, (2018) examined the effect of drug abuse on students' academic performance in secondary schools in Ethiopia East Local Government Area of Delta State. The finding showed that there is a significant inverse relationship between drug abuse by students and their academic performance. Enakpoya, (2009) found out that alcohol, Librium and marijuana were the commonly abused drugs among undergraduate students and the main causes of substance abuse were peer group influence, depression, lack of finance, loneliness, media influence. While drug abusers are fond of beating and bullying the junior students, even try to initiate them into cultism and making them have a taste of the drug and at the same time exhibit bad behaviour and rudeness to the school authority. Mburza and Hashidu (2015)

revealed that tutoleen Syrup, tramadol tablets, suck and die (Madarar Sukudayir) and alcohol are one of most common substance abused by the students. Okoza and Aluede, (2007) reported that the drugs also abused by students are alcohol, valium, tobacco, marijuana, India hemp, Chinese capsule, cocaine and reactivan. However, Kobiowu, (2006) confirmed that marijuana like most other hard drugs alter time sense, decreases auditory discrimination which result to difficulty in concentration and bring about impairment of ability in some psychometric test, especially those related to manipulation of numbers. According to Nuthana and Yenagi, (2009) students' academic performance occupies a very important place in education as well as in learning process. It is considered as key criteria to judge one's total potentials and capabilities.

Furthermore, Agbonghale and Okeke, (2014) indicated that drug abuse has effect on the academic performance of Technology Education Students in schools. Similarly, Fayomba and Aremu, (2000) conducted a study on the effect of drug abuse on educational performance of some adolescent drug abusers in Ibadan and found out that the misuse of marijuana had reached an epidemic level in the present Nigerian society and that drug abuse could lead to poor academic achievement or halt one's entire academic process. While Longhap and Momoh, (2005) attest that drug abuse cut across all social classes; religious differences exist in the types of drugs abused. Muslim students abuse alcohol more and traditionalist student's abuse both. The study also showed differences in academic performance, students who abuse drugs perform academically lower than those that do not. However, Peter Egenegbe and Blinkhorn, (2013) in a study conducted on factors influencing students' drug use among

secondary school students in Delta Central Senatorial District, Delta State, Nigeria. The study revealed that there was significant difference between students with high and low academic performance in terms of their drug use but, contrary to the popular expectation Kobiowu, (2005) revealed that academic pursuit of those students who engage in drug misuse is not unduly jeopardized and that the abusers do not socialize extraordinarily. On the other hand, Omengala, (2010) perceived academic performance (achievement) as the child's ability to obtain high score in a particular course of study and that academic performance can be explained as the scores or grades received by an individual from tests and other assessments. Nevertheless, counsellors/psychologist can help individuals indentify mental health issues by providing counselling and psychotherapy know as talk therapy and other forms of therapy such as

- Cognitive Behavioural Therapy (CBT)
- Interpersonal Therapy
- Rational Emotive Behavioural Therapy (REBT)

This is to help re-establish healthy behaviours and provide reform programmes and coping strategies whenever a situation of risk occurs. Social reform is focused on societal concerns that have a powerful influence on individual well-being as well as the health of the society as a whole which includes problems like drug/substance use, crime, prejudice, domestic abuse, public health, bullying, aggression etc. It invariably means bringing about positive changes in the existing social values, norms, traditions, beliefs and other social practices. In view of this counsellors/psychologists are group of trained professionals aimed at bringing about positive social change with the goals of counselling individuals to overcome life problems; to enable them

adjust, live a healthy life in any environment they find themselves and as well enhance social interaction. The counsellor/psychologist can help people to learn how to effectively deal with situations in their life such as addiction, substance abuse, stress, anxiety, depression, low self esteem, mental and emotional health issues. Therefore, psychological counselling is an essential tool in the treatment of drug/substance abuse through the application of different therapies such as inpatient/residential rehab, detoxification, outpatient Rehab, Cognitive Behavioural Therapy (CBT), Contingency Management (CM), Motivational Interviewing (MI) Dialectal Behavioural Therapy (DBT), Rational Emotive Behavioural Therapy (REBT) Matrix Model (MM) etc (NIDA, 2020) can help the drug abuser to change to a healthy and acceptable life devoid of drug use and become socially reformed. Available literature on the type of drugs commonly abused by Nigerian youth and students were classified as follows (NDLEA 2005) these are:

Hallucinogens, Dissociative anesthetics, Stimulants, Sedative/depressants, Narcotic analgesics, Inhalants, Cannabinoids, Alcohol, Opioids, Steroids

1. **Hallucinogens:** These are chemical substances that causes thinking disorder, feeling of anxiety, hilarity, sadness and inner joy, poor perception, illusion euphoria and hallucinations, that is seeing images and hearing voices.
2. **Dissociative anaesthetics:** This causes a feeling of detachment from the environment and or self, sensory deprivation, dream-like state, respiratory depression, cognitive and memory impairment and amnesia.
3. **Stimulants:** These are substances that directly stimulate the central nervous system. Student use these drugs particularly during examination to increase alertness, energy to stay away at night to study. It may be helpful for people with certain health conditions, such as “attention-deficit hyperactivity disorder (ADHD).
4. **Sedative/Depressants:** These are drugs that have both sleeping induce and depressant effects. Sedative are central nervous system depressants and very widely in their potency. They are usually in form of pills or it causes memory impairment, slurred vision and drunken behaviour. Also, liquids such as barbiturates, valium, diazepam, zolpidem, gamma-hydroxybutyrate (GHB).
5. **Narcotic Analgesic:** These are substances that causes depression of the central nervous system that produce sleep and reduce pain, excessive use of narcotics may produce stupor, coma and death. Such drugs are Indian hemp, morphine, codeine, heroin etc which is injected, inhaled or smoked that can cause apathy, mental clouding, drowsiness, poor concentration, emotion and reduce sexual urge.
6. **Inhalants:** These are referred to the vapours from toxic substances which are inhaled to reach a quick high, it rapidly absorbed through the lungs into the bloodstream to the brain and other organs of the body. The use of this substance sometimes causes irreversible physical and mental damage, it slows down the body's functions, drowsiness, light-headache and agitation. The inhalant mostly used were shoe polish, glue, toluene, gasoline, lighter fluid,

nitrous oxide, spray paint, correction fluid, cleaning fluid, etc.

7. **Cannibinoids:** These are active agents found in cannabis (Marijuana) produce effects by interacting with specific receptors in the central nervous system. It alters sense of sight, mood swings, impaired body movement, impaired memory, affects reasoning and problem solving, delusion, hallucinations etc.
8. **Alcohol:** This can be a stimulant because of psychoactive ingredients in them. Alcohol is among the most used drugs and plays a big role in many societies and cultures around the world and greatly impacts on public health (Sudhinaraset, et al 2016). Such as palm wine, beer, whisky, spirit, liquor, etc and the symptoms include staggering, excitement, slurred speech, bad breath, diseases like cirrhosis of the liver, pancreases disorder etc.
9. **Opioids:** These are illegal drugs heroin such as synthetic opioids-fentanyl, pain relieves, codeine, morphine and many others' it works by interacting with the receptors of the brain cells, muffle perception of pain and boost your feeling of pleasure. Opioids may make you feel sleepy and slow to feelings of pleasure that lead to addiction and even death.
10. **Steroids:** This is an inflammatory drug and has different types like (1) oral steroids (2) topical steroids and steroid nasal sprays. They are used to treat inflammation, rheumatologic arthritics, lupus or vasculitis and can cause vomiting, weight gain, restlessness, insomnia, nausea, headache etc.

In conjunction with the background and the facts that many researches were conducted on drug abuse on secondary school students

and its influence on their academic performance in different educational set up and location. The study therefore examined the influence of drug abuse on students' academic performance and identifying the common drugs abused by the secondary school students in Port Harcourt Local Government Area in Rivers State with implication to counselling that can be used to enhance social reformation.

Statement of the Problem

The incidence of drug abuse among youths and students in Port Harcourt Local Government Area are some of the factors contributing to school confrontations truanancies, riots between the government/school administrators and students; thereby making learning concentration or process more difficult. Thus, reducing maximum functional ability and impaired cognitive functions such as ability to reason rationally and lead to loss of sense of reality and responsibility, bullying, absenteeism, delinquent act, school dropout, to mention but very few. It is against this back drop of drug abuse and its consequences, that this paper examined the influence of drug abuse on students' academic performances in English language and Government and also identified common drugs abused by the public senior secondary school students in Port Harcourt Local Government Area, Rivers State.

Objectives of the Study

1. To determine the influence of drug abuse on the academic performance of senior secondary school students in English language and government.
2. To identify drugs commonly abused by senior secondary school students in Port Harcourt Local Government Area, Rivers State

Research Questions

The following research questions were answered in the study:

- i. What are the common types of drugs abused by senior secondary school student in Port Harcourt Local Government Area, Rivers State?
- ii. To what extent does drug abuse influence students' academic performance in senior secondary schools in Port Harcourt, Rivers State.

Research Hypothesis

The following hypothesis was tested at 0.05 level of significance:

1. There is no significant difference in the mean scores between the academic performance in English language and government of senior secondary school students' who abuse drugs and those who do not abuses drugs.

Methodology

The research design used was survey which focused on common drugs abused by the senior secondary school students. It investigated the influence of drug abuse on the students' academic performance. This study covered six (6) public senior secondary schools in Port Harcourt Local Government Area. The population of this study consists of senior secondary school students. Simple random sampling was used to draw three schools out of the six (6) in the area. The sample of 40 (forty) SS II students were randomly selected from each of the three (3) sampled schools, making the total of one hundred and twenty (120) students. Thirty (30) SS II drug abusers and thirty (30) non drug abusers were selected as the sample. Three instruments were used for data collection. These include:

1. Drug Abuse Screening Test (DAST - 20)
2. World Health Organization Students Drug Abuse Questionnaire (WHO-SDAQ)
3. English Language Performance Test (ELPT) and Government Performance Test (GPT)

1. Drug Abuse Screening Test (DAST - 20): The test contains twenty (20) item statements on the adolescents' involvement with drugs/substances. The content validity of DAcST-20 was established by two different specialists in Ignatius Ajuru University, faculty of education. These include: a counselling psychologist and an expert in test and measurement. Test-retest method though pilot testing was used to determine the reliability of the instrument and the internal consistency for the instrument was 89.

2. World Health Organization Students Drug Abuse Questionnaire (WHO-SDAQ): This is an instrument developed by World Health Organization (WHO) to identify types, causes and consequences of substance abuse on students/adolescents to establish the content validity of the adopted (WHO-SDAQ) two different specialists were involved. The specialist includes one each from counselling psychology and test and measurement. Pilot test scores obtained were subjected to crobach co-efficient reliability and internal consistency for the instrument was 87.

3. English Language Performance Test (ELPT) and Government Performance Test (GPT): The test was developed by the researcher. The instrument contains items that could portray how

well or otherwise the respondents performed academically. The content validity of the test (ELPT) and (GPT) was established by subjecting it to two different specialists; one for test and measurement on English language and the other one for political science on Government. The internal consistency for the instruments was 82 respectively.

Method of Data Collection

The researcher went to the selected schools to make a formal introduction to the principals. For the survey research forty (40) SS II students were purposefully selected from each of the sampled schools with two research assistants and the class prefects, form masters/mistress and the school counsellors. To identify common drugs abuse, modified WHO-SDAQ was administered to one hundred and twenty (120) students drawn from three (3) sampled schools. Drug abuse screening test (DAST-20) was administered to the students to determine their eligibility to participate in the study. The test contains twenty (20) items statements on the drug addicts' involvement with drug/substances. The responses are by ticking on either Yes/No. A score of one is given for each "Yes" response while a score of zero is given for a "No" response. After administering the test, it was retrieved and scored to determine who has satisfied the criteria of being a drug abuser and whoever

obtained a cut off score of six (6) and above was considered as a drug abuser.

Furthermore, to ascertain the influence of drug abuse on students' academic performance, the two (2) groups (drug abusers and non-drug abusers) were given English Language and Government Performance Test (ELGPT). The test was divided into three (3) sections, A, B and C. Section A deals with demographic information; section B consists of fifty (50) items of multiple choice questions with four (4) options A-D for English language test. While Section C comprises of fifty (50) items of multiple choice questions with four (4) options A-D for government performance test. Each correct answer was scored zero (0). The score of fifty (50) and above was considered as high performance while those who scored below fifty (50) were regarded as low performances.

Method of Data Analysis

Mean scores and t-test were used in analyzing the data obtained on academic performances, while data on common drugs abuse were analyzed by using mean scores and ranking.

Results

Research Question 1: What are the types of drugs abused by senior secondary school students in Port Harcourt Local Government Area, Rivers State?

Table 1: Mean Scores and Ranking of Drugs Abused by Senior Students in Port Harcourt Local Government Area, Rivers State.

S/N	VARIABLES	N	MEAN SCORES	RANKING
1	Tramadol	120	2.78	1 st
2	Indian hemp	120	2.42	2 nd
3	Codeine syrup	120	2.34	3 rd
4	Alcohol	120	2.06	4 th
5	Cigarette	120	1.88	5 th
-6	Suck and die	120	1.72	6 th
7	Valium 5	120	1.66	7 th
8	Solution/solvent	120	1.64	8 th
9	Coffee	120	1.62	9 th
10	Kolanut	120	1.2	10 th

Table 1: Indicated that the commonly abused drug by Senior Secondary School Students was Tramadol (2.78) followed by Indian hemp (2.42) Codeine syrup (2.34), Alcohol (2.06), Cigarette (1.88), Suck and die (1.72) Valium 5 (1.66). Solution/solvent (1.64), Coffee (1.62) and the least abused drug was kolanut (1.2). This implies that the most widely abused drugs by students are tramadol with the highest mean score,

followed by Indian hemp, codeine syrup, alcohol, cigarette, suck and die, solution/solvent, valium 5 and the least abused drugs are coffee and kolanut.

Research Question 2: To what extent does drug abuse influence students' academic performance in senior secondary schools in Port Harcourt, Rivers State.

Table 2:

SUBJECT	RESPONDENT	N	MEAN	DF	T-CAL	T-CRIT
Government	Non-drug Users	30	48.2		2.96	1.70
	Drug Abusers	30	35.6			
English Language	Non-Drug Users	30	44.2		2.96	1.70
	Drug-Users	30	39.06			

Table 2: This table indicated that the mean scores of non-abusers of drugs in both their performances in government 48.2 against 35.6 and in English language 44.83 against 39.06 were higher than their counterparts who abused drugs. Similarly, the calculated t-value for government (2.96) is greater than the table value (1.70) at 0.05 significance level and the calculated t-value for English language (2.91) is greater than

the table value (1.70) at 0.05 significance level

Research Hypothesis 1: There is no significant difference between the academic performance in English language and government means scores of public senior secondary school students (SSII) who abuse drugs and those who do not abuse drugs.

Table 3: Academic performance of public senior secondary school students in English language and government in Port Harcourt Local Government Area, Rivers state.

SUBJECT	RESPONDENT	N	MEAN	DF	T-CAL	T-CRIT	DECISION
Government	Non-drug	30	48.2		2.96	1.70	Reject
	Users	30	12.6				
	Drug Abusers		35.6				
English Language	Non-Drug	30	44.2		2.91	1.70	Reject
	Users	30	5.14				
	Drug users		39.06				

Table 3: Revealed that the mean scores of non-abusers of drugs in both their performances in government 48.2 against 35.6 and in English language 44.83 against 39.06 were higher than their counterparts who abused drugs. Similarly, the calculated t-value for government (2.96) is greater than the table value (1.70) at 0.05 significance level and the calculated t-value for English language (2.91) is greater than the table value (1.70) at 0.05 significance level. The null hypothesis which states that, there is no significance difference between the academic performance in English language and government mean scores of public senior secondary school students (SSII) who abuse drugs and those who do abuse drugs was rejected. In other words the academic performance on English language and government of public senior secondary school students who abuse drugs is lower than that of students who do not abuse drugs.

Discussion of Findings

The result of the analysis in respect to research question one (1), proved the most widely abused drugs by the students is tramadol having the highest mean scores, followed by Indian hemp, codeine syrup, alcohol, cigarette, suck and die, valium 5, solution/solvent, while the least abused drugs are coffee and kolanut. The result

agrees with Mburza and Hashindu, (2015) study which clearly indicated that tramadol, Indian hemp, codeine syrup, alcohol, and cigarette are the most widely abused drugs among the youths/students because it can be easily available. The finding also goes along with the results of research conducted by Enakpoya, (2009) and Okoz and Oluede, (2007) which confirmed the use of these drugs: cocaine, Indian hemp, coffee, kolanut and valium 5.

The result of the hypothesis tested revealed that the mean scores of non-drug abused students in their performance in both Government and English language were higher than their counterpart who abused drugs. Similarly, the calculated t-test for English language is greater than the table value and the calculated t-value for Government is greater than the table value. Therefore, the hypothesis that stated that there is no significant difference between academic performance in English language and Government of senior secondary students who abuse drugs and those who do not was rejected. In other words, there was a significant difference between academic performance in English language and Government of senior secondary school students who abuse drug and those who do not. In view of this, the findings on the influence of drugs abuse on students academic performance is consistent with

the studies conducted by Londnap and Momoh, (2005) and Agbonaghale and Okeke, (2014) which confirmed differences in academic performance that is students who abused drugs performed academically lower than those who do not. The finding is in line with Peter, Egenegbe and Blinkson, (2013) who discovered that academic performance of students' suffer-set-back as a result of drugs abuse which leads to the decline in their interest, attention and motivation for learning. However, the findings disagree with the outcome of Kabiowu's research which revealed that academic pursuits of undergraduate students who engaged in drug abuse do not socialize extra ordinarily in contrary to popular expectation.

Implications for Counselling

Counselling is a process or therapy applied to help individuals overcome their problems in a positive way by exploring options, develop strategies, clarify issues and build self-confidence and awareness. Thus, the properly counselled drug abuse students will be able to become socially and academically reformed by being drug free student. Based on the findings of this study it was discovered that students engaged in abusing different types of drugs and is directly affecting their academic performance.

Therefore, to bring about social reformation and sound academic performance among students that engage in drug abuse, the Government, NGOs, parents, teachers other stakeholders must be involved in providing measures to curb the bad menace of drug abuse. However, it will help to ensure effective social reformation of students who indulge in drug abuse and achieve sound academic performance.

The following counselling interventions can be considered:

1. The school para-counsellors, administrators and counsellors, need support and more intensive training on the basic counselling skills in order to get rid of drug abuse from secondary schools in Port Harcourt. Meanwhile professional counselling psychologist need to make some extra efforts in training and delivering professional counselling in the state.
2. Counsellors should adopt various methods and strategies to educate students on different types of drugs and explain their harmful effects on their academic performance. Some of the strategies include sharing of flyers on drug abuse and its effects, displaying important information or notice on the school bulletin board, signifying dangers of abusing drugs, inviting specialized resource persons like a Medical Doctor, Pharmacist, Psychologist, Psychiatrist etc to speak to the students, parents and teachers to help provide knowledge of abusing drugs in the school.
3. The counsellor should try to involve the students in educational guidance to specifically state the effective study habits, appropriate reading skills and techniques or writing examination. These will help to discourage them from taking drugs and enhance their academic performance.

Conclusion

The study examined drugs abused by public senior secondary school students in Port-Harcourt Local Government Area of Rivers State and its effects on students' academic performance. The Study revealed that marijuana, tramadol, codeine syrup, suck and die, solution/solvent, alcohol, Cigarette, coffee and kolanuts were the commonly abused drugs by the senior

secondary school students. Nevertheless, the study clearly showed significant difference between the academic performances in English Language and Government for students who abuse drugs and those who do not abuse drugs. It was therefore concluded that students abused different types of drugs and it to a great extent affect their academic pursuit.

Recommendations

Base on the findings of the study, the following recommendations were made;

1. Students should be counselled to acquire effective study habits and appropriate reading skills to enhance their academic performance.
2. The policy/stakeholders and curriculum planners should include drug abuse education and counselling into the curriculum of senior secondary school education.
3. School counsellor/psychologist should be encouraged to practice fully in schools and form drug free clubs to educate students on the negative effects of abusing different types of drugs on their life and academic performances.

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QUALITY CONTROL OF DRUG USAGE AMONG TEENS IN COMMUNITY SECONDARY SCHOOL OMUDIOGA OF EMUOHA LOCAL GOVERNMENT AREA OF RIVERS STATE IN THE 21ST CENTURY.

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Abstract

The focus of the study is to examine quality control of drug usage among teens in Omudioga Community in Emuoha Local Government Area of Rivers State. The study adopted a cross-sectional survey design. The population was sixty-four students from Community Secondary School Omudioga. A close-ended questionnaire was used for data collection, Face and content validity of the instrument was ascertained. Pearson Product Moment Correlation in conjunction with Spearman-Brown prophesy statistics were utilized to establish the reliability co-efficient of .80 for the instrument. Sixty-four copies of the questionnaire were administered and fifty-four copies were well filled and was used for the data analysis. It was found that majority of the students are involved in taking of one substance or the other. The indiscriminate use of these substances affects not only the user, but the society at large. Hence the need to have quality control of these substances must be a team work, were parents, religious leaders, teachers and government should be involved. The researcher recommends that drug education should be made compulsory in the school curriculum, Drug workshops and seminars should be encouraged.

Keywords: Quality, Control, Drug and Usage of Drugs

Introduction

The use of drugs is widely accepted in many cultures and is commonly for treatment of diseases and infirmities. Drugs are described as any substance other than food that when taken into the body have the ability to alter body structure or function. Just as man needs food for healthy growth and to sustain life, drug is also needed for treatment of ailments and disease condition and for recuperation of the dysfunction in the body system. According to Moronkola (2003) drug is any chemical substance which when ingested, inhaled or applied to and in the body changes the body chemistry either immediately or after some times.

Drug usage does not constitute an evil if when taken or administered properly. Drug is more likely to have harmful than beneficial effects particularly when consumed in excess. This has been associated with the development of both health and social problems. Drug can be abused or misused when it is taken consistently and not in conformity with the medical prescription. World Health Organization (2006) described misuse of drug as the use of a substance for a purpose not consistent with legal or medical guidelines. Drug abuse is the use of a medication without a prescription, or for the experience or feelings elicited (NIDAA, 2018). Taking of drug to get a pleasant or euphoric feeling (to get high) especially at

higher doses than prescribed, this can result to drug dependence.

Drug dependence is associated with all kinds of criminal activities, most of the criminalities are committed by small proportion of cohort. It has a negative impact on health or functioning and may take the form of drug dependence, or be part of a wider spectrum of problematic or harmful behaviour (DH, 2006) drugs misuse or abuse of drug has led many people, young and old into downward spiral of hopelessness that ends fatal in some cases. Drug intake varies with age, sex and influences the development of alcohol-related health and social problems. Drug addiction can have long-term cognitive and behavioural effects. Most teens engage themselves in drug use, for experimental purpose, due to curiosity, peer pressure, stress, emotional struggles and a desire to escape. They take drugs as part of growing up syndrome irrespective of its disastrous consequences. Most teens who engage in use of drugs lack the ability to focus on school work hence experience low academic performance. The adolescence faces series of challenge in which some of those challenges can quickly change from conquerable to overpowering and serious issues.

Drugs commonly used by the teens include; Marijuana (weed), alcohol, cocaine, benzodiazepines, opioids amongst others. Roe and Man (2006) confirmed that cocaine is the commonly used illicit drug. Alcohol misuse is also common in all types of people who misuse drugs. According to Murray (2019) in his surveys, he linked the increase in marijuana use by teens as they listened to music glamorizing marijuana use. Furthermore, teens often find marijuana at concerts or parties, experimenting with drugs in a care free setting.

Drugs misuse or abuse is not only found among the teens, its common both young and old, thereby endangering both themselves and others in the society. Indulgence in excessive intake of substance, make users to fail in fulfilment of major school, work or family obligations and these causes substantial damage to individuals, family and society. Substance use disorder has become a disaster both in rural and urban setting, it is a problem which affects everyone of us as parents, children, teachers, and government official workers amongst other. The problem of drug addiction is significant and poses one of the most critical problem in our society. Most underage students who engage in drugs intake ends up being addicts and as such become a terror to the society they end up as school drop outs, cultist and practice all sorts of social vices.

Education is to change behaviour, educating the public about dangers associated with drug abuse and misuse is an essential step in the prevention and control of drug abuse.

Achalu (2005) asserted that individuals, families and general public should have access to accurate information on the harmful effects of drug abuse. Health educations increase knowledge and awareness hence motivates positive attitude and behavioural change towards drug abuse. Parents should have strong positive connections with adolescents and having clear limits and consistent enforcement of discipline on children. There should be continuous and open education about the reality and risks of drug abuse on adolescents.

Statement of Problem

Drug use which was originally meant for treatment of diseases and ailments is now use to perpetrate crime and cause unrest in

the society. The rate of drug addiction in the school campuses has become a disaster both in the rural and urban setting. The problems associated with the use of licit and illicit drugs among the youthful population is responsible, not just low academic performances, but also give birth to school dropout, loss of wages, destruction of lives and properties, poor economy and development, broken families and societal unrest amongst others. Despite the world wide concern and enlightenment on dangers associated with drug addiction, most youths have limited knowledge on the dangers of these drugs to life. Many youths who dropped out of school have opted to engage themselves in criminal activities thus endangering the lives and properties in the society. The younger generations who are supposed to be the leaders of tomorrow, are now leaders of all forms of criminalities and forgetting to acquire skills and education which is the bedrock of societal development. The rate at which these youths are at increased risk for academic failure including dropout, has called for the researcher to investigate the quality control of drug use to better our society.

Purpose of The Study

The purpose of the study is to find out the quality control of drug usage among teens in Omudioga community in Emuoha Local Government Area of Rivers State in 21st century. Specifically the study sought to determine:

1. To find out the extent at which drug use can pose a problem.
2. To find out patterns of drugs that affects the individual and society.
3. To find out the best way of controlling the use of drugs in our communities.

Research Questions

The following research questions were formulated base on the research objectives of the study.

1. To what extent would taking of drugs pose problem to the individual or society?
2. What types of drugs can affect the individual and society?
3. What are the possible ways of controlling drug abuse in the society?

Methodology

A cross-sectional survey design was employed for the study. The population for the study was sixty-four teens that was purposefully selected from the community. A close-ended questionnaire was adopted for collection of data. Face and content validity of the instrument was established. In order to establish the reliability of the questionnaire, twenty youths from community secondary Omudioga was used. Split-half method was used. Reliability coefficient of .80 of the questionnaire was established using Pearson product moment correlation in conjunction with spearman-Brown prophecy statistic. Sixty- four copies of questionnaire were served but only fifty-four copies were properly filled, giving a return rate of 84.38 per cent. The well filled copies were collated using statistical package for social Science for analysis of data provided.

Result

Research Question 1: To what extent would taking of drugs pose problem to the individual or society?

Table 1: Proportion of Respondents (N=54) Showing the Extent at which Respondents Take Drugs.

Items	Yes		No	
	F	%	F	%
Do you take illicit drugs?	50	92.5	4	7.4
When did you start using illicit drug?				
Age: before 9 years	18	33.3	32	59.3
After 9 years	32	59.3	18	33.3
How often do you take drugs?				
Often	13	24.1		
More often	13	24.1		
Most often	26	44.4		
Do you think taking of drugs make you intoxicated?	39	72.2	15	27.8

The table above showed that 50 respondents representing 92.5% of the population have taken drugs. While 4 (7.4%) of the respondents have not taken drugs before. Among those who have taken drugs 18 (33.3%) respondents answered that they started taking drugs before 9 years, while 32 respondents which represents 59% of the population claimed they started taking

drugs after the age of 9. Also, 13 (24.1%) of the respondents claimed they take drugs often and more often respectively, while 26 respondents representing 44.4% of the population take drugs most often.

Research Question 2: What types of drugs can affect the individual and society?

Table 2: Proportion of respondents (N=54) showing types of drugs that affects individuals and society.

Items	Yes		No	
	F	%	F	%
Do you like taking illicit drugs?	46	85.2	6	11.1
What type of drug do you mostly take?				
i). Alcohol	52	96.3	2	3.7
ii). Cocaine	28	51.9	26	48.1
iii). Crack	16	29.6	38	70.4
iv). Tramadol	46	85.2	6	11.1
v). Marijuana	7	13.0	47.	87.3
Do you experience unusual behaviour after taking the drugs?	40	74.1	14	26.0
Can these drugs affect your school, work, and family's activities?	51	94.4	3	5.6

The above result proved that 46 respondents, representing 85.2% are involved with illicit drugs, 6 (11%) of the respondents do not take illicit drugs. 52 (96.3%) take alcohol, while 2 respondents (3.7%) do not. 28(51,9%) take cocaine, 26

(48.1%) do not take cocaine. Tramadol is one of the drugs taken by most respondents as 46 (85.2%) are involved, as against 6 (11.1%) that are not involved. Marijuana is one of less taken. Furthermore, the table revealed that 40 (74.1%) of respondents

experience unusual behaviour after taking the drugs, 14 representing 26.0% respondents do not. Again 51 (94.4%) of respondents attest that intake of these drugs alter their activities. While 3 (5.6%)

respondents opined that their activities were never altered after drug intake.

Research question 3: What are the possible ways of controlling drug abuse in the society?

Table 3: Proportion of Respondents (N=54) Showing Possible Ways of Controlling Drug Abuse in the Society.

Items	Yes		No	
	F	%	F	%
Do you think drug abuse can be prevented?	51	94.4%	3	5.6
Do you think parents have any role to play in the prevention of drug abuse?	38	70.4	16	29.6
Do you think Government has any role to play in prevention of drug abuse?	53	98.1	1	1.9
Do you think school have any role to play in prevention of drug abuse?	49	90.7	5	9.3

In addressing research question three, the table revealed that drug abuse can be prevented as the respondents declared. 51 (94.4%) of respondents responded positively. 38(70.4%) said that parents have role to play, 53 which is 98.1% okay that government have their own role to play. Finally 49 (90.7%) accepted that school also have a positive role to play in preventing drug abuse.

Discussion

The result of the finding showed that of illicit drugs is commonly used. Some of the drug addicts started before the age of 9years. Most often, many teens who started early to use drugs are those whose parents are also drug users and those with some family challenges. Drug misuse has diverse consequences. It involves functional changes in the brain circuits, it disrupts the normal functioning of the organs in the body, as well as other serious harmful effects.

Research question two addressed drugs that are commonly abused, they include alcohol, cocaine, crack and tramadol. These drugs are readily found in the community. The continuous use of these drugs does not only challenge the health of the user, but affects their schooling, work and family activities, even when the user want to carry out other activity like school work, the energy will not be there.

Conclusion

In preventing or controlling drug abuse, all hands must be on deck to prevent drug abuse. And drug misuse which are now something of critical conditions. Achalu (2005), asserted that individuals, families and general public should have access to accurate information on the harmful effects of drug abuse. Health educations increase knowledge and awareness hence motivates positive attitude and behaviour change towards drug abuse.

Parents should have strong positive connections with adolescents and having

clear limits and consistent enforcement of discipline on children. There should be continuous and open education about the reality and risks of drug abuse on adolescents.

Recommendations

1. Parents should teach their children the dangers associated to any kind of substance abuse and be the role model.
2. Religious leaders and organization should also play a very vital role to control the use of these substances that ravage the lives of these teens.
3. Drug law enforcement agents should be alerted and be at alert to take lawful action against those defaulters.
4. Drug education should be inculcated into school curriculum at all levels to keep sounding the harmful or dangers associated with drug abuse.

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DRUG ABUSE AND RAPE ISSUES IN 21ST CENTURY

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Abstract

Rape has wreaked serious havoc in our society. It has led to murder, severe bodily injuries, psychological sequelae, destruction of bucolic, incarceration, dissolution of marriages, mental illness, gruesome loss of virginity, unwanted and unintended pregnancy, poverty and allied rue to mention but a few. Rapists usually act like people that are under the influence of something overwhelming. The problem of rape seems to be connected with an inebriating or intoxicating substance that alters the physiological and psychological functioning of the body as a normal human being will find it difficult to abuse another sexually given the ties that we share and the available psychosocial control mechanisms. Drugs are chemical substances that alter body chemistry and their abuse is known to bring misery. The issue of rape therefore may have strong ties with drug abuse. Rape can influence and be influenced by drug abuse. This paper therefore explored the likely link between rape and drug abuse. It clarified the concepts of rape, drug and drug abuse. Examined their typologies and allied ontology. The likely relationship between rape and drug abuse was equally explored. The existent strategies of managing rape were recapitulated and recommendations were made on how to bring lasting solution to the problem of rape in our society.

Keywords: Rape, Drug and Drug Abuse

Introduction

Rape is a psychosocial ill; a very serious one for that matter. It is life treating, immoral as well as amoral act. It is an act that constitutes sexual insult and assault. It involves forceful, deceitful, awful and/or

unlawful, sexual exploration or exploitation of another without approved consent. Rape is considered a grievous crime all over the world as it is seen to be abusive, dangerous, deleterious and disastrous. More often than not, it culminates into humiliation, litigation, post traumatic stress disorder,

unwanted or unintended pregnancy, and abortion, sexual dysfunctions', contraction of sexually transmitted diseases, dearth and untimely death. The problem of rape in our society is a serious one. The media is replete with terrific reportage of rape cases. Prominent among such cases include; child rape, forcible rape, gang rape, corrective rape, sedative rape and lots more. In a bid to curb rape and by extension its trending consequences in human societies, lots of interventions have been made, among which are criminalization of rape and rendering of free medical and psychological assistance to rape victims. Though, the interventions made so far have made significant contributions to manage the problem of rape in our society. Much more remains to be done most especially in the area of unraveling the independent, moderator and perhaps extraneous variables that make people to rape and be raped. One variable that appears to have strong ties with rape in our time is drug abuse. It seems to compound the problem of indecent dressing, inhibits self control and triggers abusive instincts. This paper will therefore examine drug abuse and rape issues in the 21st century. It will begin by conceptualizing drugs, proceed to identify the types of drugs around us, operationalize drug abuse, and proceed to link drug abuse with rape issues with special emphasis on concept of rape, types of rape, trend of rape, effects of rape and management of rape.

Concept of Drug

Drug is a chemical substance that alters the physiological as well as psychological functioning of an organism. It is a substance which when taken modifies the way the body responds to stimuli. Drugs are chemical combinations that have curative as well as mood changing effects. The term drug was supposedly derived from old French word 'drogue', a plausible

derivative of Middle Dutch word "Vote" referring to dry barrel used for the storage of medicinal plant. Suffice it to state that are pharmacological and/or psychoactive substances that influence bodily processes.

Types of Drugs

The existent drugs in our society can be classified into five categories namely; medical drugs, stimulants, depressants, opium related pain killers, and hallucinogens. Below is a synoptic survey of the aforementioned drug categories:

Medicinal or medical drugs: As the nomenclature implies, drugs that fall under this category are used for the treatment of bodily ailments. Examples of such drugs include; Paracetamol, Panadol, Vitamin C and the likes of it. They are usually used for curative purposes.

Stimulants: Stimulants are drugs that increase alertness. They heighten the functions of the central nervous system. Stimulants are known to increase activity, alertness, energy and synergy. Examples of stimulants include; cocaine, kola nuts, tea and coffee.

Depressants: Depressants on their part are drugs used to literally repress or suppress sensation. They are known to reduce anxiety, bring calm, and even quell pains. Alcohol and Indian hemp are examples of depressants.

Opium Related Painkillers: Opioids are drugs that act on receptors in the brain. They tend to kill or quell pains; examples of such drugs include heroin, morphine, oxycodone, vicodin, fentanyl, and heroin.

Hallucinogens: Hallucinogens are drugs that distort perception to the extent of inducing hallucination. To be concise, hallucinogens are psychoactive agents that

often or ordinarily cause hallucinations, perceptual anomalies, and other substantial subjective modifications or flux in thought, emotion, and consciousness that are not typically experienced to such an extent when using other classified drugs.

Drug Abuse

Drug abuse is wrong, improper or inappropriate use of drugs. It is the act of using drugs in a way that violates the existing protocols. It is the use of drugs in a manner that is not good for one's health. To be concise, drug abuse is the act of using drugs in a way that deviates from the approved medical guidelines. Self administration /recommendation of drugs, use of drugs without doctor's prescription, disregard for doctor's prescription, use of drugs for fun and allied drug malpractices qualify as drug abuse. Suffice it to state that pervasive or excessive use of psychoactive drugs, such as alcohol, pain medications or illegal drugs translate to drug abuse (Ordu 2012).

Drug Abuse and Rape issues

Drug abuse and rape appear inseparable. The relationship between drug abuse and rape is a complex one. As a matter of fact, drug abuse can give rise to rape and vice versa. It is a two way problem. Rape as a psychosocial problem is the act of having sexual intercourse with someone without socially approved consent. It usually involves some or a combination of the following; drugging of individuals, use of force, use of tricks, and other anomic innovations to have sex with people against their will. From the lexical perspective, rape is an awful and unlawful sexual activity, most often involving sexual intercourse against the will of the victim through force or the threat of force or with an individual that is not capable of giving valid consent owing to viciousness or deception. In

trenchant terms, rape is a sexual insult or assault usually involving sexual intercourse or other forms of sexual penetration carried out against a person's will. It could be by physical force, coercion, abuse of authority, or against a person not capable of giving valid consent such as one that is unconscious, incapacitated, intellectually disabled or below the age of acceptable consent. Commonly perpetrated rapes in our society include; date rape, gang rape, marital rape, incestual rape, child sexual abuse, prison rape, acquaintance rape, war rape and statutory rape (Gary, 2011). The identified arts that constitute rape are related to drug abuse in the following ways.

- **Drug abuse weakens or eases sexual restraints**

As stated earlier, drug abuse alters the functioning of the mind. A healthy mind usually exercises restraint over sexual impulses. Howbeit, drug abuse erases or eases such restraint and makes people to assault others sexually. A quintessence of the case in view is that of an adult or adolescent who after abusing a mind altering substance proceeds to violate others sexually.

- **Drug abuse triggers sexual hyperactivity and vulnerability**

Again, the abuse of drugs that boost sexual energy (Libido) can instigate rape. An individual who takes an aphrodisiac for fun is likely to rape any vulnerable one around when the drug begins to function. Again, drug abuse oriented sexual hyperactivity can trigger rape amongst either or both gender as the sexual desire of the drug abuser has become uncontrollable.

Drug abuse equally exposes people to rape by making them to lose guard. A chaste lady who insist on no sex before marriage while dating a guy and jealously guards her

virginity during the period of courtship can be raped by inducing her to sleep using sedatives, depressants and allied drugs and violated sexually without her consent and any form of resistance. This has been the case of so many recorded date rapes.

- **Drug abuse engenders risky behaviors**

Drug abuse equally makes people engage in risky behaviors. Alcohol for instance gives people Dutch courage. Ladies and even guys that abuse drugs are known to engage in risky sexual behaviors as they tend to feel invincible. A lady under the influence of a substance can go out with a total stranger at her own risk. Drug abuse makes people vulnerable to rape through sedation, alteration of perception, and allied psychic inducement. It has a pervasive influence on the human personality. Individuals can consent to sex under the influence of hard drugs and such consent is not usually valid.

Relationship between Rape and drug abuse

Rape predisposes people to drug abuse. A rape victim can abuse drugs to kill pains, alter his/her emotion for good, escape from nasty reality, and feel among especially when rape is part of an initiation process into a fraternity or sorority. This makes the link between drug abuses and rapes a complex one. Tackling one without tackling the other may not yield the desired result as drug abuse to an extent influences and is influenced by rape.

Effects of Rape

Rape no doubt has a devastating effect on the human personality. The stigma, bodily injuries, irreversible damage especially when the victim is a virgin, susceptibility to venereal disease, risk of unwanted and unintended pregnancy, abortion complications, psychological sequelae,

sexual dysfunctions, allied psychological problems such as; angst, guilt, self pity, depression, aggression, humiliation, mental delirium, obsession, compulsion, phobia, personality disorder, and allied psychic disturbances associated with rape are not only deleterious but, also disastrous. Corroboratively, the World Health Organization outlined the following as consequences of rape; gynecological disorders, reproductive disorders, sexual disorders, infertility, pelvic inflammatory disease, pregnancy complications, miscarriage, sexual dysfunction, acquired sexually transmitted infections, including HIV/AIDS, Mortality from injuries, suicidality, depression, chronic pain, psychosomatic disorders, unsafe abortion, post traumatic stress disorder and vicarious traumatization (Krug, 2002).

Management of Rape

Management of rape whether preventive or remeditative can be appreciated under four headings namely;

Psychological Management of Rape

Counseling and psychotherapy are used to manage rape. Behavior modification techniques, defense mechanisms, Rational Emotive Behavior Therapy, Logo therapy and allied psychotherapies are used to assist rapist, rape victims, and those that handle rape cases bedeviled by vicarious trauma to overcome the psychological problems associated with rape before and after the incident. Logo therapy, for instance is used to help rape victims to find meaning in life and live anew (Iwundu, 2019).

Sociological Management of Rape

The society helps in managing rape by controlling the predisposing factors such as deshabelle (indecent dressing), social vices and other sociological basis of rape are

controlled through the instrumentality of social control. Rewards, threats, punishment and allied social control techniques are used to manage the problem of rape in our society. Families, schools, churches and mosques are to stem the tide of rape in our society by inculcating the right social values into members of the society.

Medical Management of Rape

Rape is as well managed medically. On a preventive note, male individuals with high inclination of committing rape can be treated medically by injecting feminine hormones into their system and vice versa. Again on a remediative or curative note, medical management is equally crucial to the instant management of rape cases. Rape victims are usually hospitalized and their evidence collected and protected before they are treated, and stabilized medically pending the decision to pursue litigation or not.

Legal Management of Rape

Rape is managed legally through proper legislation, litigation and/or prosecution. laws are usually made to make rape unlawful in all ramifications. And such laws are implemented with utmost vigor. Rapists are prosecuted and made to face the approved sanctions. Doing this goes a long way to prevent people from raping others as well as correct rapists.

Conclusion

Drug abuse is dangerous and egregious. It creates an enabling environment for rape and other social vices thrive. It makes victims to be vulnerable to abuse as well as hardens abusers to violate their victims without compunction. Suffice it to state that rape cannot really be eradicated if nothing

is done to stem the tide of drug abuse in our society.

Suggestions

1. The ban on the trading as well as consumption of hard drugs in our society should be enforced with utmost vigor to checkmate the occurrence and consequence of drug abuse.
2. Aggressive sensitization campaigns should be carried out in our society to enlighten the masses about the dangers of drug abuse.
3. Behavior modifications techniques such as; flooding, aversive therapy, counter conditioning, ear shooting and cognitive behavior therapy should be used to modify drug abusers.
4. Incarcerated rapists should be treated for alcoholism with applied behavior analysis to avert recidivism after serving their terms.

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EFFECTS OF ETHICAL ORIENTATION ON SECRETARY'S JOB PERFORMANCE IN DEPOSIT MONEY BANKS IN NIGERIA

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Abstract

This study assessed the relationship between Ethical orientation and Secretary's job performance. The study was conceptualized given the dimensions of Ethical orientation such as ethical behavior, ethical attitude. The study was based on review of existing literatures. The literature review revealed that there is a statistically significant relationship between Ethical orientation and organizational image in deposit money bank in Nigeria, the study thus, concludes that a significant relationship exist between Ethical orientation and organizational image. Based on these findings it was recommended that the top management should put attention much more to ensure high level of ethical behaviour among employees as to foster good organizational climate.

Keywords: Ethics, Employee, Performance and Orientation.

Introduction

Organizations pursue to drive performance and success through Employee ethical behavior. Employee ethical behavior (ethical behaviour) has been referred to as the study of ethical and unethical decision-making and behavior in an organization, especially in a work context. Trevino and colleagues also stated that behavioral ethics or organizational ethics based research is the systematic study of ethical/unethical behavior of employees in organizations. The 'individual' is important in organizations as people bring to the workplace their own perceptions about what is ethically right or wrong (Dessler, 2013). The risk to the organization is that 'good' people can be morally blind and engage in unethical behavior, without knowing the immoral nature of their actions (Kish-Gephart, Harrison & Trevino, 2010). The shared perception of what is correct

behavior and how an ethical dilemma should be handled has been referred to as the 'ethical climate' in an organization (Victor & Cullen, 1988). Researchers have identified that ethical climate promotes employee ethical behaviour, and also influences many individual and organizational level work-related consequences (Jha et al., 2017). When employees do not follow written standards of the organization, their behavior impedes the organization's ability to meet corporate goals, accepting employee ethical behaviour at work is important (Askew et al., 2015). Hence, scholars have shown an increased interest in 'employee ethical/unethical behavior' since early 1980s, and have generated insights on many positive employee and organizational outcomes. (Trevino et al).

The ethical context in an organization positively influences ethics-related attitude (commitment) and behavior of employees in the organization (Trevino et al, 1998). According to Sen and Bhattacharya (2001), the perceptions of ethical or socially responsible behavior in an organization could positively influence customer purchase behavior. Ethical image or image has been valued as one of the key attributes of a company's ability to attract and retain talent (Foote & Ruona, 2008). Baker, Hunt and Andrews (2006) identified that Corporate Ethical Values direct employee ethical behaviour in organizations, and higher the ethical behaviour, higher the employee performance. They also found that the increased OCB due to enhanced ethical behaviour may result in higher organizational performance. Thus, "Organizations need employees to behave ethically to produce positive outcomes that are beneficial" (Askew et al., 2015, p. 107). However, managing employee ethical behaviour at work is a great challenge faced by organizations, locally as well as globally.

Despite many positive consequences of employee ethical behaviour, the high level of unethical behavior of employees in business organizations and its negative impact on the employee, and the society has become a global concern over the past two decades. For more than 30 years researchers have tried to understand why employees behave unethically at work. Unethical behavior of employees violates the generally accepted moral norms, and has necessitated the risks of high-cost burdens to companies. Immoral behavior of employees challenges the ethical nature of business organizations, drawing immediate attention for more innovative theoretical and empirical research on organizational ethics.

A secretary can be described as anybody who is assigned to record proceedings of a

meeting, irrespective of his or her secretarial skills. The Oxford Advance Learners Dictionary of Current English describes a secretary as an employee in an office who deals with correspondence, keeps records makes arrangements and appointment for members of staff. "The catalyst", a magazine of Oyo State public services, described a secretary as "someone who acts on behalf of the boss. They can be regarded as the co-coordinator of administrative work of a given department. Secretary deals with the day-to-day activities of establishment, he serves as an image maker of the establishment to the outside world and part of this ethics is to keep all information in the office secret. The secretary's profession is a dynamic one. Some secretaries behave in a way that even if they are good in their field, the way they behave does not allow them to gain their promotion as at when due. Secretaries negative behavior leads to something which they do not critically suppose to have. It is therefore, necessary to examine how ethics affects the job performance of secretaries.

The purpose of this study is to examine the relationship between ethical orientations and secretary's job performance.

The specific objectives are:

1. To investigate the relationship between ethical behavior and secretary's job performance.
2. To examine the relationship between ethical attitude and secretary's job performance.
3. To ascertain the relationship between employee orientation and secretary's job performance.

Ethical Orientation

Ethics can be interpreted as a gesture of personality, temperament, character and belief in something. This attitude is not only

owned by individuals, but also by other groups, and even the public. Ethics established by habit, the influence of culture and value systems that are believed (Tasmara, 2002). Work ethic has many elements: sourced and are associated with the values of a person's psychological, shows ingrained view, shows the attitude and hope someone (Wijayanti, 2012). Ethos is the character and attitudes, habits and beliefs and so on that is special about the individual or group of people. Ethos can be interpreted as referring to the meaning of ethics or morals are morals that essential quality of the human person or group, including a nation. Ethos also means ethos human group of her developing nations view with respect to the good and bad which is ethics (Madjid, 2010).

The focus of ethical orientation in previous literature and the long-standing scholarly debate on 'Ethics-' is on the 'social/wellbeing' aspect of the ethical dimension of organizations (Winstanly & Woodall, 2000; Greenwood, 2002; Wright & Snell, 2005; Greenwood 2013). This is to perform organizational functions ethically in organizations to maintain justice, fairness and well-being towards employees.

In contrast to the above conventional view, De Silva, Opatha and Gamage (2016) identified that there exists a possible second connotation to the ethical dimension of organizations, labeled Ethical Orientation. The researchers defined ethical orientation as "the extent to which organization's functions directed to create, enhance and maintain ethicality within employees to generate an ethical workforce in the organization (De Silva et al., 2016, p. 156). In other words, ethical orientation has been defined as 'the ethical criteria embedded organizational functions directed as a 'bundle' to enhance ethicality within

employees towards ethical behaviour in organizations

This process involves functional incorporation of ethics into the organizational system/framework. This is in contrast to performing other managerial functions ethically towards employee 'social/well-being' in organizations. Hence, ethical orientation differs from the 'social/wellbeing' aspect of the ethical dimension of organization, and is a new concept in human resource management literature.

Employee Ethical Behavior

There is no universally accepted definition for employee ethical behaviour. According to Sims (1992, p. 506), ethical behaviour is a concept which is "morally accepted as good and right, as opposed to bad or wrong in a particular setting." Treviño et al. (2006, p. 952) defined ethical behaviour as "the individual behavior that is subject to or judged according to generally accepted moral norms of behavior." Further, employee ethical behaviour has been referred to as the study of ethical and unethical decision-making and behavior in an organization, especially in a work context" (Trevino et al., 2014, p. 6.1).

Based on the scholarly definitions in the existing literature, a working definition for employee ethical behaviour for this study has been developed: Ethical Behavior is to act in ways consistent with what society and self usually think are morally accepted as 'good' and 'right', as opposed to 'bad' or 'wrong' behavior in a particular situation. In their meta-review, Kish-Gephart et al. (2010) have noted that Rest Model (1986) has guided most of the previous research on behavioral ethics in organizations. The Rest Model (1986), as cited in Kish-Gephart et al. (2010), determined four stages of ethical

decision-making and behavior: (i) moral sensitivity (awareness and interpretation of the moral problem); (ii) moral judgement (decision-making ability to distinguish right from wrong); (iii) moral motivation (prioritizing moral values) and (iv) moral character (courage, persistent, and strength of character). Further, employee ethical behaviour is the outcome of four integrated psychological sub-processes: ethical sensitivity, ethical judgement, ethical motivation and ethical action (Rest, 1986, cited in Bebeau, 2002). Ethical behaviour in this study is viewed under four dimensions: (i) ethical sensitivity, (ii) ethical judgement, (iii) ethical motivation and (iv) ethical action.

Employee Ethical Attitude

Opatha (2015) recognized that “every human being has attitudes which have a significant impact on his/her behavior”. Hence, to understand the concept of ‘ethical attitude’ it is essential to first understand the concept ‘attitude.’ Scholars have explained ‘attitude’ in many ways: Dunham (1984) identified that every attitude has three distinct components: cognitive, affective, and behavioral tendency. Robbins et al. (2014) stated that an attitude comprised of three components: (i) cognitive (evaluation), (ii) affective (feeling) and (iii) behavioral (action attitude here is ‘ethics.’ Recent scholars have defined ‘ethics’ as moral beliefs and rules. Authors have considered EA as a concept that consists of three dimensions: (i) beliefs (cognitive), (ii) feelings (affective) and (iii) intention to behave (behavioral) with regard to ethics.

Employee Orientation

Orientation can be viewed as an exceptional type of guidance designed to assist new workers to learn about their everyday jobs, to be introduced to their colleagues and to

settle in their work situation. It is a fundamental ingredient of internal corporate communication (Bennett, 2001). Employee orientation can be generally defined as the familiarization with, and adaptation to, a new work environment. It is the process by which a new hire is introduced to the institution, to the work assembly, and to the job. By tradition, organizations approach orientation by telling to the new hire the organization’s history, structure, fringe benefits, rules, and regulations. An additional progressive approach is to view orientation like an occasion to communicate the company’s vision and values, shape the new worker’s values and integrate him/her into the organization’s structure (Asare-Bediako, 2008). The first few months in any company stand for the critical period during which a worker will or will not learn how to become a high performer.

New staff in an institution can be welcomed by an orientation program that makes them feel at ease and like they are an element of the group. Orientation programs differ depending on the institution, the running style, and the overall managerial culture. An orientation program can provide workers with an appropriate introduction to the company, what's expected and where they fit into general goals.

According to Richards (2017), Employee orientation program benefits the company by providing a chance to introduce workers to the basics of the company and their jobs from an administrative point of view. Workers benefit from learning the vital regulations and job details and position. Employees will complete essential rules and regulations, obtain and review the employee manual, learn regarding and sign up for benefits and learn about some basic elements of the new position.

Employee Performance

It can be defined as a systematic process for improving organizational performance by developing the performance of individuals and teams (Armstrong, 2006). Thus, it can be interpreted that the optimized performance and stable, not something accidental. Certainly, it is through the stages with a good performance management and maximum effort to achieve it. Individual performance can be measured (Miner, 1988) with; First, the quality of work by looking at the error rate, the extent of damage and accuracy in work; Secondly, the quantity, the number of jobs generated; Third, the use of time in the work indicated by absenteeism, tardiness, effective working time / working hours lost; Fourth, cooperation with others in the works. Empirical facts provide evidence that employee satisfaction is able to act as intervening variables in analyzing the influence of organizational culture on company performance (Biswas, 2015).

Many business executives are under the mistaken impression that the level of employee (secretaries) performance on the job is proportional to the size of the employee's compensation package. Although compensation package is one of the extrinsic motivation tools, it has a limited short term effect on employees' performance. A widely accepted assumption is that better workplace environment motivates employees and produces better results (Leblebici, 2012).

Essentially, an elegant and functional workplace environment often culminates in improved employee efficiency and productivity. In recognition of this fact, most offices are now designed and furnished with the employee in mind to ensure that his workplace environment including furniture and equipment

adequately supports and induces high performance. The quest to equip employees and workers with most suitable workplace environment, furniture, equipment, tools and techniques to discharge their duties efficiently and effectively is the fundamental philosophy behind the development and growth of ergonomics. The performance of an employee is measured actually by the output that the individual produces and it is related to productivity. At corporate level, productivity is affected by many factors such as employees, technology and objectives of the organization. It is also dependent on the physical environment and its effect on health and employees' performance (Al-Anzi, 2009).

Statt as cited by Leblebici (2012) argues that, the modern work physical environment is characterized by technology; computers and machines as well as general furniture and furnishings. To enhance employee performance therefore, it is imperative that the organization's physical environment is fashioned to support employee in their quest to attain organizational objectives.

Ethics and Secretary's Performance

Each individual worker has a different level of attitude to work and this attitude is assessed by the involvement of employees in performing the assigned responsibilities. According to Kenrick et al. (2005), attitude as an acceptable and unacceptable evaluation of particular person, people, objects, events happenings or ideas. Attitude paves way for behavioral action which ultimately influences performance. The relationship between work attitude and productivity has been largely studied and various factors are responsible for this relationship. Some studies argued that employees work attitude tends to be

favourable when organizations facilitate industrial harmony, affection, recognition, friendliness, freedom that are crucial for enhancing organizational productivity. However, where these are ignored, intention leave, sabotage, absenteeism, labour turnover, low morale and productivity becomes a common phenomenon. Also argued that unfavourable work attitude could come as a result of poor relationship with a leaders/manager, lack of recognition and flexitime, inequality, inconsistent promotion and payment of salary, lack of training, development and career opportunities increased industrial hazard, inadequate employment protection can be the push factor behind an individual's attitudes towards organizational productivity (Salaue et al., 2014).

It becomes imperative to note that an individual that is not satisfied with the pay, working environment, ethical values, culture, company policy and processes may exhibit some attitudes that could be detrimental to employee performance. When productivity is adversely affected, then achievement of corporate objective suffers which will eventually make profit maximization unattainable. It is pertinent to note that the notion of an employee towards his/her job will certainly influence his/her attitude. However, favourable and unfavourable cultural and ethical values should be a formal and informal laid down policies, procedures and standards which are established to guide the conduct, attitude and behaviour of employees in the workplace (Kate, W. & Masako, 2002). Therefore, the success of every organization is a dependent factor on employees' attitude towards increasing productivity of the organization.

Theoretical Framework

This work anchors on the theory of Moral unity propounded Jeremy Bentham (1748-1832), and later developed by Stuart Mill (1806-1873). The theory believes that business actions can be judged by the general ethical standards and principles of the society (Steiners 1991 in Nnabuife & Ikon, 2008). This principle implies that a balance should be struck between the decisions & actions taken by business organizations, and what is ethically accepted in the society. They assert that "Goodwill" which is one of the most expensive intangible assets of any organization, can partly be traced to the ethical standards portrayed in the business. This approach takes more credence from the utilitarian theory of business ethics (Valasques, 1992). Nnabuife & Ikon (2008) also opine that so many businesses have engaged success and enhanced institutional performance as a result of their high moral standards and religious principles. For instance, one of such business in the world is J.C. Penny (the third largest business chain in USA). One of its moral codes of conduct is as disclosed by Donnell, Gibson, and Ivancerich (1995), which reads thus that; moral issues greet us each morning in the newspaper, confront us in the memos on our desks, nag us from our children's soccer fields, and bid us good night on the evening news. We are bombarded daily with questions about the justice of our foreign policy, the morality of medical technologies that can prolong our lives, the rights of the homeless, the fairness of our children's teachers to the diverse students in their classrooms.

Dealing with these moral issues is often perplexing; how exactly should we think through an ethical issue? What questions should we ask? What factors should we consider? The first step in analyzing moral

issues is obvious but not always easy. Some moral issues create controversies simply because we do not bother to check the facts. But having the facts is not enough, as facts by themselves only tell us what is; they do not tell us what ought to be. In addition to getting the facts, resolving an ethical issue also requires an appealing to values. Philosophers have developed five different approaches to values to deal with moral issues in business and social relationships in general.

Conclusion

This study was primarily carried out to examine the effects of ethical orientation on Secretary's job performance. Various literatures pertinent to the subject matter (ethical orientation and Secretary's job performance) were extensively reviewed. The literatures were first reviewed the terms of the concept of the study variables and their relationship. Further the review was theoretically underpinned by the theory of Moral unity propounded Jeremy Bentham.

The study provided an insight into the relevance of ethical orientation on Secretary's job performance. More so, the study showed that ethical orientation Secretary's job performance had positive relationship.

Suggestions

The following recommendations are made:

1. It is suggested that the top management should put attention much more to ensure high level of ethical behaviour among employees as to foster good organizational climate.
2. Keeping in view to sustain the level of employee's performance at higher level, top management should be very carefully orient employees to keep good attitude.

3. In the greater interest of increasing organizational image, through the increase employees satisfaction, top management should create a work culture environment where employee orientation is a routine.

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ECOLOGICAL MARKETING PRACTICE AND ISSUES OF OIL FIRMS' ECOCIDE ACTIVITIES: A SURVEY OF AGRICULTURAL PRODUCTIVITY IN NIGER DELTA

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Abstract

This study was carried out to examine the extent to which the ecological marketing practice of the oil firms: Shell BP, Agip Oil Company, and Elf Oil Company have sustained the agricultural economic wellbeing of the oil-bearing communities from ecocide activities in Niger Delta. A descriptive survey research design was employed in this study. The population of the study was 37,965,391 drawn from Niger Delta States based on which a sample size of 400 respondents was determined using Taro Yamane's sample size determination techniques at 0.5 percent level of significance. The purposive sampling procedure was employed to enable the researcher to select the representative sample elements of the population interest from the right respondents who have adequate knowledge of the study under investigation from the different strata that makes up the population of the study. A structured instrument for data collection containing twenty (20) item questions was used for the study. The face and content validation of the instrument was obtained through the judgment of experts. A test-retest method was used to determine the reliability of the instrument and the reliability index of .83 was obtained. The data collected for the study were analyzed using the mean score test and the percentage test method to answered the research questions; while the inferential statistics of the Z-score test was used to test the null hypothesis at .05 level of significance. Results obtained revealed that "Ecological marketing practice of the oil firms does not significantly improved agricultural economic poverty, agricultural market failure, agricultural economic frustration, and agricultural land limitation in the oil-bearing communities in Niger Delta". The implication of this finding is that the oil firms' ecological sustainability marketing activities was considered to lack the needed proactive improvement values which, if ethical based ecological effort is not adopted to create sustainable improvement; oil firms might experience unpredicted operational interruption by the oil-bearing communities. It was therefore, recommended that oil firms should consider employing proactive ecological marketing efforts in a more ethical and responsible manner to sustain the agricultural economic wellbeing of the oil-bearing communities.

Keywords: Ecological Marketing Practice, Ecocide Activities, Agricultural Sustainability and oil Firms.

Introduction

The ecological marketing practice of the oil firms is driven by its engagement in the marketing activities of protecting,

improving, sustaining and preserving the ecological system to satisfy consumers' needs and the wellbeing of the society. This could be considered as the ecological marketing practice of the oil firms when

practice with the view to improve on quality protection of environmental values (the floral and fauna). In view of this, Ecocide activities is a deliberate destruction of the natural environment or the ecosystem with poisonous activities considered harmful to the inhabitants. Thus, the activities of oil production is strongly connected with the destruction of the ecosystem or the natural environment by oil firms. Therefore, ecological marketing practice, which appears to have over looked the value of agricultural economic sustainability in the oil-bearing communities by oil firm is associated with incessant oil pollution in Niger Delta. The state of this incessant oil pollution is also connected with the production activities of the oil firms that destroy the flora and fauna which are key elements of the ecosystem. Relatively, the marketing intention and activities of protecting, improving, sustaining and preserving the wellbeing of the ecological system could be defined as ecological marketing practice (Perreault & McCarthy, 1999).

Without doubt, the fast growing need for environmental protection and sustainability of the ecosystem has in the recent time calls for the need to improve, protect, and sustain the ecological wellbeing of the environment from the seeming uncontrolled increase in the level of oil pollution generated by the multinational oil firms. This becomes more realistic in Niger Delta where cases of incessant oil spills and gas flaring activities appear endless. The need for efficient practice of ecological sustainability marketing by the oil multinational firms becomes necessary in Niger Delta. The evidence of inefficient practice of ecological sustainability marketing by the multinational oil firms were traced to gross neglect of societal marketing values which ecological sustainability marketing is an extension. In

condemnation of such unethical ecological sustainability marketing practice, the attention of environmental protection agencies, such as, the Sierra Clubs, Friends of the Earth, the Green Peace and the World Health Organization was attracted.

Similarly, the economic wellbeing of the host oil-bearing communities were not treated with care by the oil-firms for their failure to understand that, "business exist at the discretion of consumers, and the society; and it is mainly by satisfying the consumer citizens and the society that business firms and our economic system can justify its true existence and hope to keep operating; for few dishonest and unethical business managers have done a great deal of environmental damage; before consumer citizens noticed to take the necessary steps to stop their harmful operations (Perreault & McCarthy, 1999). In line with this reality, novel researchers in the recent time observed that there are contrary unsustainable ecological marketing practice, which on noticing the activities of the oil firms, Hicks and Gulletts (1980) asserts that unethical managers has exerted some poor managerial influence on the management of their surrounding for selfish reasons of making huge profit at the detriment of the consumer citizens that give the company the succor to operate. The concern of the oil firms appears not to be protection oriented based its sluggish attempt to sustain the agricultural economic wellbeing of the oil-bearing communities.

In addition, evidence of oil pollution hazard result from unsustainable ecological marketing practices has poisoned the economic wellbeing of the locals with high density of hydrocarbon substances on their safe drinking water, fertile land quality, air through gas flaring activities and incessant oil spillages. This implies that oil firms in Niger Delta have not understood the

implication in the reality that: "Business organizations must be involved in improving the general quality of life in the society, and solve social economic problems of the host community that give firms the succor to operate. It is therefore, the key function of a business organization to ensure successful performance when the firm cares for the wellbeing of the consumer citizens its production activities. Thus, business practice and the sustainability of the business existence in the society is a function of ecological sustainability marketing activities of the corporate citizen that gives serious concern to the protection of ecological needs in the society (Danhagu, 2008).

Having observed the economic threats resulted from what seems to be the failure of the oil firms' ecological sustainability marketing practices, it was still doubtful to notice that "At this age of environmental deterioration, neglect of social services, resource shortages, explosive population growth; World hunger and poverty, and the increase in environmental awareness;" the multinational oil firms, such as, Agip Oil Company, Shell BP, and Elf Oil Company still seems to be busy imposing expensive economic threats on the agricultural productivity in the host oil-bearing communities in Niger Delta".

It is against this background that this study seeks to find out the extent to which the ecological sustainability marketing activities of the oil firms: Shell BP, Agip Oil Company, and Elf Oil Company have improved the quality of agricultural economic wellbeing of the oil-bearing communities in Niger Delta.

Statement of the Problem

The reality concerning the increasing effects of oil pollution hazards caused by the multinational oil firms were traceable to

high density of incessant oil spills and gas flaring activities of the oil firms that effects safe drinking water, marine lives, land vegetations, and quality air in the oil-bearing communities. This was not different from ecological issues in Niger Delta caused by oil pollution generated by the multinational oil firms. On a large scale, the impact of the hydrocarbon substances released by the oil firms on the land has distorted the economic health condition of the locals. Eating of contaminated agricultural food produced in the oil-bearing communities has also caused various forms of oil related sicknesses that exploit the financial economic wellbeing of the people; which resulted in compounded health cost of treating the ailments. As if this was not enough, the issue of whether quality assurance in the security of the ecological system was could be obtained for agricultural economic means of livelihood appears to be an uphill task in Niger Delta. In view of this, the destruction of the flora and fauna with severe oil spills and gas flaring activities of the oil firms seems not to have an end in Niger Delta following the findings in Funiwa (2002) who opined that the destruction of the ecological system in Nigeria has not ceased and the oil firms' sustainability marketing has been marked with great failures as considered to lack socio-economic value to sustain the health and economic condition of living and non-living things.

On a large scales, the increasing cost of treating oil polluted agricultural food ailment associated with unhealthy food production has result in huge financial frustration which does not only caused unwanted health hypertension among the people traceable to the destruction of the economic source of livelihood. However, this was noticed to have generated retrogressive oil pollution impact on the long life span of the host oil-bearing

communities; thereby, causing high rate of immorality associated with poor quality assurance in the protection and sustainability of ecological values in oil-bearing communities. Also, for the purpose of discouraging the increase reports of oil pollution activities of the oil firms, the World Health Organization, Friends of the Earth, The Green People, Nigeria Environmental Protection Agency, the Sierra Club and the Host Oil-Bearing Communities in strong term condemned the environmental marketing activities of the oil firms in Niger Delta, specifically Rivers State; but little or no significant improvement has been done to avoid the oil pollution hazards (Morgan & Ruggurg, 2000; Funiwa, 2002).

Having noticed the seeming endless negative impact of the observed ecological sustainability marketing activities and practices of the oil firms in Niger Delta, it becomes expedient for this study to find out if, the ecological sustainability marketing activities of oil firms: Shell BP, Agip Oil Company, and Elf Oil Company has significantly, improved the quality of agricultural economic wellbeing of the oil-bearing communities in Niger Delta.

Aim and Objectives of the Study

The main objective of this study is to examine the extent to which the oil firms' ecological marketing practice has sustained the agricultural economic wellbeing of the oil-bearing communities in Niger Delta. In order to achieve this aim, the following specific objectives were considered.

- i. To examine the extent to which the ecological marketing practice of the oil firms has reduced the trend of agricultural economic poverty in oil-bearing communities in Niger Delta.

- ii. To examine the extent to which the ecological marketing practice of the oil firms has reduced the trend of agricultural market failure in oil-bearing communities in Niger Delta.
- iii. To examine the extent to which the ecological marketing practice of the oil firms has prevented agricultural economic frustration in oil-bearing communities in Niger Delta.
- iv. To examine the extent to which the ecological marketing practice of the oil firms has prevented agricultural land limitation in oil-bearing communities in Niger Delta

Research Questions

The following research questions are used as guide in this study.

- (i) To what extent does the ecological marketing practice of the oil firms, reduced the trend of agricultural economic poverty in the oil-bearing communities in Niger Delta?
- (ii) To what extent does the ecological marketing practice of the oil firms, prevents agricultural land limitation in oil-bearing communities in Niger Delta?

Research Hypothesis

The following research hypotheses were used in this study. However, they are stated in null form.

H₀₁ The ecological marketing practice of the oil firms, has not significantly reduced the trend of agricultural economic poverty in the oil-bearing communities in Niger Delta.

H₀₄ The ecological marketing practice of the oil firms, has not significantly

prevented agricultural land limitation in oil-bearing communities in Niger Delta.

Ecological Marketing Practice of the Oil Firms and Reduction in the Trend of Agricultural Economic Poverty in Niger Delta Oil-Bearing Communities

The ecological marketing practice of reducing the trend of agricultural economic poverty in the oil-bearing community by the multinational oil firms appears to have indicated sign of severe failure caused by ineffective ecological marketing consideration. This was not out of context in the view that harmful oil pollution in Niger Delta has damaged the ecosystem. Right from 1958 precisely, when Shell BP as an oil firm started its operation in Ogoni land; oil spills explosion that causes some dangerous toxic substances on the farmlands and water bodies containing hydrocarbons, acidic chemicals, inorganic metals, such as mercury or arsenic flammable solvents, pesticides, herbicides phenols and explosive among others, have destroyed the green value of the land. This was not out of context in the view that the oil firms' ecological marketing practice has not proactively deduced the trend of agricultural economic poverty in Niger Delta.

Similarly, the poor practice of ecological marketing by the oil firms in Niger Delta, when embarking on oil production activity has destroy the sustainability of agricultural-economic source of livelihood of the locals in oil-bearing communities. This implies that the petroleum resource that sustained the economy of Nigeria and destroys the agricultural economic wellbeing of farmers and fishermen in oil-bearing communities has being extremely harmful and frustrating to human existence in the oil-bearing locality (Asakitikpi & Oyelavan, 2006). For this and similar

reasons, point out that "Some business organizations have lost their ethical values and mutual relationship with their host communities for failure of being socially responsible and ethical in attending to social needs and problems of the host communities (Omuni & Ekan, 2012)".

The rhetoric question about whether oil firms in Niger Delta is actually practicing ecological sustainability marketing was a major concern of the oil firms in the recent time to satisfy the agricultural economic and health needs of the consumer citizens. In response to this rhetoric question, Fayifu (2006) relates that the outcome of oil firms' exploration activities that promotes environmental degradation, socio-economic frustration and economic hardship that cause potential threats to the host communities' main source of livelihood was not only harmful but unsustainable. This tends to confirm that the economic wellbeing of the oil-bearing community was not ethically considered in the ecological sustainability marketing activities of the oil firm by avoiding oil pollution in oil-bearing communities. No wonder Ekpu (2010) observes that we witnessed the slow poisoning of the waters of this country and the destruction of vegetations and agricultural lands with oil spills that occur during petroleum operations. Having observed this fast growing trend of endless poisoning of the waters, air and land in Niger Delta, it was significant to ascertain the extent to which oil firms' ecological sustainability marketing activities has improved the agricultural economic poverty of the oil-bearing communities. In response to this, Bomi (2010) relates that oil companies in Niger Delta has being unhealthy and unethical in their oil production activities towards agricultural economic wellbeing of the locals who suffers the effects and defects of oil pollution benefits caused by

the firms' gross neglect to practice proactive ecological sustainability marketing. In view of this, Williams (2000), opined that the welfare of non-humans is intrinsically valuable and morally assessed for protection, preservation, respect and sustainability by the natural man in the society.

Having noticed the immediate huge profit intention of the multinational oil firms and their uncaring attitude showing lack of interest in the socio-economic wellbeing of the oil-bearing communities, Kotler (2000), advised that "It is more important and necessary to do what is strategically right than what is immediately profitable; for it is no longer enough to satisfy customers, you must delight them". In order to add meaning to this, Frank Hungal, an American executive, states also that "My firm serves the target market for they make the firm to serve; and the firm cannot survive and exist without them (Schiffman & Kanuk 2009)". This implies that the survival and existence of oil firms rest primarily on the oasis and succor of the oil-bearing community. Therefore, it is not out of place for oil firms to protect and sustain the host communities' interests.

This add meaning to the view that ecological sustainability marketing activities of the oil firms appears not to have been economically healthy to sustain the agricultural economic wellbeing of the locals in oil-bearing communities, but posed more destructive oil spills impact on their means of livelihood. To give reason for this, Fayifu (2006), observes that the destruction of the biota, micro flora and fauna that form the foundation base of food chain were caused by oil spills and the effects of gas flaring activities of oil firms. This implies that the ecological sustainability marketing activities of the oil firms were unsustainable, driven with

unwanted harmful impact of petroleum chemical substances that poisons fertile land, and cause stagnant agricultural productivity, food insecurity, poor crops yields and unproductive harvest; as well as rendering the protein-us marine source hazardous (Bomi, 2010).

Ecological Marketing Practice of the Oil Firms and the Prevention Agricultural Land Limitation in Niger Delta Oil-Bearing Communities

It is obvious that since the advent of oil firms in Niger Delta, ecological marketing activities of the oil firms have not considered natural for the economic wellbeing of the farmers and fishermen in Niger Delta due to the gross neglect of their socio-economic farming and fishing activities by the oil firms (Utukepo, 2011). The prevention of agricultural land limitation caused by oil pollution generated by oil firms has devalued large quality of fecund land scale in Niger Delta (Chukwu, 2008). The socio-economic decisions and survival prospect of the farmers and fishermen in Niger Delta were therefore, driven by the seeming weak ecological marketing decision of the oil firms. Gabriel (2017), equally observed that oil production activities have limit the available land for agriculture and cause serious economic hardship and frustration in oil-bearing communities. Tuyizere (2007) asserts that people in the oil-bearing states in Niger Delta, depends heavily on agricultural activities for their livelihood where fertile lands has been rendered unproductive and limited for food production.

In view of this, oil firms and the host community experience unwanted crisis for failure to consider the protection of the environment as part of its social responsibility. Perreault and McCarthy

(1999), adds that “A firm cannot always wait until social crisis becomes obvious before thinking of doing something right; but should rather considered it harmful when customers react in anger and may be too late to fix the problem when the profits disappear”. This indicates that irresponsible firms wait until social crisis becomes obvious before it will be too late to fix the problem. To this end, it was not out of context to understand that the level of poor ecological sustainability marketing practice in Niger Delta has resulted in unprecedented economic poverty and its resultant unemployment, associated with moral decadence and fast-growing criminal activities in the oil-bearing communities (Okoh, 2009). This is directly concern with the existing state of available limited farm space with pipelines that crisscross the farmlands, streams, creeks and villages in Niger Delta. With these pipelines, farmers could not have access to their farms land and fishermen access to fish in their rivers; thereby generating untold economic hardship and frustration in the host communities.

In addition, when the oil spills and gas flaring effects on the ecosystem is grossly neglected by oil firms for depriving farmers the opportunity to produce agricultural food, the value of ecological sustainability marketing is neglected (Utukepo, 2011). This add meaning to the view in Gabriel (2017), who suggests that oil communities in Niger Delta groan under the perennial destruction of their property and the ecosystem as caused by oil spillage and gas flaring activities, which in resulted in land limitation effects on farmers' progress. In line with this, Shell petroleum Development Company was not ignorance of the evidence of poor management of its pipelines, which its leakages was caused by corrosion in Bodo city area of Rivers state; as discovered against what Shell Petroleum

Development Company's experts' findings shows (Nation Newspaper, August 3, 2012).

It was necessary to understand that any business that ignores its social responsibility in the society, has its social power threatened by what Keith et al (1978) called the “iron law of responsibility”; and in a long-run, firms that do not use their social power in a manner which the society consider responsible will tend to lose it (Chukwu, 2008). This implies that “Business firms must balance their concern and relationship with the environment with the view to accomplish consumers' expectations. For this reason, Kotler (1980), states that consumers and their environment are of great value, required to be protected, sustained and improved as part of the society, which their wellbeing is the major concern of the firm. Hardin (2009) suggests that, “It is convenient to penalize poor performing firms, which social responsibility practices are harmful to the environment and human health”. Such irresponsible social responsibility practices of the oil multinational company is considered contradictory to the idea of modern management with the believe that pollution generating firms lacks merit of managerial foresight to understand the need to protect and sustain their natural environment (Jaysanka, 2004).

However, in a reverse, the marketing activity of exploring the black gold had brought sorrows and tears to the land of Niger Delta, where their dreams died unnatural death, and their agricultural sustainable source destroyed, while economic hardship, poverty and land limitation has become their worst portion than what is even existing in the remotest part of Koma region, a primitive society in Adamawa state of Nigeria (Aakol, 2009).

Having notice this and similar irregularities in the oil firms' ecological sustainability marketing activity, Schiffman and Kanuk (2009), states that favorable attitudes of a company, encourage effective product positioning and marketing practice that stimulate discrimination and proper identification of a company's value from others - for long-term retention value that influence the future responsive of consumers' behavior. To be more exact, Sapru (2009), affirms in strong term that, I firmly believe too well that we shall not derive the full benefits of agriculture until we take to cooperative farming, for it stands to serve better for a hundred families in a village to cultivate their lands collectively and divide the income thereof, than to divide the land into a hundred portion for an exploiting capitalist firm that will destroy the land.

In view of this reality, Briggs (2007), state that the oil companies do not take in to consideration, the effects of oil pollution that are external to the company, because they suffer no negative effects on the huge profits; but the Niger Delta people to whom oil boom has being a doom and years of official neglect, epitomize by hunger, poverty and injustice traceable to regional denial of their productive land and agricultural source of sustainability. Udu (2007), asserts that marketers are often criticized for their unethical marketing practices, for manufacturing poor quality products and for their failure to protect and preserve the environment in which they operates. In line with agricultural land limitation, it will not be out of context in this study to understand that many business organizations has failed to understand that the consumer citizens have the right to their environment to enhance the quality of their life; with the right to live in a safe environment - not threatened by pollution and hazardous waste; as well as the right to

be heard in a court of law by obtaining a redress on damages occasioned by the producers default.

Methodology

The descriptive survey method of co-relational research design was adopted in this study to provide detail investigation of the procedure used to establish the relationship between environmental marketing practice and oil pollution hazard. The study used the descriptive mean score statistics and simple percentage test method for analysis of data obtain for the study. A set of questionnaire containing 20 item questions was structured and administered on 400 respondents drawn from the oil bearing communities. A modified 4-point Likert scale format cited in (Uzuaguru, 2002), was used in designing questionnaire needed to generate data for computation of the mean score statistics and simple percentage test. The study was carried out in Rivers State where respondents were randomly drawn from the oil-bearing communities. The population of this study was 7,303,900 persons (See Nigeria National Population Commission Census Web-site, projected population). A sample size of 400 persons was obtained for the study, using Taro Yamene's sample size techniques at 0.5 percent level of significant cited in Ani (2012). Purposive sampling technique was adopted, using a simple proportional percentage approach to ensure adequate representation and distribution of the questionnaire among the different strata of the population. The primary source of data was used with a structured questionnaire to elicit relevant responses from the 400 respondents. With the aid of five research assistants, out of the four hundred (400) questionnaires administered, only three hundred and sixty eight (368) copies being 92% was returned successfully, while thirty two (32) copies

being 8% was not returned. The variables investigated in this study were operationalized, using "Environmental Marketing Practice and Oil Pollution Hazard" to measure the impact of the oil firms' environmental marketing practice on the reduction of oil pollution hazard with special preference to land pollution. The validation of the research instrument was confirmed by three research experts from university of Port Harcourt (two from marketing department and one from measurement and evaluation department), whose observations, modifications, views, suggestions and recommendations of the instrument confirmed its face and content validities. The reliability of the instrument with the use of 185 copies of a structured questionnaire administered; shows the computed reliability test result of R=.83. This indicated considerable evident of reliability in the relationship between the two set of reliability test of the instrument.

Out of the 400 questionnaires served, only 368 copies were useful and successfully collected for analysis to determine the extent of which oil firms' environmental marketing practice in oil-bearing communities improves the economic wellbeing of the natives from oil pollution hazards in Niger Delta. The mean (X) score test approach, simple percentage test method, and the Z - score were used for the analysis of data obtained. Interpretation of results obtained as answers to the research questions was done with the use of the following benchmarks: 1.00 - 1.49(10%-29%) stands for **very low extent**, 1.50-2.49(30%-49%) shows **low extent**, 2.50 - 3.49(50%-69%) stands for **moderate extent**, and 3.50 and above (70%-100%) indicates **high extent** were employed in the study. The data generated for the study are therefore presented, analyzed and interpreted in the follows order:

Number of Questionnaires Distributed.

The total numbers of questionnaire that was distributed and returned.

Results

Table 1: Total Number of Questionnaire Distributed and Returned

<i>Categories of Respondents</i>	<i>Number Distributed</i>	<i>Number Returned</i>	<i>Number Not Returned</i>
Males	162(40%)	148(37%)	14(3%)
Females	238(60%)	220(55%)	18(5%)
Total	400(100%)	368 (92%)	32 (8%)

Source: Field Survey Data 2021

Social Demographic Data of Respondents.

Social demographic information concerning respondents used for this study is presented on table 2 and 3 below.

Table 2: Distributions of Respondents by Age

Percentage	Age Bracket	Frequency
16%	18 -25	63
33%	26 -35	132
30%	36 -45	120
21%	46 -55	85
100%	Total:	400

Source: Survey Data 2021

The table above shows the analysis of the various age brackets within the age bracket of 18-25, 26-35, 36-45, 36-45 and 46 – 55; which have the frequency distribution values of 63(16%), 132(33%), 1120(30%) and 85(21%) respectively; in confirmation of 400 copies of questionnaire administered at 100% distribution rate to the respondents.

Distribution of Questionnaire by Gender Respondents' Categories

The analysis of how copies of questionnaires were distributed to the different categories of respondents considered for the study.

Table 3: To what extent does the ecological marketing activities of the oil firms, prevents agricultural land limitation in oil-bearing communities in Niger Delta?

Question Item	SA	A	D	SD	TOTAL	X	DEC
1. Oil-firms ecological sustainability marketing practice has extensively increase agricultural land destruction in oil-bearing communities in Niger Delta.	102/408 (28%) (A+SA) = 232	130/190 (35%)	64/128 (17%) (D+SD) = 136	72/72 (20%)	798/368 100%	2.16	-V
2. Oil firms' unwillingness to avoid incessant oil pollution on the limited agricultural land space is highly driven by the firms' selfish profits making intention.	82/328 (22%) (A+SA) = 204	122/366 (33%)	48/96 (14%) (D+SD) = 164	116/116 (32%)	906/368 100%	2.46	-V
3. The poor maintenance culture of the oil firms has on a large scale reduced pipe line corrosion to ensure quality land value improvement.	70/280 (19%) (A+SA) = 143	73/219 (20%)	113/226 (31%) (D+SD) = 225	112/112 (30%)	837/368 100%	2.27	-V
4. The oil firms' ecological sustainability marketing practice, has on a very low scale prevents agricultural land limitation in the oil-bearing communities.	52/208 (14%) (A+SA) = 138	86/258 (23%)	131/262 (36%) (D+SD) = 130	99/99 (27%)	827/368 100%	2.24	-V
5. Incessant oil spills that causes agricultural land limitation in the oil-bearing communities has been given proactive ethical marketing attention in a responsible manner by oil firms.	77/308 (21%) (A+SA) = 123	46/138 (13%)	137/274 (37%) (D+SD) = 245	108/108 (29%)	841/368 100%	2.28	-V
Total Percent Grand Mean			46%	54%	= 100%	2.28	-V

Source: Field Survey Data 2021.

Based on the benchmark used in the study, and the descriptive content details of the questions shown on table 7 above, the high percentage value of 54% disagreed response was in favor of the total grand mean value of **2.28**, that fall within bench mark rating scale of **1.50-2.49**(30%-49%); which

descriptively indicates that “the ecological marketing activities of the oil firms, has to a **low extent** prevented agricultural land limitation in oil-bearing communities in Niger Delta. Conventionally, this implies that the ecological sustainability marketing activity of the oil firms was low enough to

reduce the level of agricultural land limitation in the oil-bearing communities in Niger Delta.

Test of Hypotheses

Assumptions of the employed Z-test model for the hypotheses

1. The oil firms under this study is arguably observed that the firms are engaged in environmental marketing practices that causes a seeming uncontrolled oil pollution hazards in Niger Delta without considering the negative impact on the agricultural economic wellbeing of the natives in the oil-bearing communities. The issue is to ascertain if, the oil firms' environmental marketing practice have presently, created some significant improvement on the agricultural economic wellbeing of the natives in oil-bearing communities.
2. A one-tailed test alternative is the accepted alternative hypothesis only when the null hypothesis is rejected.
3. A Z-test of the hypothesis would be used with one critical value of 0.2088

derived from 5% level of significance as obtained from the critical table value of Z scores.

4. The question items were designed in a modernized 4 point Likert scale format, and only strongly agree and agree were used as positive responses, while strongly disagree and disagree were considered as negative responses (Ani, 2012).
5. If the calculated Z score is greater than the tabulated value, then the null hypothesis would be rejected and the alternate hypothesis is accepted (Mason, Lind and Marchal, 1999).
6. Using the Z score formula:

$$Z_c = \frac{P - P_0}{\sqrt{\frac{P_0(1-P_0)}{n}}}$$

Where:

P = Percentage of positive responses

P₀ = Probability of rejecting the null hypotheses

n = Sample size

Test of Hypothesis 1:

H₀₁: The ecological sustainability marketing activities of the oil firms has not significantly prevented agricultural economic poverty in the oil-bearing communities in Niger Delta.

H_{A1}: The ecological sustainability marketing activities of the oil firms has significantly prevented agricultural economic poverty in the oil-bearing communities in Niger Delta.

$$Z_c = \frac{0.229 - 0.5}{\sqrt{\frac{0.5(0.5)}{368}}} = \frac{-0.271}{\sqrt{\frac{0.25}{368}}} = \frac{-0.271}{\sqrt{0.6}} = \frac{-0.271}{0.774}$$

$$= Z_{cal} = -0.397$$

$$Z_{tab} = 0.2088$$

Since Z_{cal} (-0.397) **is less than** Z_{tab} (0.2088); **the null hypothesis (H_0) is Retained, and the alternate hypothesis (H_A) is Rejected.** Therefore, it is confirmed that the ecological sustainability marketing

activities of the oil firms has not significantly prevented agricultural economic poverty in the oil-bearing communities in Niger Delta.

Test of Hypothesis 2:

H₀₄: The ecological sustainability marketing activities of the oil firms, has not significantly agricultural land limitation in oil-bearing communities in Niger Delta.

H_{A4} The ecological sustainability marketing activities of the oil firms, has significantly prevented agricultural land limitation in oil-bearing communities in Niger Delta.

$$Z_c = \frac{0.229 - 0.5}{0.5 \sqrt{\frac{(0.5)}{(368)}}} = \frac{-0.271}{\sqrt{\frac{0.25}{368}}} = \frac{-0.271}{\sqrt{0.6}} = \frac{-0.271}{0.774}$$

= Z_{cal} = **-0.350**

Z_{tab} = **0.2088**

Since Z_{cal} (-0.350) **is less than** Z_{tab} (0.2088); **the null hypothesis (H_0) is Retained, and the alternate hypothesis (H_A) is Rejected.** Therefore, it is confirmed that the ecological sustainability marketing activities of the oil firms, has not significantly prevented agricultural land limitation in oil-bearing communities in Niger Delta.

confirmed in the review of related literature which hinged on empirical findings and/or observations deduced from the studies in Osabie (2007); Odu (2007); Koateh and Menele (2007); Amadi and Nwomaji (2008); Aakol (2009); Perreault and Utukepo, 2011); and Schiffman and Kanuk (2009), who confirmed the content validity of the result in the view that: "The ecological sustainability marketing activities of the oil firms to sustain, protecting, improving and preserving the natural land value has not only been low enough to prevent agricultural market failure, agricultural food poisoning, agricultural economic frustration, economic poverty and agricultural land limitation caused by oil pollution hazards; but the firms' ecological marketing activities was also found to lack proactive improvement value to sustain the socio-economic wellbeing of the natives in oil-bearing communities in Niger Delta. On a large scale, the theoretical solutions obtained as answers to the research

Discussion

Based on the computed grand mean result of **2.10** in table 4, **2.28** in table 5, **2.74** in table 6; and **2.28** in table 7; and its related supportive total percentage result of 63% in table 4, 54% in table 5, 63% in table 6, and 54% in table 7 respectively, reveals that "The oil firms' ecological sustainability marketing activities has to a **low extent** prevented agricultural economic poverty, agricultural market failure, agricultural economic frustration, and agricultural land limitation caused by oil pollution in the oil-bearing communities of Niger Delta. To justify this, the result was also, separately

questions deduced from the review of related literature, agree with the scientific test results of the hypothesized variables in the study.

Conclusion

This study to examine the extent to which the ecological sustainability marketing activities of the oil firms: Shell BP, Agip Oil Company, and Elf Oil Company have improved the quality of agricultural economic wellbeing of the oil-bearing communities in Niger Delta. Based on the analysis of the data collected, analyzed and interpreted, the study reveals that "The extent to which oil firms' ecological sustainability marketing activities of the oil firms have improved the quality of agricultural economic wellbeing in oil-bearing communities has been low in Niger Delta. This leads to the conclusion that the oil firms' firms' ecological sustainability marketing activities was not only poisonous or harmful to the socio-economic wellbeing of the host oil-bearing communities, but also capable of causing lethal or deadly impact which its *Societal Marketing Based Ethical Value* to sustain, protect, improve and preserve the natural agricultural land value is neglected in the prevention of agricultural market failure, agricultural food poisoning, economic poverty, agricultural economic frustration, and agricultural land limitation caused by oil pollution in the oil-bearing communities in Niger Delta".

Recommendations

Based on the findings obtained from this study, the following recommendations were deduced.

1. Oil firms should formulate "Land Protection and Sustainability Policy (LANPROSUP)," and apply it to "Land-Care Ecological Sustainability Marketing

Decisions" of the oil firms to avoid agricultural market failure. This will help to sustain the economic wellbeing of the natives from land related oil pollution that will enlarge the scope of agricultural production and market.

Oil firms should also establish "Environmental Protection and Responsibility Marketing Unit" (EPARMU), in the marketing department of the oil firms to oversee all issues concerning environmental food poisoning caused by oil pollution in the host community. This will help the oil firms to manage their environmental oil pollution related protection issues.

Oil firms should also build "Environmental Solution Monitoring and Treatment Centers (ESMTC)" in each oil-producing areas to oversee the problem of socio-economic poverty caused by oil pollution as connected to poor production of agricultural food in the oil-bearing communities in Niger Delta. This will help to reduce the high rate of economic poverty, associated with recklessness, and financial frustrations caused by oil pollution among farmers, fishermen and youths in the oil-bearing communities in Niger Delta.

Oil firms should also formulate "Host Community Land Preservation Development Policy (HOSTCOM-LPDP)" alongside the appointed team of expert environmental marketing professionals to work with a set of representatives of the host community to oversee issues on land preservation and protection control mechanism. This will help to enable the oil firms adopt proactive improvement measures on land security in the host community.

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ASSESSMENT OF PARENTAL CONSCIOUSNESS TO THEIR RESPONSIBILITIES FOR QUALITY EDUCATION DELIVERY IN PUBLIC SECONDARY SCHOOLS IN RIVERS STATE.

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Abstract

This study investigated Assessment of Parental Consciousness to their Responsibilities for Quality Education in Secondary Schools in Rivers State. Three research questions and three null hypotheses guided the study. A descriptive survey design was adopted. The population of study consisted of 2, 652 parents of SS3 students in the 245 public senior secondary schools in Rivers. Sample size for the study consisted of 398 parents representing about 15% of the total population of respondents from 41 public senior secondary schools in 4 Local Government Areas of Rivers State. The sample size was selected through a simple random sampling technique. A total of 280 copies were retrieved and used for the analyses. A validated 23 item self-structured questionnaire titled “Parental Consciousness to their Responsibilities Questionnaire” (PCRQ) with a reliability index of 0.89, was used for data collection. Reliability of the questionnaire was determined using Cronbach Alpha. Research questions were answered using mean, and hypotheses tested using z-test. It was found that parents are conscious of their responsibilities in ensuring quality education in secondary schools in Rivers State, and are committed to it. However, this commitment is affected by the inability of school principals to properly get parents involved in school programs and activities. The study concluded by stating that there is the need to harness the role of both parents and principals so as to provide an enabling environment where they can contribute meaningfully, in order to improve the quality of our schools. Based on the findings of the study, it was recommended that principals undergo training in the area of quality management, so that they can be more knowledgeable on how to involve parents in school programs, as much as possible and necessary. Again, principals should find ways of honouring deserving parents so as to get them interesting in involving themselves in school activities when the need arises.

Keywords: Parents, Responsibility, Quality Education and Secondary School.

Introduction

Education in Nigeria suffers a lot of setbacks in infrastructure and manpower but above all this is the lack of commitment of stakeholders to the realization of an effective educational system. Today, there is so much to be expected in the attitude and conduct of teachers and parents towards issues that concern students. Secondary school education as the term suggests refers to the second level of education preceding the first level of education known as primary school. It prepares the individual for tertiary education, thus providing the raw human material upon which tertiary institutions achieve their goals and objectives. Secondary education is aimed at providing students with diverse basic knowledge and skills for entrepreneurship, inculcating values and raising up right individuals capable of independent thinking and who appreciate the dignity of labour among others (FRN, 2013). Thus, a successful school depends on the determination of all stakeholders, and not just on individual efforts.

Children at the secondary school level of education are mostly teenagers at the peak of their psychological development; as a result, sometimes exhibiting behavioural patterns that are not envisaged. Every level of education seeks to achieve the objectives for which it is established, and secondary school level of education is not an exception. Secondary school education in Nigeria was established with a broad goal to prepare the individual for useful living within the society and for higher education (FRN, 2013). Therefore, it is only with an education process where every facet is strengthened and sustained can these be achieved. An education that achieves the goals for which it is set up can be referred to as quality education. The concept of quality in education is multidimensional

and embraces all functions and activities in the academic sphere (Maduewusi, 2005). It is hinged on the quality of students, teachers, facilities, instruction, academic programmes, curricula and assessment of students' performance. As Akidu (2020) rightly puts, quality is the baseline standard in education which can be measured on a scale of reference(s).

There has been much talk about adequacy of infrastructure in the bid to ensure quality education, especially in public schools. Public schools are those owned, financed and managed by the government. However, like the old sayings of square pegs in square holes, students, teachers, school administrators and parents who make up the human resources connected to the educational system must work objectively to ensure effectiveness of the educational system. While teacher quality is important, students and parents also have responsibilities to meet in order to ensure quality in the system. This can also be seen as Total Quality Management. Total quality management (TQM) as identified by Kalpana (2014) also focuses on teamwork, decentralized management and community involvement. Teamwork involves the collective efforts of individuals towards achieving a common goal.

Parents by their position may not be present in the day to day running of schools, but they play a major role at the back end to sustain children in school and make them fit for academic work. It is on this backdrop that this study seeks to assess the level of Parental Consciousness to their Responsibilities for Quality Education in Secondary Schools in Rivers State.

Statement of Problem

Most Students exhibit conducts or behavioural patterns which are inimical to a successful academic journey; these include

lateness to school, poor attendance, reluctance in carrying out homework and assignments. There is also the issue of disobedience to school rules and relations, and absenteeism, among other things. It is no gain saying that these conducts result in poor academic performance, thus, it is a major source of concern to teachers and school administrators. The responsibility of ensuring that students learn well and that the school system works well does not rest only on the shoulders of school administrators but on every other stake holder of the educational system, of which parents are a major component. Getting parents and guardians involved in school settings constitute an important aspect of community participation in education which is required for improvement of the school. Parents' opinion, expectations and participation in decision making in support of the education of their children symbolizes a collaborative approach to school management. Thus, Oluwo and Obasi (2006) stressed that it is generally believed that when parents and other members of the community get involved in school management, their children benefit.

Parents are in a good position to curb school problems associated with students' conducts in school. That is, their effort can help to nib these problems in the bud. Parents responsibilities according to the Rivers State schools rights (parents, teachers and students law) part II stipulates that parents RIGHTS and RESPONSIBILITIES in schools (section 18 specification) goes beyond providing books and uniforms for their children and wards, to participating in parents teachers association meetings, ensuring that they go to school early as well as regulating and directing them to obey school rules and regulations. To ensure that homework and assignments are properly done by the students back home, and to show interest in

the company their children keep during holidays. It is believed that if parents are alive to their duties, students will also be more responsive in the plight to improve in their academic performance. Parents may or may not be aware of these responsibilities; thus this study seeks to answer the question; what is the level of parental consciousness to their responsibilities in ensuring quality education in secondary schools in Rivers State?

Aim and Objectives of the Study

The aim of this study was to ascertain the level of parental consciousness to their responsibilities in ensuring quality education in secondary schools in Rivers State. Specifically, the study was carried out to achieve the following objectives:

1. To ascertain the level of parental consciousness to their responsibilities in ensuring quality education delivery in public secondary schools in Rivers State.
2. To determine the extent of parental commitment to their responsibilities in ensuring quality education delivery in public secondary schools in Rivers State.
3. To determine factors that affect parental commitment to their responsibilities in ensuring quality education delivery in public secondary schools in Rivers State.

Research Questions

To address the problem in this study, the following research questions were posed:

1. What is the level of parental consciousness to their responsibilities in ensuring quality education delivery in public secondary schools in Rivers State?

2. What is the extent of parental commitment to their responsibilities in ensuring quality education delivery in public secondary schools in Rivers State?
3. What are the factors affecting parental commitment to their responsibilities in ensuring quality education delivery in public secondary schools in Rivers State?

Hypotheses

The following null hypotheses were proposed and tested at 0.05 level of significance.

1. There is no significant difference between the mean ratings of male and female parents on the level of consciousness to their responsibilities in ensuring quality education delivery in public secondary schools in Rivers State.
2. There is no significant difference between the mean ratings of male and female parents on the extent of commitment to their responsibilities in ensuring quality education delivery in public secondary schools in Rivers State.
3. There is no significant difference between the mean ratings of male and female parents on the factors affecting commitment to their responsibilities in ensuring quality education delivery in public secondary schools in Rivers State.

Methodology

The study was simply a descriptive survey design. The population of study consisted of 2, 652 parents of SS3 students in the 245 public senior secondary schools in Rivers State. Sample size for the study consisted of 398 parents representing about 15% of the total population of respondents from 41 public senior secondary schools in 4 Local Government Areas of Rivers State. The sample size was selected through a simple random sampling technique. The instrument for data collection was a 23 item self-structured questionnaire titled "Parental Consciousness to their Responsibilities Questionnaire" (PCRQ). It was structured in line with the 4-point Likert scale measurement of Strongly agree (SA) = 4 points; Agree (A) = 3 points; Disagree (D) = 2 points and Strongly Disagree (SD) = 1 point. The questionnaire was tested for reliability using the Cronbach Alpha which yielded an index of 0.89. Out of the 398 copies of questionnaire administered to the respondents, 280 copies representing 70 percent of the sample size were retrieved and used. Mean set and standard deviation was used to answer the research questions using a criterion mean of 2.50. Mean values 2.50 and above were considered high while mean values less than 2.50 was considered low. Furthermore, z-test was used in testing the Hypotheses.

Results

Research Question 1: What is the level of parental consciousness to their responsibilities in ensuring quality education delivery in public secondary schools in Rivers State?

Table 1: Mean and standard deviation on the level of parental consciousness to their responsibilities in ensuring quality education delivery in public secondary schools in Rivers State.

	Level of Parental Consciousness to their Responsibilities in Ensuring Quality Education Delivery in Public Secondary Schools in Rivers State	Female Parents			Male Parents		
		X	SD	Decision	X	SD	Decision
1	Fresh parents are provided with school rules and regulations	2.88	1.69	High	2.90	0.95	High
2	Parents are aware they should attend and participate actively in PTA activities	3.11	1.90	High	3.05	1.03	High
3	They know that their wards should go to school early and regularly	3.49	2.24	High	3.18	1.09	High
4	They believe that they have a responsibility to ensure that homework and assignment as directed by the school teachers are properly done	3.32	2.20	High	3.54	1.27	High
5	They understand how important it is to know the type of company their children keep during holiday	3.31	2.08	High	3.18	1.09	High
6	They believe their children should respect elders	3.39	2.15	High	3.57	1.16	High
Aggregate mean		3.25		High Extent	3.24		High Extent

From table 1 above, the calculated mean scores in items 1, 2, 3, 4, 5 and 6 are higher than the criterion mean of 2.5. Both the female and male parents are in agreement that fresh parents are provided with school rules and regulations ($\bar{x} = 2.88$ and 2.90); parents are aware they should attend and participate actively in PTA activities ($\bar{x} = 3.11$ and 3.05); they know that their wards should go to school early and regularly ($\bar{x} = 3.49$ and 3.18); they believe they have a responsibility to ensure that homework and assignment as directed by the school teachers are properly done ($\bar{x} = 3.32$ and 3.54); they understand how important it is

to know the type of company their children keep during holiday ($\bar{x} = 3.31$ and 3.18) and they believe their children should respect elders ($\bar{x} = 3.39$ and 3.57). The aggregate low mean scores of $\bar{x} = 3.25$ and 3.24 indicate that there is a high level of parental consciousness to their responsibilities in ensuring quality education delivery in public secondary schools in Rivers State.

Research Question 2: What is the extent of parental commitment to their responsibilities in ensuring quality education delivery in public secondary schools in Rivers State?

Table 2: Mean and standard deviation on the level of parental commitment to their responsibilities in ensuring quality education delivery in public secondary schools in Rivers State.

	Level of Parental Commitment to their Responsibilities in Ensuring Quality Education Delivery in Public Secondary Schools in Rivers State	Female Parents			Male Parents		
		X	SD	Decision	X	SD	Decision
7	Parents obtain permission for their children absenteeism from school	3.00	2.50	High	2.92	1.25	High
8	Parents discourage students lateness to school	3.38	2.20	High	3.27	1.25	High
9	Parents encourage students to obey school rules and regulations	3.00	1.20	High	3.16	0.54	High
10	Parents ensure their children do homework properly	3.21	1.88	High	3.42	1.03	High
11	Parents encourage students to study at home	3.42	2.30	High	3.60	1.37	High
12	Parents correct children on untidy dressing habits	3.27	1.99	High	3.60	1.21	High
13	Parents encourage students to discuss challenges they face at school with them	3.04	2.40	High	3.14	1.34	High
	Aggregate mean	3.19		High Level	3.30		High Level

Table 2 shows that decisions were agreeably high in items 7, 8, 9, 10, 11, 12 and 13. Parents obtain permission for their children absenteeism from school ($\bar{x} = 3.00$ and 2.92); parents discourage student's lateness to school ($\bar{x} = 3.38$ and 3.27); parents encourage students to obey school rules and regulations ($\bar{x} = 3.00$ and 3.16); parents ensure their children do homework properly ($\bar{x} = 3.21$ and 3.42); parents encourage students to study at home ($\bar{x} = 3.42$ and 3.60); parents correct children on untidy dressing habits ($\bar{x} = 3.27$ and 3.60) and parents encourage students to discuss

challenges they face at school with them ($\bar{x} = 3.04$ and 3.14). Likewise, the aggregate high mean scores of 3.19 and 3.30 for female and male parents respectively is an indication that there is a substantial level of parental commitment to their responsibilities in ensuring quality education delivery in public secondary schools in Rivers State.

Research Question 3: What are the factors affecting parental commitment to their responsibilities in ensuring quality education delivery in public secondary schools in Rivers State?

Table 3: Mean and standard deviation on the factors affecting parental commitment to their responsibilities in ensuring quality education delivery in public secondary schools in Rivers State.

			Female Parents			Male Parents		
Factors affecting Parental Commitment to their Responsibilities in Ensuring Quality Education Delivery in Public Secondary Schools in Rivers State			X	SD	Decision	X	SD	Decision
14	Principals communicate with parents on school events		2.11	1.00	Low	1.90	0.45	Low
15	Principals involve parents in school management		2.00	0.90	Low	1.76	0.38	Low
16	School honours deserving parents with awards		2.31	1.18	Low	2.16	0.58	Low
17	Parents prevent children from coming to school so they can do more house chores		1.55	0.50	Low	1.45	0.23	Low
18	Parents are represented in disciplinary committee		2.61	1.45	High	2.66	0.83	High
19	School rules and regulations are made available to parents		2.41	1.20	Low	2.60	0.80	High
20	Parents are too busy with their work to attend to school matters		2.47	1.33	Low	2.21	0.61	Low
21	Parents are not involved in school matters because they are not well educated		3.11	1.90	High	3.10	1.05	High
22	Parents are not involved with school matters because they feel not capable		1.78	0.70	Low	1.50	0.25	Low
Aggregate mean			2.26		Low Level	2.15		Low Level

In table 3, items 18 and 21 reveal high means scores. This means that parents are represented in the school disciplinary committee ($\bar{x} = 3.00$ and 2.92) and parents are not involved in school matters because they are not well educated ($\bar{x} = 3.00$ and 2.92). On the contrary, items 14, 15, 16, 17, 20 and 22 portray low mean scores, so it is clear that principals do not communicate with parents on school events ($\bar{x} = 2.11$ and 1.90); principals do not involve parents in

school management ($\bar{x} = 2.00$ and 1.76); school honours deserving parents with awards ($\bar{x} = 2.31$ and 2.16); parents do not prevent children from coming to school so they can do more house chores ($\bar{x} = 1.55$ and 1.45); parents are not too busy with their work to attend to school matters ($\bar{x} = 2.47$ and 2.21) and parents are not involved with school matters because they feel not capable ($\bar{x} = 1.78$ and 1.50). However, in item 19, male parents are of the opinion that

School rules and regulations are made available to parents whereas the female parents disagree ($\bar{x} = 2.60$ and 2.41). The aggregate mean score is low ($\bar{x} = 2.26$ and 2.15), indicating that there are factors affecting parental commitment to their responsibilities in ensuring quality education delivery in public secondary schools in Rivers State.

Hypothesis 1: There is no significant difference between the mean ratings of female and male parents on the level of parental consciousness to their responsibilities in ensuring quality education delivery in public secondary schools in Rivers State.

Table 4: z-statistics of the significant difference between the mean score ratings of female and male parents opinion on the level of parental consciousness to their responsibilities in ensuring quality education delivery in public secondary schools in Rivers State.

	N	\bar{x}	SD	z-CAL	z-CRI	Df	LEVEL OF SIGNIFICANCE	DECISION
Female	180	2.65	1.03					H ₀₁ was Accepted
Male	100	2.69	1.11	0.44	1.96	278	0.05	

The data in table 3 above shows that the z-calculated value of 0.44 is less than the z-critical value of 1.96 at 0.05 level of significance with 278 degree of freedom. The null hypothesis (H₀₁) was accepted. This means that there is no significant difference between the mean ratings of female and male parents on the level of parental consciousness to their responsibilities in ensuring quality

education delivery in public secondary schools in Rivers State.

Hypothesis 2: There is no significant difference between the mean ratings of female and male parents on the extent of parental commitment to their responsibilities in ensuring quality education delivery in public secondary schools in Rivers State.

Table 5: z-statistics on the significant difference between the mean score ratings of female and male parents on the extent of parental commitment to their responsibilities in ensuring quality education delivery in public secondary schools in Rivers State

	N	\bar{x}	SD	z-CAL	z-CRI	Df	LEVEL OF SIGNIFICANCE	DECISION
Female	180	2.62	1.02					H ₀₂ was Accepted
Male	100	2.65	0.91	0.38	1.96	278	0.05	

The data in Table 4 shows that the z-calculated value of 0.38 is less than z-critical value of 1.96 at 0.05 level of significance with 278 degree of freedom. The null hypothesis (H_{02}) was accepted. This means that there is no significant difference between the mean ratings of female and male parents to parental commitment to their responsibilities in

ensuring quality education delivery in public secondary schools in Rivers State.

Hypothesis 3: There is no significant difference between the mean ratings of female and male parents on factors affecting parental commitment to their responsibilities in ensuring quality education delivery in public secondary schools in Rivers State.

Table6: z-statistics on the significant difference between female and male parents on factors affecting parental commitment to their responsibilities in ensuring quality education delivery in public secondary schools in Rivers State

	N	\bar{x}	SD	Z-CAL	Z-CRI	Df	LEVEL OF SIGNIFICANCE	DECISION
Female	180	2.48	1.00					H_{02} was
Male	100	2.12	0.90	0.36	1.96	278	0.05	Accepted

The data in Table 4 shows that the z-calculated value of 0.36 is less than z-critical value of 1.96 at 0.05 level of significance with 278 degree of freedom. The null hypothesis (H_{02}) was accepted. This means that there is no significant difference between the mean ratings of female and male parents on factors affecting parental commitment to their responsibilities in ensuring quality education delivery in public secondary schools in Rivers State.

Discussion of Findings

Results of findings in table 1 reveal that parents are conscious to their responsibilities in ensuring quality education in secondary schools in Rivers State. This is backed up by the fact that as soon as parents enrol their wards in school, they are provided with school rules and regulations; they are aware they should attend and participate actively in PTA

activities; they know that their wards should go to school early and regularly and they believe that they have a responsibility to ensure that homework and assignments as directed by the school teachers are properly done. Also, parents do understand how important it is to know the type of company their children keep during holiday and they believe their children should respect elders.

From table 2, the findings indicate that parents obtain permission for their children absenteeism from school as well as discourage students' lateness to school. Likewise, parents encourage students to obey school rules and regulations, they ensure that their children do homework properly and encourage them to study at home. Furthermore, parents correct children on untidy dressing habits and encourage student to discuss challenges they face at school with them. Thus, it can be summed up that parents are committed to

their responsibilities in ensuring quality education delivery in public secondary schools in Rivers State.

The results in table 3 shows that there are several factors which affect parental commitment to their responsibilities in ensuring quality education delivery in public secondary schools in Rivers State. These factors border on principals not being able to communicate with parents on school events or involve them in school management. Schools do not honour deserving parents with awards and do not include the parents as representatives in disciplinary committees. Thus, from the findings, it is obvious that school managements are mostly responsible for the inability of parents to become more committed to their responsibilities in ensuring quality education in secondary schools in Rivers State. Because parents are not carried along in school management as they should, there is a general feeling of incapability among parents getting involved in school matters. The existing management practice by principals which does not include parents in decision making is deficient. Results of the study agree with Kaegon (2008) which found out that public secondary school principals in Bayelsa State were not aware of total quality management principles including involvement of community in running the schools. Their study revealed more awareness of TQM principles by private school principals. However, the study by Ogbiji (n.d.) indicated that parents do not cooperate with school on disciplinary issues.

On the other hand, the study of Nnaemego and Ikediugwu (2020) found out that teamwork is important in harnessing the diversities in teachers and other staff. Principals are aware of community involvement strategies for school

improvement. They understand it is important to involve parents, old students and community members in school affairs. Also, they are aware of the need for regular communication with parents on events, and the need to honour deserving parents with awards. Additionally, the study by Llantos and Pamatmat (2016) also showed the awareness of Total Quality Management (TQM) principles of involving community members in matters of the school by principals. Therefore, it is surprising to find out in this study that principals do not adequately involve parents in the day to day running of the school in Rivers State, even when previous studies have shown that they are fully aware of the need and benefits of regular engagement with parents and community in school matters. The reason for this divergent result may be as a result of the fact that the studies referred to were carried out in other places; Bayelsa State and the Phillipines respectively. The study also ascertained that there is no significant difference in the responses of male and female principals on their awareness of community involvement strategies in Rivers State among other things.

Test of hypothesis in tables 4, 5 and 6 also indicate that there is no significant difference between the mean opinion scores of female and male parents on the level of consciousness and commitment to their responsibilities towards ensuring quality education delivery to students in public secondary schools in Rivers State. They also do not differ significantly in their opinion on factors that militate against this plight.

Conclusion

Parents have a responsibility to ensure that their children and wards at the secondary school level acquire quality education. Several factors as revealed in this study

hamper the level of commitment of parents towards ensuring a quality education for students in secondary schools. These factors constitute a problem to the implementation of strategies that can guarantee Quality education. As much as school principals may claim that parents are to blame for the moral decadence and poor academic performance of students, there is the need to harness the role of both parents and principals so as to provide an enabling environment where they can contribute meaningfully in order to improve the quality of our schools. The National Policy on Education provides for close participation and involvement of communities at the local level in the administration and management of schools in their environment. Thus, there is no doubt that the idea of training principals in quality management activities will afford them opportunity of getting acquainted with the knowledge of involving parents in school programs, as much as possible and necessary. Thus, principals should be able to carry parents along in managing schools by exploring various community/ stakeholders involvement strategies that can be employed.

Recommendations

On the basis of the findings and conclusion of the present study, the following recommendations were made.

- There is need for training principals in the area of quality management, so that they can be more knowledgeable on how to involve parents in school programs, as much as possible and necessary.
- Government should ensure that appointment of principals in secondary schools is based on professionalism, that is, teachers who are certified in educational management; so that they

can be able to appreciate the need for carrying parents along in the day to day administration of schools.

- Principals should also find ways of honouring deserving parents so as to get them interesting in involving themselves in school activities when the need arises.

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