RIMA INTERNATIONAL JOURNAL OF EDUCATION

RIMA INTERNATIONAL JOURNAL OF EDUCATION

Vol. 1 (Number 1): May, 2022

RIMA INTERNATIONAL JOURNAL OF EDUCATION

ISSN: 2756 - 6749

Vol. **1** (Number 1): May, 2022

Address for Correspondence: The Editor–in–Chief
Rima International Journal of Education,
Faculty of Education, Sokoto State University,
PMB 2134, Along Birnin Kebbi Road,
Sokoto, Sokoto State, Nigeria.
E-mail Address: submissiontorije@gmail.com

EDITORIAL NOTE

I have the delight and privilege to write as Editor-in-chief of the maiden issue of the *Rima International Journal of Education (RIJE)*, an official research publication of the Faculty of Education, Sokoto State University. This maiden edition (Volume 1: No. 1) of the *RIJE* has fifteen (15) articles from distinguished scholars and educators, poised to report cut-edge research findings and discourse on contemporary educational issues with implications for pedagogy, national and global development.

The dictum of "publish or perish" is in vogue in any worthwhile research-based institutions, hence strict adherence to publications in any reputable and recognized Journal, as such *RIJE* is recognized as complimentary to contemporary dissemination and propagation of knowledge. Therefore, the Editorial Board of *RIJE* wishes to use this medium to solicit well researched articles for publication from teeming population of academics and researchers globally. The Journal would always be subjected to thorough peer review and proper editorial vetting.

Prof. M. U. Tambawal,
Editor-in-chief

CALL FOR PAPERS

The Editorial Board invite interested scholars and researchers to submit original manuscripts for publication. The Journal is a bi-annual publication of the Faculty of Education, Sokoto State University, Sokoto, designed to disseminate relevant research findings related to all fields of education. Both empirical and theoretical papers that are articulately written based on contemporary educational issues that have national and international relevance shall be accepted for publication. The manuscript shall not be under consideration elsewhere for publication.

Guidelines for Manuscript Submission

i.   **Language**: Manuscripts meant for submission should be written in English language with strict adherence to British standard.

ii. **Paper Size**, Font and Length: Manuscript prepared for submission should be typed in Microsoft Word on A4 paper size using Times New Romans, font size 12 and 1.5-line spacing. The manuscript should not be more than 15 pages including references.

iii. **Title Page**: The title page should capture the title of the manuscript which should not be too lengthy, the author(s) name(s) with surname in Upper Case, institution's affiliation, current mailing address, valid e-mail address, Phone No(s) and full postal address of the main author and co-authors.

iv. **Abstract**: Manuscripts must be accompanied with an abstract of not more than 200 words comprising essential components of the manuscripts. Avoid citations in the abstract. After the abstract, the authors should provide maximum of 5 key words.

v.   **Organization**: The manuscript should be explicitly presented under various headings and sub-headings. The ideas should be properly organized. Coherent and sequential. More importantly, following should be made conspicuous while preparing empirical papers: Introduction (indicating rationale for the study, review of related literature, problem statement, and purpose of the study), Methodology, Results, Discussion, Conclusion and Recommendations.

vi. **Arrangement of Tables/Figures**: The tables/figures should be arranged properly and neatly using the latest APA style and the title of the tables/figures should appear on top of each table such as, (Table 1; Table 2, etc/Figure 1, Figure 2, etc). There should be an avoidance of moving over to the next page.

vii. **Arrangement of Text-Quotations**: Indication of 1.5 in both left and right should be used for a particular quotation that is up to 40 words or more. Hence, the page number of the quotation should be provided in bracket at the end of the quoted words or passages.

viii. **Findings/Results**: This should be clearly presented in tables and figures with appropriate headings/sub-heading. Do not restate your research questions or hypotheses under this section.

ix. **Referencing Style**: All in-text citations and references should confirm strictly with the latest APA style/format.

x.   **Submission**: Manuscripts should be submitted electronically via e-mail: submissiontorije@gmail.com

PUBLICATION FEES/BANK DETAILS

There would be a charge of ₦5,000 (USD15.00) for vetting each manuscript submitted for consideration and if the article is considered for publication, the author(s) will be required to pay the sum of ₦15,000 (USD36) as publication fees. The payments are considered as operating costs for the production of the Journal. Hence, the payments should be forwarded to the Journals Account as follows:

Account Name: Rima International Journal of Education
Account No: 0001864659
Bank Name: Taj Bank Plc

After publishing the article, the lead/main author will receive a complimentary copy of the printed journal in which the authors paper appears. However, additional copy can be purchased by contacting the Editor-in-Chief, through the correspondence address.

EDITOR-IN-CHIEF

Prof. M. U. Tambawal,
Department of Educational Foundations,
Faculty of Education,
Sokoto State University, Sokoto
GSM_No.: +2348035275959

MANAGING EDITOR

Ass. Prof. L. A. Yusuf,
Department of Educational Foundations,
Faculty of Education,
Sokoto State University, Sokoto
GSM_No:. +2348060645304

ASSOCIATE MANAGING EDITOR

Ass. Prof. N. I. Tambuwal,
Department of Science Education,
Sokoto State University, Sokoto
GSM_No.: +2348036084320

EDITORIAL SECRETARY

Umar Bello,
Department of Curriculum Studies,
Sokoto State University, Sokoto
GSM_No.: +2348181275219

TABLE OF CONTENTS

EFFECT OF THINK-SOLVE-GROUP-SHARE DIFFERENTIATED STRATEGY ONMOTIVATION, ATTITUDE AND PERFORMANCE IN MATHEMATICAL CONCEPTS AMONG SENIOR SECONDARY STUDENTS, KATSINA, NIGERIA

[1]**Prof. M. Musa and** [2]**S. D. Hassan**

[1]Department of Science Education, Ahmadu Bello University, Zaria, Nigeria.
[2]Federal College of Education, Katsina P. M. B. 2041, Katsina, Nigeria.
e-mail: sadadutsinma@gmail.com

Abstract

The study investigated the effect of Think-Solve-Group-Share (TSGS), differentiated strategy on motivation, attitude and performance among senior secondary students in bearing in Katsina State, Nigeria. The population for this study was 8,440 SSII students, out of which a sample of 180 senior secondary students was used for the study. A simple random sampling technique was used to arrive at the sub-group. Quasi experimental pretest posttest control group design, involving intact classes, was used. Simple random sampling method was, also, used to determine the experimental (N = 63) and control (N = 117) groups. The experimental group (EG) was exposed to Think-Solve-Group-Share while the control group (CG) was taught using Lecture method. Three instruments, MPT, MAS and MMQ were used to collect data. The reliability coefficients of MPT, MAS and MMQ were obtained as 0.77, 0.65 and 0.70 respectively. The study answered three research questions and three hypotheses. Using SPSS (23 version), hypothesis one HO_1 was analyzed using T-Test at $p \leq 0.05$, while the hypotheses two and three (HO_2 and HO_3) were analyzed using Mann-Whitney U tests also at $p \leq 0.05$. Major findings of the study showed that TSGS differentiated strategy enhance performance in Mathematics and improve students' motivation and attitude toward Mathematics positively. The study therefore, recommended that Mathematics teachers should implore the use of this strategy especially in differentiated classroom. It also recommended that student's readiness level should be identified first when teaching new concepts in Mathematics lesson.

Key Words: Differentiated strategies, performance, attitude, motivation, mathematical concepts.

Introduction

The universality of Mathematics is an issue that cannot be contended by anyone. This is because it is as old as man himself, and it is the milestone of any nation's development. Moreover, Mathematics underpins every aspect of our life; it has been used almost everywhere; in carpentry, tailoring, building, cooking, decision making, politics, choosing insurance or health plan to mention a few (National Council of Teachers of Mathematics NCTM, 2000: 4 and Hassan, 2013). To keep pace with today's technological advancement, we must prepare our younger generation to be mathematically sound, because Mathematics is a backbone of all science and technology subjects. Ebisine (2013) buttressed that Mathematics plays important role in social, economic and technological development, as such without Mathematics there is no science, without science there is no modern technology and without modern technology there is no modern society. In effect Mathematics education is therefore *sine-qua-non* in technological development.

Despite the importance of Mathematics and the government's recognition of its importance, students in secondary schools persistently registered poor performance in

Mathematics in Senior Secondary Certificate Examination (SSCE) (WAEC & NECO Chief Examiner's report, 2012-2017 and WAEC, 2020). Some of the causes were historical (Bassey, Joshua & Asim, 2004); ill-trained teachers (Salman, 2005:27; Igbokwe, 2003; Odili, 2006:92); poor methodology (Iji and Harbor-Peters, 2005; Kolawole, 2005; Miji and Makgato, 2006) among others.

Studies have shown that the model ofinstruction especially at the secondary school levelremains overwhelmingly teacher-centered with greateremphasis on the lecture mode of instruction and the use of textbook than engaging students in critical thinking across subject area and applying the knowledge acquired to real-world situations (Peter & Olaoye, 2014). Bichi and Usman as cited in Umar (2015) buttressed that; persistence of poor performance is directly linked to over use of lecture method. In this regards, scholars like Okebukola (2005) and Wasagu (2009) observed that there is need for reforms in the way science technology and mathematic are being taught in Nigeria. This is in order to cultivate inquiring, knowing and rational mind for the conduct of a good life and democracy and also to producescientists for national development as outlined in the National Policy on Education (FME, 2013: 2).

The National Policy on Education in Nigeria (FME, 2013:2) stipulates that every Nigerian child shall have a right to equal educational opportunities to reach highest potentials in life. To achieve that Umar (2015) viewed that students require suitable assistance and guidance in accordance with their individual demand to develop their potentials optimally. The challenge is to use an appropriate framework that takes care of the diversity in our classrooms. This is necessary in order to carry every student along by treating him/her according to his/her readiness level in learning any new concept.

Scholars like Voughn and Baker (2001) and Khamal, Shah and Koirala, (2014) believe that, teachers can address learners' needs by using a variety of teaching methods so that learners are exposed to multiple ways of learning there by ultimately giving them opportunities to excel. Students differ in their readiness level in learning a particular concept, they also differ in interest and learning profiles (Tomlinson, 2001: 45), hence their diversity. The type of instruction that accommodates learners' diversity is the Differentiated Instruction (DI). Weselby (2017: 5) asserts that; not all students require the same amount of support from the teacher, students could choose to work in pairs, small group or individually. While some students benefit from one-on-one interaction with the teacher, others may be able to progress by themselves. Teachers can enhance student learning by offering support based on individual needs.

Differentiated instruction strategies are learner centered strategies, like Think-Pair-Share, demonstrated in a differentiated classroom. Differentiated classroom is a class in which teacher gives maximum support to low achievers and at the same time engages high achievers; it is a class which creates spirit of team work among learners (Tomlinson, 2001: 17). Differentiated classroom is also characterized by formative evaluation. Hence this study investigated the effect of Think-Solve-Group-Share differentiated strategy on motivation, attitude and performance in Mathematics among senior secondary school students giving preference to students' readiness.

Think-Solve-Group-Share is a variation of Think-Pair-Share which is a strategy built upon three stages developed by Professor Frank Lyman and his colleagues at the University of Maryland in 1981. The Think-Solve-Group-Share has four stages; (i) Think

Phase, (ii) Solve Phase, (iii) Group Phase and (iv) Share Phase. The teacher posed a task to the students, time was given for the students to read the question and think of appropriate algorithm to apply, then another time was given for each student to solve the task individually, then students were allowed to discuss their solution in a group of three and finally, volunteer from a group was allowed to present (share) their solution to the entire class. Constructive criticism was allowed while the teacher acts as a moderator.

The efficacy of Think-Pair-Share, on performance, was established by many researchers such as: Hamdan (2017) in his study, "The Effect of Think – Pair – Share Strategy on the Achievement of Third Grade Student in Sciences in the Educational District of Irbid, Turkey"; Afthina, Mardiyana and Pramudya (2017) undertook a study titled; "Think-Pair-Share using Realistic Mathematics Education Approach in Geometry Learning". They used 187 students from 3 Junior High Schools in Karanganya province of Indonesia; Haakachima and Lunjebe (2019) investigated the effect of Think-Pair-Share on learners' performance in quadratic functions in Luanshya, Zambia; Akanmu (2019) in the study "effects of Think-Pair- Share on senior school students' performance in mathematics in Ilorin, Nigeria". The current study is different from the aforementioned because the strategy used in this study is a modified TPS with four stages and the previous studies were conducted in conventional classrooms while this study was demonstrated in a differentiated classroom.

Nolan, Beran and Hecker (2012) viewed that, negative attitudes are perceived to be widespread and likely to decrease students' academic performance in Mathematics, prevent them from acquiring mathematical thinking skills, and leave them uncertain about solving mathematical problems in the 'real world'. As a result, there has been much interest in assessing students' attitudes to predict academic performance in mathematical concepts and monitor attitudinal changes resulting from educational practices. Hence the importance of developing positive attitudes in students is fundamental. Research findings as reported by Odili (2006:104) established that secondary school students have negative attitude towards Mathematics. This state of art calls for combine efforts of teachers, parents and the students themselves to change this negative attitude. One way to do that is to consider the importance of motivation in the teaching and learning process. In the context of Mathematics, therefore, attitude should be viewed as a predisposition to respond in a favorable or unfavorable way to Mathematics due to the influence of certain stimuli-teaching method, environment, pears, instructional materials etc (Davadas & Lay, 2018).

Bude et al., (2007) opined that; motivation influences the scope and the quality of study behaviour of students. High–quality study behaviour involves active knowledge construction and active knowledge construction is known to enhance understanding of mathematical concepts. Therefore, in attempt to improve Mathematics education, it is important to stimulate students' motivation in the learning of mathematical concepts. The form of motivation used by most teachers is that of teacher-imposed external reinforcement which aimed at to determine what a child thinks, how he answers a question or attack a problem, this should be discouraged (Odili, 2006:105). Rather, motivation should be geared towards improving intellectual curiosity of the students. Curiosity leads him to discover answers to questions. Discovery, in turn, arouses further curiosity.

Statement of the Problem

Students' poor performance in the Mathematics senior school certificate examination is an issue of great concern to all stakeholders. The study of Musa and Dauda (2015) revealed a worrisome condition Mathematics education is in. Previous study documented a trend analysis of May/June WASSCE Mathematics in Nasarawa state from 2004-2013. The result showed a downward pattern of performance at the credit level and the result was in agreement with the trend at the national level which is also less than 50% as confirmed by WAEC and other researchers who have reviewed trends of performance at national level. The predictor of the trend analysis has indicated that the trend could continue up to 2020 if the situation is not arrested. The situation in Katsina state is not different as 2020 WASSCE result showed that only 48.4% passed Mathematics at credit and above level (Katsina state MOE, 2020).

The aforementioned indicated persistent poor performance in school mathematics, also the poor performance was attributed to, among others, poor methodology used in teaching it. Consequently, scholars explored several methods in an attempt to improve the situation. Nonetheless, WAEC 2020 chief examiner reported, on question 9 which is on bearing, that "many candidates erred while solving the problem because of lack of knowledge of bearing …". Hence, this study investigated whether differentiated strategy Think-Solve-Group-Share have effect on attitude, motivation and performance in mathematical concepts (bearing and sequence and series) among senior secondary school students in Katsina giving preference to the students' readiness in demonstrating this strategy.

Research Questions

The following research questions were formulated to guide the conduct of this study:

i.   To what extent do the mean scores in academic performance between students taught mathematical concepts using Think-solve-Group-Shares strategy differ from those taught by lecture method?
ii. What is the difference in the mean rank attitude responses towards Mathematics among students taught mathematical concepts using Think-Solve-Group-Share strategy and those taught by lecture method?
iii. What is the difference in the mean rank motivation responses toward Mathematics among students taught mathematical concepts using Think-Solve-Group-Share strategy and those taught by lecture method?

Research Hypotheses

The following hypotheses were tested at 0.05 level of significance:

HO_1:   There is no significant difference between mean scores of students' performance taught mathematical concepts using Think-Solve-Group-Share strategy and those taught by lecture method.
HO_2:   There is no significant difference between mean ranks of students' attitude toward Mathematics, taught mathematical concepts using Think-Solve-Group-Share strategy and those taught by lecture method.

HO₃: There is no significant difference between mean ranks of students' motivation toward learning Mathematics, taught mathematical concepts using Think-Solve-Group-Share strategy and those taught by lecture method.

Methodology

The study used a quasi-experimental design involving pretest posttest control group. The study was carried out in Dutsinma and Daura Education Zones of Katsina state, Nigeria. The population of the study consists of all SSII students of public senior secondary schools totaling 8,440. The mathematical concepts used in the study were bearing and sequence and series as they are identified among others as difficult concepts in school Mathematics (Adegun & Adegun, 2013; Azuka, Jekayinfa, Durojaiye & Okwuoza, 2013; Chalse-Ogan & Geoge, 2015; Olubukola, 2015 and WAEC, 2020).

A sample of 180 students from two intact classes, drawn from the two zones, was used for the study. The sub-group was arrived at by sampling one school from each zone and one intact class from each sampled school using simple random sampling. One class was randomly assigned to experimental group while the other was assigned to control group.

Three instruments were used to collect data for the study. They are Mathematics Performance Test (MPT), Mathematics Attitudinal Scale (MAS) and Mathematics Motivation Questionnaire (MMQ). MPT was validated by two experts in Mathematics Education; its reliability coefficient obtained by test retest method was 0.77. Both MAS and MMQ were validated, also, by two educational psychologists; their reliability coefficients obtained by split half method, and corrected using Spearman Brown Prophecy formula, were 0.65 and 0.70 respectively. These values were considered high enough for the study.

Before the commencement of the treatment, the three instruments were administered as a pretest. This was followed by the treatment which lasted for six (6) weeks. The experimental group was taught using Think-Solve-Group-Share (TSGS) as shown in figure 1 while the control group was taught using lecture method.

The pre-assessment was administered to determine the readiness level of the subjects. In a situation where the result of the pre-assessment is poor; a preparatory lesson was given to ensure the subject are ready for the concept to be taught. After the treatment, the same instruments were administered as posttest. Results obtained were used as data for the study.

Hypothesis One was analysed using mean and t-test for independent samples while hypotheses two and three were analysed using sum of mean ranks and Mann-Whitney U test.

Figure 1:   Flow Chart for Think-Solve-Group-Share

```
┌─────────────────────────────────┐
│        Pre-assessment           │
└─────────────────────────────────┘
                │
                ▼
┌─────────────────────────────────┐
│  Presentation of lesson/Question │
└─────────────────────────────────┘
                │
                ▼
┌─────────────────────────────────┐
│  Think Phase (reading the question│
│            only)                 │
└─────────────────────────────────┘
                │
                ▼
┌─────────────────────────────────┐
│  Solve Phase (solving the question│
│          individually)           │
└─────────────────────────────────┘
                │
                ▼
┌─────────────────────────────────┐
│    Discussion in small group     │
└─────────────────────────────────┘
                │
                ▼
┌─────────────────────────────────┐
│ Sharing solution with the entire class│
└─────────────────────────────────┘
                │
                ▼
┌─────────────────────────────────┐
│          Evaluation             │
└─────────────────────────────────┘
```
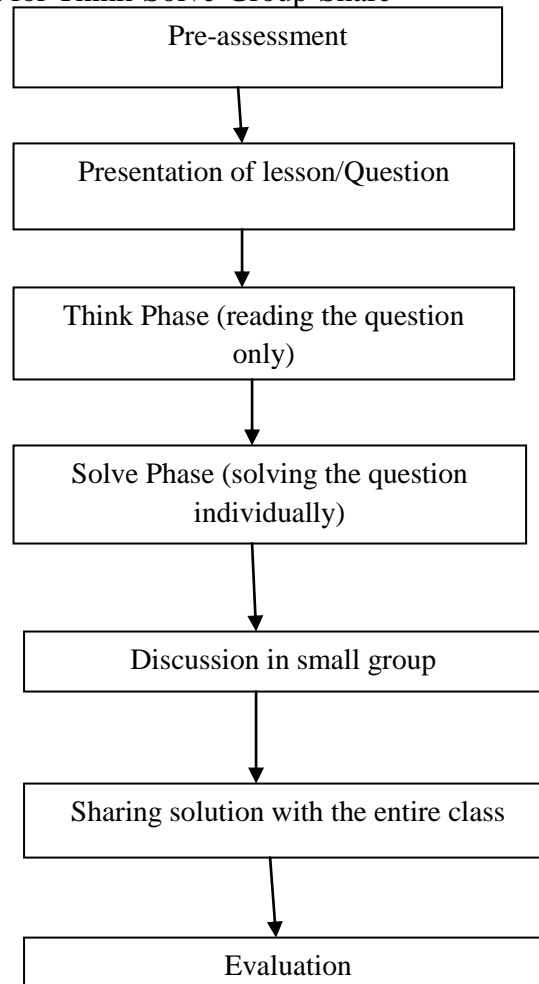
Results

Research Question One: To what extent do the mean scores in academic performance between students taught mathematical concepts using Think-Solve-Group-Shares strategy differ from those taught by lecture method?

Table 1:   **Means and Standard Deviations of Mathematics Performance Posttest Scores for Think-Solve-Group-Share (TSGS) Strategy and Lecture Method**

Group	N	Mean	Mean Diff.	Std. Dev.
TSGS	63	57.63		10.242
			24.13	
Lecture	117	33.50		5.784
TOTAL	180			

Table 1 showed that the mean scores of the EG1 (TSGS) and that of CG (Lecture) were 57.63 and 33.50 respectively with a mean difference of 24.13. Add to find out if the treatment has effect, the result is further subjected to t-test statistical analysis.

Analysis of Hypothesis One (HO$_1$): HO$_1$ was tested using t-test for independent samples and the summary of the analysis is shown in Table 2.

Table 2: **t-test Result on Performance in Mathematics between Experimental Group and Control Group**

Group	N	Mean	SD	Df	$t-value$	$p-value$	Remark
EG	63	57.63	10.242				
				178	20.21*	0.001	Significant
CG	117	33.50	5.784				
TOTAL	180						

*Significant at $p \leq 0.05$

Result in Table 2 showed that p-value (observed) = 0.001 is less than p-value of 0.05 at df = 178. Since the observed p-value = 0.001 < 0.05 then the null hypothesis (HO1) which states that: "There is no significant difference between mean scores of students' performance taught mathematical concepts using Think-Solve-Group-Share strategy and those taught by lecture method" is rejected. This means there exist statistically significant difference between EG (TSGS) and the CG (Lecture) in favour of TSGS. Hence, the students taught mathematical concepts using TSGS differentiated strategy performed better than those taught same content using Lecture Method.

Research Question Two: What is the difference in the mean rank attitude responses towards Mathematics among students taught mathematical concepts using Think-Solve-Group-Share strategy and those taught by lecture method?

Table 3: **Mean Ranks of Attitude toward Mathematics between the Experimental Group and Control Group.**

Group	N	Mean Rank	Sum of M. R	M. R Diff.
EG	63	128.99	8126.50	
				61.22
CG	117	67.77	8163.50	
Total	180			

Table 3 showed that there is difference between the mean ranks between the EG (TSGS) and the CG (Lecture) with mean rank difference of 61.22. Add to find out if the treatment has effect, the result is further subjected to Mann-Whitney U test.

Testing Hypothesis Two (HO$_2$): HO$_2$ was analyzed using Mann-Whitney U test and the summary of the analysis is shown in Table 4.

Table 4: **Mann-Whitney U Test for Comparison of Mean Ranks of Attitude toward Mathematics Posttest Scores for Experimental Group and Control Group**.

Group	N	Mean Ranks	Sum of M. R	M.R Diff.	U	p-value	Remark
EG	63	128.99	8126.50				
				61.22	Z= -7.278*	0.001	Sig.
CG	117	67.77	8163.50				
Total	180						

*Significant at α = 0.05

Result in Table 4 showed that there exists a statistically significant difference in the mean ranks between the EG and CG with Mann-Whitney U test (Z = -7.278) and mean rank difference of 61.22. since the p-value = 0.001 < 0.05 significant level, the HO_2 which states that: "There is no significant difference between mean ranks of students' attitude toward learning Mathematics, taught mathematical concepts using Think-Solve-Group-Share strategy and those taught by lecture method" is not accepted. Meaning that, Think-Solve-Group-Share differentiated strategy improved students' attitude toward Mathematics more than the lecture method.

Research Question Three: What is the difference in the mean rank motivation responses toward Mathematics among students taught mathematical concepts using Think-Solve-Group-Share strategy and those taught by lecture method?

Table 5: **Mean Ranks of Motivation toward Mathematics between the Experimental Group and Control Group**.

Group	N	Mean Rank	Sum of M. R	M. R Diff.
EG	63	128.83	8116.50	
				58.97
CG	117	69.86	8173.50	
Total	180			

Table 5 showed that there is difference between the mean ranks between the EG (TSGS) and the CG (Lecture) with mean rank difference of 58.97. Add to find out if the treatment has effect, the result is further subjected to Mann-Whitney U test.

Testing Hypothesis Three (HO_3): HO_3 was analyzed using Mann-Whitney U test and the summary of the analysis is shown in Table 6.

Table 6: **Mann-Whitney U Test for Comparison of Mean Ranks of Motivation toward Mathematics Posttest Scores for Experimental Group and Control Group**.

Group	N	Mean Ranks	Sum of M. R	M.R Diff.	U	p-value	Remark
EG	63	128.83	8116.50				
				58.97	Z= -7.246*	0.001	Sig.
CG	117	69.86	8173.50				
Total	180						

*Significant at α = 0.05

Result in Table 6 showed that there exists a statistically significant difference in the mean ranks between the EG and CG with Mann-Whitney U test (Z = -7.246) and mean rank difference of 58.97. Since the p-value = 0.001 < 0.05 significant level, the HO_3 which states that: "There is no significant difference between mean ranks of students' motivation toward Mathematics, taught mathematical concepts using Think-Solve-Group-Share strategy and those taught by lecture method" is rejected. Thus, Think-Solve-Group-Share differentiated strategy improved students' attitude toward Mathematics more than the lecture method.

Discussion

The result of this study established that students taught mathematical concepts (bearing and sequence and series) using Think-Solve-Group-Share differentiated strategy performed significantly higher than their counterparts taught using lecture method. This gave support to the following studies: Hamdan (2017) who reported significant improvement in the performance of Third Grade Student in Sciences in the Educational District of Irbid, Turkey, following exposing them to Think-Pair-Share strategy; Afthina, Mardiyana and Pramudya (2017) investigated the use of Think-Pair-Share on students' Geometry Learning in Karanganya province of Indonesia and found that TPS learning model using RME gives better effect in Mathematics achievement; Haakachima and Lunjebe (2019) investigated the effect of Think-Pair-Share on learners' performance in quadratic functions in Luanshya, Zambia and found that a significant difference exist between the posttest scores of the experimental and control group on performance in quadratic functions in favour of the experimental group; Akanmu (2019) in his study "effects of Think-Pair- Share on senior school students' performance in mathematics in Ilorin, Nigeria" found that the use of Think-Pair-Share improved students' performance in Mathematics, gender of a student does not affect his or her performance in Mathematics, and the use of think-pair-share improved the retention ability of the students. The similarity of the current study and the previous studies point to the fact that Think-Solve-Group-Share, which is a variation of Think-Pair-Share, is effective in promoting students' performance irrespective of where it is used.

Conclusion

The findings of this study established that Think-Solve-Group-Share demonstrated in a differentiated classroom improved, significantly, the performance of senior secondary students in mathematical concepts.

The findings of the study also indicated that Think-Solve-Group-Share strategy improved, positively, the attitude and motivation of senior secondary students toward Mathematics.

Recommendations

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

1. Mathematics teachers should implore the use of Think-Solve-Group-Share strategy in Mathematics classes.
2. Mathematics teachers should identify the readiness level of their students at the beginning of every lesson; most importantly when introducing a new or difficult concept.
3. Mathematics teachers should implore the use of Think-Solve-Group-Share strategy in Mathematics classes in order to improve students' attitude and motivation toward Mathematics.
4. Katsina state Ministry of Education and relevant authorities should organize a workshop to educate teachers on the principles and use of differentiated instruction in mathematics classes

References

Adegun, I. K. & Adegun, B. O. (2013). Students and Teachers' Views of Difficult Areas in Mathematics Syllabus: Basic Requirement for Science and Engineering Education. *Journal of Education and Practice,* **4** (12): 235-243.

Afthina, H., Mardiyana, M., & Pramudya, I. (2017). Think-Pair-Share Using Realistic Mathematics Edducation Approach in Geometry Learning. *Journal of Physics*, **895** (1): 1-6. DOI: 10.1088/1742-6596/895/1/012025

Akanmu, M. A. (2019). Effect of Think-Pair-Share on Senior Secondary Students' Performance in Mathematics in Ilorin, Nigeria. *African Journal of Educational Studies in Mathematics and Science.* **15** (2): 109-118

Bassey,S. W., Joshua, M. T. & Asim, A. E. (2004). Performance of Seconadry School Science Students in Aptitude. Retrieved December 6th. 2010 from http//www.jeteraps.scholarlink.org

Berg, C. A. (2005). Factors Relating to Observed Attitude Change towards Learning Chemistry among University Students. *Education Research*, **6** (1): 1-18

Bude, L., Van-De-Well, M. W. J., Imbos, T., Candel, M. J. J. M., Broers, N. J. & Berger, M. P. F. (2007). Students' Achievements in a Statistics Course in Relation to Motivational Aspects and Study Behaviour. *Statistics Education Research Journal,* **6** (1): 5-21

Charles-Ogan, G. & George, N. R. (2015). Investigating Difficult Concepts in Senior Secondary School Mathematics Curriculum as Perceived by Students. *International Journal of Academic Research and Reflection*, **3** (6): 67-74.

Davadas, S. D. & Lay, Y. F. (2018). Factors Affecting Students' Attitude Toward Mathematics: A Structural Equation Modelling Approach. *EURASIA Journal of Mathematics, Science and Technology Education.* **14** (1): 517-529 DOI:10.12973/ejmste/80356

Ebisine, S. S. (2013). Re-engineering Mathematics Education for Technological Development in Nigeria. *The Journal of Mathematical Association of Nigeria*. **38** (1): 196-204.

Federal Ministry of Education (2013). *National Policy on Education (6th Ed).* Lagos, NERDC.

Haakachima, B. & Lunjebe, A. (2019). The Effect of Think-Pair-Share Cooperative Learning Model on Grade Twelve (12) Learners' Performance in Quadratic Functions: A Case of Twashuka Secondary School in Luanshya. *International Journal of Research and Innovation in Social Science (IJRISS).* **3** (10): 216-223

Hamdan, R. K. A. (2017). The Effect of Think-Pair-Share Strategy on the Achievement of Third Grade Student in Science in the Educational District of Irbid. *Journal of Education and Practice,* **8** (9): 88-95

Hassan, S. D. (2013). Effects of Three Instructional Methods of Teaching Volumes on Junior Secondary School Students' Performance in Katsina State, Nigeria. M. ED Dissertation Submitted to the Faculty of Education, Usmanu Danfodiyo University, Sokoto, Nigeria.

Igbokwe, D.I. (2003) An Assessment of the Foundation for a Sustainable Scientific and Technological Development in Nigeria, *STAN Journal of Issues on Mathematics*, **6** (1): 1-15.

Iji, C. O. & Harbor-Peters, V. F. A. (2005). Effects of Logo and Basic Programs on the Achievement in Geometry of Junior Secondary School Students. *The Journal of Mathematical Association of Nigeria,* **30** (1): 67-77

Katsina State Ministry of Education (2019). Senior Secondary School Students Enrolment 2018/2019 Session

Khamal, L.Shah, S.&Koirala,S. (2014) Exploration of Preferred Learning Styles in Medical Education Using VARK modal. *Russian Open Medical Journal*, (3): 0305 DOI: 10.15275/rusomj.2014.0305

Kolawole, E. B. (2005) Comparative Analysis of Three Methods of Solving Quadratic Equations. *ABACUS, The Journal of Mathematical Association of Nigeria*, **30** (1): 78-85.

Miji, A. & Makgato, M. (2006) Factors Associated with High School Learners' Poor Performance: A Spotlight on Mathematics and Physical Science. Retrieved May 10th, 2010, from hhtp://ajol.info/indexphp/saje/article/viewfile/25068/20738

Musa, M. & Dauda, E. S. (2014). Trends Analyses of Students' Mathematics Performance in West African Senior Secondary Certificate Examination from 2004 to 2013: Implication for Nigeria's Vision 20:2020. *British Journal of Education*. **2** (7): 50-64

NCTM (2000). *Principles and Standards for School Mathematics*. Reston, The National Council of Teachers of Mathematics, Inc.

Nolan, M. M., Beran, T., & Hecker, K. G. (2012). Surveys Assessing Students' Attitudes Toward Statistics: A Systematic Review of Validity and Reliability. *Statistics Education Journal*, **11** (2): 103-123

Odili, G. A. (2006). *Mathematics in Nigeria Secondary Schools: A Teaching Perspective.*Nimo: Rex Charles & Patrick Limited. Nigeria.

Okebukola, P. A. (2005). Quality Assurance in Teacher Education in Nigeria: The Role of Faculties of Education, A paper at Committee of Deans of Education in Nigerian Universities 2005 Meeting, Ilorin.

Olubukola, A. (2015). An Investigation of Difficult Topics in the Senior Secondary School Mathematics Curriculum as Perceived by Student Teachers. *American Journal of Educational Research*, **3** (7): 844-848 DOI: 10.12691/education-3-7-7

Peter, E. & Olaoye, A. A. (2014). Enhancing Quality of Mathematics Offered in the Nigerian School System; through Effective Mathematics Professional Development. *International Journal of Academic Research in Education and Review*, **2** (4): 64-71. DOI:10.14662/IJARER2014.013

Salman, M.F. (2005) Teachers' Identification of the Difficulty Levels of Topics in the Primary School Mathematics Curriculum in Kwara State. *The Journal of Mathematical Association of Nigeria*.

Tomlinson, C. A. (2001). *How to Differentiate Instruction in a Mixed Ability Classrooms (2nd Ed).* Alexandria, Association for Supervision and Curriculum Development (ASCD).

Umar, Y. A. (2015). Effects of Visual, Audio, Kinesthetic Learning on Emotional Intelligence, Attitude and Performance in Ecology among Colleges of Education Students, North-West, Nigeria. A Thesis Submitted to the Faculty of Education, Ahmadu Bello University, Zaria in Partial Fulfilment of the Requirements for the Award of Doctor of Philosophy in Science Education.

Voughn, L. & Baker, R. (2001). Teaching in the Medical Setting: Balancing Teaching Style, Learning Styles, and Teaching Methods. *Medical Teacher*, **23** (6): 610-612 DOI:10.1080101421590120091000

Wasagu, M A. (2009). *Rethinking Science Education for changing Times: The writing on the Wall:* Nigeria. Trans-Akab Publishers, the 8thInaugural lecture in Usmanu Danfodiyo University, Sokoto.

Weselby, C. (2017). What is Differentiated Instruction? Examples of How to Differentiate Instruction in the Classroom. Retrieved from http://education.cu-portland.edu/blog/teaching-strategies/examples-of-differentiated-instruction, on July 27th, 2017.

INNOVATIVE MANAGEMENT STRATEGIES TOWARDS ENHANCED SCHOOL COMMUNITY RELATIONSHIP IN THE 21ST CENTURY

Dr. Lateef Adeyemi Yusuf

Department of Educational Foundations, Faculty of Education, Sokoto State University.
e-mail: adedeyemi88@gmail.com

Abstract

The purpose of this paper is to examine the innovative management strategies towards enhanced school-community relations. Both the school and the community are interdependent and interrelated. They are expected to benefit each other in the use of school plants, economic activities and acquisition of knowledge. This paper highlighted the need to link the school and the community into a cohesive group that works effectively towards the achievement of mutually established goals. This paper comprehensively discussed the concept and benefits that are associated with school- community relations, for instance involvement of community members in school is particularly useful in order to mobilise financial, material, and human resources. This paper revealed important innovative management strategies towards effective realization of enhanced school-community relations in the 21st century. Part of the management strategies stated that, the schools' personnel, and most importantly the teachers, should be opened to the community's involvement in the school, help them (in a fascinating manner) in their community development and cultural activities, draw community talent and other resources to the school and allow community members to use school resources and the likes, equally the school administrators particularly the new ones should participate in civic activities outside schools.

Keywords: Management, Strategies, Innovations, School-Community Relations.

Introduction

An important aspect of school administration is school-community relations. This function is also called the public relations functions of the school administrations. In many contexts participation of communities in the operation of schools has helped increase access, retention and attendance rates of children to school. Education is a social activity in which, in addition to the school, society plays the role of a facilitator and partner (Sujatha, 2011). Successful schools understand the importance of establishing good and harmonious relations with the community in which they operate. These relationships exist at the two levels, at formal and legal level, as well as an informal and voluntary one. The former is expressed by the representation of the community through formal organisations such as School Management Committee (SMC), Social Development Committee (SDC), also Parent Teachers Association (PTA). The latter take the form of voluntary participation. In order to enhance the community's participation in education, it is essential to promote a school environment where community members feel welcomed, respected and trusted.

Notwithstanding there has been a general lack of integrated theory development and model building in terms of the differentiated functional roles of the principal, especially vis-à-vis school-community relations. In the last two decades, school, community and family relations have evolved from traditional model of provider-receiver to model of partnership and collaboration, and this purposeful transition is much stressed in education

reform efforts. In addition, there seems to be a growing interest in the extant literature about the importance of partnership and collaboration of schools, community and families, cooperative effort and support between school and community are very influential for students 'success. The partnership of these two institutions may make a substantial difference for school improvement with a better socialization and education process (Getswick; 2015, Sander, 2008 and Sanders & Harvey, 2002).

Regarding the importance of the partnerships of the two institutions, school administrators can carry out critical roles for the establishment of the partnership. Administrators must take lead in establishing good public relationship with the community. It has been convincingly argued that the term "school community "is appropriate only when there is a two-way school-community relationship in which the latter participates to a large degree in schools. The most important argument for school-community relations rests on social considerations which involve the concept of democracy. Participation is in itself a form of education. By taking part in discussion, and sharing in the process of decision-making on social and educational policies, members of a community learnt important social skills and partake meaningfully in a significant political processes. Community involvement provides the opportunity to put democratic practices into schools and into the community at large. In the process, we have the chance to enrich the quality of life (Ejie,2007).

It is becoming increasingly clear to the schools that the "secret garden" era is coming to an end as we progress into new world of "parent power". The community education movement is spreading rapidly; parents are pressing for more radical changes in the school government; schools are becoming more accountable; and the present relationship between the school and the community is being questioned and undermined.

Theoretical Framework

Joyce Epstein Theory of Overlapping

The theory of overlapping was developed by Joyce Epstein in the year (1992). Epstein developed her theory of overlapping spheres of influence, positing that students learn more when parents, educators, and others in the community work together to guide and support students learning and development. The theory identifies three major contexts within which children develop and learn: the family, the school, and the community. The overlapping spheres of influence model recognizes that there are some practices that family, school and community conduct separately and that there are others that they conduct jointly in order to influence the growth and learning of the child. According to Epstein, successful partnerships must be forged among these three spheres in order to meet the needs of the child.

In this theoretical perspective it is assumed that communities and schools are more effective when intersecting connections are developed, and when valued information, advice, and experiences are shared on a continuing basis among members of these institutions. Productive connections may contribute to improved academic skills, self-esteem and positive attitude toward learning thereby contributing to effective realization of school goal and community goal.

This simply means that both the school and the community must relate well, fulfill their responsibilities for children's learning and development community involvement in school decision-making, governance and advocacy could be instrumental towards enhanced school-community relations. This necessary implies that effective practices of partnerships between the school and community are developmental and responsive to the goals of the school and the community at large.

Concept of School-Community Relations

When used by educators, the term 'school community' typically refers to the various individuals, groups, institutions that have invested in the welfare and vitality of a public school and its community that is the neighbourhoods and municipalities served by the school. In many context, the term encompasses the school administrators, teachers and staff members who work in a school; the student who attend the school and their families and local residents. Further on that, Glossary of Education (2019) submitted that, the term school community also implicitly recognizes the social and emotional attachments that community members may have to a school, whether those attachments are *familial* (the parents and relatives of students, for example), *experiential* (alumni and alumnae), professional (those who work in and derive an income from the school), *civic* (those who are elected to oversee a school or who volunteer time and services), or socioeconomic (interested taxpayers and business who may employ graduates and therefore desire more educated, skilled and qualified workers).

Generally, the growing use of 'school community' reflect the recognition that schools, as public institutions supported by state and local tax revenues, are not only part of the community but also responsible to the communities they serve, they are also obligated to involve the broader community on important decisions related to the governance, operation, or improvement of the school. This simply implies that schools are to be more intentional and proactive about involving a greater diversity of community members in its governance. The school therefore does not exist in isolation of the community, a symbiotic or mutual relationship needs to exist between the school and its community as neither can do without the other.

School community relation is a two-way process and flow of ideas between the school and the community to ensure mutual understanding and teamwork for the realization of the goals of the both community and the school. Rangel (2010) submitted that schools depend on the community for a number of things such as skilled and unskilled labor, fund, and accommodation for staff. In a similar vein, Mogbule (2013) opined that school will always need the continuous support of the community in order to carry out not only its functions of finance but its human and material resources.

School community relationship is a term that is used to describe the nature of association between schools and communities. School-community relationship has its central focus that is the enhancement of teaching and learning. All the activities of the school in relation to significant others such as the host community, Parent Teacher Association, (PTA), Ministry of Education or the professional staff which ultimately contribute to educational growth. Through appropriate school-community relationship, the school comes into factual contact with the community thereby issues are addressed accordingly (Lumsdane & Lumsdane, 2000; Pearle & Blachard, 2000). Since schools are established for serving societal needs, it becomes necessary that a good relationship must exist

between the school and the community it is meant to serve. However, Okeke (2001) noted that some community leaders now show indifference and disregard to the affairs of the schools in their communities. according to Tata and Abdullahi (2004) the community's values norms, and beliefs are to be perpetrated by the school being a social institution. therefore, successful development of education and basic education in particular depends so much on the relationship between the school and the community. it is obvious therefore, that schools and communities should work closely with each other to meet their mutual goals.

In effective administration of school, the principal shares responsibilities with the teachers, students, and members of the school communities. Also, giving the important roles being played by the community in effective school administration, the principal works with some community groups such as School Building Maintenance Committee (SBMC), Parent and Teachers Association (PTA), Old Boys/Girls Associations and Non-Government Organisations (NGOs) for the improvement of the school in order to enhance better service delivery (Ukpong & Uzo Igwe, 2020).

Benefits Associated with Enhanced School-Community Relations

The involvement of community members in school is particularly useful to mobilise financial, material, and human resources. Community members can also participate in changing the community's attitude toward schooling. School committee members can visit reluctant parents, explain the benefits of education and convince them to enroll their children in school.

Community participation in schooling allows the formulation of school policies and practices which are more responsive and sensitive to the needs of the community they serve. This support is often reflected in higher levels of academic achievement, lower rate of truancy and reduction in dropping out, vandalism and other problems. Better student behaviour and attitudes can be achieved. Further the capacity of the school to understand and solve problems will itself increase if parents are part of the decision-making process.

Community participation in itself is a form of education by taking part in decision making process and educational policies, members of a community learn important social skills and partake meaningfully in significant political processes. There is an increase in the sensitivity and relevance of schools to the people they serve; community involvement provides the opportunity to put democratic practices into our schools and into the community at large.

Prescribed Innovative Management Strategies towards Enhanced School-Community Relations in the 21ˢᵗ Century

School administrator could be described as been effective in their administrative duties, if there is cordial interpersonal relationship between the school and the community. Therefore, the need to put some innovative management strategies towards effective realization of enhanced school community relation becomes a necessity.

The school administrator must examine the community in which the school lies in order to create good relationships with the community. Communities are composed of different ethnic, religious and socioeconomic groups that may either have mutual or divergent

interests. Recognizing the diversity within the community and understanding its characteristics as well as its traditions, must be primordial step for the school principal before beginning to build the relationship.

The school should support the schools' personnel and most importantly, the teachers, to be open to the community's involvement in the school, help them (in a fascinating manner) in their community development and cultural activities, draws community talents and other resources to the school and allow community members to use the school resources and the likes, equally school administrators, particularly new ones should participate in civic activities outside of the school. Administrators equally need to establish a more cooperative and supportive functional interaction among the various governmental and non-governmental organisations in the school community.

Adopt pertinent policy measures to encourage community's participation in the school. This requires the government to reinforce its involvement by passing specific legislation, procedures, and guidelines concerning the different structure that link the school and the community. However, at the micro-level, Ministry of Education, or Local Education Offices should establish clear policies and guidelines that define the responsibilities and functions of bodies composed by community members.

The school head must spend time and efforts preparing and encouraging the community participation in school. In addition, he or she must share the vision and plans of the school with community members, listen to their different points of view, and invite them to collaborate in school. Also community leaders and external actors (such as NGOs) should stay active in school, as they can act as linking agents between the school and the larger community.

School administrator can initiate the school-community interaction strategies, such as reporting progress, organizing special occasions for parents, employing community talents in the teaching-learning process, involving parents in the school-based decision-making, forming Parent –Teacher Association (PTA) and work with industry and community image groups.

School administrators should identify and establish community education programmes, that are need-oriented and community based, while the school administrators and staff that are knowledgeable in the neighbourhood function as facilitators. These are some of the ways of assisting the communities by helping parents to recognize their potentials in education.

The school head should lunch periodically, an assortment of the functioning and effectiveness of existing structures such as Parent Teachers Association (PTA), School Development Committee (SDC), and Community Adult Education Committee (CAEC).

Conclusion

in conclusion, the paper stresses the importance of school-community relations towards achieving the community and school organisational goals, and the rapidity with which education industry is growing globally depicts its indispensability. Promoting community involvement could be regarded as the major key to inclusive education. the key feature of

this role is to link the school and the community into a cohesive group that works effectively towards the achievement of mutually established goals.

Therefore, strategies in establishing good school-community relations will result in drawing the members of all ethnic groups to the schools, it is by working together that people of different groups learn to understand one another and work towards a common goal. The success of this endeavor depends largely on creating a "welcoming-environment" in schools.

Recommendations

Sequel to earlier discussions, the study prescribed the following recommendations:

1. Precisely, school administrators should assess linkages to community groups that are not presently being reached, identifying "opinion leaders" in the community and involving these individuals in decision making process. Relationship established by the school administrator with the community stimulates the interest of the community in supporting the affairs.
2. School administrators should always extend invitation to community members in order to facilitate open discussion between parents and principal for instance having informal breakfast, rap sessions, tour of the school, inviting service clubs and other organisations to meet in the school. Parent conferences should be used to explain school programs and to resolve misunderstandings. However, principals and teachers must avoid partisan politics, obnoxious religion matters and delicate sectarian issues in the community. When they get involved in local politics, the relationship between the school and community is usually destroyed.
3. School administrator must ensure a strong relationship between the school and the old students of the school through the umbrella of Old Students Association. Valedictory and Founders Day Programmes should be used to bring old students closer to the school through invitation. In the process old students individually and collectively could give financial assistance to the school. They could embark on projects or award scholarships. This will therefore keep them in close touch with the school.
4. School administrators should allow the use of school facilities by the community members. These includes school halls, furniture, playground, school bus and so on. This however should be done within the laid down rules and regulations presented by the controlling agency.
5. Provisions should be made to train school staff on practical ways to work and communicate effectively with community members and parents. Encourage them to appreciate diversity and reduce barriers to the community's involvement in school. Also, training opportunities should take gender issues affecting participation of community members within the schools. For instance, provide special training in leadership skills, communication skills, gender sensitivity and gender-mainstreaming.

References

Abraham, N. M. (2003). *Educational administration in Nigeria*. Port Harcourt: Pam Unique Publishers

Ejieh, N. (2007). Educational quality and community involvement in Nigeria: Some implications for education planning. *Journal of Social Sciences*, **10** (2): 43-48

Gestwicki, C. (2015). *Home, school and community relations* (9th ed.) Belmont, C.A: Cengage Learning.

Glossary of Education (2019). School community. Retrieved from https://edglossary.org/school-community. Date: 15th November, 2021.

Joyce, L. E. (1992). School and Family Partnership. US Department of Education. Education Resource Information Centre [ERIC ED 3437515] from: https://files.eric.ed.gov/full text/ED343715 Date: 10th January, 2022

Mogbodile, T. O. (2003). *Fundamentals in educational administration and planning.* Nsukka: Magnet Publishing

Okeke, N. O. (2001) Administering education in Nigeria: Problems and Prospects Ibadan: Heimann Education Books.

Lumsden, G & Lumsden, D. (2000) Communicating in groups and teams: Shearing leadership. Belmont-Cardiff: Wadsworth.

Pearle, N. V. & Blanchard, K. (2000). The power of ethical management: London: Random House.

Rangel, C. B. (2000). At- Risk youths school-community collaborations focus on improving students' outcomes. Washington DC: United States General Accounting Office.

Sanders, M. & Harvey, A. (2002). Beyond the school walls: A case study of principal leadership for school-community collaboration. *The Teachers College Record,* **104** (7): 1345-1368

Sanders, M. G. (2008). Using diverse data to develop and sustain school, family and community partnerships. *Educational Management Administration Leadership*, **36** (4): 530-545

Sujatha, K. (2011) Managing external relations: Improving school management. Retrieved from: https://unesdoc.unesco.org/images/0022/002205/22053E.pdf Date: 21st March, 2021.

Tata, U. S. & Abdullahi, M. S. (2014). The relevance of school community relationship on the development of primary education in Azare metropolis Bauchi state, Nigeria. *Journal of Research and Method in Education.* **4** (6): 23-29

Ukpong, N. N. & Uzoigwe, M.C. (2020). Innovations in managing school community relations and principals' administrative effectiveness: Implications for attainment of Sustainable Development Goals in Nigeria. *Africa Journal of Innovations and Reforms in Educational Management.* **1** (1): 503-512.

STRESS, MARITAL CHALLENGES AND COPING STRATEGIES OF FEMALE MARRIED SECONDARY SCHOOL TEACHERS IN SOKOTO METROPOLIS, SOKOTO STATE, NIGERIA

Yaro, Hauwa Bodinga Ph.D.

Department of Educational Foundations, Sokoto State University, Sokoto
e-mail: hauwayarob@gmail.com

Abstract

This study investigated stress, marital challenges and coping strategies of female married secondary school teachers in Sokoto Metropolis. Three research questions, objectives and hypotheses were raised respectively to guide the study. A descriptive correlational research design was used in this study. The study used a population of six hundred and forty two (642) married teachers across the public secondary schools in Sokoto Metropolis, out of which two hundred and forty eight (248) were sampled based on research advisor table for determining sample size (2006). Three set of instruments were used to collect data for the study namely; researcher designed Sources of Stress Scale (SSS) with reliability index of 0.68, Marital Challenges Scale (MCS) with reliability index of 0.72 and Coping Strategies Scale (CSS) reliability index of 0.78. All the instruments were validated by experts and were said to have content and construct validity. Hypotheses one, two and three were analyzed using Pearson Moment Correlation statistics. The findings of the study revealed that there is relationship between home based and work-based sources of stress, personality factors and behavioural factor related challenges and a significant relationship between affectionate factor and social support coping strategies of female married secondary school teachers in Sokoto metropolis. The study concluded that, affectionate factor and social support coping strategies is related and could actually serve as support to female married secondary school teachers in Sokoto metropolis. It was recommended among others that, there should be concerted effort of the counsellors to the female married teachers to make sure that needs, personality factor and behavioural factor on marital related challenges are taking care of to reduce stress.

Keywords: Stress, Marital Challenges, Coping Strategies and Female.

Introduction

Having stress is a fact of life which everyone deals with on daily basis. Understanding the nature of stress is complicated. Stress is not simply anxiety, nervous breakdown, or something damaging, bad, or to be avoided (Luthans, 2010). It is an arousal state of mind and body in response to demands made up of them. Lunenbury and Omsteen, (2003) explained that stress is the physiological and psychological response of an individual to demands (the loss of something desired), constants (forces that prevent individuals from during what they desire), or opportunities involving uncertainty and important outcomes. It is a dynamic condition in which any individual confronts with an opportunity constraint or demands related to what the person desire, and for which the outcome is perceived to be both uncertain and important (Clegy, 2000) Lohithakshan, 2000 stated that stress to teachers refers to the experiences of unpleasant emotion by teachers such as anger, tension, frustration, depression and nervousness, resulting from their work.Lunemburg and Omsteen, (2003: 40) explained that stress is usually known as a negative term caused by something bad.

Stress is a state of psychological imbalance resulting from the disparity between situational demand and individuals' ability or motivation to meet those demands (Kroemer and Grandjean, 2001). Some sources of stress include family relationships, occupation and how people think. According to Aldous (2006) a working woman is a woman who works consistently and sometimes constantly for the sustenance of the family. These women in their marital status are confronted with everyday challenges (stresses) within and outside the home. These challenges have the capacity of either making or marring their conjugal union. The home- based stress include abuse, extra marital affairs, sadness, worry, withdrawal, violence and complete loss of connection, a high level of tension, depression, polygyny, and mental and family (Salami, 2010).

However, some occupations are stressful while others provide basic psychological atmosphere for workers' emotional stability. Anytime stress occurs, it is an indication that the demands placed upon the person have exceeded the personal resources, whether these resources are physical, emotional, economic, social or spiritual (Dixit, 2011). Work gives a sense of identification to an individual within a community (Dixit, 2011). Workplace stress occurs when the challenges and demands of work become excessive and the pressures of the workplace exceed the workers' ability to handle them and job satisfactions turns to frustration and exhaustion (Lambert & Lambert, 2008). Personality marital related challenges is the socialization factors related to kindness, generosity, kindness and delicacy. According to Salami (2010) personality traits predict the marital adjustment of couples and involve neutral characteristics to the perception of marital issues. Behavioural marital related challenges may include; jumping into marriage for the wrong reasons, loss of individual identity, overbearing parental duties, not having the same vision of success anymore, a nonexistent sex life, unmet expectations, differences in finances, loss of physical attraction, different interests, and too many fights over problems (Salami, 2010). Affectionate coping strategy refers to putting our spouse first to nurtures trust, gratitude, generosity, and affection. It can also lead to physical intimacy. Marriages do not work well when our partner plays second fiddle to anything even the children. It is a fact that, the happiest kids are those with parents who love one-another best (Ahmed, 2013). Social support is an important strategy which helps people to cope with traumatic experiences. Having effective social support has been shown to be one of the most effective tool for intervention in marital challenges (Adeoye & Durosaro, 2009).

There is increased female involvement in teaching and as such we have female teachers who combine their domestic duties with workplace responsibilities in formal organizations. They perform reproductive, domestic and productive duties. But either way, these female teachers are likely to be confronted with different social and psychological problems. These social and psychological problems is what constituted marital challenges and are directly the result of problems, such as abuse, extra marital affairs, sadness, worry, withdrawal, violence and complete loss of connection, a high level of tension, depression, polygyny, and mental and family.

The role and place of women in the teaching profession in Sokoto is now fully recognized and accepted by a great majority on equity. It is a profession that cannot do without women, both married and unmarried. It is also well known that the married ones have to cope with the rigors of running a family life. Such a life leads them to assuming many roles, that of a wife, a mother, a civil servant and sometimes a breadwinner. Such a life takes its toll on the day to day activities of such women, thus stress invariably set in. As such many do not perform up to expectation in their daily duties. These have well resulted

in many cases of constant absenteeism, lateness to work, procrastination of assignment, transfer of aggression to students, abandonment of duty, seeking permission to attend a family responsibilities during work hour, in fact, any slight opportunity that may give them an excuse from performing their required duty. In the process of making adjustment, female teachers had to compromise their sleep, desires and health. However, this rigor leads to stress and bring about marital challenges in female teachers but at home and with the organization in which they work.

Some empirical studies in relation to the variables reviewed in the relationship between stress and marital challenges, stress and coping strategies. For example, Adeoye and Durosaro, (2009) worked on sources of stress and coping strategies on concerned married women using survey research design and employee of five selected schools in Ilorin with two hundred and fifty (250) respondents randomly selected and four research instruments as well as through statistical tools for data analysis and the findings confirmed dual career women encounter stress in their attempt to fulfill home and work demands. Amponsah, (2012) studied work stress and marital relationship in Ghana using descriptive survey research design, 723 secondary school teachers were used with 364 as the respondents and the result of the findings indicated that, there is a process of spillover between work and stress and marital roles, and between marital relationship and work stress. Ahmed (2013) worked on work family life adjustment in Punjahusing ex-post facto survey design with 2,800 and servants in Punjab was adopted for the study and the result of the study showed that adjustment was a long, tiring and extremely challenging process as work had its own demands which were quite different from family responsibilities. In the process of making adjustment working mothers had to compromise their sleep, desires and health. Therefore, to the best of the researcher's knowledge, less attention has been focused on sources of stress, marital challenges and coping strategies of female married secondary school teachers in Sokoto metropolis. The main thrust of this study, therefore is to examine the relationship among sources of stress, marital challenges and coping strategies of female married secondary school teachers in Sokoto metropolis.

Research Questions

The following research questions guided the conduct of the study:

i.   Is there any relationship between home-based and work-based sources of stress of female married teachers in Secondary schools in Sokoto metropolis?
ii.   Is there any relationship between personality factor and behavioural factor of marital related challenges of female married Secondary schools' teachers in Sokoto metropolis?
iii.   Is there any relationship between affectionate factor and social support coping strategies of female married Secondary schools' teachers in Sokoto Metropolis?

Objectives of the Study

The objectives of this study were to find out:

i.   If there is any relationship between home-based and work-based sources of stress of female married teachers in Secondary schools in Sokoto metropolis.

ii.   If there is any relationship between personality factor and behavioural factor of marital related challenges of female married Secondary schools' teachers in Sokoto metropolis.

iii.   If there is any relationship between affectionate factor and social support coping strategies of female married Secondary schools' teachers in Sokoto Metropolis.

Research Hypotheses

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

i.   There is no significant relationship between home-based and work-based sources of stress of female married teachers in Secondary schools in Sokoto metropolis.

ii.   There is no significant relationship between personality factor and behavioural factor of marital related challenges of female married Secondary schools' teachers in Sokoto metropolis.

iii.   There is no significant relationship between affectionate factor and social support coping strategies of female married Secondary schools' teachers in Sokoto Metropolis.

Methodology

A descriptive correlational research design was used in this research. Simple random sampling technique was used to select 15 out of 40 schools that are within the study area with the total population of 642 female married teachers in Sokoto metropolis. Table of determining sample size by Research Advisor's (2006) was used and samples of 248 participants from the fifteen schools were considered using purposive sampling technique. Meanwhile, the female married teachers in each school were selected by using simple random sampling of Yes or No ballot form in order to represent the whole population and the opinion of the respondents reflects the feelings of the population.

Three research instruments that were used for this research are:

Researcher designed Stress Scale (SS): to measure sources of stress among married Secondary School teachers in Sokoto metropolis with construct validity after scrutiny by experts in the Department of Educational Foundations, Usmanu Danfodiyo University, Sokoto, and reliability index of 0.68 using test re-test method. This was considered high enough for use in this research.

Researcher designed Marital Challenges Scale (MCS): to measure marital challenges with content validity after scrutiny by experts in the Department of Educational Foundations, Usmanu Danfodiyo University, Sokoto, and reliability index of 0.72 using test re-test method. This was considered high enough for use in this research.

Researcher designed Coping Strategies Scale (CSS): to measure coping strategies with content validity after scrutiny by experts in the Department of Educational Foundations, Usmanu Danfodiyo University, Sokoto, and reliability index of 0.78 using test re-test method. This was considered high enough for use in this research.

Data Presentation and Analysis

H_{O1}:   There is no significant relationship between home-based and work-based sources of stress of female married secondary school teachers in Sokoto Metropolis

Table 1:   Relationship between home-based and work-based sources of Stress

Sources Decision	N	Mean	Std. Deviation	r-cal	p-value	Decision
Home-based	248	62.54	7.312			
				.102	.048	Rejected
Work-based	248	43.30	5.23			

α = 0.05

From Table 1, it can be seen that the relationship between home-based and work-based sources of stress of female married secondary school teachers was positive with Pearson's r =.102which was high and statistically significant with p-value .043<.05. Thus, the hypothesis is rejected. This indicates that there is statistically significant relationship between home-based and work-based sources of stress of female married secondary school teachers in Sokoto Metropolis because the p-value is less than .05 level of significance. Therefore, an increase in home-based stress is accompanied by an increase in work-based stress. Thus, hypothesis which states there is no significant relationship home-based and work-based sources of stress of female married secondary school teachers in Sokoto Metropolis was rejected.

H_{O2}:   There is no significant relationship between personality factor and behavioural factor of marital related challenges of female married Secondary schools' teachers in Sokoto metropolis

Table 2:   Relationship between Personality Factor and Behavioural Factor Marital Challenges

Variables	N	Mean	Std. Deviation	r-Cal	P-value	Decision
Personality Factor	248	64.47	7.312			
				.122	.046	Rejected
Behavioural Factor	248	40.23	12.176			

α = 0.05

From Table 2, it can be seen that the relationship between personality factor and behavioural factor of marital related challenges of female married secondary school teachers was positive with Pearson's r =.122 which was high and statistically significant with p-value .046<.05. Thus, the hypothesis is rejected. This indicates that there is statistically significant relationship between personality factor and behavioural factor of marital related challenges of female married secondary school teachers in Sokoto Metropolis because the p-value is less than .05 level of significance. Therefore, an increase in personality factor is accompanied by an increase in behavioural factor. Thus, hypothesis which states there is no significant relationship personality factor and behavioural factor of marital related challenges of female married secondary school teachers in Sokoto Metropolis was rejected.

H$_{O3}$: There is no significant relationship between affectionate factor and social support copying strategies of female married secondary school teachers in Sokoto Metropolis.

Table 3: **Relationship between Affectionate Factor and Social Support Copying Strategies**

Strategies	N	Mean	Std. Deviation	r-Cal	p-value	Decision
Affectionate Factor	248	62.18	3.42			
				.136	.049	Rejected
Social Support	248	20.65	1.76			

α = 0.05

From Table 3, it can be seen that the relationship between affectionate factor and social support copying strategies of female married secondary school teachers was positive with Pearson's r =.136which was high and statistically significant with p-value .049<.05. Thus, the hypothesis is rejected. This indicates that there is statistically significant relationship between affectionate factor and social support copying strategies of female married secondary school teachers in Sokoto Metropolis because the p-value is lessthan.05 level of significance. Therefore, an increase in affectionate factor is accompanied by increase in social support copying strategies. Thus, hypothesis which states there is no significant relationship affectionate factor and social support copying strategies of female married secondary school teachers in Sokoto Metropolis was rejected.

Discussion of the Findings

Finding from hypothesis one showed that there is statistically significant relationship between home-based and work-based sources of stress of female married secondary school teachers in Sokoto Metropolis. Hence the hypothesis is therefore rejected to indicate that a there is relationship between home-based and work-based sources of stress of female married secondary school teachers in Sokoto Metropolis. This is in line with study by Musa (2013) titled: Marital Stress and Job Performance of Senior Secondary school female teachers in Sokoto State metropolis, using correlation research design using 72 female teachers of senior secondary schools under ministry of science and technology as well as Pearson product moment correlation co-efficient to analyze the formulated null hypothesis, the finding indicated that there is significant relationship between time management, household chores, financial desires, relational distress, parenting distress and job performance, of female teachers in secondary schools under ministry of science and technology of Sokoto State their findings confirmed that low job performance of civil servants can be explained as consequences of spillover of marital stress brought from home. Hence the higher the marital stress experienced from home the lower the performance output of the workers. The prominence of workplace factors in the experience of stress may depend on occupational groupings or particular aspects of the workplace. This finding is reflect the role theory model (RTM) is a theory of essential factor in situation of marital crises or discontentment credited to (Mangus cited in Abubakar, 2010) because the expectations are fashioned from different social/family backgrounds, there is therefore the tendency for such roles to conflict, leading in partial terms to the crises of the role strains among the parties.

Hypothesis two which stated that there is no significant relationship between personality factor and behavioural factor marital related challenges of female married secondary school teachers in Sokoto Metropolis was found rejected, because there is statistically significant relationship between personality factor and behavioural factor marital related challenges of female married secondary school teachers in Sokoto Metropolis. Thus, the null hypothesis that states there is no significant relationship between personality factor and behavioural factor marital challenges stress of female married secondary school teachers in Sokoto Metropolis was rejected. Hence, there is relationship between personality factor and behavioural factor marital related challenges of female married secondary school teachers in Sokoto Metropolis. This shows that female married secondary school teachers in Sokoto metropolis experienced personality factor marital related challenges and behavioural factor marital related challenges. This finding agree with that of Borg and Riding in Dumais (2006) sample of 150 school administrators in state primary and secondary schools in Malta completed a self-administered questionnaire on their perceptions of role-related stress. About one-fifth of the respondents found their job as school administrators either very stressful or extremely stressful; 80 per cent indicated that they were fairly satisfied or very satisfied with their job. Some of the demographic characteristics of the sample were related to the level of job stress and satisfaction. Results also showed that respondents who reported greater levels of stress were least satisfied with their role as school administrators. A principal components analysis of 22 listed sources of stress revealed four major stress factors, labeled "lack of support and resolving conflicts "inadequate resources", "workload" and "work conditions and responsibilities" The demographic variables of' "sex", "type of administrative post" and "type of school" interacted significantly with the four stress factors. Borg and Riding cited in Dumais, (2006) uses school administrators in state primary and secondary schools in malta while the current study will use female teachers in secondary school only in Sokoto metropolis. The relationship between job satisfaction and occupational stress related to challenges has been well established in the literature as a negative one That is to say, higher job satisfaction is related to lower occupational stress, and vice versa. This finding is also in line with that of (Gilmore; McCormick cited in Gisele, 2002). Studies that have examined the dimensions of job satisfaction and stress variables, rather than overall measures, have generally provided a more thorough picture of how job stress and satisfaction are related. various analyses have shown that stress factors such as role ambiguity role conflict and role overload have differing strengths of relationships with job satisfaction, though the direction of the relationships are generally still negative For example, report that role ambiguity was more strongly related to job satisfaction than role conflict. This finding is also in line with the Marxist Feminist theory posits that society as unequally structured, dominated and controlled by men and the theory believed that women are exploited in the home and in the work place because their labour is uncompensated.

Hypothesis three stated that there was no significant relationship between affectionate factor and social support copying strategies of female married secondary school teachers in Sokoto Metropolis. This hypothesis was rejected because statistically significant relationship between affectionate factor and social support copying strategies of female married secondary school teachers in Sokoto Metropolis. Hence, there is relationship between affectionate factor and social support copying strategies of female married secondary school teachers in Sokoto Metropolis. This shows that the affectionate factor copying strategy is as important as social support copying strategy to female married teachers in Sokoto metropolis. This is in agreement with previously existing findings of

Landsbergis in Capenter, (2008) administered the new model of occupational stress developed by Robert Karasek which incorporates control and socialization effects and has successfully predicted the development of heart disease and psychological strain to 771 hospital and nursing home employees in New Jersey, and 289 (37.5 per cent) were returned. Respondents did not significantly differ from non-respondents by age, sex, job tenure, union membership status, job satisfaction, job perceptions and attitude towards employer and union the results support the hypothesis that reported job strain (job dissatisfaction, depression, psychosomatic symptom) and burnout is significantly higher in jobs that combine high workload demands with low decision latitude. This association remained significant after controlling for age, sex, education, marital status, children hours worked per week and shift worked. Other job characteristics (job insecurity physical exertion, social support, hazard exposure) were also associated with strain and burnout. This finding is also in line with the Role Theory Model posits that conflict generated by the inter-partner person's misconception is usually of chronic type where the misperceived member in the marriage fails to see in clear terms the basis for his or her being misperceived.

Conclusion

The study concludes that an increased in Home based stress is accompanied by an increased in Work based stress. An increase in personality factor is accompanied by an increased in behavioural factor. Affectionate factor and social support coping strategies is related and actually serve as support to female married secondary school teachers in Sokoto metropolis. This confirms that female married teachers' sources of stress, marital challenges affect the coping strategies of female married secondary school teachers in Sokoto Metropolis. These married teachers may exhibit some physiological sign such as dizziness; emotional signs like agitation, inability to relax which if not well handled may lead to depression.

Recommendations

From the findings of this study, the following recommendations were made;

1. Home-based and work-based sources of stress should be taken into consideration by Sokoto State Ministry of Education through sensitization, programmes, seminars and workshops to prepare the female married teachers on issues concerning their marital challenges.
2. There should be concerted effort of the counsellors' to the female married teachers to make sure that needs, personality factor and behavioural factor on marital related challenges are taking care of to reduce stress.
3. Stress affectionate factor and social support copping strategies such as sharing of worries, learning on how to cope with every situation, stepping back from issues that cause stress among others should be enhanced with the help of counsellors' to reduce the level of stress among the female married teachers.

References

Abubakar, H. S. (2010). Psychological Effect of Retirement on Retirees: Implication for Per-Retirement Counselling. A Paper Presented of the Department of Educational Foundation. Faculty of Education and Extension Services, Usmanu Danfodiyo University Sokoto.

Adeoye, E. A. & Durosaro, I. A. (2009). Source of Stress and Coping Strategies among Career Married Women as Expressed Married Female Civil Servants in Ilorin Metropolis. *Journal of Education & Applied Psychology*, **2** (3): 33-42.

Ahmed, A. S. (2013). *Work family life adjustments: experience of working mothers at Lesco*. Proceeding of 3rd International Conference on Business Management, University of the Funjab.

Aldous, J. (2006). Family, Ethnicity, and Immigrant Youths' Educational Achievements. *Journal of Family Issues,* **27**: 1633-1667

Amponsah, M. O. (2012). *Work stress and marital relations.* Department of Educational Foundations University of Cape Coast, Ghana.

Clegy, B. (2000). *Instant Stress Management*. Delhi Kogan Press Private Limited.

Dixit, S. K. (2011). School Related Stress in Adolescents Expectation. *Social Psychology of Education*, **1** (8): 3-17.

Capenter, D. M. (2008). Expectations, Aspirations and Achievement among Latino Students of Immigrants Families. *Marriage & Family Review*, **43** (1&2): 164-188.

Dumais, S.A. (2006). Early Childhood Cultural Capital, Parental Habits, and Teachers' Perceptions. *Poetics,* **34**: 83-107.

Gisele, M. (2002). Stress in Graduate Medical Degree. *Medical Journal of Australia,*2(17), 10-11.

Kroemer, K. & Grandjean, E. (2001).*Fitting the task of the Human. A Textbook of Occupation Ergonomirdt*, 5th Edition Taylor and Francis Limited, London, Pp. 211-215.

Lambert, V. & Lambert, C. (2008). Nurses Workplace Stressors and Coping Strategies, *Indian Journal of Palliative Care,***14** (1): 38 – 44

Lohithakshan, P. M. (2000). *Dictionary of Education* – A Practical Approach. New Delhi: Kanishka Publishers.

Lunenbury, F. C.& Omsteen, A. C. (2003). Educational Administration: *Concepts and Practices*. Detroit: Wadsworth Publishing Company.

Luthans, F. (2010).*Organizational Behaviour* (12th Ed). New York: MC Hills.

Musa, F. B. (2013). Marital Stress and Job Performance of Senior Secondary Schools Female Teachers in Sokoto Metropolis. Unpublish Ph.d Seminar Paper Presented to the Department of Education and Extension Service, UDU Sokoto.

Research Advisor (2006). The recommended Sample size for a given Population size, level of confidence, and margin of error appears in the body of the table.

Salami, S. O. (2010). Management of stress among trainee-teachers through cognitive behavior therapy. *Personality Study and Group Behavio*r, **26**: 1-25.

THE PLACE OF SCHOOL LIBRARY SERVICES IN PROMOTING READING CULTURE AT BASIC EDUCATION LEVEL IN NIGERIA

[1]Ibrahim, M. M. Furfuri, Ph. D. and [2]Muhammad Shafaatu Anka

[1]Inuwa Abdul-Kadir Library, Sokoto State University, Sokoto [2]School of Secondary Education Languages, English Department, Federal College of Education (Technical) Gusau, Zamfara State.
e-mail: immfurfuri@yahoo.co.uk

Abstract

This paper examined the central role of school library in basic education programme in Nigeria. Basic education has been a universal concern aimed at providing access to education to every citizen globally. The paper discussed major objectives of Universal Basic Education Programme in Nigeria and provide insights on how School Library services can support resource-based learning as well as inculcation of good reading culture. Some hints on how to develop reading culture among children were highlighted. These hints include storytelling hour, readers club, and reading models. However, the paper noted inhibiting factors for the effective promotion of reading culture at basic education schools in Nigeria. These factors center on lack of compressive policy for implementation of the programme, scarcity of trained librarians and inadequate funding. Therefore, in order to reposition the school libraries for enhanced performance, the paper made recommendations that include sensitization campaign on community involvement in managing libraries of UBE schools and direct participation of the local community in developing and sustaining the school library programmes. Public and Colleges of Education libraries should also play key roles in training and retraining of the school librarians (teacher-librarian), especially on practical aspect of managing the libraries.

Keywords: Basic Education, School Library, Reading Culture

Introduction

Education has been recognized as the foundation of development in any country worldwide. It is against this background that Unagha (2008) reported that, in 1948, the Universal Declaration of Human Rights asserted that everyone has the right to education, but for over 40 years since then, many people cannot have access to education in Nigeria. This is so despite the fact that; all successive Nigerian Constitutions have featured the rights of all Nigerians to basic education. In fact, the successive governments in Nigeria made various efforts towards providing opportunities for quality education for its citizenry. Some of the efforts are reflected in the development and subsequent reviews of the nations educational curricular, the publication of National Policy on Education in 1977 (revised 1981,1999 & 2004), the Universal Primary Education (UPE) programme that was launched in 1976, and Universal Basic Education (UBE) that is presently implemented in the country.

Basic education has been a universal concern aimed at providing access to education to every citizen globally. Nigeria's conceptualization of Basic Education Programme is part of effort to show her commitment to world trends in the field of basic education (Tahir, 2003). This world trends as pointed by Tahir (2003) is the major international and inter-African conventions in which Nigeria is a signatory for the realization of basic education. These conventions include:

i.   The Jomtein Declaration and framework of Action (1990);
ii.   The New Delhi Declaration (1992) requiring the E-9 countries (i.e. the nine countries of the world with the largest concentration of illiterate adults) to reduce the incidence of illiteracy drastically within the shortest possible time span;
iii.   The Amman Reaffirmation (1995) confirm everyone's commitment to the Jomtein Declaration;
iv.   The Durban Statement of Commitment (1998) by which African state reaffirmed their commitment to making the generalization of basic education a reality; and
v.   The OAU Decade of Education in Africa (1997-2006) also reaffirming Africa's commitment to the generalization of basic education.

From the aforementioned conventions, it is very clear that the basic education was a global initiative. But, re-introduction of the basic education programme in September 1999, at Sokoto by then President Obasanjo Government was a step forward in providing the much needed educational opportunities to Nigerian citizenry. The Universal Primary Education (UPE) of 1976 was mainly targeted at primary education level and so could not achieve much due to factors such as poor planning and implementation. However, the current UBE programme as highlighted by Unagha (2008), stresses the inclusion of girls and women, and a number of underserved groups such as the rural poor, street and hawking children, rural and remote populations, the nomads, migrant workers, indigents people, minorities, refuges, the internally displace people(IDPs) and the disabled. Thus, it is very much clear that UBE programme is much broader in its focus and scope of providing access to quality education in Nigeria. This programme focuses on core areas that include early child care (Pre-primary), and the 9-year programme for primary and junior secondary school while the non-core areas focus on apprenticeship, adult and mass literacy education and others.

According to Tahir (2003), The UBE programme has the following principal objectives:

i.   Provision of free universal basic education for every Nigerian child of school age;
ii.   Reducing drastically the incidence of drop out from the formal school system, through improved relevance, quality and efficiency;
iii.   Catering for the learning needs of young people who have had to interrupt their schooling through appropriate forms of complementary approaches to the provision and promotion of basic education; and
iv.   Ensure the provision of appropriate levels of literacy, numeracy, manipulative, communicative and life skills, as well as the ethical, moral and civic values needed for laying a solid foundation for life-long learning and a strong commitment to the vigorous promotion of education.

In pursuance of the above noble and forward looking objectives, the Federal Government of Nigeria, in its implementation guidelines for the UBE programme has recognized provision of School libraries as part of the infrastructural and instructional materials

requirement for effective implementation of the UBE programme. Thus, while the UBE commission is charged with the responsibilities of co- ordinating all aspects of the Basic Education in order to ensure its success, the actual implementers are the State and the Local Governments. In addition, the National Library of Nigeria, which is the apex library has been listed as one of the collaborating agencies in the implementation of the UBE Programme. Other agencies include: National Teachers' Institute (NTI), National Commission for Colleges of Education (NCCE), National Educational Technology Centre (NETC), Nigerian Educational Research and Development Council (NERDC), etc.

The Concept of School Library

This is a library established to provide teaching and learning resources to be used by teachers, pupils and students of primary/secondary schools. This type of library is expected to make effective contributions towards achieving the objectives of school curriculum. The central roles of a school library include to:

i.   introduce information literacy skills to young learners,
ii.   inculcate good reading culture,
iii.   promote independent study even outside the school, and
iv.   develop critical learning skills (critical thinking, creative thinking, communicating and collaborating).

Meaning of Reading

Reading is one of the four language skills. Other skills are listening, speaking and writing. It is an activity that involves recognition and comprehension of written text or symbols in a particular human language. According to Jibir-Daura (2014) reading is an individual activity that involves perception and thought for understanding written text. It is a fundamental life skill that should be acquired by children in order to meet the challenges of modern society. The ability to read fluently means somebody has acquired reading literacy which is fundamental lifelong learning. Therefore, reading helps to develop the intellectual capacity of an individual right from early childhood stage of learning. Hence, at basic education level, learners are guided to enjoy reading so that learning becomes more relevant and enhance their reading ability as they progress in their educational pursuit. According to Ogbonna and Eze (2015), a part from provision of reading materials, school libraries organize reading activities that motivate children to read for pleasure. These reading activities are purposely provided to create awareness about varieties in the School Library collection for teaching and learning, and thereby motivate the young children to read for pleasure. Such activities include display of children literature, exhibition of reading materials and other creative arts or works of imagination, guided tour of public and other type of libraries, lending of books, storytelling, book talks, and so on.

The Concept of Reading Culture

Reading culture has been a recurring concept in the pages of newspapers, scholarly literature on school librarianship and many other channels of information dissemination and knowledge packaging. This was because researchers have for the past several years established that reading culture gave impetus to educational, social, economic, and political development of any nation. Reading culture is self-directed practice of reading

that enables an individual to acquire knowledge, seek for information or to derive pleasure. This implies that, reading culture is an established habit for reading a chosen material voluntarily. According to Furfuri and Anka (2016), reading culture can be regarded as sustained reading habit for lifelong education. However, Benson, Okorafor, Nongo and Anyalebechi (2017) described reading culture as a situation where by the society attached much value on reading and appreciate reading at all levels of its educational system. Hence, school library is one of the institutions that is charged with responsibility of not only promoting reading culture but also laying a solid foundation to its development.

Basic Education Programme and School Library Services

In the modern world, the education process of children is fundamentally based on three inter-related approaches. According to Dike (2017), these approaches refer to three modern methods of education; that is (i) resource-based learning, (ii) inquiry methods, and (iii) open classroom concept. In all these methods, the provision of school library services has very important role to play, especially in the promotion of reading culture. A well-equipped school library will serve as a resource-based learning center where the teacher will organize a learning situation that encourage independent thought, inquiry, and creative abilities. In other words, School Library services will add value to classroom teaching and learning situations by providing supplementary materials that can motivate and boost the reading abilities of children, and at the same time increase the intellectual capacities of teachers. However, to achieve this independency of learning at the basic education level, inculcation of reading culture is indispensable. According to Ogbonna and Eze (2015), the Minimum Standard for School Libraries pointed out nine contributions expected from such libraries in Nigeria. However, these contributions are on reading development, which can be stated succinctly as follows:

• Promotion of reading skills and encouraging lifelong learning through reading among other related activities,
• Provision of opportunities for voluntary reading in addition to classroom textbooks.
• Stimulation of inquiry and independent study using variety of learning materials
• Provision of materials for recreation and reading for pleasure.

Finding from a study by Ogbonna and Eze further confirmed the positive relationship between school library programmes and development of reading culture. In other words, reading programmes offered by libraries generally has great influence on level of reading. The indispensable role that school library can play towards the success of UBE programme cannot be over emphasized. Unlike during the UPE of 1976, it becomes necessary for all librarians to play active role for the attainment of UBE objectives in Nigeria. So the librarians should see themselves as not ordinary stakeholders, but major partners in achieving the success of UBE programme. In this direction, it is of paramount importance for the librarians; regardless of the type of library they are working, to focus attention on issues that affect provision of resources and services in School Libraries, for the success of UBE.

The IFLA school library manifesto (2021) recommended core School Library services for the promotion of reading culture as follows:

1. Supporting and enhancing educational goals as outlined in the school's mission and curriculum;
2. Developing and sustaining in children the habit and enjoyment of reading and learning, and the use of libraries throughout their lives;
3. Offering opportunities for experiences in creating and using information for knowledge, understanding, imagination and enjoyment;
4. Supporting all students in learning and practicing skills for evaluating and using information, regardless of form, format or medium, including sensitivity to the modes of communication within the community;
5. Providing access to local, regional, national and global resources and opportunities that expose learners to diverse ideas, experiences and opinions;
6. Organization activities that encourage cultural and social awareness and sensitivity;
7. Working with students, teachers, administrators and parents to achieve the mission of the school;
8. Proclaiming the concept that intellectual freedom and access to information are essential to effective and responsible citizenship and participation in a democracy;
9. Promoting reading as well as resources and services of the school library to the whole school community and beyond.

The policies to implement the above recommendations are already developed. According to Bello (2004), in the UBE programme, "Education support services Unit" under No. 7.4.3.,it was pointed out that, the Commission is to ensure development of relevance books (fictions and non-fiction materials) in line with existing curricular; and to also ensure development and provision of functional libraries at all levels of UBE target.

Other similar policy statement has also been made Federal Republic of Nigeria (2004) in respect of the school libraries as contained in the National Policy on Education which states that:

> *Since libraries constitute one of the most important educational services, proprietors of schools shall also provide functional libraries in all their educational institutions in accordance with the established standards. They shall also provide for training of librarians and library assistants for this service.*

In the light of the above, the UBE Commission is expected to establish libraries and information resources centres for effective implementation of the Basic Education Curriculum. In its strategy to provides access to quality education, the UBE Commission set a target of ensuring that 50% of Basic Education schools have conducive teaching and learning environment, and that 100% are to graduate from Basic Education Institutions possessing literacy, numeracy and basic life skills so as to live meaningfully in the society and contribute to national development (UBEC, 2004). But observations have shown that so far this target has not been attained.

The UBE Commission has also been organizing series of training at different levels on how to make the school libraries to function effectively. For instance, in a monitoring of schools' achievements conducted in December 2001, it was discovered that many pupils cannot read and some teachers too cannot read effectively. This situation had made

UBEC to adopt the practice of creating classroom collections from supplementary reading materials, as the practice has been attested to in several countries to be a good one. This project of creating classroom collections was boosted by the World Bank/ Federal Government of Nigeria credit facilities under primary Education project II. Under this project about 200 teachers and library officials from State Primary Education Boards and local Government Education Authorities in each of Nigeria's 12 geo-political Zones were trained on classroom books selection techniques and management. Thus, over 8,000 titles were received from foreign and local publishers, which were classified as fiction, non-fiction, reference, picture series, Nigerian languages, and so on. The titles were evaluated by using language comprehension level, cultural relevance, scope, design, content and illustrations (Tahir, 2003).

Hints on Promotion of Reading Culture in Basic Education Schools

Promotion of reading culture among children requires different approaches and activities. The most important starting point is the provision of varieties of teaching-learning resources. These resources include books, periodicals, charts, maps, pictures, drawings, films, audio tape, multimedia such as CD-ROMs, DVDs, social media tools, materials for festivals or events, cultural objects, and so on. According to Dike (2017), one of the good ways of promoting reading culture is using storytelling and story hour. Storytelling involve careful selection of reading materials that can be read aloud to introduce the children to different aspects of literature such as poetry, fiction, proverbs and songs, riddles and tongue twisters, folklores, and so on. A library hour can be dedicated by teacher librarian or any other competent teacher to tell the story to the children, and later evaluate himself. Through this periodic activities, the children will be motivated to become independent reader.

Readers Club, quiz and debating society can be organized for the children to be meeting under the guidance of the teacher or teacher-librarian. The children will be introduced to various activities that will lead them to become good readers as well as to acquire skills for creative writing and self-expression. Through that club, reading competitions can be organized and the best readers can be given a prize as motivation. For example, children can be encouraged to read selected books at home, and later tell the stories they read in the class.

Another hint is that authors within the local community can be invited to talk to the children about their experiences in reading and writing books. Similarly, holiday reading is also a very important way of encouraging reading. For example, a nearby public library can be requested to engage the children with different reading activities during holidays. The teacher/teacher-librarian can equally serve as role model to the children when they noticed him to be a reader all the time. The children should also be encouraged to become habitual readers time over. They can also be encouraged to be borrowing books for home reading.

Factors Inhibiting Promotion of Reading Culture at Basic Education Level

It is noticeable that in most of the public UBE schools in Nigeria, there is hardly what can be regarded as functional school library. And where the libraries or classroom collections exist, it is not put into proper use. A review article by Bello (2004) stresses the need for school libraries throughout Nigeria to take their rightful position in the UBE programme

for primary school pupils. Bello pointed out the need for training of librarians, creation of library hours in the school time-table, provision of relevant resources and discontinuance of teachers/librarians policy. The assessment of the UBE implementation in a Local Government Area in Borno State by Thliza (2005) reported the non-provision of books in more than 50% of the primary schools. This situation concords with that of Aduwa and Sam (2006) who conducted an evaluative assessment of the provision of educational services under UBE schools in Southern Nigeria and their findings suggests that educational services (library services inclusive) were not adequately provided in the schools as parents still buy books.

Though the UBE guidelines did not provide a comprehensive manual or minimum standard for developing and offering the school library services, it is the responsibility of all stakeholders especially Federal, State, Local Government, NGO's, local communities and the professionals to see that school library services are practically integrated into UBE school curricular.

Despite the strategic position of school libraries as integral part of UBE programme, the reading culture in Nigeria is still declining drastically. Benson, Okorafor, Nongo and Anyalebechi (2017) has cited other researchers (Akindele, 2012; Ilogho & Micheal-onuoha,2015;) who confirmed the poor state of reading culture not only in UBE schools, but among students and youths in Nigeria. Similarly, Akinfenwa (2015) had also asserted that, Nigeria is one of the country with lowest reading culture in the world, because 38% of its citizens cannot read, while 4 out of 10 primary school pupils lacks effective reading skills. This poor state of reading culture in Nigeria was linked to increasing cases of examination misconducts/malpractices committed by candidates in both institutional and public examinations (Anunobi, 2022). Anunobi therefore, asserted that parents and the society has a key role to play by placing value on knowledge hidden in print and electronic documents. This situation cannot be divorced from the numerous inhibiting factors for promoting reading culture in the basic education schools in Nigeria.

Generally, lack of comprehensive policy that is in line with digital era, inadequate funding, and scarcity of trained school librarians have been the major inhibiting factors for provision of the desired school library services that are prerequisite for inculcation of reading culture in UBE schools in Nigeria. These factors have resulted into having school library building and furniture that are far from being conducive for providing library services. Some of these factors can be highlighted from the work of Monica and Chinwendu (2017) are as follows:

Collection: Though the library materials are in printed format, the quality of the collections is geared towards meeting the information needs of the pupils and their teachers. The collection comprised mainly fiction and non-fiction books and materials for children. The size of the collection is scanty and so is far from being proportionate to the number of expected users. The way and manner these primary school libraries are developed and managed; only time shall tell when other relevant materials such as audio-visuals, periodicals and digital/computerized resources will be found as part of their collections.

Acquisition: Another, observation is that selection and acquisition of the materials is done centrally at State Universal Basic Education Board (SUBEB) headquarters. The practice of non-involvement of teachers in developing the collection makes them inactive

in collection building and maintenance. Hence, only very few staff in charge of the libraries are willing to be innovative and adding materials to the collections.

Organization of Materials: The materials are supposed to be organized by using appropriate tools to make simple cataloguing and classification. The organization of the materials supposed to be based on teaching learning needs of each school. The shelves for books storage and display should be well arranged and labeled. But, in all the 16 libraries, the organization of the collection is totally lacking. The materials lack any form of processing except the ownership stamp.

Staffing: The IFLA/UNESCO (2006) states that, "richness and quality of the library provision depend upon staffing resources available within and beyond the school library". For this reason, the school librarian supposed to be a well-trained person that is experienced in both primary education and school librarianship. But, the staffing situation in the libraries visited is still a reflection of the traditional teacher-librarian, whereby teachers of English language are assigned the responsibility of managing the school libraries. Since the staff in these libraries lack the necessary skills, experiences and competency of marking the school libraries, it is not possible to develop the library services required for the implementation of Basic Education programme in Nigeria.

Service Level: The service level in the existing UBE school libraries was very low. The reasons for this are many; poor staffing, lack of organization of the collection, inadequate space and facilities for readers, etc. In fact, there is limited access to resources for pupils as no definite arrangement is made for the pupils to use the library. However, some teachers visit the library from time to time to prepare lesson or take some books to the class to be used as instructional materials. Therefore, the utilization of the available materials is nothing to write home about.

Funding: The fund for UBE libraries is control centrally at SUBEB. Thus, most UBE schools have no budget for its library. This situation could jeopardize the future development of the few existing libraries. This is because additions of new library materials, processing of the materials, collection maintenance, etc., are all dependent on the central budget that is expected to cover the whole state. In this regard, time and other bureaucratic procedures will hinder the efficiency of implementing a centralized budget for the primary school libraries.

Through some UBE schools made effort to generate fund through community involvement but nothing was achieved. This problem could be tackle through sensitization, advocacy and lobbying at grassroots by involving traditional rulers, community leaders, the elite, and community based NGOs.

Recommendations

Based on the discussion in this paper, the following recommendations are made as way forward:

1. Universal Basic Education Commission should make adequate provision for school libraries in Nigeria to develop systematic collections of teaching /learning resources, and ensure proper staffing and good organization of the resources.
2. teacher-librarians in UBE schools should develop collaborative activities and innovative strategies that will helps ensure effective utilization of the school library services.

3.   National Library of Nigeria which is a collaborative partner should ensure regular production and distribution of Manual/Minimum Standard for developing and running UBE school libraries.

4.   The Nigerian Library Association through its Association for School Librarians should be among the Consultants that UBE Commission and States Universal Basic Education Boards can engage in monitoring and evaluation exercises of Basic Education programmes in Nigeria.

5.   it is also recommended that sensitization campaign on community involvement in managing libraries of UBE schools should be pursued vigorously at the grassroots. This will create awareness for direct participation of the local community in developing and sustaining the school programme including library services. The School Based Management Committees (SBMCs) can be key stakeholders in developing and managing school library services.

6.   Public and Colleges of Education (COE) libraries should play key roles in handling training and retraining of the school librarians (teacher-librarian), especially on practical aspect of managing the libraries. This is because of the experience of public librarians in children library services while the COE libraries on the other hand are familiar with training of the UBE teachers.

Conclusion

This paper discusses the central role of the school library in the pursuit of formal education components of UBE programme in Nigeria. The literatures cited have shown that, the implementation of the UBE programme will certainly succeed if school library services among other things are effectively integrated into the system. The school library has been recognized as indispensable in providing services that are very critical for inculcating good reading culture among the children. However, many factors inhibit having functional school libraries, and consequently, the reading culture continues to decline. The major inhibiting factors include funding, staffing and outdated school library policy.

References

Aduwa, O. & Sam, E. O. (2006). Assessment of the provision of Educational Services under the Universal Basic Education (UBE) Scheme in Southern Nigeria. *Education*, **127** (2): 176-186.

Aina, L. O. (2004). Library and Information Science Text for Africa. Third World Information Service Ltd.

Akinfenwa, K. (2019). Addressing declining reading culture in Nigeria. Unpublished paper, Lagos State Ministry of Information & Strategy. Alausa, Ikeja.

Anunobi, C. (2022, February, 5). Poor Reading Culture Responsible for Examination Malpractices in Nigeria-National Librarian. *Premium Times* https://www.premiumtimes.com

Bello, N. (2004). The Place of school libraries in the universal basic education (UBE) programme in Nigeria. *African Journal of Library, Archives and information science,* **14** (2): 139-150

Benson, O. V.; Okorafor, K. Nongo, E. & Anyalebechi, L. I. (2017). An assessment of the Nigerian school library in contemporary era. In Compendium of papers presented at the 1st International Conference and Home Coming of the Department of Library and Information Science, University of Nigeria, Nsukka. Theme: Global Best Practices in Library and Information Services in Contemporary Era, (1)115 – 129. Held from 25ᵗʰ – 30ᵗʰ June, 2017.

Dike, V. W. (2017). *Library Resources in Education* (2nd ed).ABIC Books

Federal Republic of Nigeria (2004). *National Policy on Education:* Nigerian Educational Research and Development Council.

Furfuri, I. M. M & Anka, S. M. (2016). Adoption and Use of Strategies for Promoting Reading Culture among Junior Secondary School Students in Gusau Metropolis, Zamfara State, Nigeria. *Journal of Humanities and Education.* **1** (1): June, 1-29. Published by Faculty of Humanities and Education, Federal University Gusau.

IFLA (2021). *IFLA School Library Manifesto*. https://www/ifla.org/doi (...)

Jibir-Daura, R. (2014). *Teaching Reading: Language teaching series*. ABU Press.

Monica, E. E. & Chinwendu, A. C. (2017). Entrenching global best practices in collection evaluation for Nigerian school libraries. *Global Review of Library & Information Science*, **13**: 71–80.

Ogbonna, J. & Eze, J. U. (2015). Reviving the Reading culture: School library programmes in promoting voluntary reading amongst students: the case of Imo State, Nigeria. *Library Philosophy and Practice (e-journal).* 1241. http://digitalcommons.unl.edu/libphilprac/1241

Thliza, M. J. J. (2005). Assessment of the implementation of the universal basic education in Askira/UBA Local Government Area of Borno State. *The pacesetter: Journal of Oyo State College of Education.* **12** (1): 13-20

Tahir, G. (2003). *Basic Education in Nigeria.* Stirling-Horden publishers (Nig.) Ltd.

UBEC (2004). UBE: A flagship of the Federal Government of Nigeria. Universal Basic Education Commission.

Unagha, A. O. (2008). Implementing Universal Basic Education (UBE) through the strategic provision of school library services. *Library Philosophy and Practice (e-Journal).* **161**. https://digitalcommons.unl.edu/libphilprac/161

EFFECT OF EDUBLOG PACKAGE ON SECONDARY SCHOOL STUDENTS' PERFORMANCE AND ATTITUDE IN TEACHING AND LEARNING OF COMPUTER EDUCATION IN LAGOS STATE, NIGERIA

Badmus, Ayodeji Muideen, Ph.D.

Department of Educational Foundations, Faculty of Education
National Open University of Nigeria
e-mail: aabadmus@noun.edu.ng

Abstract

This study focused on the effect of edublog package on secondary school students' performance and attitude in teaching and learning of computer education in Lagos State, Nigeria. Three research questions were raised and one hypothesis was formulated. The study adopted the pretest, posttest quasi experimental research design. Thirty students were selected from two private schools to participate in the research. Fourteen (14) students participated for the experimental group while 16 students were used for the control group. Student Achievement Test (SAT) and Questionnaire on Students Attitudes towards the use of Edublog package were used as instruments and validated by experts with reliability indexes of 0.78 was and 0.72 obtained respectively. Data collected were analysed using mean scores, simple percentage and ANCOVA at a 0.05 level of significance. The results indicated that students in the Edublog group performed better in the performance test than those in the CMT group and there was a significant difference between the mean performance score of students taught with Edublog and their counterpart in the CMT group. The students had positive attitude towards the use of Edublog. It was recommended that teachers should encourage diversifying the various approaches to complement the conventional way of teaching.

Key words: Effect of Edublog Package, Performance and Attitude, Teaching and learning, Computer Education.

Introduction

The use of computer globally has become an important device which has brought people together, facilitate contacts between them using different platforms such as email, chatting, video-conferencing, mobile calls and social medias. The benefits of it are enormous, which include buying and selling products, communicating throughout the world, enhancing our knowledge, job influences, entertainment, research, paying bills and enhancement of knowledge (Wikibooks, 2022). It utilizations have subsumed various activities beyond human imagination. Through computer, technology development can only be enhanced among others things. It has become so invaluable that inaccessibility to it even in the home is now being seen as a tool for child's skill competence and knowledge development. Computer is conceived as a device or machine designed specifically to perform calculations, process data and store information, which can be easily retrieved when required (Adamu & Bello, 2002). Learning or teaching about computers is referred to as computer education.

Computer education hence is defined as gaining of basic knowledge and skills to operate computers in order to perform desired jobs. Computer Education not only involves basic knowledge about computer, hence it extends to various branches of study in various fields and sectors (IT Training NEPAL, 2022). Charles (2018) depicted that computer education

involve the capability to effectively use computers and related technology from its elementary use, programming and advanced problem solving skill. It referred to as the proficiency of using computer program and its applications (Charles, 2018). Computer Education is a broad term but in general there are two concepts used in education; with computer and about computer. In the past, computer used the languages which were too complex for everyone to understand, only specific people having specific qualification could be educated about and in computer. But, as the technology has evolved, their application and reach has widened due to simplicity they provide to general people and sophisticated operations they can perform (IT Training NEPAL, 2022). As the human civilization further advances in technology, more and more ubiquitous use of computers is bound to be certain. The benefits of computer education as highlighted by IT Training NEPAL (2022) include; it improves research, efficient use of technology, career aspirations, enhances creativity, and improves performance.

The field of education has not been unaffected by the penetrating influence of information and communication technology (ICT). Undoubtedly, ICT has impacted on the quality and quantity of teaching, learning, and research in traditional and distance education institutions (Yusuf, 2005). In concrete terms, ICT has enhanced teaching and learning through its dynamic, interactive, and engaging content; and it has provided real opportunities for individualized instruction. To further emphasis the uses of ICT in education, it has added value to education through the use of computer assisted instruction (CAI), the use of videos and audios for instructional material, conference or online lecture rooms used in distant learning, presentations using power point and web-blog to mention a few. To this effect the federal government put in place a policy to ensure the stated impact ICT can have on education come to fruition. Some of the itemized objectives of Information Technology (IT) in National Policy on Education in Nigeria include to develop a pool of IT engineers, scientists, technicians, and software developers; to increase the availability of trained personnel; to provide attractive career opportunities; and to develop requisite skills in various aspects of IT (FRN, 2013). For this goal and objectives to be achieved other areas also must be looked into like the various problems facing the teaching and learning of computer education in Nigeria, some of which includes inadequate professionally trained computer teachers; inadequate computers; lack of support infrastructural facilities; inadequate instructional materials or teaching aids; poor teachers attitude toward the subject; general students apathy and indifference in computer science; lack of motivation and encouragement for students; lack of incentive and motivation for teachers and; misuse and inappropriate use of teaching method (Charles, 2018).

In recent years, different types of teaching and learning method has been discussed and adopted by stakeholders in education, in tradition these methods are mainly two learner centered and teacher centered which can be further classified into; lecturing; demonstration collaboration; classroom discussion; debriefing; classroom action research (Zendler, 2019, Nadyrova, Zhanys, &Mubarakov, 2019). Furthermore, the method of teaching and learning in Nigeria and computer education must be considered in order to have the desired effect on the learner, as it is important for the goal and objective of the National policy on Education on information technology to be met. From the above mentioned approaches, it is seen in our educational system that despite all said, the objectives and goals of the NPE has not been fully met due to inability of fully implementing the best method of teaching and learning in computer education in the methods listed above because of certain problem like the unavailability of instruction

materials to back up the teaching of information technology in our society. In the developed countries statistics has shown that most of those countries have adopted a more effective teaching method which aid in the use of technology to teach in the traditional way or even fully adopted the online method of teaching through the use of Computer Assisted Design (CAD), Computer Assisted Instruction (CAD), Webquest, Webblog (Edublog) to mention a few. The use of these methods have really enhanced the teaching of computer education and other subject matter, it helps the instructor or the teacher to better deal with practical aspect of teaching which was a major problem in the old teaching method, with these technologies enhanced teaching not only does it allow the teacher to better express himself/herself but it also help them to better communicate with the learner through the use of various multimedia tools at their disposal. One of the methods as earlier stated is the edublog which allows the learner to learn at his own pace with readily provided learning package where the learner can visit the blog-site go through the content with all resources needed at his disposal and can ask question like in the traditional sense and get answer to his/her questions.

Edublog (a truncation of the expression "weblog") is a discussion or informational website published on the World Wide Web consisting of discrete information, or an online platform for learning. An edublog is a blog created for educational purposes. Edublogs support student and teacher learning by facilitating reflection, questioning by self and others, collaboration and by providing contexts for engaging in higher-order thinking. Some of its importance includes provision of services digitally in terms of e-resources, formation of digital infrastructure in terms of computing resources in educational organizations, helps develop proficiency in using ICT enabled services, allows creativity in the use of ICT resources, promotion of collaborative learning and shared learning resources. Edublogs is one of the internet-based free platform that provides the user to post their idea and thought in the form of blogs (Riswand, Ngadiso, & Asib, 2018). Edublog in recent time is been utilized by various institutions and even cooperate organizations for educational purposes. It helps various institutions of learning get their information across to the people faster and easier. It is a good communication tool for the teachers and the students from any location and also provides detailed information to the students at the same time.

Attitude in learning has been a major factor that determines how much a student will learn in the place of learning. Attitude can alter every aspect of a person's life, including their education. Students attitude on learning determine their ability and willingness to learn. If negatives attitudes are not altered, a student is unlikely to continue his education beyond what is required. Changing students' negative attitudes towards learning is a process that involves determining the factors driving the attitude and using this information to bring about change. The word attitude in the dictionary is defined as 'a way of feeling or acting toward a person, thing or situation' another defined it as 'the position or posture assumed by the body in connection with an action, feeling, mood and many more. Therefore, attitude of student to learning can be defined as the physical position or posture assumed by the learner in the learning environment and the mental awareness of student towards learning in during the teaching and learning.

Statement of the Problem

Over the years many different teaching methods have been utilized and scrutinized for failing to meet up to what is expected of it which is why researchers never stopped trying

to research new methods so as to achieve best result in teaching the right knowledge to the learners while at the same time learners get the best possible learning experience. Teaching and learning computer education in our various secondary schools especially in Lagos State have not yielded sound result because parents are still enrolling their wards for extra computer training for students' competent in computer use. It was observed that method of teaching used for students to learn computer education was purely without practical and no avenue was made for them to interact on their learning for better understanding. Edublogs are user friendly and functioning by giving students access to the technology-based learning activities which can expose students the opportunity to share what they learn collaboratively with their colleagues and teachers. Attitude has been established as one of the main factors of student performance in examinations, if the attitude toward an approach is positive there is tendency for better result. Therefore, this study sought to investigate the effect and attitude of secondary school students on utilization of an Edublog package in teaching and learning of computer education in Ikorodu and Kosofe Local Government Areas of Lagos State.

Objectives of the Study

The objectives of this study were to examine the effect of Edublog package on secondary school students' performance and attitude in teaching and learning of computer education in Lagos state, Nigeria. Specifically, this study was to determine;

i.   The difference between the mean gains of students taught with *Edublog* and those taught with conventional method of teaching (CMT)
ii.   If there is any significance difference in the post-test performance of students taught computer education using the *Edublog* and those taught using conventional method of teaching (CMT)
iii.   The attitude of student towards the use of Edublog for learning computer education .

Research Questions

The following research questions were raised in the study:

i.   What is the difference between the mean gains of students taught with *Edublog* and those taught with conventional method of teaching (CMT)?
ii.   Is there any significance difference in the post-test performance of students taught computer education using the *Edublog* and those taught using conventional method of teaching (CMT)
iii.   What is the attitude of student towards the use of Edublog for learning computer education in Lagos State?

Research Hypothesis

The following research hypothesis was stated in the null form and was be tested in this study:

H_{O1}:   There is no significant difference in the post test performance of students taught computer education using the *Edublog* and those taught using conventional method of teaching (CMT)

Methodology

The study adopted pre-test, post-test quasi experimental research design method to carry out this study. The target population comprised all secondary school students particularly secondary school students in Lagos State. The purposive sampling technique was used to select two (2) private schools within Ikorodu Local Government Area and Kosofe Local Government Area of Lagos State.The two selected schools are private co-private school, operating on the same curriculum and the both schools have functioning computer room. Chrisfield Private Schools Ikorodu, was used for experimental group (Edublog) while Humbies College, Omojuwa Estate, Kosofe was for control group (conventional method of teaching). Junior secondary school II students selected purposively for this study because the choosing subject is offered at the level which was computer education. Fourteen (14) students participated for Edublog while 16 students served as conventional method of teaching. The selected students were grouped into experimental and control groups. The experimental group was exposed to the Edublog package as the teaching instrument, while the control group was subjected to the conventional method of teaching using the same learning content for both groups.

The instruments used for this research study include (i) Edublog Instructional Package: The package has the Home section, the class content section, Required reading section containing extract from the national school curriculum of Nigeria in Information Technology (computer science) topics including Basic concept of computer, Introduction to computer science, Characteristics of Computer, Computer Organization, Computer Software, Computer Language, Operating System and Computer File Management and the Test and Assignment section which contains fifteen (15) objective questions. The second instrument was student achievement test (SAT), this containing twenty (20) objective questions with four (4) options to choose from. It comprised of sections A and B. Section A was on demographic information, while section B comprised twenty (20) multiple choice items while the third instrument was a questionnaire on students' attitude towards the use of Edublog (QSATUE). This contained 2 sections (A and B). Section A was on bio-data where student data including name, gender, age, class are collected while section B comprised items used to measure the attitude of the students on how confortable the students are learning with the Edublog package.

The instruments were subjected to face and content validity by given to three experts in education, one from educational technology and one from computer expert and educational evaluation. There were twenty five Multiple choice questions but were reduced to twenty to suit the purpose and considering the respondents. Meanwhile, all other corrections that were identified were effected. The reliability of an instrument was ascertained by using the test-retest method which made the instrument a reliable. The reliability of SAT was determined by administering it on a trial group of 11 secondary school students of another school within the study population but not included in the main study using test-re-test method. A reliability test using Kudar Richardson (KR-21) revealed a reliability of 0.78 which was considered very adequate for the study. The reliability index of 0.72 was obtained for QSATUE using Cronbach alpha.

The statistical tools used in this research were simple percentage, mean score and ANCOVA through the aid of SPSS.

Results

Research Question 1: What is the difference between the mean gains of students taught with Edublog and those taught with conventional method of teaching (CMT)?

Table 1:   Mean Gain Scores of Students' Pre and Post Performance Test Scores in Computer Education

Groups	N	Pretest		Posttest		Mean Gain
		X_1	SD_1	X_2	SD_2	
Edublog	14	8.500	1.224	15.714	0.995	7.214
CMT	16	8.000	1.211	11.563	1.365	3.563

Table 1 showed that pretest mean score of students in experimental group taught using Edu-blog was 8.500 and posttest mean score of 15.714 respectively giving a mean gain of 7.214, while students in the control group taught using CMT had pretest mean score 8.000 and posttest mean score of 11.563 with a mean gain of 3.563. The result indicated that students in the Edublog group performed better in the achievement test than those in the CMT group. This implied that the treatment (Edublog) had positive effect on students' mean performance score in computer education.

Hypothesis One: There is no significant difference in the mean achievement scores of student taught computer using Edublog and those taught using conventional method of teaching (CMT).

Table 2:   Analysis of covariance (ANCOVA) of mean achievement scores of students taught Computer using EduBlog and those taught using CMT

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	129.886[a]	2	64.943	44.264	.000
Intercept	134.983	1	134.983	92.001	.000
Pretest	1.181	1	1.181	.805	.378
Group	128.220	1	128.220	87.392	.000
Error	39.614	27	1.467		
Total	5637.000	30			
Corrected Total	169.500	29			

a. R Squared = .766 (Adjusted R Squared = .749)

Table 2 showed the analysis of covariance on mean achievement scores of student taught computer education using Edublog and those taught using CMT. After adjusting for pretest scores, there was a significant effect of the subject between factor groups, $F(1,27) = 87.392$, $p = 0.000$ at 0.05 level of significance. The result revealed that there was a significant difference between the mean performance score of students taught with Edublog and their counterpart in the CMT group. The implication was that Edublog group performed better than that of CMT group.

Research Question 3

What is the attitude of students towards the use of Edublog for learning computer education in Lagos State?

Table 3 revealed the statistical data gathered through the distribution of questionnaire given to the participating students in the experiment group showed some of the students are excited using the Edublog package.

Table 3: Attitude of Student towards the Use of Edublog for Learning Computer Education

Variables	SA (%)	A (%)	D (%)	SD (%)	Mean	St. D
Edublog make learning more interesting	10 (33.3)	10 (33.3)	6 (20.0)	4 (13.3)	2.867	1.042
Learning with Edublog promote collaborative among their peers.	13 (43.3)	10 (33.3)	2 (6.7)	5 (16.7)	3.033	1.098
I think that learning with Edublog is better than using printed materials or textbooks	10 (33.3)	10 (33.3)	6 (20.0)	4 (13.3)	2.867	1.042
I like the idea of using Edublog for learning	12 (40.0)	11 (36.7)	3 (10.0)	4 (13.3)	3.033	1.033
Edublog is very effective to improve students' learning	14 (46.7)	10 (33.3)	3 (10.0)	3 (10.0)	3.167	0.986
Average Mean = 2.993						

From the results in Table 3, the average mean was 2.993 which is above the midpoint of 2.5. This implied that students exhibited positive attitude towards the utilization of Edublog for learning computer education in secondary schools.

Discussion of the findings

The findings of this study demonstrated that the students scored higher in their learning after having a treatment by using Edublog package for teaching and learning computer education. Edublog in this study was used as a tool to give the students an opportunity for collaboration. Furthermore, the results from this study revealed that using Edublog, the students could also acquire knowledge and ideas from their peers' and further enhance their attitude. The better performance of the students that exposed to Edublogs was as a result of the great opportunity the students received when using the package. The good performance of Edublog group was in line with the study of Riswandi, Ngadiso and Asib (2018), in their study they found out that students demonstrated higher scores in their writing assignments after having a treatment by using Edublogs as a teaching Media in teaching and learning and students' writing skill was improved significantly through blogging activity.

To the computer education learning process, before actions were conducted, the students were unmotivated to participate in writing process. The writing learning process was monotonous. The teacher only used the course book without any media. During the implementation of the actions, Edublog helped the teacher in learning process. The students were interested and enthusiastic to improve their skills. The Computer education learning process in the Blog process were more active and enjoyable than the previous condition, the classroom atmosphere was better. The learning process looked easier because of the use of media like Edublog in the classroom. The positive attitude exhibited by students towards Edublog could be attributed to the fact that students were actively engaged with the bloggings. Specifically, the structure of well-defined work provided by Edublogs helped the students to understand clearly what is expected from them and it also helped them to better evaluate their work. This result agreed with the works of Venzon (2011) who revealed that the attitude of the students toward the incorporation of ICT-based instructional strategies into standard educational curricula was positive.

Conclusion

The use of Edublogs will have many advantages to teaching and learning of computer education especially at secondary schools levels which if incorporated will not only promote students to learning but also advances their collaboration in class and better academic achievement. It have been proven to be good as an approach to achieve better results among the students which also have open avenues for teachers to succeed in creating means of communication for knowledge dissemination to the learners. The attitude of the students were positive when engaged with Edublog which showed that integrating such approach will contribute meaningful enrolment of students in the schools and desire thinking of knowledge among the students.

Recommendations

Based on the result of this study, the following are recommended;

Teachers should encourage to diversifying the various approaches to complement the conventional way of teaching like using Edublog. This will further motivate the learners more in their study and further boost their attitude positively to learning.
Students' position to an action in the class cannot be over-emphasied through which their interest can be recognized. Teacher should use ICT initiative like Edublog to promote students' positive attitudinal disposition to learning and encourage collaborative learning among the students.

References

Aduwa-Ogiegbaen, S. E. and Iyamu, E. O. S. (2005). Using information and communication technology in secondary schools in Nigeria: problems and prospects. *Educational Technology and Society,* **5** (1): 104-112.

Alabi, G. A. (2001). Empowering socio-economic development in Africa utilizing information technology: A critical examination of social, economic, technical and policy Issues in Nigeria.

Alalibo, A. (2006). Fostering computer literacy skills. Retrieved on September, 2004, 2006 from http://www.thetidenews.com/article.aspx

Daniel, F. (2004). Implementation of computer literacy at the post-primary level for national reconstruction: problems and issues. *Confluence Journal of Education,* **1** (1): 149-153.

Ebenehi, A. S. (2004). Achieving national development through computer education: societal and management implications. *Journal of National Association of Science, Humanities, and Education Research,* **2** (1): 132-137.

Federal Republic of Nigeria (2013). *National policy on education*. Lagos. NERDC Press.

Idowu, P. A., Alu, A. O. and Popoola, B. I. (2004). Nigerian women in information technology and computer science education. Retrieved on July 18, 2006 from http://ww2.ncsu.edu/ncsu/aern/infotek.html

IT Training NEPAL (2022). Computer education. Retrived from https://www.ittrainingnepal.com/computer-education/

Jegede, P. O. and Owolabi, J. A. (2003). Computer education in Nigerian secondary schools: gap between policy and practice. Retrieved on 2007, August, 2006 from siteresources.wildbank.org/EXTRAFRREGTQPDlSEDU/Resources/compEd-nigeria.pdf

Nadyrova, F. K., Zhanys, A. B. &Mubarakov, A. M. (2019). Methods of teaching computer science in the system pedagogical knowledge. Advances in Composite Science and Technology (ACST 2019). https://iopscience.iop.org/article/10.1088/1757-899X/934/1/012051/pdf

Nweke, R. (2006). Repositioning Nigerian youths with ICT. Retrieved on August, 2005, 2006 from http://itrealms.blogspot.com/20Q6/07/repositioning-nigeria-youths-with-ict.html

Riswandi, D., Ngadiso & Asib, A. (2018). Edublogs: A Media To Improve Students' Writing Skill In Recount Text. 12(2).

The Broad Street Journal (2006).Stride of an African Bill Gates. Edition 23, July 17, p. 10-17.

The Tide Online (2006). EtsuNupe donates computer set to school. Retrieved on September, 2003, 2006 from http://www.thetidenews.com/article.aspx

The Tide Online (2006). Obasanjo launches computer initiative. Retrieved on September, 2003, 2006 from http://www.thetidenews.CQm/article.aspx

Venzon, V. (2011). *Main ideas and supporting details: A WebQuest approach*. Retrieved on September 21, 2012, from http://tccfinalpaper.pdf

Wikibooks (2022). Introduction to computer information systems/computers and society https://en.wikibooks.org/wiki/Introduction_to_Computer_Information_Systems/Computers_and_Society#:~:text=Benefits%20of%20a%20Computer%2DOriented%20SocietyEdit&text=Computers%20benefit%20the%20business%20and,%2C%20research%2C%20and%20paying%20bills.

Yusuf, M. O. (2005). An investigation into teachers' self-efficacy in implementing computer education in Nigerian secondary schools. Retrieved on August, 2003, 2006 from http://www.ncsu.ed u/meridian/sum2QQ5/computer-ed-nigerian-schools/index.html

Yusuf, M. O. (2005). Information and communication technology and education: Analysing the Nigerian national policy for information technology. *International Education Journal,* **6** (3): 316-321.

Zendler, A. (2019). Teaching Methods for Computer Science Education in theContext of Significant Learning Theories. *International Journal of Information and Education Technology,* **9** (7): 470-476.

COVID-19 PANDEMIC AND TERTIARY EDUCATION IN NIGERIA: IMPACTS, CHALLENGES AND WAY FORWARD

[1]Hassan Usman, [2]Kure Isah Danjuma and [3]Hussaini Usman

[1]Department of Mathematics, Niger State College of Education, Minna, Nigeria
[2]Department of Science Education, Ibrahim Badamasi Babangida University Lapai
[3]Teacher Professional Development Institute, Minna, Nigeria
e-mail: babanibro73@gmail.com

Abstract

This conceptual paper examined the COVID-19 and its impacts, challenges and way forward in tertiary level of education in Nigeria. Indeed, the index case of Covid-19 was first reported in Wuhan-China at the end of 2019. The dreaded disease spread to almost all countries and territories in the world. In Nigeria, government underrated the outbreak of COVID-19 in various cities and villages thus undermining the implementation of initial precautionary measures which would have saved huge expenses while protecting the Nigerians from undue exposure to the virus. In tertiary level of education, the threat posed by COVID-19 in particular was compounded owing to its susceptibility to other impending challenges of poverty, poor health system, insurgencies, kidnapping, banditry, high population density, in addition to underlying educational challenges that have kept the country behind in equipping young people with resource development, impact and challenges of COVID-19 on tertiary education were also discussed. It was therefore recommended that government and concerned education stakeholders should ensure there are futuristic plans against similar experience.

Keywords: COVID-19, challenges, impact, pandemic, Tertiary Education

Introduction

The COVID-19 which was first reported in Wuhan-China at the end of 2019 has spread to almost all countries and territories in the world (Ozdemir, 2020). The forecast of its consequences, especially due to poor management of the spread by citizens and government at all levels, has been problematic for all sectors(Mofijur Et al. 2021;Yahaya, 2021). World Health Organisation (2020) sees Corona virus as highly infectious disease that has plagued the world, thus, on the 30th of January 2019 (WHO) declared CoVID-19 as a public health emergency of international concern". Since then, it has spread to over 223 countries and has affected over 240 million persons globally. An estimation of 5 million deaths in the world and 2,500 in Nigeria from over 200 thousand persons infected respectively (Hansen et al., 2021 Hou et al., 2020 Tria et al., 2020 Yamin., 2020 Yahaya., 2021). That is to say, that the disease is characterised by high mobility and mortality rate alongside other ailments.

In Nigeria, the emergence ofCOVID-19 was indeed an explosion across the states. The threat posed to education sector in particular according to Abideen (2020) was compounded owing to its susceptibility in addition to poverty, poor health system, insurgencies, kidnapping banditry, high population density etc. These in addition to underlying educational challenges that have kept the country behind in equipping young people with resource development, the COVID-19 pandemic further worsen the situation.

At the climax of the pandemic precisely on April 21st, 2020, about 1.72billion learners have been affected with the abrupt shutting down of schools in reaction to the COVID-19 pandemic (Samuel, 2020). According to United Nations Educational, Scientific and Cultural Organisation monitoring in the period under review, 191 countries have implemented nationwide closures and five have implemented local closures, impacting negatively on about 98.4 percent of the world's student population (UNESCO, 2020).However, Nigeria was reported to have the high proportion of out-of-school children globally before COVID-19. For those that were enrolled, there was devastating evidence that learning levels were much lower than expected suggesting a continued halt in learning for children (Azevedo, Hasan, Goldemberg, Geven&Iqbal,2021). Indeed, many unified National examinations were suspended. With all the measures above Nigeria andfifty four other African countries are at the present with confirmed cases of COVID-19 and death toll increased tremendously. This led to closure of boarders and banned on international flights, with local and international trade declined at geometric rate(Zambakari, Lipsitch, Ioannidis, Fuller, Fuller,Hansohm, &Gormley, 2020).

However, the exact impact and challenges of covid-19 onEducation sector may be difficult because of poor data base, public and private institutions in remote areas and attitude or believe of the people about COVID-19. The challenges facing rural primaryschools are very different from those facing urban universities; the challenges facing urban and rural secondary schools are different too (Du Plessis&Mestry, 2019; Şahin, 2020). Thus, the impact varies as the case may be. Therefore, this study seek to look at the impact, challenges and way forward to contain Covid-19 among tertiary educational institutions in Nigeria.

Concept of Covid-19 Pandemic

Corona virus (CoVs) is a family of virus which caused respiratory and intestinal illnesses in humans and animals (Cui, Shi, 2019). According toAbd El-Aziz &Stockand(2020) Corona virus generally caused mild colds in victim. However, the emergence of the severe acute respiratory syndrome (SARS) epidemic in China and the Middle East respiratory syndrome (MERS) show that they can also cause severe disease. As present, "the COVID-19" which the world is currently battling with is responsible for the recent outbreak of coronavirus disease (Chakraborty&Maity, 2020). The symptoms of most patients with COVID-19 represent moderately calm cases. Recent studies (Davis, Assaf, GMcCorkell, *et al*, 2021 and Guo, Radloff, Wawrzynsk & Cloyes, 2020) have shown that quite a number of patients with covid-19 experienced fever and dry cough, while some also had shortness of breath, fatigue, and other typical symptoms, such as muscle pain, confusion, headache, sore throat, diarrhea, and vomiting.

The best way to prevent and slow down transmission is to be well informed about the disease and how the virus spreads. Protect yourself and others from infection by staying at least 1 metre apart from others, wearing a properly fitted mask, and washing your hands or using an alcohol-based rub frequently. Get vaccinated when it's your turn and follow local guidance.

The virus can spread from an infected person's mouth or nose in small liquid particles when they cough, sneeze, speak, sing or breathe. These particles range from larger respiratory droplets to smaller aerosols. It is important to practice respiratory etiquette, for

example by coughing into a flexed elbow, and to stay home and self-isolate until you recover if you feel unwell.

Nigeria Tertiary Education and COVID-19 Pandemic

Tertiary Education as stipulated in the national policy on education (2013) is the educationgiven after Post Basic Education institutions such as Universities, Colleges of Education,Monotechnics, Polytechnics and other specialized institutions. The need for these institutions is rapidly increasing at geometrical rate; and this has therefore brought about the risein student/lecturer ratio (Azi, 2019, Channy & Ogunniran, 2019 and Uhunmwuangh & Diakpomrere, 2019). The increase hasconsequently compounded management of students against possible outbreak of pandemic such as COVID-19.

Undeniably before the outbreak of COVID-19 epidemic diseases such as Lassa fever, bird flu, monkey pox, Ebola disease and others were experienced in Nigeria and of course didn't weigh down the socio-economic and educational system like that of COVID-19. Hence, predicted effect ofCOVID-19 has continued to raise dust in the country educational system, knowing well the possible effects of the prolong damages it may cause (Okonkwo, 2021).

In a precautionary move intended however at preventing the spread of the coronavirus (Covid-19) disease in the country, the Federal Ministry of Education on March 27th, 2020 ordered the immediate closure of all educational institutions nationwide. Other measures taken includes flight restrictions on some high-risk countries, restrictions of public gatherings like churches and mosques, suspension of sporting events, shut down of schools in some states, suspension of orientation and other activities by National Youth Service Corps (NYSC) all to forestall further spread of the virus. But unlike other countries where governments immediately came up with policy measures to fill the gap created by school closure; the Nigerian government had no clear-cut plans to keep students engaged in academic activities (Yahaya, 2021). In response to the COVID-19 hit, different state colleges and universities particularly private institutions of higher learning came up with internet-based learning. Conversely, despite internet base learning the gap created by school closure was not filled because of unstable power, inefficiency of internet facilities and the low purchasing power of the parents in the country (Dutta, 2020 Olatunde, *et al*., 2021). This had serious long impact on the education sector in most countries.

Impacts on Tertiary Education

As the COVID-19 Pandemic has revolutionizeddigital world and indeed online education, Tertiary Education students with skills to undertake internet-based learning faced poor internet infrastructure and lack of electricity supply (Zhong, 2020). Consequently, learning remotely was not feasible in most Nigeria communities. Undeniably, COVID-19 pandemic laid bare the wretchedness of not only tertiary education but the entire education system in Nigeria. The outbreak of covid-19 according to Yahaya (2021) has clearly revealed that there is digital divide between an average Nigerian student and his counterparts in most developing and developed world. The system obviously lacks the capacity to migrate universities and colleges to virtual learning platform.

The COVID-19 Pandemic has also justified the demand of Academic Staff Union of Universities (ASSU) for overhauling of Nigerian Tertiary institutions as institutions in the country lack the capacity to compete with their counterpart Universities in the world in terms of technological advancement and meeting up with 21st reality of education(Iju and Musa, 2021).In addition, during the lockdown, the facilities in most institutions were underutilized which may as a result of not been usedfor a long period of time. There is no assurance that all the learners who left the school will be back in school after the pandemic lockdown; some may have changed their minds in going to school as a waste of time. Some on the other hand may have joined bad groups shifting their attention away from school and some may have died during the period under review. The effect of all these according to Samuel (2020)may not be easily noticed now; the future of the learners in this category is therefore naturally exposed to a serious academic crash if there are no proper interventions.

Impacts on Funding of Tertiary Education

The unexpected disruption of the education system in Nigeria as a result of the pandemic has generally led to changes in the plans towards financing the education of children and the education system at large (Kaden,2020). The abrupt change in school calendar which led to extension of semester resulted inextra payments of school fees. During the lockdown some parents were forced to procure laptops, android phones including data, television cables and other means of ICT, this is to ensure their wards move with the new innovative of the online classes at various levels designed for teachers to reach out to their students. Most of the developing universities in Nigeria could not afford thepayment of their lecturers during the period of lockdown because students are not in school, some have not paid the school levies before the emergence of the pandemic leading to school proprietors not having access to inflow of income to welfare their lecturers working in their respective universities, in fact there is fear of whether some private universities in Nigeria will be able to survive and keep existing after the pandemic lockdown. Even when there is a standing order that says no work no pay in Nigeria, during the lockdown the governments at some levels still ensured continuous payments of staff in schools, ministries of education knowing well that they are not working for their earnings during the lockdown. There is no doubt that the expenses run as workers payment during the period of lockdown are mere gifts and not payment for work done, this will surely have effect on the future educational finance because the working time does not tallies with the staffs payment. The sad truth about this development is if it persists, it may have serious impacts on the commitment of governments towards the education system in the face of competing demands from the healthcare, business and other sectors serving vulnerable segments of the society at large.

Impact on Graduates and School Leavers

There is no doubt that students in final classes in lower and higher levels of education system of Nigeria has been held on a spot; they were unable to graduate or even move to the next level in their academic pursuit this has led to a great set back of the smooth running of educational sector of Nigeria and the world at large. The career of university graduates was severely affected by the COVID-19 pandemic. They experienced teaching interruptions in the final part of their studies, interruptions in their assessments, and finally they are likely to graduate at the beginning of a major global recession, because

there is no doubt there will be global recession in the economy of the world at large at the end of the pandemic lockdown.

The Challenges of COVID-19 on Tertiary Level of Education in Nigeria

The sudden outbreak of the COVID-19 pandemic has technically not only exposed the deteriorating state of infrastructure and facilities in all sector of Nigeria but also depicts the state of dilapidation of the tertiary education in Nigeria (Adebayo, Oduntan, Fasola & Adebisi, 2021). In reality, apart from health sector, no other area has been heated by COVID-19 like education (Yahaya, 2021).

The major challenge in tertiary education is in the area of digital transformation in teaching and learning process. Quite a number of lecturers and students in institution of higher learning without reliable internet access will struggle to participate in digital learning. This gap is seen across countries and between income brackets within countries. In Nigeria for instance, the challenge of transforming to online teaching and learning environment will pose a grave consequence as both lecturers and students are handicapped.

Way Forward

Training of lecturers and students on ICT

Lecturers and students need to be trained on ICT and e-learning facilities as how they can be used to support learning. In-service teachers as well as the pre-service teachers in educational institutions should be well trained in blended teaching methods. They equally need to be equipped with ICT gadgets and as such learning can take place irrespective of time and distance.

Subsidising e-Learning Platform

Provision of computer and mobile data packages telecommunication subsidies to all lecturers as well as students from low-incomehouseholds. Government can also provide supports such as solar-powered educational devices, pre-loaded with offline academic resources to students from disadvantage and vulnerable communities to cushion the effects of the impact of COVID-19 pandemic on education.

Conclusion

The outbreak of corona virus has shaken the educational sector of Nigeria off its strength. In fact, looking at the trend of the pandemic, it could be something we are going to live with for a long period of time. The pandemic has led to the shortage of funds in the educational system, parents as well are being faced with the reality of having to pay extra cost on their children academics whenever they resume school. The outbreak of the corona virus coupled with the lockdown of schools at various levels of education in Nigeria had served as test for the education technology interventions for teaching-learning activities. The covid-19 pandemic creates exceptional challenges on the government, students, and parents that have emphasized and could amplify some of the loopholes in the system.

Suggestions

Since it was observed that there were no proper plans in place to curb and manage the influence of corona virus on the educational system, it is highly recommended that:

i. Government and concerned educational personnel should ensure there are futuristic plans in case of another similar experience as nobody knows when other occurrences may happen in future. Thus plans are to be made in ensuring that the future of the education system is secured. In addition, having observed that even the E-Learning chosen as the alternatives to be used in reaching out to the learners in the period of lockdown has not successfully work because of non-unemployment of expert to manage the ICT section of the Nigeria Education system, huge tariff charges from various network providers in Nigeria.

ii. Nigeria Ministry of Education to employ experts in the area of ICT to further introduce programs that will enhance the productivity of the education sector in order to compete with the outside world even in the period of global pandemic lockdown. All these will still maintain the social distancing rules, helps the teacher to teach, reach out to learners through voice, written words or even video conversations. Learners won't have to miss a lot as a result of not physically present in class.

Also, if after a period of time, the move to reopen schools for learners in terminal classes works perfectly, it can also be extended to other levels of education enforcing that all related health rules and regulations are been followed to details in order to ensure much damage is not done to the development of the Nigerian educational sector.

iii. Teachers and tertiary institutions staffs are to soft-pedal their actions with the government on the reopening of schools, they can as well volunteer to make provision for the preventive kits in schools and other related health facilities to curb the further spread of coronavirus in our schools, the Parent Teachers Association, Alumni, Schools Board of Governors.etc…are advised to extend more supportive hands in upholding the education sector of Nigeria. The future of the country's educational system is in the hands of everyone of us and we can't afford to allow it to be soiled with the interference of the coronavirus, private sectors and concerned individuals should as well come in to rescue the it from the impending doom which may spring up after the lockdown caused by covid-19 pandemic.

References

Abd El-Aziz, T. M. & Stockand, J. D. (2020). Recent progress and challenges in drug development against COVID-19 coronavirus (SARS-CoV-2)-an update on the status. *Infection, Genetics and Evolution*, **83**: 104327.

Abideen, A. M. (2020). *Assessing conflict resolution and peace building strategies in democratic systems: a study of Yobe State, Nigeria 2009-2017* (Doctoral dissertation).

Adebayo, A., Oduntan, O. O., Fasola, B. O., &Adebisi, B. S. (2021).Psychological Stress of Covid-19 and Teacher Job Performance in Ogun State, Nigeria. *UNILAG Journal of Curriculum and Instruction*, **142**.

Azi, A. S. (2019). Analysis of federal government budgetary allocation for Staff Ratio between Teaching and Support Staff of Federal Universities in North-Central Nigeria. *KIU Journal of Social Sciences*, **5** (1): 107-116.

Azevedo, J. P., Hasan, A., Goldemberg, D., Geven, K. & Iqbal, S. A. (2021).Simulating the potential impacts of COVID-19 school closures on schooling and learning outcomes: A set of global estimates. *The World Bank Research Observer*, **36** (1): 1-40.

Chakraborty, I. & Maity, P. (2020). COVID-19 outbreak: Migration, effects on society, global environment and prevention. *Science of the Total Environment*, **728**: 138882.

Channy, D. Y. & Ogunniran, M. O. (2019). A Comparative analysis of the role of international organisation in financing Higher Education System: A Case Study of Nigeria and Cambodia. *US-China Education Review*, **9** (1): 1-17. Cui, J., Li, F. & Shi, Z. L. (2019).Origin and evolution of pathogenic coronaviruses. *Nature Reviews Microbiology*, **17** (3): 181-192.

Davis, H. E., Assaf, G. S., McCorkell, L., Wei, H., Low, R. J., Re'em, Y., &Akrami, A. (2021). Characterizing long COVID in an international cohort: 7 months of symptoms and their impact. *Available at SSRN 3820561*.

Du Plessis, P. & Mestry, R. (2019). Teachers for rural schools–a challenge for South Africa. *South African Journal of Education*, **39**.

Dutta, A. (2020). Impact of digital social media on Indian higher education: alternative approaches of online learning during Covid-19 pandemic crisis. *International journal of scientific and research publications*, **10** (5): 604-611.

Federal Government of Nigeria (2013). *National Policy on Education, Nigeria*: NERD.

Guo, J. W., Radloff, C. L., Wawrzynski, S. E., &Cloyes, K. G. (2020). Mining twitter to explore the emergence of COVID-19 symptoms. *Public Health Nursing*, **37** (6): 934-940.

Ijuo, S. & Musa, H. D. (2021). Nexus between Social Infrastructure and Residents Wellbeing: A Review.

Kaden, U. (2020). COVID-19 school closure-related changes to the professional life of a K–12 teacher. *Education Sciences*, **10** (6): 165.

Mofijur, M., Fattah, I. R., Alam, M. A., Islam, A. S., Ong, H. C., Rahman, S. A. & Mahlia, T. M. I. (2021). Impact of COVID-19 on the social, economic, environmental and energy domains: Lessons learnt from a global pandemic. *Sustainable production and consumption*, **26**: 343-359.

Okonkwo, I. M. (2021). An Overview of COVID-19 Pandemic and Its Impact on Educational System in Nigeria.

Olatunde, T. G., Ogunode, N. J. & Eyiolorunse-Aiyedun, C. T. (2021). Effectiveness of virtual learning during COVID-19 Lockdown in Nigerian Universities. *Academicia Globe: Inderscience Research*, **2** (5): 159-175.

Şahin, M. (2020). Impact of weather on COVID-19 pandemic in Turkey. *Science of The Total Environment*, **728**: 138810.

Samuel, A. I. (2020). Coronavirus (COVID-19) and Nigerian Education System: Impacts, Management, Responses, and Way Forward. *Education Journal*, **3** (4): 88-102.

Samuel, A. I. (2020). Coronavirus (COVID-19) and Nigerian Education System: Impacts, Management, Responses, and Way Forward. *Education Journal*, **3** (4): 88-102.

Uhunmwuangho, S. O. & Diakpomrere, V. O. (2019). Comparative analysis of funding of Education in Nigeria. *AFRREV IJAH: An International Journal of Arts and Humanities*, **8** (2): 18-30.

Yahaya, M. T. (2021). COVID-19 Pandemic and Nigerian Education system: What lesson? A pre-convocation lecture delivered at the Niger State college of Education, Minna.

Zambakari, C., Lipsitch, M., Ioannidis, J., Fuller, J., E Fuller, G., Hansohm, D. & Gormley, P. R. (2020). The Great Disruption: COVID-19 and the Global Health Crisis.

Zhao, D., Zhong, H., Wu, Y. & Zhou, Q. (2020). A Study of the impact of internet-based Instruction Integrated Innovation Education on University Student Entrepreneurial Team Collaboration and Strategic Innovation. *Frontiers in Psychology*, **11**: 1264.

FACTORS AFFECTING THE ADOPTION OF ONLINE LEARNING IN TEACHING AND LEARNING DURING COVID-19 PANDEMIC AMONG TEACHERS AND STUDENTS IN NIGERIA: A STUDY OF PRINCE ABUBAKAR AUDU UNIVERSITY, ANYIGBA

[1]Salami Dhariyyat, [2]Olorunnishola Olufikayo Agnes and [3]Abu Alice Oladehinde, Ph.D.

[1,2,3,]Prince Abubakar Audu University, Anyigba
e-mail: rockschamber@gmail.com

Abstract

This study was aimed at finding factors affecting the adoption of online learning in teaching and learning during covid-19 pandemic among teachers and students in Nigeria: a study of Prince Abubakar Audu University, Anyigba. Data for this study was collected through the use of four likart scale questionnaire consisting of 27 items. A sample of 120 subjects were drawn for the study from eight faculties in Prince Abubakar Audu University, Anyigba. Four research questions and four research hypotheses were answered and tested respectively. The research questions were answered with a descriptive mean statistic while the hypotheses were tested with chi-square statistics at 0.05 level of significance. The result of the findings showed that devices to participate in online learning as well as data, internet facilities were hindrances towards the online learning. Electricity was also a major factor that militate against the success of online learning. It is recommended based on these findings that school management and government should provide internet facilities and data as well as subsidized laptops to students for effective and enhanced internet services for online learning.

Keywords: Online-learning, covid-19, teaching, learning

Introduction

On 11th March, 2020, the World Health Organization (WHO) declared covid-19 a global pandemic. Currently, covid-19 is affecting over 200 countries. In response to covid-19, several countries have applied strict social distancing measures and a lockdown policy. Obviously, this pandemic has had a tremendous impact on education in general.Nigeria has been faced with a series of challenges in learning especially in the face of the pandemic. As a result of this pandemic known as Covid-19, the federal government and the state government has to embark in ensuring the closure of schools for certain periods. During this pandemic, school managements came up with the use of mobile learning for all students via Google classroom, Microsoft team, and Zoom (Salami, 2021). In advanced countries, the changes are noteworthy in the educational sector as traditional teaching methods have been transformed into modern methods (Kenan, Pislaru, Othman and Elzawi 2013). In advanced countries, students in the College routinely learned and studied with technology.

The high cost of ICT accessories and inadequate resource persons are among the problems limiting Online-learning in Nigeria (Ajadi, Salawu and Adeoye, 2020). The success of any information system depends on the usage of the system by the users (Almaiah, Al-Khasawneli and Althunibat 2020). Thus, student's acceptance of online-learning is considered as one of the main criteria for the success of online-learning

system. Several studies in the literature have addressed issues related to online-learning adoption in many countries over the world. In his study, Al-Rahmi (2016) investigated the critical factors that affect the use of online-learning system among Malaysian students. The results revealed advantages, observability, trial ability, perceived compatibility, complexity, and perceived enjoyment as the factors that play a significant role in students' decision to the use of online-learning system in Malaysia.

In a research carried out by Salloum, Al-Emran, Shaalan and Tarhini, (2019) using UAE as a case study for a quantitative investigation, the results indicated that four factors which are innovativeness, quality, trust and knowledge sharing were observed to achieve better online-learning system acceptance among students. Al-Gahtani (2016) also investigated the factors influencing student acceptance of online-learning. It was found from this research that the most significant determinants of online-learning acceptance were playfulness, self-efficacy and anxiety, while using computers, perceptions of external control, subjective norms and perceived usefulness. However, in the context of Saudi Arabia, social influence, demonstrability and perceived enjoyment were not related to the acceptance of Online-learning systems. Another study conducted by Almaiah, Al-Khasawneli and Althunibat (2020), they proposed new framework using Delphi method to determine the success factors of Online-learning system implementation in Saudi Arabia. The results highlighted website quality, technology options, top management support, and online-learning awareness by academic faculty and students as critical factors.

In their study, Bellaaj, Zekri and Albugami (2015) used the Unified Theory of Acceptance and Use of Technology (UTAUT) model to explore the factors affecting students' use of online-learning systems at the University of Tabuk, Saudi Arabia. They found that expectations regarding performance and effort had a strong influence on online-learning acceptance. In another study in Azerbaijan, Chang, Hajiyev and Su (2017) found subjective norms, experience and enjoyment influenced acceptance of online-learning. (Abdullah and Ward 2016) also investigated factors influencing Online-learning acceptance using TAM. Their findings revealed that self-efficacy; subjective norms, enjoyment, anxiety and experience with using computers had a significant effect on students' acceptance of online-learning. Similarly, Alhabeeb and Rowley (2017) found that academic staff knowledge of learning technologies, student knowledge of computer systems and technical infrastructure, were significant factors in facilitating the successful acceptance of online-learning in Saudi Arabian universities.

Online-learning usage and adoption among users is a challenging issue for many universities, both in developed and developing countries, but it is likely to be less of a concern in developed countries over the willingness of their students to accept and use the online-learning system, as significant progressive steps have already been taken, according to literatures. In this regard (Mulhanga and Lima 2017). And Eltahir (2019) indicated that the challenges of adopting online-learning system in developing countries, however, remain a reality due to the digital divide with the developing countries.

Lack of ICT knowledge, poor network infrastructure and weakness of content development were the main challenges of online-learning system adoption in developing countries (Aung and Khaing 2015). Another study revealed that system characteristics, internet experience and computer self-efficacy were the main issues that impede the successful adoption of online-learning system in Pakistan (Kanwal and Rehman 2017). A

similar study conducted in Kenya identified three main challenges of online-learning which are inadequate ICT infrastructure, lack of technical skills and financial constraints (Tarus, Gichoya and Muumbo, 2015). A study by Mulhanga and Lima (2017) found that poor interface design; inadequate technical support and lack of IT skills are the primary barriers that hinder the successful implementation of existing Online-learning projects. Mulhanga and Lima (2017) claimed that cultural, political, and economical constraints are the main reasons to fail the online-learning initiatives in Libya. In the same way, Kenan, Pislaru, Othman and Elzawi (2013); Chen and Tseng (2012) classified the challenges that affect the actual use of online-learning into four categories: management challenges, technological challenges, implementation challenges and cultural challenges. Despite these efforts, none of these studies have investigated the actual challenges that face users during the use of online-learning system.

Statement of the Problem

It is no doubt the importance of education in the building of any nation, education is a continual process and such should not be put on hold. It all came as a shock in Nigeria in March, 2020 when the federal government announced that the nation has to be put on a total lockdown to help prevent the spread of covid-19. To this, education was not left out, pupils, students, teachers among others were all on a lockdown. A quick decision and effective one has to be reached which gave rise to some schools embarking on an online learning at all cost. Insecurity in Nigeria is also a driving factor towards this present study. It is based on this urgent need to learn from home that this study seeks to find out the factors affecting the adoption of online learning in teaching and learning during covid-19 pandemic among teachers and students in Nigeria: a study of Prince Abubakar Audu University, Anyigba.

Aim and Objectives of the Study

The main aim of this study is to evaluate the factors affecting the adoption of online learning in teaching and learning during covid-19 pandemic among teachers and students in Nigeria: a study of Prince Abubakar Audu University, Anyigba.

Specific objectives are to:

i.   Investigate the level of students' participation of online-learning in teaching and learning during the covid-19 pandemic lockdown in Prince Abubakar Audu University.
ii. Identify the factors that affected the adoption of online learning in teaching and learning during the covid-19 pandemic lockdown period in Prince Abubakar Audu University.
iii. Identify the limitations to the use of online-learning in teaching and learning during covid-19 pandemic lockdown in Prince Abubakar Audu University.
iv. Examine the level of compliance of instructors and students of Prince Abubakar Audu University to online-learning during the covid-19 pandemic lockdown.

Research Questions

The study attempted to answer the following research questions:

i.   What was the level of students' participation of online-learning in teaching and learning in Prince Abubakar Audu University during the covid-19 pandemic lockdown?
ii.   What are the factors that affected the adoption of online learning in teaching and learning during the covid-19 pandemic lockdown period in Prince Abubakar Audu University?
iii.   What are the limitations to the use of online-learning in teaching and learning during covid-19 pandemic lockdown in Prince Abubakar Audu University?
iv.   What was the level of compliance of instructors and students of Prince Abubakar Audu University to online-learning during the covid-19 pandemic lockdown?

Research Hypotheses

H01:   The factors that affects students' participation of online-learning in teaching and learning in Prince Abubakar Audu University during the covid-19 pandemic lockdown period, is not significant.
H02:   The factors that affected the adoption of online learning in teaching and learning during the covid-19 pandemic lockdown period in Prince Abubakar Audu University, is not significant.
H03:   The limitations to the use of online-learning in teaching and learning during covid-19 pandemic lockdown in Prince Abubakar Audu University, is not significant.
H04:   The level of compliance of instructors and students of Prince Abubakar Audu University to online-learning during the covid-19 pandemic lockdown, is not significant

Methodology

Research Design

This research work is a descriptive survey in conduct. This descriptive survey evaluated the factors affecting the adoption of online learning in teaching and learning during covid-19 pandemic among teachers and students in Nigeria: a study of Prince Abubakar Audu University, Anyigba. Data for the study was collected with the aid of Online Learning in Teaching and Learning Questionnaire (OLTLQ) which is a four likart scale consisting of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD). The questionnaire (OLTLQ) comprised of 27 items. This study was carried out in Prince Abubakar Audu University as a case study.

Population and Sample of the Study

For the purpose of this research, the population of this study comprised of the eight faculties in Prince Abubakar Audu University, Anyigba. The Faculty of Education, the Faculty of Management Sciences, the Faculty of Natural Sciences, Faculty of Physical Science, the Faculty of Social Sciences, the Faculty of Art and Humanities, Faculty of Law and Faculty of Agriculture.

Samples of One hundred and twenty (120) respondents across faculties where selected from the university in the study area. This allows the findings from a relatively small sample to be generalized to the population, and ensures that the diversity of the study area is described.

A structured questionnaire (Online Learning in Teaching and Learning Questionnaire) was adopted for the elicitation of information on the factors affecting the adoption of online learning in teaching and learning during covid-19 pandemic among teachers and students in Nigeria: a study of Prince Abubakar Audu University, Anyigba. It comprised two sections, namely: A and B. Section A elicited data on basic demographic information of respondents, Section B has items which elicited information on the factors affecting the adoption of online learning in teaching and learning during Covid-19 lockdown.

Data Presentation and Analysis

This deals specifically with the presentation and analysis of data collected from the population of the study. In presenting the data, it is of note that out of the 120 questionnaires distributed, only 110 were returned and were therefore used in answering the research questions and testing the research hypotheses.

Table 1:   **Level of Students' Participation of Online-Learning in Teaching and Learning during the Covid-19 Lockdown**

S/N	ITEMS	SA	A	D	SD	MEAN
1	Have you ever received any online lecture before COVID-19 pandemic	11	8	59	32	1.9818
2	Have you ever been trained on the use of any Online-learning platform before lockdown	15	8	48	39	1.9909
3	Are you comfortable using Computer or your mobile phone for 2hrs and above without been bored	32	22	34	22	2.5818
4	Do you have ICT practical skills as in use of computer hardware and software effectively	21	11	46	32	2.1909
5	Are your lecturers helpful in using and adoption of Online-learning or M-learning during the lock	45	24	21	20	2.8545
6	Do you have facilities like bandwidth and electricity supply for keeping you online for 5 hours per day	17	6	51	36	2.0364
7	Did your location during the lockdown affect your access to internet via your mobile phone negatively	42	37	21	10	3.0091
	Cumulative Mean					2.377

Source: Research findings, 2021

From table 1 above, the level of students' participation in the online-learning during the covid-19 pandemic lockdown, is generally very low. Reason being that the cumulative mean agreement level of 2.377 is below the decision/benchmark mean of 2.5000. Specifically, majority of them were of the view that their location during the lockdown seriously affected their access to internet via their mobile phone negatively, this is according to 79 of the respondents as against 31 that disagreed with this view. Also, on if they have received any online lecture before covid-19 pandemic only 19 agreed as against the rest 81 that disagreed with this assertion. In summary, the level of students' participation in the online-learning during the covid-19 pandemic lockdown, is generally very low as most of their access to internet via mobile phone were affected during the covid-19 lock down and were never given any lecture before the covid-19 pandemic.

Table 2: **Factors that Affected the Adoption of Online Learning in Teaching and Learning during the Covid-19 Lockdown**

S/N	ITEM	SA	A	D	SD	MEAN
1	Power supply	60	23	18	7	3.2182
2	Internet access	55	41	7	7	3.3091
3	Internet Data	64	44	2	0	3.5636
4	Laptop/mobile phone	60	41	4	5	3.4182
5	Instructor	30	15	41	24	2.4636
6	Institution	31	20	31	28	2.4909
	Cumulative Mean					3.0772

Source: Research findings, 2021

The perception of respondents in table 2 above revealed that there are very serious factors that affected the adoption of online learning in teaching and learning during covid-19 pandemic among teachers and students in Nigeria: a study of Prince Abubakar Audu University, Anyigba. This is because their agreement level of 3.2182 is above the 2.500 decision/benchmark mean. Specifically, they were of the very opinion that the low level of internet data was the highest factor that negatively affected the adoption of online-learning in teaching and learning during covid-19 pandemic lockdown period, because this view attracted the highest mean agreement level of 3.5636 with a total of 108 in agreement as against 2 that disagreed. In the same vein, lack of laptop/mobile phone to any institution within the period is another serious factor that affected the adoption of online learning in teaching and learning during covid-19 pandemic among teachers and students in Nigeria: a study of Prince Abubakar Audu University, Anyigba as this factor attracted the second highest mean agreement level of 3.4182 with a total of 101 in agreement as against 9 in disagreement of this factor. In summary, there are very serious factors that affected the adoption of online-learning in teaching and learning during covid-19 pandemic lockdown period especially the low level of internet data and laptop/mobile phone.

Table 3: **Limitations to the Use of Online-Learning in Teaching and Learning during Covid-19 Lockdown**

S/N	ITEM	SA	A	D	SD	MEAN
1	Poor electricity supply	58	28	18	16	3.2545
2	High cost and poor quality of Online-learning facilities	43	38	17	12	3.0182
3	The poor technical know-how of Online-learning	52	31	9	18	3.0636
4	Poor internet connectivity	36	43	22	9	2.9636
5	Lack of telecommunication infrastructure	22	32	45	11	2.5909
6	Lack of training support by the institutions	62	24	8	16	3.2000
	Cumulative Mean					3.015

Source: Research findings, 2021

In table 3 above, the level of limitations to the use of online-learning is very high. This is because their cumulative general agreement level of 3.015 is above the 2.500 decision/benchmark mean. Specifically, poor electricity level is the greatest limitation to the use of online learning as this view attracted the highest mean agreement level of 3.254 with a total of 86 in agreement and the rest 24 in disagreement. In the same vein, lack of training support by the institutions is another serious limitation to the use of online learning as this view attracted the second highest mean agreement level of 3.200 as a total

of 86 were in agreement as against 24 that disagreed. In summary, the level of the limitations to the use of online-learning is very great especially poor electricity and lack of training support by the institutions.

Table 4: **Level of Compliance by Instructors and Students to Online-Learning in Teaching and Learning during the Covid-19 Lockdown**

S/N	Items	SA	A	D	SD	Mean
1	Do you have stable Power to use internet or access Online-learning resources?	45	30	25	10	3.0000
2	Do your institution or school has online-learning platform that can be accessed online	45	33	22	10	3.0273
3	Do you have modern Computer, Laptop, mobile phones?	15	8	62	25	2.1182
4	Were you trained on the use of online-learning platform?	20	13	42	35	2.1636
5	Did your school engage the students during lockdown with any virtual learning approach	50	34	17	9	3.1364
6	Is your school management supportive in using Online-learning platforms?	55	36	13	6	3.2727
7	Do you have ICT practical skills as in the form of computer hardware and software effectively	10	22	45	33	2.0818
8	Did your location during lockdown affect your access to internet via your mobile phone negatively	19	28	37	26	2.3636
	Cumulative Mean					2.645

Source: Research findings, 2021

From table 4 above, it is obvious with the level of compliance of instructors and students to online-learning during the covid-19 pandemic lockdown, this is as the cumulative or general agreement level of 2.645 is above the decision/benchmark mean of 2.500. Specifically, most asserted that their school management is supportive in using online-learning platforms as this had the highest mean agreement level of 3.272 with a total of 91 in agreement as against 19 that disagreed with this view. In the same vein, school engage the students during lockdown with any online learning approach with this having the second highest mean agreement level of 3.136 with a total of 84 agreed as against 26 that disagreed. In summary, the level of compliance of instructors and students to online-learning during the covid-19 pandemic lockdown especially as school management is supportive in using online-learning platforms and school engage the students during lockdown with any virtual learning approach.

Testing of Hypotheses

Table 5: **Chi SquareLevel of Students' Participation of Online-Learning in Teaching and Learningduring the Covid-19 Pandemic Lockdown.**

Variable	SA	A	D	SD	Total	Df	X^2	X^2	P
Level of students participation in online during COVID-19	45	24	21	20	110	18	21.112	28.869	0.087
	26.1	16.6	40.0	27.3					

Source: Research finding, 2021 *p value > 0.05, X^2 computed < X^2 critical at df 18.*

Results of the chi square statistics in table 5 above showed that the level of students' participation in the online-learning during the covid-19 pandemic lockdown, is not significant. This is because the p value of 0.087 is greater than the 0.05 alpha level and the X^2 computed value of 21.112 is lower than the X^2 critical value of 28.869 at df 18. This shows that the level of students' participation in the online-learning during the covid-19 pandemic lockdown, is not significant. Therefore, the null hypothesis which states that the level of students' participation in the online-learning during the covid-19 pandemic lockdown, is not significant, is hereby accepted and retained.

Table 6: **Chi Square Statistics on the Factors Affecting the Adoption of Online Learning in Teaching and Learning during Covid-19 Pandemic Lockdown Period.**

Variable	SA	A	D	SD	Total	Df	X^2	X^2	P
Factors that affect role of teaching and learning maths during COVID	64	44	2	0	110	15	175.348	24.996	0.000
	50.0	30.7	17.2	12.2					

Source: Research finding, 2021 *p value < 0.05, X^2 computed > X^2 critical at df 15*.

The chi square statistics in table 6 above showed that the factors that affected the adoption of online learning in teaching and learning during covid-19 pandemic lockdown period, is significant. This is because the p value of 0.000 is lower than the 0.05 alpha level and the X^2 computed value of 175.348 is greater than the X^2 critical value of 24.996 at df 15. This shows that the factors that affected the adoption of online learning in teaching and learning during covid-19 pandemic lockdown period, is significant. Therefore, the null hypothesis which state that the factors that affected the adoption of online learning in teaching and learning during covid-19 pandemic lockdown period, is not significant, is hereby rejected.

Table 7: **Chi Square Statistics onthe Limitations to the Use of Online-Learning in Teaching and Learning**

Variable	SA	A	D	SD	Total	Df	X^2	X^2	P
Factors that limit the use of online learning	62	24	8	16	110	15	85.698	24.996	0.001
	45.5	32.7	19.8	12.0					

Source: Research finding, 2021 *p value < 0.05, X^2 computed > X^2 critical at df 15*.

The chi square statistics in table 7 above showed that the limitations to the use of online-learning, is significant. This is because the p value of 0.001 is lower than the 0.05 alpha level and the X^2 computed value of 85.698 is greater than the X^2 critical value of 24.996 at df 15. Therefore, the null hypothesis which state that the limitations to the use of online-learning, is not significant, is hereby rejected.

Table 8: **Chi SquareStatistics onthe Level of Compliance of Instructors and Students to Online-Learning in Teaching and Learning during the Covid-19 Pandemic Lockdown**

Variable	SA	A	D	SD	Total	Df	X^2	X^2	P
Compliance of instructors and	55	36	13	6	110	21	208.067	32.671	0.002
students to online learning during covid-19	32.4	25.5	32.9	19.5					

Source: Research finding, 2021; *p value < 0.05*, X^2*computed > X^2 critical at df 21*.

The chi square statistics in table 8 above showed that the level of compliance of instructors and students to online-learning during the covid-19 pandemic lockdown, is significant. This is because the p value of 0.002 is lower than the 0.05 alpha level and the X^2 computed value of 208.067 is greater than the X^2 critical value of 32.671 at df 21. Therefore, the null hypothesis which state that the level of compliance of instructors and students to online-learning during the covid-19 pandemic lockdown is hereby rejected.

Discussion of Findings

Based on the findings, it has been established that the level of students' participation in the online-learning during the covid-19 pandemic lockdown, is generally very low as most of their access to internet via mobile phone were affected during the covid-19 lock down and were never given any lecture on online learning before the covid-19 pandemic. This is supported by the work of Aung and Khaing (2015), Alhabeeb and Rowley (2017). This is also supported by the work of Kisanga and Ireson (2015), Mulhanga and Lima (2017). There are very serious factors that affected the adoption of online learning in teaching and learning during covid-19 pandemic lockdown period especially the low level of internet data and laptop/mobile phone. Supported by the work of Kisanga and Ireson (2015), Mulhanga and Lima (2017). The Level of the limitations to the use of online-learning is very great especially poor electricity and lack of training support by the institutions. The work of Kisanga and Ireson (2015), Mulhanga and Lima (2017), Cheng and Tseng (2012) also supported this finding. This is also supported by the work of Alhabeeb and Rowley (2017), Tarus, Gichoya and Muumbo (2015).

The level of compliance of instructors and students to online-learning during the covid-19 pandemic lockdown especially as school management is supportive in using online-learning platforms and school engage the students during lockdown with any virtual learning approach is a huge success. This is supported by the work of Abdullah and Ward (2016), using computers had a significant influence on students' acceptance of online learning. Alhabeeb and Rowley (2017) also found that academic staff knowledge of learning technologies, students' knowledge of computer systems and technical infrastructure were significant factors in facilitating the successful acceptance of online learning.

Conclusion

In conclusion, the level of students' participation in the online-learning during the covid-19 pandemic lockdown, is not significant, while the factors that affected the adoption of online learning in teaching and learning during covid-19 pandemic lockdown period, the limitations to the use of online-learning and the level of compliance of instructors to online-learning during the covid-19 pandemic lockdown, are all significant.

Recommendations

The following recommendations were made based on the result of the findings:

The students should be well lectured and made knowledgeable about the covid-19 and how to manage time of lock down if it happens again in future.
Schools should provide internet facilities and data as well as subsidized laptops to the students for effective and enhanced internet activities during other lock downs
The Ministry of Education should provide all needed infrastructure such as telecommunications infrastructure and internet infrastructure.
The school authorities should be exposed to constant software and hardware trainings as well as on line eLearning platforms.

References

Abdullah F. & Ward R. (2016). Developing a general extended technology acceptance model for e-learning by analyzing commonly used external factors. *Computers in human behavior*, **56**: 238-256

Al-Gahtani, S. S. (2016). Empirical investigation of e-learning acceptance and assimilation: A structural equation model. *Applied computing and informatics*, **12** (1): 27-50

Alhabeeb, A. & Rowley, J. (2017). Critical success factors for e-learning in Saudi Arabian universities. *International journal of educational management*, **31** (2): 131-147

Almaiah, M. A; Al-Khasawneh, A. & Althunibat, A. (2020). Exploring the critical challenges and factors influencing the e-learning system usage during covid-19 pandemic. *Journal of educational information technology*, 1-20

Bellaaji, M.; Zekri, I. & Albugami, M. (2015). The continued use of e-learning system: An empirical investigation using UTAUT model at the University of Tabuk. *Journal of Theoretical and Applied Information Technology*, **72** (3).

Chang, C. T; Hajiyev, J. & Su, C. R. (2017). Examining the students' behavioural intention to use e-learning approach. *Computers and Education*, **111**: 128-143

Cheng, H. R. & Tseng, H. F. (2012). Factor that influence acceptance of web-based e-learning system for the inservice education of junior high school teachers in Taiwan. *Evaluation and Program Planning*, **35** (3): 398-406

Eltahir, M. E. (2019). E-learning in development countries: is it a panacea? A case study of sudan. *IEEE Access*, **7**: 97784-97792

Kenan, T.; Pislaru, C.; Othman, A. & Elzawi, A. (2013). The social impact and cultural issues affecting the e-learning performance in Libyan higher education institutes. *International Journal of Information Technology and Computer Science*, **12** (1): 50-56

Kisanga, D. & Ireson, G. (2015). Barriers and strategies on adoption of e-learning in Tanzanian higher learning institutions: lessons for adopters. *International journal of education and development using ICT*, **11** (2).

Mulhanga, M. M & Lima, S. R. (2017). Podcast as e-learning enabler for developing countries: current initiatives, challenges and trends. In proceedings of the 2017 9th international conference on education technology and computer. 126-130

Salami, D. (2021). Attitude of science education students towards the use of mobile-learning in Nigeria. *Journal of Science Technology and Education*, **9** (1): 38-43.

Salloum, S. A.; Al-Emran, M.; Shaalan, K. & Tarhini, A. (2019). Factors affecting the e-learning acceptance: A case from UAE. *Education and information technologies*, **24** (1): 509-530

Tarus, J. K; Gichoya, D. & Muumbo, A. (2015). Challenges of implementing e-learning in Kenya: A case study of Kenyan public universities. *The International Review of Research in Open and Distance Learning*, **16** (1): 120-141.

DOMESTIC VIOLENCE AGAINST WOMEN AND CHILDREN AND WAYS OF PREVENTION: IMPLICATIONS FOR COUNSELLING

[1]Mohammed Murjanatu Sallah and [2]Bello Tayibat Shinco

[1]Department of Educational Foundations, Faculty of Education and Extension Services, Usmanu Danfodiyo University, Sokoto
[2]Department of Educational Foundations, Shehu Shagari Collage of Education, Sokoto
e-mail: murjanatusallah.ms@gmail.com

Abstract

Domestic violence against women and children is growing at alarming rate, which calls for the intervention of leaders as well as counsellors. This paper examines the issue of domestic violence against women and children. Various concepts of domestic violence were discussed, types of domestic violence which include: physical, emotional or psychological, neglect and other forms of domestic abuse or violence such as yelling, shouting as well as financial abuse were highlighted. The paper also examined some effects of domestic violence both physical and emotional such as: swelling of the body, broken limbs, bruises, attitudinal change to others, depression and many others. Theories related to domestic violence were also discussed as well as empirical related studies. The paper provided some preventive measures to stop domestic violence and finally the writer suggested possible ways to stop domestic violence by involving the community, religious leaders, professional counsellors, school counsellors as well as policy makers. Pre-marital counselling should be given to the intending couples on how to manage their marital relationship.

Keywords: Domestic violence, Women, Children.

Introduction

 Violence according to centre for disease and control for prevention for health (CDC) is the use of physical force against another person, group or community with the behaviour likely to cause physical or psychological damage (CDC, 2011). Domestic violence is a global problem where people are being victimized. According to Morgan and Chadwick in Manikam (2012) domestic violence is defined as physical violence occurring within intimate relationships and in a domestic setting.

Domestic violence against women and children in the home has been part of human history, and the society has lived with it without feeling that there is anything wrong with it. Domestic violence against women and children continues to be global epidemic that tortures, kills, maim psychologically, emotionally, and physically. It is the most pervasive of human rights violation that denies women and children of their security, dignity equality, self-worth and right to enjoy fundamental freedom. Violence against women and children is present in everywhere in most countries across the world despite their culture, class, income, education, age and ethnicity (United nations declaration on the elimination of violence against women and general assembly resolution, 1993). Furthermore, World Health Organisation WHO, (2002) defines domestic violence as the intentional use of physical force or power, threatened or actual, against oneself and another person or against a group or community that either results in or may likely result in injury, death, psychological harm, deprivation or torture in form of kidnapping, shooting, sexual

harassment, rape, corporal punishment and so on which in the last decade have been a reported as cases of violence on Nigerian students.

United Nations Individual Children Fund (Unicef, 2007), states that domestic violence and abuse is not limited to obviously physical violence, it can mean endangerment, kidnapping, unlawful imprisonment, harassment, criminal coercion and stalking (National Network to end Domestic violence, 2011).

Mouzos and Makkai (2004) revealed that there are existing types of violence in homes, schools which include physical, psychological, sexual, gender and health based violence. The report stated that physical violence has the highest percentage of occurrence in Nigeria with 85%, followed by psychological violence with 50%, gender based violence with 5%, sexual violence with 4% and health related violence with only 1% according to their report. The convention on elimination of all forms of discrimination against women (CEDAW) adopted in 1979, affirmed that the principle of fundamental rights and freedom of every human being are guided by a broad concept of human rights that stretches beyond human rights and political rights to the core issues of economic survival, health and education that affects the quality of daily life for most women and children. United Nation General Assembly (1993), postulated that violence and abusive behaviour are responsible for poor family relationship, although personal conflicts and troubles within marriage affects intimate relationship, (Olson and Defrain, 2006).

There are different levels of domestic violence, namely: the home or family, the school, community or society and the state level. This paper will only focus on domestic violence on women and children in homes and with-in their society and how it affects victims and the society at large and suggest ways of stopping domestic violence in the society.

Conceptual Clarification on Domestic Violence

Akpan and Usoroh (2005), Genyi in Zadding (2012) defined domestic violence in intimacy which can be physical, sexual, psychological, emotional or threats of physical or sexual violence that are inflicted on women and children with intentional use of force. Example slapping, pushing, biting, choking, using knife, gun, and other weapons with the potential for causing injury, controlling or domineering, intimidation, neglect and other economic deprivation harm or death. Women Aid Collective (WACOL, 2004) stated that domestic violence could be anything that constitute an action meted out to someone which is capable of depriving the individual from his or her basic human rights. Act of violence and abuse may take in different forms, and in any form that it takes, it affects individual's health and wellbeing. The roots of all forms of violence are found in many types of inequalities which continue to exist and grow in the society. Violence and abuse are used to dominate or to maintain control and power over another person and reflect the imbalance of power between the victim and the abuser, Access Economics in (Manikam, 2012).

Types of Domestic Violence

Domestic violence takes in different form which includes: physical violence, sexual violence, emotional violence, psychological violence, spiritual violence, cultural violence, verbal abuse, financial abuse and Neglect.

Physical violence: Physical violence occurs when someone uses a part of their body or an object to control a person's action. Physical violence includes, but is not limited to; Hitting, Pinching, hair-pulling, arm-twisting, strangling, burning, stabbing, punching, pushing, slapping, beating, shoving, kicking, biting, force-feeding, or any other rough treatment.Using physical force which results in pain, discomfort or injury, assaults with a weapon or other object, deliberate exposure to severe weather or inappropriate room temperature, Threats with weapon or object and Murder.

Sexual violence: Sexual violence occurs when a person is forced to unwillingly take part in sexual activity. Sexual violence includes but not limited to: Touching in a sexual manner without consent (ie kissing), forced sexual intercourse, forcing a person to perform sexual act that may be degrading or painful, beating sexual parts of the body, forcing a person to watch a pornographic film, forced prostitution, purposefully exposing the person to HIV/AIDS or other sexually transmitted infections.

Emotional violence: Emotional violence occurs when someone says or does something to make a person feel stupid or worthless. Emotional violence includes but not limited to: Name calling, threatening to hurt one if the person does not cooperate, Intimidating the person causing fear to gain control, Humiliating or making fun of the person, not allowing person to have contact with family and friends, threatening to abandon the person.

Psychological violence: Psychological violence occurs when someone uses threats and causes fear in a person to gain control, threatening to harm the person or his family when he leaves, Threats of violence, Destruction of personal property, Verbal aggression, Stalking/ criminal harassment, Treating a person like a child or a servant.

Spiritual violence: Spiritual or religious violence occurs when someone uses a person's spiritual belief to manipulate, dominate or control the person. This includes but not limited to not allowing a person to follow his/her preferred religion, Belittling or making fun of a person's religion, tradition and beliefs, forcing a religious path on another person, using ones spiritual or religious position, rituals, or practices to manipulate dominates or controls a person.

Cultural violence: Cultural violence occurs when a person is harmed as a result of practices that are part of his/her culture, religion or tradition, seeking divorce, Infidelity, committing adultery, sexual slavery, Murder, Banishment, Female circumcision, being raped, abandonment of older person by the family.

Verbal abuse: Verbal abuse occurs when someone uses language whether spoken or written, to cause harm to a person. Verbal abuse may include but not limited to: Yelling. Lying, Insulting, swearing, Name calling, Shouting etc.

Financial abuse: Financial abuse occurs when someone controls a person's financial resources without the persons consent or misuses those resources, destroying personal property, controlling person's choice of occupation, not allowing a person to participate in educational programs etc.

Neglect: Neglect occurs when someone has the responsibility to provide care or assistance for you but does not, abandonment in a public setting, failing to meets the needs of a person who is unable to meet those needs alone, not remaining with a person who needs help etc.

Causes of Domestic Violence Against Women

Agu (2018: 2) stated some of the causes of domestic violence as: Traditional Beliefs, psychological disorder, family traits, alcohol or narcotic abuse, unemployment and economic hardship, jealousy, and anger among some.

Traditional beliefs: Unfortunately, according to some of traditional beliefs women have fewer rights than men. That is why in some families with traditional beliefs we can often see cases of domestic violence. This cause of domestic violence is still widespread even in our time.

Psychological disorder or personality disorder cases: There are many cases when people in the family even don't know that one of their relatives has a psychological disorder, and this disorder can be the cause of violence. Because of the poverty, many people cannot consult with a psychiatrist and many disorders remain undiagnosed. Due to such disorders, people can be very aggressive and dangerous not only to their family but to the society as a whole.

Family traits: Domestic violence effects are very deplorable. The person could be aggressive if he/she was a victim or witness of violence in childhood. The child just can learn such model of behaviour while growing up in a family with violent parents or other relatives. This is a way of transferring violent behaviour through the generation.

Alcohol or narcotic abuse: People who take alcohol or narcotic don not control their violent impulses. Unfortunately, the alcohol or narcotic abuse is very widespread in Nigeria, so this reason of domestic violence is quite common.

Unemployment and economic hardship: Economic problems increase the level of stress and aggression, often leading to domestic violence. A high level of unemployment contributes to the facts that people quarrel in families in the conditions of accumulated stress due to lack of money, such quarrels often end in cases of violence.

Jealousy: Excessive suspicion, distrust, and jealousy often lead to cases of violence. This reason often refers to young families, such a feeling consequence to aggression.

Anger: Anger between people in family or couple often appears for many reasons, and unfortunately, it can lead to violence. The misunderstandings, lack of mutual respect all are factors that contribute to an increase in the level of anger in the family.

In a related study, Abubakar, Bagudo and Musa (2015: 321) stated that causes of domestic violence against women results from: Inadequate love between couples, forced marriage, mental illness, no respect for the husband, husband financial incapacity, wife cannot cook well, wife's clumsiness and untidiness, low level of education, disagreement on children discipline, drunkenness or husbands drug addiction and so on. According to Akinleke (2018) also identified some factors as contributing to the incidence of domestic abuse which include: drunkenness, financial demand, snubbed sexual advances, annoyance of some husbands, cultural and stereotypical belief and also combination of these factors.

Theories on Domestic Violence

Resource theory

This theory of intra-family violence developed by Goode (1971) was in fact the first theoretical approach applied exactly to family violence. Resource theory is based on the assumption that force or the threat of force is inherent in all social system. This theory asserted that the more resources including social, personal and economic a person can command within a social system, the more force he or she can muster. However, the more resources a person can command, the less the chances are that a person will actually deploy violence.

Thus, violence is one of the resources that individuals used as a last resort when all other resources are exhausted. This theory explains that traditionally the male, command higher power in the marital and family relationship, than other members namely women and children, who are in subordinate and vulnerable position. But when men lack resources like; education, marketable vocational skills, income sufficient to maintain a family and social status may likely resort to violence as a way to establish their dominance on women. In addition, family members including children may use violence to redress a grievance when they have few alternative resources available.

This theory is chosen because it explains how men exploit power and other resources they acquired to dominate their women and children when they have no alternative resource available. The cycle theory of violence and psycho-social theory of learned helplessness

Two of the most often discussed theories on battered women are Lenore Walker's 'the circle theory of violence and psycho-social theory of learned helplessness.

Lenore Walker was one of the first researchers to describe a dynamic process in abusive relationship that she called the "cycle theory of violence". Walker described three phases in the cycle of violence (walker 1979, 1984). These three phases associated with recurring battering cycle (1) the tension building stage accompanied with rising sense of danger. (2) The acute battering incident and (3) loving contrition.

In the first phase, there is a gradual escalation displayed by discrete act causing increased friction such as name calling, other mean intentional behaviours, verbal abuse and physical abuse. The batter expresses dissatisfaction and hostility but not in an extreme or maximally form. The woman may attempt to placate the barterer, doing what she thinks might pleases him, calm him down at least, what will not aggravate him. She tries not to respond to his hostile actions and uses general anger reduction techniques. This tension building phase may last for weeks or years until the tension has mounted to the breaking point (Walker, 1984).

In the second phase, the acute battering incident becomes inevitable without intervention. The phase is characterized by the uncontrollable discharge of the tension that have built up during phase one. The barterer typically unleashes barrage of verbal and physical aggression that leaves the woman severely shaken and injured. In fact, when injuries occur they usually happen during the second phase of the cycle of violence. In the third phase the barterer may apologise profusely, try to assist victim, show kindness and remorse and shower her with gift and promises. The barterer himself believes at this point that he will never allow himself to be violent again. This third phase provide the positive reinforcement for remaining in the relationship for the woman. Phase three is welcomed by both the partners who are marked by contrite loving behaviour, affection and promises by the barterer never to repeat the incident again. This cycle of violence keeps repeating itself in the lives of almost all battered women.

The theory of learned helplessness suggests that victims give up the belief that they can escape from the barterer in order to develop sophisticated coping strategies. Learned helplessness theory explains how they stop believing that their actions will have a predictable outcome. It is not that they cannot still use their skills to get away from the barterer, stop the abuse at times, or even to defend themselves, but rather they cannot predict that what they do will have the desired outcomes, sometimes they use force that

might seem excessive to a non-battered woman in order to protect themselves. This psychosocial theory or learned helplessness focus on the factors which reinforce battered women's victimization. According to this theory, battered women operates from a premise of helplessness which further serves to only aid passivity and a fatal acceptance of exploitative situation. Walker's cycle theory of violence was criticized on the ground that all violent relationships do not confirmed to the circle of violence. Particularly, the cycle theory discounts the damage done by emotional, psychological, economic and other non- physical form of abuse by focusing disproportionately on physical violence ie the acute battering phase. Another criticism of the cycle of violence theory is that it describes a static interaction between the abuser and the victim. Walker's theory describes a predestined pattern of behaviour with little freedom of choice but at the same time it may give abusers an excuse for their behaviour as part of an inevitable circle of actions (Walker, 1984).

 Different researches were carried out on domestic violence against women and children. Yogo (2008) conducted a research on the impact of domestic violence against women. The research design used was survey with the use of questionnaire and interview. The population of the study was 10675 people in Baba 1 community. The sample of the study composed of 100 women chosen randomly from different women group. The researcher used qualitative and quantitative analysis. Frequencies and percentages were used in analysing the data. The results revealed that ignorance made people to behave the way they did. It was recommended that people who had no access to education should be enlightened through seminars, workshops, conference and religious gathering about the education of a girl child. Through education, parents will know their roles as parents and give women and children their right as human beings.

Ellsberg (2002) conducted a research on domestic violence against women: Methodological and ethical considerations. The study was carried out on family planning in Nicarraguan Leon (UNAN) and limited University, Sweden. A random sample of 488 women aged 15-49 were interviewed, a structured questionnaire on women's reproductive health including use of contraceptives and detailed birth histories, child health and nutrition was administered. Survey design was used, data was collected through the use of questionnaire which were filled and collected while some subjects responded orally through oral interview and the responses were filled as in the questionnaire. Data was analysed using SPSS 9.0 for logistic regression and chi square test. Significance were tested by means of 95percent confidence interval and P-value of <0.05. The study found a prevalence of physical violence from a partner of 28percent with 12percent of women reporting violence.

Similarly, Zidding (2012) conducted a research on Assessment of domestic violence and abuse against women and its effects on family relationship in four selected local governments in Taraba state. Four research questions and four null hypotheses were formulated. Descriptive survey design was used in carrying out the study with a population of 266,474 and a sample size of 500 married men and women was randomly selected using stratified random sampling. The data was analysed using mean and standard deviation to respondent's demographic variables, while Pearson product moment correlation coefficient was used to analyse the 4 null hypotheses which were all rejected. The finding of the study reveals that there is a significant relationship between domestic violence against women and family relationship.

Effects of Domestic Violence on Women and Children

Violence has a serious impact on the way women think and interacts with the world around them. Domestic violence affects one's thoughts, feelings and behaviours and can impact on victim's mental stability, increase anxiety, post-traumatic stress disorder, depression (feeling of sadness), feeling of hopelessness, unexplained crying and dissociation are commonly observed among the survivors of domestic violence. According to Bitangro (1999) children that are exposed to domestic violence become fearful and may face difficulties in schools including problems with concentration and poor academic performance. Spaccarell (1994) states that many children who are raised in abusive homes suffer severe emotional trauma as a result of seeing their mothers hurt, boys usually carry aggressive form of behaviour and as adults may beat their spouses.

According to Musawa (2016), the news making rounds in the print and social media is the sad story of Ronke, a banker who was allegedly beaten to death by her husband. Ronke who is a mother of two was found dead in her Lagos home on Friday 02/12/2016, while her husband was said to have fled the scene of the crime. The Lagos state command has since launched a man hunt for her husband (Mr Liken Shonde) and hopefully he will be caught soon and made to answer for his crime. Residents in the area where she lived confirmed that, she has been enduring an abusive marriage. Reports have it that she was serially abused and assaulted by her husband until the last attack that led to her death, he would tie her, beat her and take her mobile phones away.

Okoh (2016) reports that Lagos State Government has revealed that no fewer than 4,035 domestic violence cases have been recorded in the state in the year 2015. The violence has range from rape, child abuse, and sexual assault/ sexual abuse to defilement, divorce and other matrimonial issues. The government who have vowed not to shy away from prosecuting perpetrators of the crime added that the Lagos state domestic and sexual violence response team (DSVRT) had been at the fore front of the war against domestic violence in the state. The Attorney General and Commissioner for Justice Mr Adeniji Kazeem who disclose this at a news conference in Ikeje on Tuesday 6/12/2016 commended the activities of DSVRT which he said has handled 192 domestic abuse cases in 2015, explaining further, Mr kazeem noted that out of 192 cases, 89 were domestic assaults cases, 62 were defilement cases, 18 were rape cases, 6 attempted rape cases, 10 were child neglect and 7 were child abuse cases.

Samiah (2022) from the Premium Times Newspaper reports that the executive secretary of the National Human Rights Commission (NHRC) Tony Ojukwu, said; the commission received 158,517 complaints of sexual and gender based violence (SGBV) against women and children in 2021. Mr Ojukwu represented by Harry Obe, the Commission's Director women, children and vulnerable groups, said this at an event organised on Monday by ROOST foundation in collaboration with the NHRC. The event was tagged, "Roundtable on rising and pending cases of sexual and gender based violence (SGBV) and possible solutions in Nigeria. 'Out of 913,197 cases received by human rights commission in 2021 on women and children, 158517 cases were on SGBV (Samiah, 2022).

Preventive Measures

According to WHO (2017) there are number of well-designed studies looking at the effectiveness of prevention and response programmes. More resource is needed to straighten the prevention of and response to intimate partner and sexual violence including primary prevention and stopping it from happening in the first place. There is some evidence from high income countries that advocacy and counselling intervention to improve access to services the survivors of intimate partner violence are effective in reducing such violence. Home visitation programmes involving health worker outreach by trained nurses also helps in reducing domestic violence. However, these have yet to be assessed for use in resource poor setting (WHO, 2017).

Prevention strategies that have been shown to be promising includes those that empower women economically and socially through a combination of micro finance and skills training related to gender equality that promote communication and relationship skills within couple and communities; that reduce access to and harmful use of alcohol ; transform harmful gender and social norms through community mobilization and group based participatory education with women and men to generate critical reflection about unequal gender and power relationships. To achieve lasting change, it is important to enact and enforce legislation and develop and implement policies that promote gender equality by: Ending discrimination against women in marriage, divorce and custody laws, improving women's access to paid employment and developing and resourcing national plan and policies to address violence against women and children.

Counselling Implications

Counselling is an option available to women to acquire assistance to free themselves from violence and its effects. Sigmund freud suggested the use of psycho-dynamic therapy in behaviour modification. Therefore, to reduce domestic violence situation in the society, all stake holders must be involved, the community, religious groups, institutions, and government at all levels.

People should be made to understand that adults can change the social norms by being role models and working together to end violence in the homes.
Seminars and workshops should be organised by trained counsellors to help and assist in propagating the anti-domestic violence campaign.
The school counsellors could organise counselling session for the students. And also students should be taught on how to express anger without violence.
Schools during parent and teachers' association meeting (PTA) should also give an enlightenment talk encouraging parents to use disciplinary measures that are non-violent on their children.

Conclusion

Domestic violence against women and children is becoming rampant and increasing day by day. Looking at the cases of domestic violence and their causes, this paper will serve as an eye opener to women on finding possible ways to avoid falling victims of domestic violence as well as their children knowing that most of these type of violence are attached to homes and their immediate environment.

Suggestions

1.   Religious leaders should give sermons against marital violence in their places of worship.
2.   There should be public enlightenment through the mass media on the negative effects of domestic violence.
3.   Pre-marital counselling should be given to intending couples on how to manage their marital relationship.
4.   Punishment should be given to the offending husbands and the punishment should be publicised so that it can serve as deterrence to others.
5.   Medical professionals should give immediate treatment to the victims of domestic violence when physically abused and then refer them to counsellors and psychotherapists where necessary.

References

Abubakar, H. S., Bagudo, A. A. & Musa, F. B. (2015). Causes and Pattern of Wife Abuse among Couples in Sokoto State. *Issues in the helping profession for Nigerian Counsellors*, pp. 321-328.

Agu, Z. (2018). Causes of domestic violence. Retrieved on 26/5/2019 from https://www.legit.ng>causes of domestic violence.

Akinleke, W. O. (2018). Incidence of Domestic Violence Against Married Women in Yewa South Local Government Area of Ogun State, Nigeria. *International Journal of Sociology and Antropology Research. Vol.4, No.5, pp 38-46.*

Akpan, I. D.&Usoroh, C. I. (2005). Domestic violence during pregnancy. *International journal of violence and related studies*, **1**: 15-26.

Bitangora, B. (1999). "Rape, the silent cancer among female refugees". In conveying concerns: women's report on gender based violence Washington: Population references bureau (2000) measure communication.

CDC (2011). Centre for Disease Control and Prevention, Youth risk Behaviour, Surveillance System (YRBSS 2009) National Youth Survey Behaviour overview. Retrieved from:http://www.cdc.gov.healthyouth/yrbss/pdf/usoverviewyrbss.pdf.

Ellisberg, M., Heise, L., Pena, R., Agurto, S. &Winkrist, A. (2001). "*Researching Domestic Violence against Women: Methodological and Ethical Considerations Studies in Family Planning Journal*, **32** (1): 1-16 from https:/doi org/10-1111/j.1728-4465 2001 0001.x

Goode, W. J. (1971). *'Force and Violence in the Family'. Journal of Marriage and Family, pp624-636 quoted in supra note*, **36**: 175.

Manikam, S. (2012). A literature Review on Domestic Violence Campaign and the use of Technology as a Preventing Strategy. School of Advertising, Marketing and public relation queens land University of Technology. Pp 1.

Mouzos, J. & Makkai, T. (2004). Women's Experience of Male Violence: Findings from the Australian components of the international violence against women survey (IVAWS) research and public policy series no.56. cambera: Australian institute of criminology. Retrieved from http//www.aic.gov.au/documents/5/8/%7B58D8592E-CEF7-4005-AB11-B7A884842399%7DRPP56Pdf.

Musawa, H. (2016). Surging Domestic Violence rate against Women in Nigeria.Retrieved from:www.https://nationonlinenet>surging-domesticviolence.

Olson, D. H. & Defrain, J. (2006). Marriages and Families.Intimacy and Diversity and Strength, Fifth edition. University Minnesota and university of Nebraska United States America.

Samiah, O. (2022). Premium times 28 march 2022. Pp 1-2 from https;//allafrica.com.

United Nation General Assembly (1973). Equal Rights for Women. A call for Action. The United Nations Declaration on the Elimination of Discrimination against Women.

United Nations General Assembly (1993). Declaration on Elimination of Violence against Women, Proceedings of the 85th Plenary Meeting, Geneva, December 20, 1993.

United Nations Individual Children Education Fund (2007). Assessment of Violence against Children at the Basic Education level in Nigeria, Federal Ministry of Education in Collaboration with Unicef.

Walker, L. E. (1978). Theories and Causes of Domestic Violence. Retrieved from https://shodhganga.inflibnet.ac.in>bitstr(pdf)on 6/11/19.

World Health Organisation (WHO), Geneva. (2002). Prevention of violence: a summary on public health priority resolution WHA49.25 in: world report on violence health.

World Health Organisation WHO, (2017). Violence Against Women. Retrieved from https://www.who.int.violenceagainstwomen.

Women Aid Collective, (2004). Menace of Domestic Trafficking. A Study Conducted by Women's Aid Collective (WACOL) Nigeria.

Yogo, N. (2008). Impact of Domestic Violence against Women. A case study of Baba1 Community University of Buea, Cameroon.Unpublished Material.

Zadding, C. S. (2012). Assessment of Domestic Violence and Abuse against Women and its effects on Family Relationship in four Selected Local Government in Taraba State.

IMPERATIVE OF PSYCHO-SOCIAL COUNSELLING AMONG BASIC EDUCATION TEACHERS FOR EFFECTIVE JOB PERFORMANCE IN NIGERIA

[1]Abubakar Boyi Sifawa, Ph.D, [2]Muhammad Binta and [3]Malami Rukayya Tambawal

[1]Directorate of Guidance and Counselling, Shehu Shagari College of Education, Sokoto.
[2]Dept. of Educational Foundations, Faculty of Education. Federal University, Gusau
[3]Department of Curriculum Studies, Shehu Shagari College of Education, Sokoto
e-mail: boyiabubakar3@gmail.com

Abstract

Teachers in Nigeria today, especially at basic education level, are faced with numerous psychological problems which can adversely affect their job performance at school. The paper looked at psychosocial problems as all the difficulties faced by individuals (more often adolescents) in different areas of personal and social functioning; highlighted some of the causes of psychosocial problems among teachers such as social isolation or loneliness, experiencing discrimination and stigma, social disadvantage, poverty or debt, bereavement (losing someone close to you) etc. Psychosocial counselling was defined as a counselling service aims at helping an individual with psychosocial problems such as depression, anxiety, low self-esteem, loneliness, insecurity, economic hardships, hunger etc. by a professional counsellor to get relieved of the problem at stake. Stages for a successful psychosocial counselling like screening, assessment, planning, intervention and closure were discussed and justification for psychosocial counselling among basic education teachers were highlighted. The paper concluded that, teachers at basic education level are faced with psychosocial problems which adversely affect their job performance. Finally, the paper recommends among others that, as matter of urgency, a workshop should be organized on psychosocial issues among teachers at basic education level with a view to assisting those teachers with psychosocial problems be addressed in good time.

Keywords: Psychosocial Problem, Psychosocial Counselling, Basic Education, Teacher, Job Performance

Introduction

It is observed with dismay that teaching in Nigeria is associated with various psychosocial issues such as lack of promotion and implementation by government, lack of recognition of teachers by the society, lack of motivation and welfare for the teachers by the government and well to do individuals, uncertainty of job security due to political issues and thinking of life after retirement etc. (Jordans, 2003). This is more apparent at basic education level in Nigeria. Many teachers are victims of one or the other psychosocial problems which may lead to so many work-related problems among teachers of basic education level especially in Nigeria. These consequential and work-related problems that can affect teachers' performance in school include corruption, examination malpractice, teacher absenteeism, lack of interest and passion for the work, poor teacher-student relationship in the school, depression among teachers etc. No doubt, these issues can adversely affect the job performance of teachers at basic education level in Nigeria as whole.

It is against this background that, the paper examined the psychosocial issues associated with teachers at basic education level in Nigeria with a view to highlighting the need for psychosocial counselling to teachers in Nigeria. This would, by extension, boosts their morale for effective job performance and effective learning outcome at basic education level in Nigeria. In a bid to develop a paper of such kind and achieve the target goal, the paper discussed around these issues.

Concepts of Psychosocial and Psychosocial Problems

The word "psychosocial" is made from two different words – psycho (logical) and social. Psycho refers to the psyche (mind and or the soul) of a person and social refers to a person's external relationships and environment. Therefore, thoughts, emotions, feelings, beliefs, desires, behaviors etc. are examples of "psycho" or psychological components of an individual while culture, economy, traditions, spirituality, relationships, family, community, school, social norms and values, friends etc. are examples of social components of an individual. Psychosocial therefore, refers to the influence of social factors on an individual's behavior and to the interrelation between the two. In other words, psychosocial issues include personal and family problems, depression, anxiety, substance abuse, sexual abuse and violence and how they affect life of an individual (Rutter, 1999).

Psychosocial problems refer to the difficulties faced by individuals (more often adolescents) in different areas of personal and social functioning. Adolescents are vulnerable to psychosocial problems because of physical and physiological changes that occur in their body during this developmental stage (Kafle & Timalsina, 2018). However, as a psychological concept, it is concerned with human behaviour generally which could equally affect any human being irrespective of their ages provided that, such individuals suffer from personal and social problems. Impliedly, teachers irrespective of their ages have their own psychosocial problems that affect their jobs at basic education level with particular reference to Nigeria.

Causes of Psychosocial Problems

Psychosocial problems can have a wide range of causes. It is likely that for many people there is a complicated combination of factors – although different people may be more deeply affected by certain things than others. For example, the following factors could potentially result in a period of poor psychosocial wellbeing of teachers:

- trauma, or neglect
- social isolation or loneliness
- experiencing discrimination and stigma
- social disadvantage, poverty or debt
- bereavement (losing someone close to you)
- severe or long-term stress
- having a long-term physical health condition
- unemployment or losing your job
- homelessness or poor housing
- being a overloaded with family issues
- drug and alcohol misuse

- domestic violence, bullying or other abuse as an adult
- physical causes – for example, a head injury or a neurological condition such as epilepsy can have an impact on your behaviour and mood (Kafle & Timalsina, 2018).

Although lifestyle factors including work, diet, drugs and lack of sleep can all affect your mental health resulting to psychosocial problems.

Concept of Psychosocial Counselling

Psychosocial counselling may be defined as a counselling service aims at helping an individual with psychosocial problems such as depression, anxiety, low self-esteem, loneliness, insecurity, economic hardships, hunger etc. by a professional counsellor to get relieved of the problem at stake. It is also a counselling service provided by a skilled professional counsellor to an individual, family or group for the purpose of improving the well-being of that family or an individual, alleviating distress from the individual as well as enhancing coping skills for the individual to take the challenges in future occurrence (WHO, 1996). By implication, the issues above have direct bearing with the common psychosocial issues affecting the teachers at basic education level of in Nigeria today.

Stages of Conducting Psychological Counselling

Psychosocial counselling may be provided either one-on-one, with a partner, with family members, or in a support group, and at the site most appropriate for meeting the participant's needs. Experience has shown that, center-based services are the most cost effective in providing easy access, maintaining contact, and assuring consistent service provision. These services include, as identified by WHO (1996), the components of screening, psychosocial assessment, planning, intervention, and closure.

Screening

The initial process of identifying potential psychosocial problems that may require further intervention and/or assessment is screening the individual (s). The "Tell Us About Yourself" is a psychosocial questionnaire that could be used to acquire information from the affected individual (s). In this case, the professional counsellor is expected to collect information on the pressing psychosocial problem of the individual (teacher) being it environmental, behavioral, social, economic etc. It is that information that would tell the counsellor the psychosocial conditions of the teacher. The counsellor would now use the information as baseline data to assist him (the counsellor) in assisting the individual(s).

Psychosocial Assessment

At this level, the counsellor would further conduct interview that includes an assessment of the type of psychosocial problem - environmental, emotional, behavioral, and social factors as well as resources and strengths that impact the individual's health and ability to function in his place of work. In other words, this is a confirmation stage of what was responded in the "Tell Us About Yourself" Form. At this stage, the counsellor is expected to take one after the other the information provided in the form by the teacher for discussion. Information that are clear need not to be discussed at this stage rather the grey

area of the information and some critical ones are being discussed which give clear direction of understanding the problem.

Planning

A joint process of counselling and goal selection between the counsellor and the participant (teacher) which results in the development of the counselling service plan. At this juncture, a plan is expected to be developed on how such psychosocial problem could be resolved under the guidance of the counsellor. Each problem like economic hardships or unimplemented promotions is taken and a means of resolving or helping the teacher to be out of the problem is explored by the counsellor. These could include time to discuss the issue, relevant examples and efforts that would help the teacher to have relief such as citing a similar story of your own case or others, identifying words that are motivational like the problem could be resolved, God is always with you, many have passed this challenge and are comfortable now. These and many should be made available in the counsellor's action plan.

Intervention

This is where the counsellor is expected to support the process of overcoming environmental, emotional, or social problems that are affecting the health and well-being of the individual or her family members, a teacher in our own case. At this stage, the counsellor would implement all the plans made in the previous stage (planning stage) towards helping the individual. Meaning, the counsellor would give treatment, advice, suggestions to the individual based on the information acquired during screening and assessment stages and the already planned counselling actions. This could also follow a sequence from the counselling action plan. The intervention may further include a follow-up session to ensure resolution of issues, reduction of problems, completion of tasks, and/or referrals if any.

Closure

This is the final stage of dealing with individual with psychosocial issues. At this stage the counsellor can formally and finally end the counselling relationship after having achieved different goals with regards to problem under discussion. In other words, upon discontinuing psychosocial counselling services, a closing summary will be completed indicating the reason for closure, the progress achieved, and any continuing service needs if any.

Psychosocial Issues Affecting Teachers and Need for Counselling at Basic Education Level

Psychosocial issues are numerous and are in some cases environment related; depending on how the problem is associated with an individual or group of people. Thus, this paper would focus on psychosocial issues that affect teachers in their workplace only and justify the need for counselling.

Lack of Promotion and Implementation

Promotion is a legal right of a teacher provided he/she meets the requirements. This is highlighted in the National Policy on Education section 9; No. 140a that, Local Governments shall, through their Local Education Authorities (LGEAs) promote teachers (FRN, 20014). However, teachers today suffer a lot or are deprived from promotion and its implementation. Many times, some teachers are promoted in paper but it is not implemented in their salaries. You will find a teacher having been promoted to GL 04, 05, 06, 07 up 08 in paper but with no implementation. The teacher still receives salary of GL 04. This would no doubt affect his psychosocial wellbeing and affect his job performance in school. Such type of teacher needs professional support to encourage him/her to do the needful despite the hardship condition he/she finds him/herself.

Lack of Recognition and Appreciation

In the past, teachers were arguably the most important members of our society. They give children purpose, set them up for success as citizens of our world, and inspire in them a drive to do well and succeed in life. The children of today are the leaders of tomorrow, and teachers are critical in making children ready for their future. But such recognition and appreciation have been things of the past especially at basic education level. Alas, teachers are the least paid in the civil service, they are socially neglected in almost every social activity such as government functions, marriage contracts, friendships, ceremonies, festivals etc. And it is part of psychological needs of an individual as indicated by Maslow (1970) where he ranked "belonginess and love needs" (relationship with people, love and to be loved, have friends, affiliations, receive appreciations etc.) as number three in the hierarchy of need. Thus, based on the current situation of teachers of basic education in Nigeria as a whole, they suffer from this need. And that leads to very low self-esteem which also affects their job performance. Individuals in this situation need counselling to improve their psychosocial wellbeing and by extension their job performance.

Lack of Motivation and Welfare

Teacher motivation has always been a central problem for leaders and managers in education industry. Unmotivated teachers are likely to spend little or no effort in their jobs, avoid the school as much as possible, exit the school if given the opportunity and produce low quality work. On the other hand, teachers who feel motivated to work are likely to be persistent, creative and productive, turning out high quality work that they willingly undertake (Ganta, 2014). Teachers at basic education level with particular reference to teachers in Nigeria are faced with this challenge. Neither motivated by the Head teachers nor by the government and parents. Motivational programmes like selecting and celebrating the best teacher, most disciplined teacher, most frequent teacher, most hardworking teacher and give them awards is no longer in practice. Giving loans by government such as house loan, car loan, cash loan, leave grants and other welfare packages are no longer a consideration in teaching today. These and many issues affect the psychosocial wellbeing of teachers at basic education level. This informed the need for psychosocial counselling for those teachers to be aware of the present economic situation of the country.

Uncertainty of Job Security

It is a common knowledge that, teachers today are faced with political victimization. Many teachers and Head teachers lose their jobs as a result of party opposition syndrome. The teacher concerned would be victimized by transferring him or her to a school that he/she could not deliver or give his or her maximum input as a result of frustration, lack of good understanding between him/her and his/her employer. Gradually, those teachers would be frustrated and decide to leave the job on their own. If care is not taken, that could be the genesis of other psychosocial problems such as depression, suicide, banditry, armed robbery, cultism etc. Therefore, for teachers who are bound to face these challenges it is deemed necessary to have psychosocial counselling.

Thinking of Life after Retirement

Teachers must have thought of how their lives are going to be after retirement! Without a plan for life after retirement, many retirees find themselves feeling vaguely unfulfilled and restless, craving something more but not knowing what that something might be. Retirement also bears the risk that retirees suffer from the loss of daily routines, physical and/or mental activity, a sense of identity and purpose, and social interactions, which may lead them to adopt unhealthy behaviors (David, Johnson & Lee, 2009 cited by Abubakar, 2010). Many of our teachers at basic education level are not exposed to life preparations after retirement and thus they are bound to have these psychosocial issues through thinking how my life is going to be. Therefore, the paper sees the need to counsel these of type teachers on areas like entrepreneurship, self-reliance, self-contentment as well as financial management skills. This would no doubt assist them in running their lives after retirement.

Conclusion

Teachers at basic education level are faced with psychosocial problems which adversely affect their job performance. They are consciously or unconsciously associated with feelings of lack of promotion and implementation, lack of recognition by the society, lack of motivation and welfare from the side of the government, uncertainty of job security as a result of political victimization and thinking of life after retirement. This made it necessary for State Universal Basic Education Boards (SUBEBs) to take remedial measures to help these teachers.

Recommendations

1. A workshop should be organized on psychosocial issues among teachers at basic education level with a view to assisting those teachers with psychosocial problems and be addressed in good time.
2. Counselling Association of Nigeria – State Chapters (CASSON) can assist in making an advocacy and sensitization visits to governments to understand better the risks in denying these teachers' entitlements such as implementation of promotions, leave grants etc. as when due as this will help in making them happy and perform their jobs maximally.
3. UBEC through SUBEBs should establish and ensure functional guidance and counselling centers in all basic education schools. This will go a long way in guiding and counselling teachers with psychosocial issues.

References

Abubakar, H. S. (2010). Pre-retirement planning, golden year aspiration and counselling needs of lecturers in tertiary institutions in Sokoto State. A Thesis submitted to Faculty of Education and Extension Services Usmanu Danfodiyo University Sokoto.

Federal Republic of Nigeria (2013). *National Policy on Education.* Yaba: NERDC Press

Ganta, V. C. (2014). Motivation in the workplace to improve the employee performance. *International Journal of Engineering Technology, Management and Applied Sciences*, **2** (6): ISSN 2349-4476.

Jordans, M. J. D. (2003). *Training Handbook: Psychosocial Counselling for Children in Need of Special Protection – A Trainer's Guide*. UNICEF.

Kafle, M. and Timalsina, R. (2018). Psychosocial problems among school going adolescents in Nepal. *Psychiatry Journal.* **2** (7): 670-687 Retrieved 19th December, 2021.

Maslow, A. (1970). *Motivation and personality.* New York: Harper & Row.

Rutter, M. (1999). Resilience concepts and findings: Implications for family therapy. *Journal of family therapy,* **21** (2): 119-144.

WHO (1996). *Mental health of refugees*. World Health Organization, Geneva.

ANALYSING POLYTECHNIC STUDENTS' MOTIVATION TOWARDS THEIR ACADEMIC PERFORMANCE IN DIFFERENTIAL CALCULUS

[1]Muhammad Sani Abdurrahman, Ph.D. [2]Mukhtar Muhammad Sani, [3]Faruk Abdullahi and [4]Muhammad Nasiru Hassan, Ph.D.

[1,2,3]Department of Mathematics, Waziri Umaru Federal Polytechnic Birnin Kebbi
[4]Department of Science Education, Sokoto State University
e-mail: abdurrahman@wufpbk.edu.ng

Abstract

The concept of differential calculus is used in many areas including applied problems in different disciplines. One of the most important approaches for derivative teaching is to motivate students in solving concepts independently. In the effort to improve students' outcomes in differential calculus, mathematics educators have continued searching for variables that could be manipulated in favour of academic gains. Of all the variables, motivation seems to be leading other variables. It is against this background that this study analyzed polytechnic students' motivation towards their academic performance in differential calculus. A descriptive survey design was used in which all ND2 students offering Calculus for Science (STP 213) constituted this study's population and whereby 200 students were randomly sampled. A self developed close-ended questionnaire was used as the research instrument and was validated by experts. The research instrument was pilot tested and was found to be reliable using Cronbach's alpha ($\alpha = 0.87$). Results were analyzed using descriptive statistics, Pearson's correlation analysis and multiple regressions. The findings revealed that instructional materials and conducive learning environment were found to have influenced students' academic performance in differential calculus. It is recommended among other things that individual differences, background and attitude must be taken into consideration.

Keywords: Motivation, academic performance, differential calculus, polytechnic education.

Introduction

The emergence of polytechnics particularly in Nigeria and across the globe was born out of the need to scale up the production and dissemination of technical education for sustainable economic growth and development (Baba, 2021). It was established to provide quality technical knowledge and skills for the overall development of Nigeria in line with the National Policy on Education (Muhammad, Abdullah & Osman, 2020). Micheal and Iduma (2013) opined that polytechnics are supposed to be the major players in Nigeria's economic diversification and sustainable development. However, its impact had been very insignificant due to inadequate infrastructure, poor funding, negative perception, lack of motivation by organizations on the side of polytechnic graduates through disenchantment and discrimination. Polytechnic education is multifaceted, multi-disciplinary and a pragmatic field, which is aimed at equipping the individuals with requisite vocational and functional technical education that plays a vital and possible role in the development of society (Uwaifo, 2010). No one is in doubt that today's global economy is knowledge driven where by science and technology plays a vital role and to this effect polytechnic occupy the central position in the technological advancement of many modern economies (Baba, 2021).

In making instruction interesting in the learning of differential calculus, there is need to use strategies and materials that will make the learning, active, investigative and adventurous. Such strategies must take into account, learner's differences and attitudes towards topical area (Sani & Mukhtar, 2021). In the effort to improve students' cognition and affective outcomes in differential calculus, researchers have continued to search for variables (personal and environmental) that could be manipulated in favour of academic gains. Of all the variables that have attracted researchers in this area of educational achievement, motivation seems to be gaining more popularity and leading other variables (Awan, Noureen & Naz, 2011; Sani & Garba, 2014). Motivation is considered to be any factor that initiate/direct us to do something or not which can be either *intrinsic* or *extrinsic* in a classroom environment (Bank & Finlapson, 2010; Wormington, Corpus & Anderson, 2011). Sani and Garba (2014) states that students have an intrinsic orientation when learning in the classroom is determined by internal interests such as mastery, curiosity and challenge preference, while students have an extrinsic orientation when learning in the classroom is determined by external interests such as teacher approval and/or grades. Sani and Garba (2014) outlined the following major motivation variables which include self-efficacy, active teaching/learning strategy, active instructional materials, conducive learning environment, behavioural objectives and achievement goal.

The derivative of a function is a fundamental concept for the basis of calculus (Garcia et al., 2011) and is used in many areas including requiring mathematical modelling of several situations in different disciplines such as engineering, physics, economics, etc. This concept was historically constructed as a way to represent rate of change which explains how one quantity changes in relation to another quantity (Weber, Tallman, Byerley, & Thompson, 2012). Differential calculus is a process of finding a derivative $f(x)$ of a variable x (Borji, Alamolhodaei, & Radmehr, 2018; Jones & Watson, 2018). It can be seen as the measure of the rate at which the values of the function f change with respect to the change of variable x (i.e. derivative of f with respect to x). If $x \& y$ are real number, and if the graph of f is plot against x, then the derivative is the slope obtained on the graph at each point. The instantaneous rate of change is the result of an approximation producing average rate of change over smaller and smaller intervals. Since this approximation process is related to the concept of limit, quantifying the instantaneous rate of change can be by calculating the limit of average rate of change:

$$\frac{\Delta y}{\Delta x} = \lim_{x \to 0} \frac{f(x_0 + \Delta x) - f(x_0)}{\Delta x}$$

Statement of the Problem

Understanding the derivative requires a wide intuitive base of examples and related perceptions, especially concerning the concept of the rate of change in real-life problems (Weigand, 2014). Researches have shown that most students in Nigerian higher institutions view differential calculus as problematic and abstract; possibly because they have a negative attitude towards it and find it hard to comprehend, assimilate and retain. It is noted that in our tertiary institutions, calculus is one of the most poorly taught and misunderstood subjects that causes students to run away from it, particularly girls. A research undertaken by Ellis (2011) and Firouzian (2013) ascribed the poor performance of students in calculus to the absence of motivation in the classroom, the absence of attractiveness and novelty in the technique of teaching, the bad attitude of learners

towards learning and the environmental and gender effects among others. It is against this background that this study tries to analysed polytechnic students' motivation towards their academic performance in differential calculus.

Objectives of the Study

The study intends to achieve the following objectives:

i.   To determine the level of students' motivation derived from differential calculus as it regards gender.
ii.   To investigate how classroom motivation enhances students' academic performance in differential calculus.

Research Questions

In line with the objectives of the study, the following research questions were raised in this study:

i.   What is the level of students' motivation derived from differential calculus as it regards gender?
ii.   How does classroom motivation enhance students' academic performance in differential calculus?

Research Hypotheses

In line with the research questions, the following hypotheses were formulated:

$H0_1$:   There is no significant difference in the level of students' motivation derived from differential calculus with regards to gender.
$H0_2$:   There is no significant difference between polytechnic classroom motivation and students' academic performance in differential calculus.

Methodology

A descriptive survey research design was used for this study. All students of ND 2 offering the course of calculus for science (STP 213) in Waziri Umaru Federal Polytechnic constituted this study's population. In choosing the Department from which the sample size was taken, the researchers embraced a simple random sampling technique. A purposive sampling technique was adopted in selecting the samples of the study. A total of two hundred (200) students (113 ND 2 regular students and 87 ND 2 evening students) filled and returned the questionnaires which were analyzed. The sample comprised of 115 male and 85 female students as shown in Table 1:

Table 1:   Samples selected for the study

S/N	Program	Males	Females	Total
1	ND 2 Regular program	64	49	113
2	ND 2 Evening program	51	36	87
	Total	115	85	200

The research instrument used in this research was a self developed close-ended questionnaire named polytechnic students' motivation & academic performance in differential calculus (PSM & APiDC). The PSM & APiDC consist of two sections with 25 items and the research questions served as the controlling variables in preparing the questionnaire. Section A was intended to obtain information on respondents' demographic data while Section B was intended to obtain information on polytechnic students' motivation & academic performance in differential calculus. The instrument was based on four (4) point modified likert scale of strongly agree (SA), agree (A), disagree (D) and strongly disagree (SD). In scoring the items, participants would have a possible 4-1 score that reflects their view on each item. The greater the score, the more the respondent influences the product. The highest score possible is 100, whereas 25 is the lowest score and 75 is the score range. The score in the midpoint is 37.5. The cut-off point is between 62.5 and 100. Thus, participants who obtained scores from 62.5 to 100 were deemed to have positive motivation, while those participants who obtained scores below 62.5 were deemed to have negative motivation towards differential calculus. The instrument was administered by the researchers with the help of two research assistants.

The research instrument was validated by experts and adjustments were made in order to consider it valid. A pilot test was conducted among students who were not part of the study sample but part of the population. The instrument was found to be acceptable and reliable as the reliability coefficient of 0.87 was achieved using internal consistency of Cronbach's alpha reliability value. Thus, any inferences made from the result of this instrument are valid inferences (Chua, 2013; Muhammad et al., 2021; Sani, 2017).

Analysis and Results

The questionnaire was administered to 200 students in which it was filled out and returned by all the participants. Descriptive statistics, Pearson's correlation analysis and multiple regressions were use to analyze polytechnic students' motivation towards their academic performance in differential calculus. Table 2 shows the percentage level of students' motivation.

Table 2: **Percentage level of students' motivation derived from differential calculus based on gender**

Level of students' motivation	Low		Moderate		High	
	N	%	N	%	N	%
Male	26	22.61	31	26.96	58	50.43
Female	13	15.29	29	34.12	43	50.59
Total	39	37.90	60	61.08	101	101.02
Average %		18.95		30.54		50.51

Table 2 demonstrates that 39 students (18.95%) had a low perception of their level of differential calculus motivation, 60 students (30.54%) had a moderate perception, and 101 students (50.51%) had a high perception. Table 3 shows the mean and SD level of students' motivation.

Table 3: **Mean and SD of students' motivation towards their academic performance in differential calculus**

Motivation Variables	N	Mean	SD	Remarks
Self-efficacy	200	3.91	0.543	High
Active teaching/learning strategy	200	3.69	0.638	High
Active instructional materials	200	4.43	0.754	High
Conducive learning environment	200	4.87	0.532	High
Behavioural objectives	200	2.99	0.499	Moderate
Achievement goal	200	2.46	0.857	Moderate
Overall	200	3.73	0.637	High

Levels of motivation: Low=1.00-2.33; Moderate=2.34-3.67; High=3.68-5.00 (Sani & Garba, 2014).

Table 3 demonstrates that conducive learning environment $(\text{mean} = 4.87, \text{SD} = 0.532)$ has the highest mean, followed by active instructional materials $(\text{mean} = 4.43, \text{SD} = 0.754)$, self-efficacy $(\text{mean} = 3.91, \text{SD} = 0.543)$, and active teaching/learning strategy $(\text{mean} = 3.69, \text{SD} = 0.638)$. On the other hand, Table 2 revealed both behavioural objectives $(\text{mean} = 2.99, \text{SD} = 0.499)$ and achievement goal $(\text{mean} = 2.46, \text{SD} = 0.857)$ to be on moderate mean. Furthermore, the overall mean motivation of students in differential calculus is 3.73 with $\text{SD} = 0.637$, indicating that they were highly driven. In Table 4, Pearson's correlation analysis was utilized to analyze the students' motivation for differential calculus.

Table 4: **Students' motivation towards differential calculus and their academic performance**

Model	R	Self-efficacy	Active teaching/ learning strategy	Active instructional materials	Conducive learning environment	Behavioural objectives	Achievement goal	Overall
Academic performance	r Sig (2-tailed)	0.249*	0.233*	0.543**	0.471**	0.194	0.157	0.396**

** Significant at 0.01 level (2-tailed)
* Significant at 0.05 level (2-tailed)

Table 4 depicts a Pearson's correlation analysis of the students' academic performance in differential calculus and their overall motivations $(r = 0.396^{**}, p = 0.01)$, active instructional materials $(r = 0.543^{**}, p = 0.01)$, conducive learning environment $(r = 0.471^{**}, p = 0.01)$, self-efficacy $(r = 0.249^{*}, p = 0.05)$, and active teaching/learning strategy $(r = 0.233^{*}, p = 0.05)$. However, when it comes to students' academic performance in differential calculus, it demonstrates a relationship with behavioural objectives $(r = 0.194)$ and achievement goals $(r = 0.157)$. Table 5 shows the model summary result for the elements that affect students' academic achievement in learning differential calculus.

Table 5: **Model summary result**

Model	R	R Square	Adjusted R Square	Std. error of the estimates
Multiple regression	0.689	0.395	0.387	0.3890981

The model summary of the result between the students' performance and motivation is shown in Table 5. It demonstrates a strong relationship between students' differential calculus motivation and their academic achievement (68.9%). It also demonstrates that motivation variables account for only 39.5% of variation in academic performance, whereas 60.5% is accounted for by factors not studied in this research. It also displays an adjusted r^2 of 38.7% with a difference of 0.8%, indicating that this result differs by 0.8% from that obtained using the entire population. Multiple linear regression analysis was conducted in Table 6 to further confirm which of the motivation variables influenced students' academic performance.

Table 6: **Multiple linear regression result for academic performance**

Model	Unstandardized Co-efficient		Standardized Co-efficient		Sig.
Independent variable	Beta	Std. Error	Beta	T	
Constant	19.537	7.329		3.534	0.023
Self-efficacy	-0.006	3.116	-0.006	-0.083	0.893
Active teaching/learning strategy	-0.153	2.413	-0.019	-0.321	0.679
Active instructional materials	7.396	1.738	0.672	6.327	0.000
Conducive learning environment	3.721	1.827	0.248	2.091	0.030

Table 6 shows the findings of multiple regression, which revealed that active instructional materials $(t = 6.327, p = 0.00)$ and conducive learning environment $(t = 2.091, p = 0.030)$ were the only factors that influenced students' academic performance. Self-efficacy and active teaching/learning strategy, on the other hand, are not academic performance predictors. The model for predicting student motivation in Table 6 is as follows:

$$Y = 19.537 + 0.672\, x_1 + 0.248\, x_2 + \varepsilon$$

Where:

Y = Students' academic performance
x_1 = Active instructional materials
x_2 = Conducive learning environment
ε = Error

Discussion

Table 3 revealed that respondents enrolled in the STP 213 course valued learning differential calculus as they progressed through the course. Lecturers played a significant role in helping students to be engaged in the teaching and learning of differential calculus through stimulating students' thinking by delivering lectures and tasks. Students also agreed that their enthusiasm to learn was influenced by the differential calculus curriculum, lecturers' instructional methods, and student engagement. This indicates that respondents employed a range of ways to retrieve prior information in order to interpret new experiences and build new understanding. Students with high motivation have advantages, according to Alderman (2004), Sani and Garba (2014), and Sani and Mukhtar (2021), since they have adaptive attitudes and strategies. The result indicates that polytechnic students' academic performance vary significantly in differential calculus as it relates motivation. This is in line with the findings of Awan et al. (2011), Sani and Garba (2014), Wormington et al. (2011). Similarly, Aireand and Tella (2003), Bank and Finlapson (2010) found out that students with high quantity and good quality motivation were equally successful, while Johnson (2006), Skaalvik and Skaalvik (2006) revealed a significant relationship between academic performance and classroom motivation.

Table 4 displays the Pearson's correlation analysis for the six motivation variables, which relates students' academic performance in differential calculus to determine if there was any significant relationship between the variables. The overall motivation had a strong positive relationship with academic performance ($r = 0.396^{**}$, $p = 0.01$) according to the analysis. Furthermore, there were significant positive relationships between active instructional materials ($r = 0.543^{**}$, $p = 0.01$), conducive learning environment ($r = 0.471^{**}$, $p = 0.01$), self-efficacy ($r = 0.249^{*}$, $p = 0.05$), and active teaching/learning strategy ($r = 0.233^{*}$, $p = 0.05$).

In addition, Table 5 shows a multiple regression analysis that was used to predict factors that influence students' academic performance in differential calculus. The four independent variables under research have a strong relationship as seen in Table 5 (active instructional materials, conducive learning environment, self-efficacy and active teaching/learning strategy). Previous research findings by Arbabisarjou et al. (2016), Izuchi and Onyekuru (2017), Korantwi-Barimah, Ofori, Nsiah-Gyabaah and Sekyere (2017), Korantwi-Barimah, Ofori, Nsiah-Gyabaah and Sekyere (2017), and Liu and Hou (2017) is supported by the findings of this study. Table 6 shows that only active instructional materials and conducive learning environment influence students' academic performance in differential calculus, while self-efficacy and an active teaching/learning strategy have no effect. This contradicts the findings of Glynn, Taasoobshirazi, and Brickman (2009), who found that students' self-efficacy had a significant impact on their academic performance.

Conclusion

Two variables, i.e. instructional materials and conducive learning environment, were shown to have influenced students' academic performance in differential calculus among the motivating variables examined in this study, however self-efficacy and active teaching/learning method did not. It was clear that students who were motivated by

instructional materials and conducive learning environment were able to perform better in differential calculus and improve their academic performance.

Recommendations

Based on the results of this study, the following recommendations were made:

1. It is necessary to take into account individual differences, background and attitude because the findings revealed that motivation has an important effect with respect to gender.
2. Since highly motivated students perform better than low motivated students, differential calculus teaching should be made interesting by mathematics lecturers.
3. More resourceful methods are needed to ensure that graduates of technical education obtain specific practical knowledge to differentiate them from their peers trained in other similar tertiary institutions.

References

Aire J. E. & Tella, Y. (2003). The impact of motivation on student's school academic performance in Nigeria. *Journal of Personality Study and Group Behaviour;* **23** (1): 107-114.

Alderman, M. K. (2004). *Motivation for Achievement: Possibilities for Teaching and Learning*. London: Lawrence Erlbaum Associates.

Arbabisarjou, A., Zare, S., Shahrakipour, M. & Ghoreishinia, G. (2016). The relationship between academic achievement motivation and academic performance among medical students. *International Journal of Pharmacy and Technology*; **8** (2): 12272-12280.

Baba, T. Y. (2021). Promoting technological and economic innovation in post-COVID 19: The role of the polytechnic education. Keynote speaker at the 8th ASUP annual national conference held at Waziri Umaru Federal Polytechnic Birnin Kebbi, from 16th – 18th November, 2021.

Bank, C. & Finlapson, W. (2010). *Successful motivation of students in academic activities*. McClelland D.C: Appleton century crafts.

Borji, V., Alamolhodaei, H. & Radmehr, F. (2018). Application of the APOS-ACE theory to improve students' graphical understanding of derivative. *EURASIA Journal of Mathematics, Science and Technology Education,* **14** (7): 2947-2967. https://doi.org/10.29333/ejmste/91451

Chua, Y. P. (2013). *Mastering research statistics*. Selangor, Malaysia Sdn. Bhd: McGraw-Hill education.

Ellis, A. B. (2011). Generalizing-promoting actions: How classroom collaborations can support students' mathematical generalizations. *Journal for Research in Mathematics Education,* **42** (4): 308-345. https://doi.org/10.5951/jresematheduc.42.4.0308

Firouzian, S. S. (2013). Students' way of thinking about derivative and its correlation to their ways of solving applied problems. Conference on research in undergraduate Mathematics Education. Denver, Colorado.

Garcia, M., Llinares, S. & Sánchez-Matamoros, G. (2011). Characterizing thematized derivative schema by the underlying emergent structures. *International Journal of Science and Mathematics Education*; **9** (5): 1023-1045. https://doi.org/10.1007/s10763-010-9227-2

Glynn, S. M., Taasoobshirazi, G. & Brickman, P. (2009). Science motivation questionnaire: Construct validation with non-science majors. *Journal of Research in Science Teaching,* **46**: 127-146.

Izuchi, M. R. N., Bruno U. & Onyekuru, B. U. (2017). Relationships among academic selfconcept, academic motivation and academic achievement among college students. *European Journal of Research and Reflection in Educational Sciences*; **5** (2): 93-102.

Johnson, J. O. (2006). *Child psychology*. Calabar, Nigeria: Wusen press limited.

Kamoru, K. (2021). Promoting technological and economic innovation in post-COVID 19: The role of polytechnic education. Lead paper presenter at the 8th ASUP annual national conference held at Waziri Umaru Federal Polytechnic Birnin Kebbi, from 16th – 18th November, 2021.

Korantwi-Barimah, J. S., Ofori, A., Nsiah-Gyabaah, E. & Sekyere, A. M. (2017). Relationship between motivation, academic self-concept and academic achievement amongst students at a Ghanaian Technical University. *International Journal of Human Resource Studies*; **7** (1): 61-73.

Liu, Y. & Hou, S. (2017). Potential reciprocal relationship between motivation and achievement: A longitudinal study. *Social Psychological International*, doi.org/10.1177/0143034317710574.

Micheal, K. O. & Iduma, A. I. (2013). Polytechnic education and human resources development in Nigeria: Challenges and constraints. *Journal of Educational and Social Research,* **5** (1).

Muhammad, S. A., Abdullah, A. H. & Osman, S. (2020). Effect of peer tutoring strategy on students academic performance in a polytechnic linear algebra classroom. *Journal of Advanced Research in Dynamical and Control Systems*; **12** (3): 415-422.

Muhammad, S. A., Abdullah, A. H. & Osman, S. (2021). Improving polytechnic students' high-order-thinking-skills through inquiry-based learning in mathematics classroom. *International Journal of Evaluation and Research in Education*; **10** (3): 976-983. Doi: 10.11591/ijere.v10i3.21771

Sani, M. A. (2017). *Introduction to research methodology and statistics: A guide for students and supervisors*. Ahmadu Bello University press.

Sani, M. A. & Garba, I. M. (2014). The Impact of Motivation on Students' academic Achievement in Kebbi State Junior Secondary School Mathematics. *International Journal of Advance Research,* **2** (12).

Sani, M. A. & Mukhtar, M. S. (2021). Analysing the impact of motivation in enhancing students' mathematics achievement and technical skills among institutions of higher learning. 57th annual national conference of mathematics association of Nigeria (MAN) held at Bayero University Kano, from August 29th – 3rd September, 2021.

Skaalvik, S. & Skaalvik, E. M. (2006). Self-concept and self-efficacy in mathematics: Relation with mathematics motivation and achievement. Proceedings of the international conference on learning sciences, Bloomington, Indiana.

Uwaifo, V. O. (2010). Technical education and its challenges in Nigeria in the 21st century. *International NGO Journal*; **5** (2): 40-44.

Weber, E., Tallman, M., Byerley, C. & Thompson, P. W. (2012). Derivative as a rate of change. *Mathematics Teacher*; **106** (4): 274-278.

Weigand, H. G. (2014). A discrete approach to the concept of derivative. *ZDM*; **46** (4): 603-619. https://doi.org/10.1007/s11858-014-0595-x

Wormington, S. V., Corpus, J. H. & Anderson, K. G. (2011). Running head: Motivation in high school. A person-centred investigation of academic motivation, performance, engagement in a high school setting. Paper presented at the annual meeting of the American educational research association, New Orleans, LA.

APPRAISING THE RELATIONSHIP BETWEEN BURNOUT AND JOB SATISFACTIONS AMONG PRIVATE SCHOOL TEACHERS FOR QUALITY EDUCATION IN WAMAKKO LOCAL GOVERNMENT AREA, SOKOTO STATE

[1]Salihu Mukhtar Nawait, Ph.D., [2]Lamido M. Rilwanu and [3]Usman Bukar Abba

[1,2]Department of Educational Foundations, Sokoto State University, Sokoto and [3]Department of Educational Psychology and Counselling, Islamic University, Uganda
e-mail: Muknawait@gmail.com

Abstract

The study investigated on the relationship between burnout and job satisfactions among private school teachers in Wamakko local government area. It was a cross sectional survey design which consists of 92 respondents (teachers) randomly selected from three purposively selected private schools representing thirty three (33) private schools in the study area. Adopted Maslach Burnout Inventory - Educators Survey (MBI - ES) and Job Satisfactions Survey (JSS) instruments were used for collecting data from the respondents. Two research questions and one hypothesis were formulated which guided the study and the data collected were analysed using Pearson Product Moment Correlations with the help of SPSS Version 20. The results obtained shown the occurrences of burnout among the private school teachers for the first finding. The second finding revealed that there is significant relationship between burnout and job satisfactions of private school teachers in Wamkko local government area. The study recommended that school administrators should collaborate with their respective proprietors to find ways on how to avoid burnout among private schools' teachers so that job satisfactions can be improved for better result.

Keywords: Burnout, Job Satisfaction, Quality Education

Introduction

The term "burnout" was first used by Freudenberger (1975) to explain the phenomena of physical, emotional, and mental exhaustion. Burnout is a condition when individual is emotionally, mentally, and physically exhausted as a result of excessive and prolonged stress. It takes place when individual feel emotionally drained, and unable to meet constant demands. If the stress persists, he begins to lose the interest or motivation that could lead to work dissatisfaction. When someone feels overworked he is at risk of burnout and the induced causes may include; lack of recognition or reward for good work, unclear or overly demanding job expectations, working in a chaotic or high-pressure environment, working too much, without enough time for socializing or relaxing, lack of close, supportive relationships, taking on too many responsibilities, without enough help from others resulting in insomnia.

Private school teachers in Wamakko local government area are not stable, they move from one school to another in search of greener pasture. The fortunate ones will end up finding their ways into public schools. It is observed that teachers' brain drained from private schools to government or public schools but hardly for teachers in public schools to ever make an attempt of moving to private owned schools. Is job burnout responsible for such phenomena or lack of job satisfaction?

Burnout is a feeling of stress and frustration that an individual can experience which could culminate in attrition (Martinetz, 2012). Teacher burnout by itself is nothing new; what is new is the increasing rate at which teachers experience burnout. It typically accompanied by negative and cynical attitudes towards both colleagues and work in general (Gruenert & Whitaker, 2015). Fruedengerger (1975) was the first to publish research on the concept of burnout. He identified one sign of burnout as a feeling of exhaustion and fatigue. Fruedengerger described people who experience burnout as overachievers who put pressure on themselves, find fault with everyone, complain about everything, stay late at work, and take work home. However, they never seem to get caught up, which adds to their level of stress. In some cases, the stress becomes so overwhelming that it culminates in attrition (Clandinin, 2014).

Initially burnout was solely identified, defined, and studied clinically in the field of health care. Parker, Martin, Colmar, and Liem., (2012) argued that the three core aspects of burnout include emotional exhaustion, depersonalization, and feelings of low accomplishment stemmed from a loss of idealism and enthusiasm for work (Skaalvik, 2011). There are some jobs where stress is common, due to the nature of the position, such as nursing. Over a prolonged period of time, the stress begins to accumulate, resulting in job burnout (Reeivee, 2012). In addition to medicine, fields with high-stress occupations include law, aviation, and education (Leiter, Bakker, and Maslach 2014). The attitude of some teachers toward their profession signifies dissatisfaction. The rate at which teachers are moving in and out of the profession rated it as second hand job in Nigeria. Some regarded it as punishment ground while others viewed it as last option job.

Teachers who are emotionally and physically fatigued may say they are exhausted or drained (Goldhaber & Cowan, 2014). Some teachers expressed the feelings that their work has very little impact on their students. They often complain of not wanting to get up in the morning and go to work (Martinetz, 2012). One of the most overwhelming problems for teachers is their failure to manage the environments in their classrooms (Reeves, 2012). Student misbehavior is a specific working condition strongly associated with job stress and burnout (Ratcliff, Jones,,Costner, Savage-Davis, & Hunt, 2010). The research investigated on the relationship between burnout and job satisfactions among teachers of private schools in Wamakko local government area.

Theoretical Framework

The Person-Environment Fit Theory (French & Caplan, 1972) is widely accepted for studying the phenomenon of job satisfaction, stress, and burnout. In the Person-Environment Fit Theory, it is advocated that the degree to which individuals are compatible to, or fit to their environment is related to the degree to which they are stressed. According to Edwards, Caplan, and Harrison (1998), there are several distinctions relative to fit. The first distinction is between the individual and the environment, the second is between the objective representation and the subjective representation, the third is between demands and abilities (Edwards et al.). "Misfit between demands and abilities induces coping and defense mechanisms, which in turn influence objective and subjective environments" (Brewer & McMahan-Landers, 2003, p. 37).

According to Brewer and McMahan-Landers (p. 126), "Stress can occur if there is a mismatch between the reality of the work environment (objective) and an individual's

perceptions of the work environment (subjective)." He noted that teachers who experience stress over long periods of time may experience what is known as burnout.

Locke, (1976) defined job satisfaction as an emotion of being happy or comfortable with one's job. According Aziri (2011) job satisfaction is a feeling of success and achievement of workers in areas where they are operating. This feeling is geared more towards enhancing successful productivity in school. Job satisfaction is also indirectly related to performing a task with a happy, successful and adequate remuneration given to the efforts that have been made.

Burnout is often associated with satisfaction in the workplace. To avoid burnout, job satisfaction in individuals should be met. In the education sector, job satisfaction becomes important because the quality of education depends on the quality and efficiency of the teacher. In addition, the findings from Apandi (2003) showed that job satisfaction has a negative correlation with emotional exhaustion but correlated with the length of time a person is having a career.

However, the theory emphasizes that job satisfaction largely depends on individual's matching of those distinctions and inappropriate matching resulting to dissatisfaction or otherwise called job burnout. The higher the level of fitness the easier the job and the lesser the amount of stress experienced by the teacher, indeed the higher the level of job satisfaction. Other likely causes of job burnout include; lack of job collaborations, when feel isolated and teachers` inability to handle his/her classroom. Work environment and the lack of collaboration with colleagues can contribute to the feeling of burnout (Dierking & Fox, 2012). When teachers perceive that their relationships with colleagues are dysfunctional, they feel isolated (Cooper & Conley, 2013). When they feel isolated, their stress levels begin to increase and the accumulation of stress ultimately leads to job burnout (Levine & Marcus, 2010).

Base on the above theoretical explanation, the researcher was stimulated to ascertain the existence of burnout and job satisfactions among teachers in private schools and examine the relationship between job burnout and job satisfactions among teachers of private schools in Wamakko Local Government Area.

Objectives of the Study

The objectives of the study were to;

Identify the existence of job burnout amongst private school teachers in Wamakko local government area.
Identify whether private school teachers in Wamakko local government area are satisfied with their job.
Examine the relationship between burnout and job satisfaction amongst private school teachers in wamakko local government area.

Research Question and Hypothesis

Is there job burnout amongst private school teachers in wamakko local government area?
Are private school teachers in Wamakko Local Government Area satisfied with their job?

There is no significant relationship between burnout and job satisfaction among private school teachers in Wamakko Local Government Area, Sokoto State.

Methodology

The study used correlational survey design and three schools were selected purposively to represent thirty three (33) approved private schools in Wamakko local government area (NAPPS, 2021). The sample size consists of 92 respondents (teachers) randomly selected from 126 staff of three selected schools with help of Research Average, (2006). The schools were Alheri School Guiwa low cost, Success School Western Bypass and Khalil Fodiyo School Arkilla all geographically located in Wamakko local government area.

Instrumentation

Two questionnaires were used for data collection. The first that measured teacher burnout is Maslach Burnout Inventory - Educators Survey (MBI - ES) and the second questionnaires that measured teacher job satisfaction is Job Satisfaction Survey (JSS). The content validity was obtained after the validation of items of the questionnaire by experts in guidance and counselling and educational psychology. The pilot study findings carry out in Unity comprehensive school (private school) in Sokoto North local government area, shows that both instrument of burnout and job satisfaction had high reliability with Cronbach alpha values of .82 and .87 respectively.

Results

Is there job burnout amongst Private School Teachers in Wamakko local government area.

Table 1:   Teachers Job Burnout

S/N	Item	Disgree F (%)	Agree F (%)
1	I feel emotionally drained from my work	33 (35.9)	59 (64.1)
2	I feel fatigued when I get up in the morning and have face another day on the job	23(25)	69(75)
3	I feel very energetic	36(39.1)	59(60.9)
4	I feel frustrated by my job	71(77.2)	21(22.8)
5	I feel exhilarated after working closely with my students	33(35.9)	59(64.1)
6	I feel like I'm at the end of my rope	65(77.7)	27(39.3)
7	I feel I am positively influencing other people's lives through my work	18(19.6)	74(80.4)
8	I feel I treat some students as if they were impersonal objects	66(71.7)	26(28.3)
9	I feel used up at the end of the work day	47(51.1)	45(48.9)
10	I worry that this job is hardening me emotionally	47(51.1)	45(48.9)

The table 1 shows the existence burnout among teachers of private schools in the study area. WhereI feel emotionally drained from my work account for 64%, I feel fatigued when I get up in the morning and have face another day on the job 75%, I feel used up at

the end of the work day 48%, I feel frustrated by my job 22.8% and I worry that this job is hardening me emotionally 48.9%. these results confirmed the existence of burnout among teachers of private schools in Wamakko local government area.

Are Private School Teachers in Wamakko local government area satisfied with their job?

Table 2:   Teachers job satisfactions

S/N	Item	Agree F (%)	Disagree F (%)
1	Teaching provides me with an opportunity to advance professionally	92(100)	00(00)
2	Teacher income is adequate for normal expenses	47(51.1)	45(48.9)
3	Teaching provides an opportunity to use a variety of skills	86(93.5)	6(6.5)
4	Insufficient income keeps me from living the way I want to live	63(68.5)	29(31.5)
5	Teaching provides for a secure future	71(77.2)	21(22.8)
6	If I could earn what I earn now, I would take any job	47(51.1)	45(48.9)
7	Teaching provides me the opportunity to help my students learn	77(83.7)	15(16.3)
8	I like the people with whom I work	74(80.4)	18(19.6)
9	I never feel secured in my teaching job	42(45.7)	50(54.3)
10	Teaching provides me limited opportunities for advancement	56(70.7)	27(29.3)

The table 2 indicates the existence job satisfactions among teachers of private schools in the study area. Where; Teaching provides me with an opportunity to advance professionally 100%, Teacher income is adequate for normal expenses 51.1%, Teaching provides an opportunity to use a variety of skills 93%, Teaching provides for a secure future 77.2%, I like the people with whom I work 80.4% and Teaching provides me the opportunity to help my students learn 83.7%. The result obtained confirmed that job satisfactions also exist among private school teachers in Wamakko local government area. The null hypothesis is therefore rejected otherwise the alternative hypothesis is accepted.

H_0 : There is no relationship between burnout and job satisfactions amongst private school teachers in Wamakko Local Government Area.

Table 3:   Relationship between burnout and job satisfactions among private secondary school teachers in wamakko local government area.

		Burnout	Job Satisfaction
	Pearson Correlation	1	.305[**]
Burnout	Sig. (2-tailed)		.003
	N	92	92
	Pearson Correlation	.305[**]	1
Job Satisfactions	Sig. (2-tailed)	.003	
	N	92	92

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

The results from Table 3 shows that there is a significant relationship between burnout and job satisfaction (r=.305, p<.05). With this result the null hypothesis is rejected.

Discussion

From the analysis of the data generated in this study, it is confirmed that burnout is not only associated with health related job like nursing rather it is also takes place in teaching job among teachers in privately established schools. The finding concord with Leiter et al. (2014) In addition to medicine, fields with high-stress occupations include law, aviation, and education.

Levine and Marcus, (2010) and Cooper and Conley, (2013), further lamented that, when teachers perceive that their relationships with colleagues are dysfunctional, they feel isolated. When they feel isolated, their stress levels begin to increase and the accumulation of stress ultimately leads to job burnout.

The analysis also confirmed that there is significant relationship between burnout and job satisfactions among teachers working in private schools. It is in line with The Person-Environment Fit Theory (French & Caplan, 1972) which is widely accepted for studying the phenomenon of job satisfaction, stress, and burnout. The theory emphasizes that job satisfaction is largely depend on individual matching of those distinctions and inappropriate matching result to dissatisfaction or otherwise called job burnout. The higher the level of fitness the easier the job and the lesser the amount of stress experienced by the teacher and indeed the higher the level of job satisfaction. It also concord with Apandi (2003) who opined that job satisfaction has a negative correlation with emotional exhaustion but correlated with the length of time a person is having a career.

Conclusion

The study confirmed the occurrence of burnout syndrome among private schools teachers, and it is the contributing factor responsible for having unstable teachers in private schools in Wamakko local government area. Burnout and teachers job satisfactions are related, promoting one result in the lowering another.

Recommendations

1.   Teachers should be aware of the problems associated with burnout and how these problems may adversely affect their professional and personal lives. Annual teacher's conferences, seminars and workshops could be used to sensitize the members on how to avoid and overcome burnout at working places.
2.   Since there is relationship between burnout and job satisfactions, the public, privates and NGOs should diversify their efforts toward improving teachers job satisfactions, so that burnout in teaching profession can be minimizes to the barest level.
3.   There is also need for more research to examine the relationship on the categories of staff in relation to their respective years of experiences.

References

Aziri, B. (2011). Job Satisfaction: A Literature Review. *Management Research and Practice*, **3** (4): 77–86.

Apandi O, (2003). Relationship between work stress and job satisfaction among teachers in Secondary School Johor, Malaysia. (Unpublished Thesis). Universiti Teknologi Malaysia

Clandinin, D. J. (2014). Narrative conceptions of knowledge: *Towards understanding teacher attrition.* Bingley, United Kingdom: Emerald Group Publishing Limited.

Dierking, R. C. & Fox, R. F. (2012). Changing the way I teach: Building teacher knowledge, confidence, and autonomy. *Journal of Teacher Education*, **64**: 129-144. doi:10.1177/0022487112462893

Edwards, J. R., Caplan, R. D. & Harrison, R. V. (1998). Person-environment fit theory: Conceptual foundations, empirical evidence, and directions for future research. In C. L. Cooper (Ed.), *Theories of organizational stress* (pp. 28-67). NewYork: Oxford University Press.

Freudenberger, H. J. (1975). The staff burn-out syndrome in alternative institutions. Psychotherapy: *Theory, Research and Practice,* **12** (1): 73-82.

Goldhaber, D., & Cowan, J. (2014). Excavating the teacher pipeline: Teacher preparation programs and teacher attrition. *Journal of Teacher Education*, **65**: 449-462.

Gruenert, S. & Whitaker, T. (2015). School culture rewired: How to define, assess, and transform it. Association for Supervision and Curriculum Development: Alexandria, VA.

Ingersoll, R. (2012) Beginning teacher induction: What the data tell us. Phi Delta Kappan, **93** (8): 47- 51.doi:10.1177/003172171209300811

Krejcie & Morgan (1970) Table for determining sample size for finite population

Lecompte, M. D., & Dworkin, A. G. (1991). Giving up on school: Student dropouts and teacher burnouts. Newbury Park, CA: Corwin Press.

Leiter, M.P., Bakker, A. B. & Maslach, C. (2014). Burnout at work: *A psychological perspective. Florence, KY*: Psychological Press.

Levine, T. H. & Marcus, A. S. (2010). How the structure and focus of teachers' collaborative activities facilitate and constrain teacher learning. Teaching and Teacher Education: *An International Journal of Research and Studies*, **26** (3): 389-398.

Locke, E. A. (1976). The nature and causes of job satisfaction. In M. D. Dunnette (Ed.), *Handbook of industrial and organizational psychology* (pp. 1297-1349). Chicago: Rand McNally.

Martinetz, C. F. (2012). The stranglehold of state-mandated tests on education in the US: How to teach effectively in spite of this. Charleston, SC: Create Space Publishing.

Maslach, C. (1982). Burnout: The cost of caring. Englewood Cliffs, NJ: Prentice-Hall.Maslach,

C. Jackson, S. E. & Leiter, M. P. (1996). Maslach burnout inventory manual (3rd ed.). Palo Alto, CA: Consulting Psychologist Press.

NAPPS (2017) National Association of Proprietor of Private Schools; *List of approved private school in Sokoto State;* MOBSE, Sokoto.

Parker, P. D., Martin, A. J., Colmar, S. & Liem, G. Q. (2012). Teachers' workplace wellbeing: Exploring a process model of goal orientation, coping behavior, engagement, and burnout. *American Journal of Education,* **28** (4): 503-513.

Ratcliff, N. J., Jones, C. R., Costner, R. H., Savage-Davis, E. & Hunt, G. H. (2010). The elephant in the classroom: The impact of misbehavior on classroom climate. *Education*, **131** (2). Retrieved from questia.com/journals

Reeves, D. (2012). Confront teacher burnout with more safety, time, and R-E-S-P-E- C-T. *Educational Leadership*, **7** (12). Retrieved from http://www.ascd.org/ascdexpress/vol7/712-toc.aspx

Skaalvik, E. M. & Skaalvik, S. (2011). Teacher job satisfaction and motivation to leave the teaching profession: Relations with context, feelings of belonging and emotional exhaustion. *Teaching and Teacher Education*, **27** (6): 1029-1038

Weisberg, J. and Sagie, A. (1999). Teachers' physical, mental, and emotional burnout: Impact on intention to quit. *Journal of Psychology,* **133** (3): 333-339.

EFFECTS OF JIGSAW IV COOPERATIVE LEARNING STRATEGY ON STUDENTS' PERFORMANCE AND RETENTION IN GEOMETRY AMONG SECONDARY SCHOOL STUDENTS IN ZARIA METROPOLIS, KADUNA STATE, NIGERIA

[1]**Jamilu, A. A,** [2]**Iliyasu, A.,** [3]**Shehu, M. D. and** [4]**Vincent, D. J.**

[1,4]Department of Maths and Statistics, Nuhu Bamalli Polytechnic, Zaria,
[2]Department of Mathematics Federal College of Education Zaria,
[3]College of Education Gidan Waya, Kaduna State
e-mail jamilualiyu16@gmail.com

Abstract

This study examined the effects of Jigsaw IV Cooperative Learning Strategy (J4CLS) on Students' Performance and Retention in Geometry among Secondary School Students in Zaria Metropolis. A pretest, Posttest and Post Posttest Quasi-experimental research design was used for the study. The experimental group was exposed to J4CLS while the control group was taught using Conventional Method of Teaching. Sample size of students were selected from two Senior Secondary Schools in Zaria Metropolis were used as the study sample, drawn from a population of 15 schools. The two schools selected, were pretested to find their academic status before the treatment. An Instrument was developed named Geometry Performance Test (GPT) with reliability coefficient of 0.79 using SPSS. The Concept of Geometry discussed in this study was plane geometry (2-D Geometry). The data collected were analyzed using Mean scores, Standard deviation and t-test at $\alpha = 0.05$ level of significance. There is significant difference in the mean scores of Secondary students taught 2-D Geometry concepts with J4CLS and their counterparts taught with Conventional Method of Teaching in the Metropolis. Students exposed to J4CLS performed higher than those exposed to Conventional Method of Teaching. Students exposed to J4CLS had retained 2-D Geometry concepts higher than those taught using Conventional Method of Teaching. Based on the findings, it was recommended among others that, Mathematics teachers should integrate J4CLSinto main streams of pedagogy in the teaching at Senior Secondary Schools.

Keywords: JIGSAW IV Cooperative Leaning Strategy, Performance, Retention, 2-D Geometry.

Introduction

Mathematics (from Greek word "mathema" knowledge, study, and learning") is the Quantity, Structure, Space and Change. Galileo Galilea (1564-1642) said, "The universe cannot be read until we have learnt the language and become familiar with the characters in which it is written. It is written in Mathematical Language and the letters are Triangles, Circles and other Geometrical Figures, without these, one would be wondering about in a dark muddle. In contemporary Education, Mathematics Education is the practice of teaching and learning Mathematics along with the associated scholarly research (Tudunkaya & Jamilu, 2019).

Geometry is a branch of mathematics that deals with the study of plane shapes (2-D geometry) and solid shapes (3-D geometry). Geometry as one of the two fields of pre-modern mathematics, the other being the study of numbers. Geometry from the Ancient Greek; geo "earth", -metro "measurement" arose as the field of knowledge dealing with 2-

D and 3-D relationships. Classic geometry was focused on compass and straightedge construction. Geometry was revolutionized by Euclid who introduced mathematical rigor and the axiomatic rigor still in use today. In modern times, geometric concepts have been generalized to a high level of thought and complexity, and have been subjected to the methods of calculus and abstract algebra, so that many modern branches of the field are barely recognizable as the descendants of early geometry (Tudunkaya & Jamilu, 2019). Inekwe (2005) opined that, geometry receives a general disfavor among secondary school students. Numerous studies have shown that geometry is of great important than most areas of Mathematics and also, helps students to understand and love Mathematics (Julie, 2015). Geometry is any shape seen as a set of specific set points, while a plane means a collection of all lines (Pereira *et al.*, 2021). Geometry is highly important so much so that, engineers apply its knowledge in construction of houses, cars, chairs and almost all equipment we use in our day to day activities.

The earliest recorded beginnings of geometry can be traced to early populates, who discovered obtuse triangles in the ancient Indus Valley, and ancient Babylonia from around 3000 BC. Early geometry was a collection of empirically discovered principles concerning lengths, angles, areas, and volumes, which were developed to meet some practical need in Surveying, Construction, Astronomy, and Various crafts. Among these were some surprisingly sophisticated principles, and a modern mathematician might be hard put to derive some of them without the use of calculus. For example, both the Egyptians and the Babylonians were aware of versions of the Pythagorean Theorem about 1500 years before Pythagoras and the Indian Sulba Sutras around 800 B.C. contained the first statements of the theorem; the Egyptians had a correct formula for the volume of a frustum of a square pyramid. Adetula (2002), sees it as a tool which helps in logical reasoning with meaningful inference. Adekola (2010), views geometry as the branch of mathematics that deals with the study of shapes both planes and solids. Geometry questions during mathematics examinations were not well attended thus, students do skip geometry questions in the examination (Sambo, 2015). Sambo (2015), stated that, these abilities to make logical reasoning and deductions helps individuals in coining solutions both individual and societal challenges which helps in nation's building. Geometry is one of the key topics in mathematics which, its knowledge is being applied in many vocations across the globe (Sam & Salman, 2016). It is also, one of the major topics in the senior secondary school mathematics curriculum. The knowledge of geometry is crucial in many fields of human life like Engineering. Geometry helps in logical thinking.

Jig-saw (IV) Cooperative Learning Strategy is based on the theory of Constructivism, Peer learning theory of Piaget (1969) and social learning theory of Vygotsky (1978). The constructivism, is a school of thought that believes in learners actively constructing their own knowledge and understanding using previous knowledge and interacting with instructional materials under the guidance of the teacher. Constructivism is a theory based on observation and scientific study about how people learn (Fosnot, 1996). It says that, people construct their own understanding and knowledge of the world through experiencing things and reflecting on those experiences. When we encounter something new, we have to reconcile with our previous ideas and maybe changing what we believe, or maybe discarding the new information as irrelevant. In any case, learners are active creators of their own knowledge. Constructivist such as Piaget (1977) and Bruner (1996) believe that individuals actively construct their own knowledge by comparing new ideas or concepts with their current knowledge. In Jigsaw (IV) cooperative learning strategy also, students are actively involved in constructing their own understanding and

knowledge of the concepts based on the previous experience acquired and reflecting on those experiences through active participation in the lesson.

The peer learning theory of Piaget, (1969) believed that, learning improved with the help of peers. Piaget found that, children need to discuss their findings as well as having stimulating environment in which they learn in peers. Learners need to be active, have hands-on opportunities, and not to become the least passive as the case may often be. He thought peer interaction could help students to recognize contradictions and interpretation of a problem. The dialogue creates cognitive gains and allowed students have a relationship built on cooperation. Piaget opined that teachers should create an enabling environment of mutual respect such as that of Jig-saw (IV) Cooperative Learning Strategy where learners works in peer and shared the knowledge acquired so as to ensure meaningful learning and mastery of the lesson. The entire group depended on the other member of the group for success. Therefore, this theory supports the use of J4CLS in Science Education.

Vygotsky (1978), in his Social Cognitive Theory, reflected the structure of Jig-saw Cooperative Learning in learners. Vygotsky believed that infant were born with some level of social-cognitive ability. This ability would have enhanced as long as the children grew-up with understanding and supportive adults who encouraged their verbalization and permitted collaborative conversations. He theorized that, as learners grow, they experience more social interaction with adults and peers. These interactions allow them to develop functions such as language skills, voluntary attention, scientific skills and memory. Vygotsky believed that the zone of proximal development of a child is the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under guidance or in collaboration with more capable peers. The zone of Proximal Development is usually determined from below what a child can learn on his/her own, and above by what a child can learn with the help of others, such as peers or teacher as seen in Jig-saw(IV) Cooperative Learning Strategy. This study adopted the theory of constructivism, because students in J4CLS are active creator of their own understanding and knowledge of the concepts given through experiencing things and reflecting on those experiences. Also, in J4CLS introduction is the first step that provides an anchoring idea to understand the tasks given to them at hand.

The Jig-saw is a Cooperative Learning Strategy that is grounded in the belief that learning is most effective when students are actively involved in sharing ideas and work cooperatively to complete their academic task (Gumel, 2015). Jigsaw is a cooperative learning strategy in which everyone becomes an expert and shares learning so that eventually all group members understand the content treated. The Jigsaw model is chosen for the study because of its unique characteristic of providing optimum opportunities for the students to independently study the task given to individual member of the group. This model also makes students to become cream of the crop of their own learning.

The jigsaw technique was created with the goals of enhancing positive educational outcomes and to help students realize they are essential components of a whole and encourages cooperation in a learning environment (Aronson, 2008). In science education, the Jigsaw method is reported to be used in classes more often than other collaborative learning methods, especially in Mathematics, physical sciences and the Earth sciences (Ibrahim, 2019). This is because the Jigsaw method is considered to enhance cooperative

learning by making each student stress on a particular topic (Johnson, & Johnson, 2009). This study verified the effect of Jigsaw IV Cooperative Learning Strategy on Students' Retention in Zaria Metropolis Kaduna State, Nigeria.

Academic performance is the extent to which a student, teacher or institution has achieved their short or long-term educational goals (Tudunkaya & Jamilu, 2019). Completion of educational degrees such as higher diploma and bachelor's degrees represent academic achievement (Friedman & Mandela 2011). Academic performance is commonly measured through examinations and continuous assessments, but there is no general agreement on how it is best evaluated or which aspects are most important procedural knowledge such as skills or declarative knowledge such as facts. Furthermore, there are inconclusive results over which individual factors successfully predict academic performance, elements such as test anxiety, environment, motivation, and emotions require consideration when developing models of school achievement (Hannon & Ann 2014).

Retention however, refers to what is learned minus what has been forgotten (Mang & Mankilik, 2001). Retention as defined by Yero (2011) is the ability of a learner to recall, remember and recollect a body of Knowledge after passing through instruction. For students' retention, Omar (2012) observed that students' experience is a significant factor in retention and that the strategies of improving retention rate can be adopted by the teacher. Bichi (2002) opined that anything which aids meaningful learning improves students' retention and while things that lead to interference among learned materials decrease the speed and efficiency of learning and accelerates forgoing.

Idris (2014) observed that, retention is the ability to keep and consequently remember things or materials experienced or learned at a later time. Materials to be learned depend on the strategy used in teaching and have an effect to the quality of retention in terms of their meaningfulness, familiarity and image evoking characteristics (Bichi, 2002). Low academic performance as well as retention amongst students in Sciences seems to be as a result of use of teacher's-centered method which lead to poor academic retention, performance and acquisition of requisite skills (Usman, 2000). The Jigsaw model is one of the modern strategies that is students-centered and enhances meaningful learning through students' interaction in groups of 5-6 to construct their own knowledge, share ideas and complete a given task assigned to them (Gumel, 2010). Studies revealed that, lesson which applied the Jigsaw model was shown to be effective both in cognitive and affective characteristics including meaningful learning, retention; positive learning attitude, interest, self-respect, self-learning ability, confidence, task commitment, sociability, and so on (Yusuf, 2011).

Objectives of the Study

The main objective of this study is to determine the "the Effect of Jigsaw IV Cooperative Learning Strategy on Students' performance and retention among Senior Secondary school students (SSII) of Zaria Metropolis, Kaduna State, Nigeria".

Research Question

The study addressed these research questions.

1. Is there any significant difference in the mean performance scores of students in SSII taught 2-D geometry concept using J4CLS at Senior Secondary Schools two (SSII) of Zaria Metropolis, Kaduna State, Nigeria?
2. Is there any difference in the retention ability of students taught 2-D Geometry concept using J4CLS at Senior Secondary Schools two (SSII) of Zaria Metropolis, Kaduna State, Nigeria?

Null Hypotheses

Null hypotheses were formulated and tested at $P \leq 0.05$ level of significance:

$H0_1$: There is no significant difference in the mean performance scores of SSII students taught 2-D Geometry concepts using J4CLS and those taught same concepts using the Conventional Method of Teaching in Zaria Metropolis, Kaduna State, Nigeria.

$H0_2$: There is no significant difference in the retention ability of SSII students taught 2-D Geometry concepts using J4CLS and those taught same concepts using the Conventional Method of Teaching in Zaria Metropolis, Kaduna State, Nigeria.

Research Design

The design for this study is pretest, posttest, and post posttest quasi-experimental research design. This is according to Kerlinger and Leer (2005) involves two groups, one group was assigned as experimental and the other group was tagged control. This is suitable because of the advantages listed by (Lakpini, 2006 in Ibrahim, 2019) which is as follows;

1. The superiority of one instructional strategy over the other can easily be tested
2. It gives indications of concept attainment ability of understanding gained by students after they have been exposed to a particular teaching treatment.
3. The pretest scores give indication as to whether the groups are equal in the concepts they hold before interaction was given.
4. The population of this study comprises of fifteen (15) public Senior Secondary Schools (SS II) Students in Zaria Metropolis two (2) schools were randomly selected as sample for the study.

The samples selected were pre-tested to ensure that they are not significantly different. The experimental group was exposed to Geometry concepts for five weeks using J4CLS while the control group was exposed to Geometry concepts also for five weeks using lecture method. A post test was administered to observe if there was any significant difference in students' academic performance among the groups. A post-posttest was administered to both experimental and control group to observe if there was any significant difference in students' retention ability in Geometry concepts.

The instrument for this study is Geometry Performance Test (GPT) was developed for the purpose of generating and analyzing data. The GPT comprises ten (10) items of essay test questions, this is because: Essay test allow students to express their ideas with relatively few restraints. Essay involves recall and write thereby no options to select from, therefore guessing is eliminated. The students must supply answer rather than selecting the good response, thus, it involve descriptive knowledge of students. The posttest in this study is to check the academic performance of the students in SSII on Geometry Concept in Zaria local government. The data collected was used to find the reliability coefficient of the

instruments. For the purpose of this study, a test was conducted in order to obtain the data from the preferred School that was pilot tested. The reliability coefficient, was found to be 0.79 using SPSS. Pre-test was administered to both sampled population groups and the records was kept, then the control group was treated using lecture method of teaching while the experimental group was treated with the Jigsaw IV Cooperative Learning Strategy for five weeks. Then, post-test was administered to both the control and the experimental groups. Later, after sometimes post-post-test was administered to the experimental group so as to ascertain the retention ability of the groups. The data collected were analyzed by the application of both descriptive and inferential Statistics. For descriptive Statistics mean and standard deviation was used to describe the research questions while for inferential Statistics t-test was used to answer the null hypotheses at $\alpha=0.05$ (5%) level of significance.

Result

Research Question 1:Is there any significant difference in the mean performance scores of students in SSII taught 2-D geometry concept using J4CLS at Senior Secondary Schools two (SSII) of Zaria Metropolis, Kaduna State, Nigeria?

Table 1:   Descriptive Statistics on Performance

Group	N	Min.	Max.	Mean	Std. Deviation
Experimental	85	15	39	30.31	7.83
Control	72	2	23	14.90	6.57

The results in Table 1 above showed that the students in the experimental group had a mean score of 30.31 performed higher than their counterparts in the control group with a mean score of 14.90 with the mean difference of 15.41.

$H0_1$:   There is no significant difference in the mean performance scores of SSII students taught 2-D Geometry concepts using J4CLS and those taught same concepts using the Conventional Method.

Table 2:   Inferential Statistics for Performance

Group	N	Mean	SD	t_{cal}	t_{crit}	Df	Remark
Experimental	85	30.31	7.83				
				10.95	1.98	155	S
Control	72	14.90	6.57				

Table 2 showed that the mean scores of both the experimental and control groups with the mean of 30.31 and 14.90 respectively. The mean difference between them is 15.41.

Thehypothesis one ($H0_1$) says: "there is no significant difference in the mean performance scores of SSII students taught 2-D Geometry concepts using J4CLS and those taught same concepts using the Conventional Method". But from the table two (2) above we have $t_{critical\ (10.95)} > t_{calculated\ (1.98)}$ at $\alpha=0.05$ level of significance. Hence, $H0_1$ is rejected.

Research question 3: Is there any difference in retention ability on students taught 2-D Geometrywith J4CLS and lecture Method of Teaching?

Table 3: **Descriptive Statistics on Retention Ability**

Group	N	Min.	Max.	Mean	Std. Deviation
Experimental	85	12	29	28.10	7.70
Control	72	4	17	13.31	4.74

The results in Table 2 above shows that the students in the experimental group had a mean score of 28.10 retained higher than their counterparts in the control group with a mean score of 13.31 with the difference of 14.79.

H_{o2}: There is no significant difference between in the retention ability of Students taught 2-D Geometryconcept with J4CLS and those taught with lecture method.

Table 4: **Inferential Statistics for Retention**

Group	N	Mean	SD	t_{cal}	t_{crit}	Df	Remark
Experimental	85	28.10	7.70				
				15.78	1.65	155	S
Control	72	13.31	4.74				

Table 4 showed that the mean scores of post posttest of both the experimental and control groups with the mean of 28.10 and 13.31 respectively. The mean difference between them is 14.79. The hypothesis one says "there is no significant difference in the retention ability of students taught 2-D Geometry concept with J4CLS and that of those taught using conventional method". But from the table above we have $t_{critical\,(15.78)} > t_{calculated\,(1.65)}$ at $\alpha = 0.05$ level of significance. Thus, $H0_1$ is rejected.

Results

Results of testing null hypotheses showed that significant difference exist in the mean performance scores and retention ability of SS II Students taught with J4CLS and those taught with lecture method. The result of the mean scores of the student in the experimental group maintained a higher performance and retention rates than their counterparts in the control group.

The nature of J4CLS is learning by doing and elaborating. In J4CLS, the students worked together in groups, where each student became an 'expert' for a specific topic, and subsequently taught this topic to his or her home group. This finding agrees with the findings of Sousa (2006), Tanel & Erol (2008), who found that students in the experimental group taught science concepts with Jigsaw cooperative learning settings had higher retention than those in control group, taught science concepts using traditional method.

Specifically, the finding of Sousa (2006) reports the average percentage of learning material retention after 24 hours when students were taught by different teaching methods. He indicated that there was retention of 50% of material learned in the discussion group, 75% as a result of requests for students to study through practice, and 90% when students teach others in a jigsaw cooperative learning strategy.

An impressive study which lasted for 4 weeks was conducted by Tanel and Erol (2008) in which the effectiveness of the Jigsaw learning method and conventional teaching method

were compared on achievement and retention in a Physics course in a University in Turkey. An experimental group received the Jigsaw technique and a control group received traditional lecture teaching.

Conclusion

As a result of the findings in this study, it could be concluded that J4CLS enhances performance and retention of 2-D Geometry concepts of secondary school students. This is because all SS II students exposed J4CLS, performed and retained 2-D Geometry concepts better than those exposed to traditional method of teaching. J4CLS. In addition, students become active author of their knowledge, analyzed such knowledge and apply it to a real life situation as in J4CLS.

Recommendations

On the basis of the findings and conclusion arising from this study, the following recommendations were made;

The use of Jigsaw IV Cooperative Learning Strategy, J4CLS seems to be appropriate in improving the performance and retention ability of students in senior secondary schools 2-D Geometry. It should therefore, be incorporated into the main stream of pedagogy in the teaching of Mathematics specifically 2-D Geometry and other science subjects at senior secondary schools in Zaria Metropolis, Kaduna State, Nigeria.

The use of Conventional Method of Teaching, it has been found in this study, to be relatively ineffective, with respect to performance and retention in the learning of 2-D Geometry concepts. Mathematics teachers should therefore, exercise cautiousness and expertise in enriching the Conventional Method of Teaching with innovative strategy such as J4CLS so as to avoid situation where under achievement is unwittingly promoted in the course of teaching.

Reference

Aronson, E. (2008). *History of Jigsaw*. Retrieved from*https://www.jigsaw.org/history.htm*

Bichi, S. S. (2002). Effects of Problem Solving Strategy and Enriched Curriculum on Students Achievement in Evolution Concepts among Secondary School Students. An Unpublished Ph.D. Dissertation, Faculty of Education, ABU Zaria.

Friedman, B. A. & Mandel, R. G. (2011). Motivation predictors of college student's performance and retention Journal of College Student Retention: *Research, Theory & Practice*. **13** (1): 1–15.

Gerald, I. O. (2012). Mathematics: A tool for addressing the challenges for security and poverty reduction in Nigeria. A paper presented at the National Conference organized by Nigerian Mathematical Society held at Ahmadu Bello University Zaria.

Gumel, S. A. (2015). Effects of jigsaw model of cooperative learning on self-efficacy and achievement in chemistry among concrete and formal reasoning in colleges of Education in Nigeria. Department of Science Education, Ahmadu Bello University, Zaria, 34-40.

Hannon, B. & Ann, M. (2014). "Predicting College Success: The Relative Contributions of Five Social/Personality Factors, Five Cognitive/Learning Factors. *Journal of Education and Training Studies,* **2** (4): 46–58.

Hassan, A.A (2007). Critical factors affecting the mathematics teacher in the 21st Century: Possible way forward. *A journal of educational research and development faculty of education Ahmadu Bello University Zaria,* **2** (1).

Idris, Y. (2014). Impact of problem solving strategy in academic achievement and retention on basic science concept among varied ability students, Kaduna State Nigeria. Unpublished M.ed Thesis, Department of Science Education, Ahmadu Bello University, Zaria. 3-44.

Johnson, D. W. & Johnson, R. T. (2009). An educational psychology success story: social interdependence theory and cooperative learning. *Educational Researcher*, **38** (5): 365-379.

Kerlinger, F. N. and Leer, H. Z., (2005). Foundation of Behavioral Research. Fourth Edition, New York: Harcourt Higher Learning Company.

Krejcie, R., Morgan, R.W., (1970). Determination of sample size for research approach. *Educational Psychology Measurement*, **30**: 607-610

Lakpini, M. A. (2006). Effect of a Conceptual Change Instructional Strategy on the Achievement, Retention and Attitude of Secondary School Biology Students with Varied Ability. Unpublished PhD Dissertation, Ahmadu Bello University, Zaria.

Okpala, J. U. and Asiegbu, F. N. (2016). Role of mathematics skills in the development of Human Capacity building in the private sector for national development. Mathematical Association of Nigeria, Annual National Conference Proceeding, held at Ahmadu Bello University Zaria, Kaduna State.

Piaget, J. (1967). *The Child's conception of the world*, Routledge and Kegan Paul Limited.

Pereira, J., Wijaya, T. T., Zhou, Y. & Purnama, A. (2021). Learning points, lines, and plane geometry with Hawgent dynamic mathematics software. *Journal of Physics: Conference Series* **1882** (2021) 012-057 IOP Publishing doi:10.1088/1742-6596/1882/1/012057

Sousa, D. A. (2006). How the brain learns (3). Heatherton, Vic: Hawker Brownlow Education.

Tanel, Z. & Erol, M. (2008). Effects of Cooperative Learning on Instructing Magnetism: Analysis of an Experimental Teaching Sequence. *American Journal of Physics and Education*, **2** (2): 124-136.

Tudunkaya M. S. & Jamilu, A. A. (2019). Impact of Problem-Solving Strategy on performance in 3-D Geometry among SSII in Zaria Educational Zone Kaduna State Nigeria. *A journal of Mathematical Association of Nigeria (M.A.N) Abacus2019.*

Usman, I. A. (2010). The Effects of Indoor and Outdoor Laboratory Instructional Method on Academic Performance of Junior Secondary School Students in Zaria Local Government Area of Kaduna State. *Journal of Studies in Science and Mathematics Education*, **1** (1): 66-73

Vygotsky, L. (1978). Interaction between learning and development. In Gauvain & Cole (Eds.), *Readings on the development of children* (pp. 34-40). New York: Scientific AmericanBook.

Yero, H. I. (2011). Effects of computer animation model on students' performance and retention in organic chemistry concepts among colleges of education in Plateau State. Unpublished M.ed Research Thesis. Ahmadu Bello University Zaria.

Yusuf, M. O. (2011). Perspective on the integration of information and communication Technology in Nigerian School System. *Journal of Science, Technology and Mathematics Education.* **7** (2): 229-239. *www.stlouisfed.org.2014/preservaticles.com*12/12/2016.

VARIATION IN INTEREST TOWARDS MATHEMATICS BETWEEN STUDENTS WITH PRE-UNDERSTANDING OF PEDAGOGICAL SUBJECT MATTER AND THOSE WITHOUT PRE-UNDERSTANDING OF PEDAGOGICAL SUBJECT MATTER

[1]Tanko K.A.S., [2]Rabiu, A. T. and [3]Saidu S., Ph.D.

[1]Department of Science and Environmental Education, University of Abuja, [2,3]Department of Mathematics, Federal College of Education, Zaria.
e-mail: [1]tankokas@gmail.com

Abstract

The study investigated the variation in interest towards mathematics between students with pre-knowledge of instructional content and those without. A quasi-experimental research design that made use of pre-test post-test and control group was used. The population of the study consisted all SS1 Secondary School mathematics students. Twenty eight male and forty one female students were selected through two schools making a total of 69 students as Mathematics Achievement Test (MAT) and Mathematics Interest Scale (MAS) whose reliability indices are 0.83 and 0.79 formed the instruments of the work. While Mann Whitney U test and t-test statistical techniques were used in analyzing the data.The study revealed that students who were exposed to pre-knowledge of instruction content had more positive interest towards mathematics and better academic performance than those who were not exposed to pre-knowledge. Prominent among the recommendation is that teachers should explore exposing their students to pre-knowledge of instructional content before classroom activities to arouse their interest and enhance their achievement in mathematics.

Introduction

An interest is "a relative enduring organization of beliefs, feelings, and behavioral tendencies towards socially significant object, groups, events or symbols". (Hogg & Vaughan, 2005). Interest can be described in terms of three components which include affective components, and it involves a person's feelings/emotions about the interest object. For example, I am scared of mathematics. Behavioral component, this involves the way the interest we have influences how we act or behave. For example, I will avoid mathematics lesson when I see the teacher coming. Cognitive component and it involves a person's belief/knowledge about an interest object. For example, I believe mathematics is a difficult subject.

Interest is defined by other researchers as positive or negative emotional disposition (Mcleod, 1992 and Aiken 2000). This has led to series of divergent views resulting from the findings of other researchers on the variation in interest towards mathematics-on-mathematics achievement among students.

Furthermore, the findings of Uhuavbi and Umoru (2005) used 100 students as sample to study the relationship between student's interest and achievement in mathematics and science among polytechnic students.

Analysis of data by correlation coefficient affect their achievement in mathematics perception of any task especially at the beginning affects the outcome of their exercise more than anything else does.

It concluded by stating that achievement of students in mathematics largely depends on their interest towards the subject. In a related study, Alugba (2005) using a sample of 200 students showed that interest has a significant positive relationship with mathematics achievement of students. The study suggest that positive interest will lead to high concentration and interest, which will invariably lead to persistent and better performance.

Poor level of understanding of mathematics by the students as a result of teaching method has contributed to the negative interest students have towards mathematics (Ammo, 2000). Therefore, this study seeks to investigate if any variation in students' interest towards mathematics exist between those with pre-knowledge of instructional content; and also to investigate the difference in academic performance between students pre knowledge of instructional content and those without it. It is hoped that this will serve as a guide in helping teachers to explore their students with pre-knowledge of instructional content before classroom activities to enhance their performance in mathematics.

Statement of the Problem

Despite efforts by various researchers, it has been observed that variation in students' interest towards mathematics exist. Research findings have shown that students display poor performances in mathematics due to negative interest towards mathematics (Alugba, 2005). Furthermore, Iji (2002), stated that mathematics teaching in Nigeria still follows the traditional pattern whereby teacher-directed explanations are used to present materials for the new lesson. So far, the traditional or conventional patterns of teaching mathematics do not seem to be effective in helping teachers to arouse the interest of students towards mathematics calls for an alternative approach.

It is assumed that there could be other alternative approaches, one of which is to ascertain the extent to which mathematics learning outcome (interest and achievement) are affected by their pre-knowledge of instructional content before classroom activities. This approach has been scarcely utilized by most mathematics teachers in Nigerian secondary schools.
Given the fact that students pre-knowledge of instructional content is one of the teaching approaches that may not have been adequately utilized by teachers in the teaching of mathematics, it has become desirable to investigate its variation in interest towards mathematics among students, if it could be an effective teaching technique that would arouse students interest towards mathematics to improve their performances in mathematics.

Purpose of the Study

This study is aimed at investigating the variation in interest towards mathematics between students with pre-knowledge of instructional content and those without.

Specifically, the study sought to:

i.   Determine if there is any variation in interest towards mathematics between students with pre-knowledge of instructional content and those without.
ii.   find out the difference in students' performance between students with pre knowledge of instructional content and those without

Research Question

The following research questions were asked to guide the study:

i.   What variation in students' interest towards mathematics exist between those with pre-knowledge of instructional content and their counterparts without pre-knowledge of instructional content?

ii.   What is the difference in performance between students with pre knowledge of instructional content and their counterparts without pre knowledge of instructional Content?

Research Hypothesis

The following hypothesis was stated and tested at 0.05 level of significance:

Ho_1: There is no significant variation in students' interest to mathematics between those with pre-knowledge and those without pre-knowledge of instructional content.
Ho_2: There is no significant difference in academic performance between students with pre knowledge of Instructional content and those without it.

Methodology

The design adopted for this study was quasi – experimental setting that made use of pre-test and post-test control group design. The dependent variables in this study are interest and achievement towards mathematics, the independent variable is the pre-knowledge of instructional content (treatment) at the two levels experimental and control group.

The target population of this study consisted of all SS1 students in Gwagwalada Area Council of FCT, Abuja. Simple random sampling technique was used to select the two schools in Gwagwalada Area Council, FCT. Two intact classes were involved in the study. The intact classes were selected through simple random sampling technique from the sampled schools. One of the schools was used as the experimental group while the other school was used as the control group.

Research Instrument

The instruments used for the study were as follows: Mathematics Interest Scale (MAS) and Mathematics Achievement Test (MAT). MAS was the researchers-made questionnaire of 20 items that was used to help student express their feelings towards mathematics.

The MAT is the researchers – made instrument that consisted of 30 items prepared based on the SS1 mathematics syllabus that covers the whole work for the term. The Mathematics Achievement Test (MAT) and the MAS were face validated by three experts in Mathematics Education and three in Science Education. An intact class of forty students having the same characteristics with those used for the main study and did not take part in the main study were used for the pilot test. The Crombach Alpha (2) was used to ascertain the reliability of MAS. This (KR - 21) formula was used to test internal consistency and reliability of MAT. The instrument gave 'r' value of 0.83 which were considered adequate for research.

Research Procedure

The researchers personally carried out the teaching for both groups. The students were subjected to pre-test to ascertain their entry behavior after which they were randomized into two groups. For the experimental group, pre-knowledge of the instructional content was given to the students before classroom teaching. The procedure was that, the teacher exposed the students to the contents of the curriculum for the whole term using the first lesson period. Detail of the curriculum content was given to the students and the students wrote them down in their note books to enable then go through the topics on their own using their text books prior to the classroom teaching.

It was experimental group that were exposed to pre-knowledge of instructional content while the control group were not exposed to the treatment (i.e having a pre-knowledge of the instructional content). Both groups were taught using conventional method. The period of the teaching lasted for ten weeks after which they were given the post-test examination. The MAS and MAT were scored over 100. The data were tested at 0.05 level of significant using mean, standard deviation and t-test analysis.

Presentation of Results

Data collected were analyzed using mean and standard deviation to answer the research question and inferential statistics of Mann Whitney U test and independent T test were used to test the hypotheses at 0.05 significant level.

Research Question 1. What variation of interest exist between Students with pre knowledge of instructional content and those without?

Group	N	Mean	Sd	Std Error	Mean Diff
Experimental	37	2.88	1.02	0.45	0.44
Control	32	2.44	1.OO	0.67	

Data from   Table 1 shows that the students in Experimental Group have higher interest scores than the students in control group. However, the researchers cannot conclude until hypothesis is tested.

Ho$_1$: There is no significant variation of interest between students exposed to pre instruction content and those that were not. To test the hypothesis, Mann Whitney U test was employed.

Table 2:   Summary of Mann-Whitney on Variation of Interest Between Experimental and Control

Group	N	Mean Rank	Sum of Rank	Mann Whitney	P	Decision
EXPERIMENTAL	37	41	2400.50	4067.56	0.002	Reject
CONTROL	32	28	2033.50			

Results from Table 2 shows that p-value 0.002 < 0.05 which indicates that the null hypothesis is rejected and the alternative hypothesis holds which indicates variation of interest between the Experimental and Control Group.

Research Question 2: What is the difference in mean Academic Performance score between students in the experimental and control groups?

Table 3: **Descriptive statistics showing experimental and control groups' mean Academic Performance Scores in the post test**

Groups	N	Mean	SD
Experimental	37	28.8	1.02
Control	32	24.4	1.00

Results from Table 3 indicates that students in the experimental group has have higher mean scores than the students from the control group. However, this does not provide enough evidence for the researchers to draw conclusions. This gives rise for the need to test hypothesis.

Hypothesis 2

Ho_2:   There is no significant difference in academic performance between students who had pre-knowledge of instructional content (Experimental Group) and their counterparts in the control group.

Table 4: **Two tailed t-test Result in respect of mean Academic Performance Score of groups with pre-knowledge of instructional content and those in the control group**

Group	N	Mean	SD	DF	T-value	Std. Error	Sig 0.05	Decision
Exptal.	37	28.8	1.02	67	2.33	0.0131	0.0421	Significant
Control	32	24.8	1.00					

Analysis of Table 4 indicate that subjects in experimental group had a mean score of 28.8 with standard deviation of 1.02 while those in the control group had mean score of 24.8 with a standard deviation of 1.00. in other words, the subjects in the experimental group had higher mean scores in terms of performance than their counterparts in the control group.

Discussion and implication of the Study

The findings of this study that there is significant variation between the mean interest scores of the experimental group exposed to pre-knowledge of instructional content and their counterparts in control groups. A cursory examination of Table 1 further experimental group had higher mean scores (in terms of interest) than their counterparts in the control groups. This shows that the subjects in the experimental groups had more positive interest towards mathematics than their counterparts in the control group. The findings of this study are similar to that of Alugba (2005) who showed that interest has a significant positive relationship with mathematics achievement of students. Furthermore, these findings support the findings of Galadima and Okogben in (2012) who found that there was significant variation in the interest of students exposed to the treatment than their counterparts who were not exposed to the treatment.

The reasons for the significant variation in students' interest to mathematics between those with pre-knowledge and those without pre-knowledge of instructional content could be due to the fact that, students who were not exposed to pre-knowledge of instructional

content before classroom teaching lacked prior knowledge of the topics which affected their performance in the subject, leading to a negative interest towards the subject. While those students that were exposed to pre-knowledge of the instructional content before classroom teaching were being motivated through this approach which arouse their interest in the subject, thereby creating a positive interest towards the subject leading to a high achievement in mathematics.

Furthermore, significant difference in terms of performance between the Experimental Group and the Control Group was found in favor of the experimental Group. The findings are in agreement with the findings of Uhuarbi and Umar (2005) who reported that interest is related to achievement. The findings of this work is also in line Aluba (2005) who reported that interest is significantly related to achievement. It can be deduced that the Experimental Group who were exposed to pre instructional Content have added advantages of knowing ahead of they are going to learn in the subject as a result of that they are more likely to develop more interest in the subject than the control Group.

Conclusion

The findings of this study have shown that exposing students to pre-knowledge of instructional content before classroom teaching will arouse the students interest towards mathematics and also enhances their performance in the subject. The study revealed that there was significant variation between the mean interest scores of the experimental group exposed to pre-knowledge of instructional content and their counterparts in the control group. This study has also shown that exposing students to having the pre-knowledge of instructional content before classroom teaching serves as one of the viable approach in teaching mathematics. It is therefore recommended that:

Mathematics teachers should explore their teaching approaches through exposing their students to pre-knowledge of instructional content before classroom activities. This will go a long way to arouse their interest and enhance their achievement in the subject.
Workshops and seminars should be organized for in-service mathematics teachers to keep them abreast with this viable teaching approach of giving students a pre-knowledge of instructional content before classroom activities in the teaching of mathematics.

References

Aiken, L. R. (2000). Psychological Testing and Assessment (10th ed). Boston, M.A: Allyn and Bacon.

Alugba, S. O. (2005). Gender and Interest as correlates of secondary schools achievement in mathematics in Katsina-Ala L.G.A. of Benue state. Un published Master Dissertation. Benue state University, Makurdi.

Ammo, S. A. (2000). Analysis of problems Encountered in Teaching and Learning of Mathematics in Secondary schools. *Abacus Journal of Mathematical Association Nigeria*, **25** (1): 35-39.

Galadima, A. and Okogbenin, A. A. (2012). The effect of mathematical games on Academic performance and interest of senior secondary students towards mathematics in selected schools in Sokoto state. ABACUS: *Journal of the Mathematical Association of Nigeria (MAN)*. **37** (1): 30-37.

Hogg, M. and Vaughan, G. (2005). Social psychology (4th Edition) London: Prentice Hall. In www.simplypsychology.http://org/interestshtml. retrieved on 20th June, 2017.

Iji, C.O. (2002). Effects of Logo and Basic Programme on Achievement and retention in Geometry of JSS students unpublished Doctoral Thesis, University of Nigeria, Nsukka.

Mcleod, D. O. (1992). Research on Effect in Mathematics Education: A Reconceptualization in D. Grouws (Ed), Handbook on Research on Mathematics Teaching and Learning (pp.575-596). New York Ny: Macmillian.

Uhumuaubi, P. O. and Umoru, G. E. (2005). Relationship between interest in Mathematics and Achievement in Mathematics and Science among Polytechnic Student, A case study of Auchi Polytechnic, Nigeria. *Journal of Professional Teachers. An International Journal of TRCN,* **1** (1): 71-76.

INVESTIGATING ATTITUDE OF HEARING-IMPAIRMENT STUDENTS TOWARDS LEARNING MULTIPLICATION AMONG LOWER BASIC STUDENTS IN A. A. RAJI SPECIAL SCHOOL SOKOTO, SOKOTO STATE, NIGERIA

[1]**B. U. Binji**, [2]**Muhammad Nasiru Hassan**, [3]**Bello Shehu Aliyu** and [4]**Usman Galadima**

[1, 2, ,3, 4] Faculty of Education, Department of Science Education, Sokoto State University
e-mail: [1]bashar.umarbinji@ssu.edu.ng

Abstract

Multiplication concept is one of the pre-requisite skills needed for better understanding and development of mathematics skills. Students' understanding, development of basic mathematical skills, and performance are affected by some factors, that include, attitude, instructional process, and materials used among others. The present research investigates the hearing-impaired students' attitude toward using the Chinese stick method in learning multiplication in Sokoto state Nigeria. One group of pre-test and post-test research design was employed, a sample of 344 was purposively selected. An attitude questionnaire for the use of the Chinese stick method of Multiplication was adapted and used for data collection after being subjected for the expert validation and also a reliability index of 0.87 using Cronbach alpha was obtained. The results obtained indicate that students have a positive attitude on the overall score when they are exposed to the Chinese stick method. Mann-Whitney U-test was used to analyze the two hypotheses. The results indicate a significant difference on students' attitude scores before and after using the Chinese stick method in learning multiplication and that no significant gender difference was found between male and female students after using the method. Thus, this indicated that the use of the stick method can enhance the attitude of hearing-impairment. Based on this the stick method can be used as a tool for improving students' attitudes and performance in learning multiplication concepts.

Keywords: Hearing-impairment, Attitude, Chinese stick method

Introduction

Mathematics is a science of number and quantity that helps in developing the human mind, concerned primarily with ideas, processes, and reasoning skills to develop other areas for the benefit of humanity. Evidence from the literature indicates that the skills in mathematics are crucial towards successful economic development, tools for actualizing scientific and technological development (Mazana, Montero, & Casmir, 2019; Ngussa & Mbuti, 2017). However, the development of higher mathematical skills that help in actualizing science and technological innovations required a better understanding of the basic skills in mathematics, such as addition, multiplication, subtraction, and division.

According to Zhang, Cao, Wang, and Li (2019) development of basic mathematical skills is fundamental for a solid foundation to more advanced mathematics skills. Thus, multiplication is one of the important basic skills required for the development of students thinking skills in mathematics. Wallace and Gurganus (2005) indicate that students with low skills in mathematics are those found without proficient in basic mathematics (multiplication) skills. Robinson, Dubé, and Beatch (2016) affirmed that the development of advanced algebraic skills required a solid foundation of the basic skill in multiplication and division. Evidence bound that students with low multiplication skills are found

disadvantaged in their subsequent higher level of mathematics skill (Wallace & Gurganus, 2005).

Thus, difficulty with Mathematics was lamented by even normal ability (physically challenge could not be on exception) students in Nigeria (Wonu and Zalmon, 2017). Students with physical challenges (Hearing-impairment) experience some problems in the learning process that affect their attitude and performance. Hashim (2016) affirmed that one of the factors affecting hearing-impairment students is communication skills. Thus, could be because students with hearing-impairment learn and communicate by gesture and other means of communication except for sound verbal communication. Researches indicate if they can see and use their body parts, it is believed they will learn better when the concept is taught using an activity-based (Hashim, 2016).

Attitude is very important in the learning process because of social interaction that involves students, teachers, the environments, methods, and materials use in the learning process. Research sees attitude as a vital instrument used in the prediction of students achievement (Aiken, 1976; Verešová and Malá, 2016). And that also, attitudes are considered as a key impetus for actualizing higher or low performance in mathematics (Mazana et al., 2019). Yara, (2009), pointed out that, teachers' personalities and modes of interaction in the learning process affect students' attitudes positively or negatively. Delamater and Myers, (2010) explained that a negative or positive attitude can be formed because of the method of interaction (learning process), and reinforcement. Tsao, (2018) affirmed that instructional strategy used influences students' attitudes in learning geometry. Substantial research indicated a positive attitude can provide better achievement, for example, Pavlovicova and Zahorska (2015) affirmed that students with a positive attitude achieved 96% success to complete the task on the square when applying properties at post-test, and 86% at the pre-test. Research indicates that the teaching approach is one of the factors responsible for students to like or dislike mathematics (Yilmaz, Altun, & Olkun, 2010). Mazana et al. (2019), affirmed that instructional practice influences students to like, dislike, or enjoy mathematics.

However, negative attitude, poor performance, and low level of mathematical thinking skills continue to be a topical issue in Nigeria. Substantial research indicates some factors associated with the problem of negative attitude, including the method used, teachers' personality, and poor background of knowledge (Ogan & George, 2015 and Yara, 2009). Aliyu, (2019), indicated that lower basic students in Sokoto state demonstrated a negative attitude toward learning multiplication when the conventional approach was used. Thus, physically challenge students could not be an exception as they are receiving similar instructional strategies. Therefore, attitude is very important when it comes to teaching and learning processes because teachers with a better understanding of their students' attitudes in relation to their personality could provide an appropriate selection of strategies that can help to improve positive attitude, similarly selection of appropriate method could provide a better way through which learning could be achieved. It is based on this Mill, (1960) indicates that students could be made to learn from outside because we are superior to them. But, to reach them from insight (understanding their attitude) is paramount for better learning (ibid). in other words, understanding the students' attitude towards teaching methods, learning environments, materials are very important for actualizing a positive attitude and better performance in mathematics and multiplication concepts in particular. Thus, the present research investigated the hearing-impairment students' attitude toward using the Chinese stick method in learning multiplication in

Sokoto state with view to provide the clear picture of their perception towards using Chinese stick method in learning multiplication.

The Present Study

The study investigated the perceptions of hearing-impaired students for a better understanding of their attitude which can help towards achieving the basic understanding of multiplication skills. To achieve these below are the research objectives, and research questions.

Objectives of the Research

The study investigated the attitude of hearing-impaired students towards using the Chinese stick (line) method of basic secondary schools in Sokoto state In specific the study aimed to:

i.   Investigate if there is any difference on the attitudes of the hearing-impaired students before and after the treatment using Chinese stick method of multiplication.
ii.   If there is any difference in the attitudes of male and female hearing impaired students taught multiplication using Chinese stick technique after treatment.

Research Questions

Based on the above objectives the following research questions and hypotheses were generated as a guide.

i.   Is there any difference on the attitudes of the hearing-impaired student before and after the treatment using Chinese stick method of multiplication?
ii.   Is there any difference in the attitudes of male and female hearing impaired students taught multiplication using Chinese stick technique after treatment?

Methodology

Design

The research design adopted for this study was one shot case design entailing pre-test and post-test. The design involved only one group. The group was tested before the treatment of the stick method. The questionnaire was first administered to assess their attitudes at the pre-test. Then after the treatment, the same instrument was administered to assess their attitudes on the use of the stick method in learning multiplication see Figure1 below.

$$O_1 \longrightarrow X \longrightarrow O_2$$
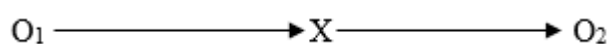
Figure 1 One group pre-test, post-test

Where, O_1 indicates the Pre-test, X, is the Treatment and O_2 indicates Post-test.

Participants

The participants for this research consisted of all 344 hearing impaired students at A.A. Raji special school Sokoto, where a purposive sampling technique was used; this is because not all the subject (students) has the requirement for selection. Thus, the focus of the research was on hearing-impaired students. This left the researcher to take a non-probability sampling technique.

Ethical Consideration

The research permission was sought from the Principal of A. A. Raji Special School to conduct the research in the school, a meeting with the head of the department was organized by the principal. Based on the discussion, and agreed time without disturbing the academic activities students were considered and other modalities for the successful conduct of the research. the purpose and nature of the research were explained verbally and in writing to the participants and that confidentiality and anonymity were guaranteed to the participants.

Method of Data Collection

Assessments of Students' Attitude towards Learning Multiplication

The data was collected by using a questionnaire adapted and modified from (Aliyu, 2019), after expert validation the reliability index of 0.87 was obtained using Cronbach alpha. The questionnaire was pre-tested to assess the overall attitudes of students taught multiplication before and after the treatment, to ascertain their attitude based on the learning multiplication using Chinese or stick technique.

Data Analysis

A quantitative method was used to analyse the overall attitude of students. The first research question required to establish the students' attitude towards using the Chinese stick method in learning multiplication. Therefore, descriptive statistics were used and obtained an overall attitude. Thus, the two hypotheses were analysed using Mann-Whitney U-test at 0.05 level of significance using SPSS.

Results

Analysis of differences on the attitudes of the hearing-impaired students before and after the treatment using the stick method of multiplication.

Table 1 below, indicates mean rank of 271.18 and 417.82 in pre and post-test scores respectively and that a p-value (0.000) indicating that p-value<0.05, therefore, the null hypothesis was rejected and concluded that there is a significant difference on the attitudes of hearing-impaired students taught multiplication using stick method before and after the treatment. The table shows that pupils' attitude is significantly higher after treatment and this difference was due to the simplicity of the Chinese stick method.

Table 1: **Mann-Whitney U-test on students' Attitude Before and After the Treatment**

Treatment	N	Mean Rank	P-value	Decision
Before Treatment	344	271.18		
			0.000	H_o Rejected
After Treatment	344	417.82		

Decision Criterion: Reject H_0 if P≤0.05

Analysis of difference on the attitudes of male and female hearing impaired students taught multiplication by using stick technique after treatment.

Table 2 provides the results based on the attitude scores of male and female students, the result of the analysis indicates a mean rank of 166.83 and 179.34 for male and female students respectively after treatment. a p-value is 0.241 indicating a p-value>0.05, therefore the null hypothesis was retained and conclude that there is no significant difference on the attitudes of male and female hearing-impaired students using the stick method in learning multiplication after the treatment.

Table 2: **Mann-Whitney U-test on Attitude of Male and Female After the Treatment**

Gender	N	Mean Rank	P-value	Decision
Male	188	166.83		
			0.241	H_o Retained
Female	156	179.34		

Decision Criterion: Reject H_0 if P≤0.05

Discussion

Based on the analysis of the study the result indicates the majority of the students show a positive attitude on the use of the Chinese stick method in learning multiplication.

However, the possible interpretation gains from the result obtained will be discussed, thus, the results show that students' attitude in post-test was positive and better than their attitude in pre-test which is in line with earlier findings of Yilmaz et al.,(2010) students develop positive attitude because the teacher teaches well and Ngussa and Mbuti, (2017) indicate that, use of humour as teaching strategy develop a positive attitude of students in the mathematics classroom. This indicates that students with hearing impairment consider the use of the Chinese stick method as interesting in learning multiplication. Furthermore, the negative attitude demonstrated by the students in the pre-test could be as a result of the strategy used prior to the use of the Chinese stick method which agreed with the finding of Yilmaz et al(2010) students indicates that they develop a negative attitude towards mathematics because the instruction is boring. Research studies in Nigeria indicated that conventional strategy is the dominant approach used in learning multiplication, and mathematics in general (Atebe & Schäfer, 2011; Hassan & Binji, 2016). Moreover, the result of the Mann-Whitney test obtained confirmed the result indicating that there is a significant difference between pre and post-test from the overall attitude scores. Mazana *et al.*,(2019) indicated that teachers' instructional strategies affect students' attitudes.

Conclusions

From the foregoing results, it was concluded that hearing-impaired students' attitude was improved when they were taught multiplication using the Chinese stick method than the traditional method. Therefore, conclude that the method could serve as a very important strategy that can improve students' attitude towards learning multiplication.

Recommendations

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

Chinese stick should be appropriately adopted and incorporated in the curriculum of hearing-impaired students as it is an instructional technique that is a student-centered and activity-based approach in learning multiplication concepts as it minimizes fear, enhances interest and improves students' attitude.

Reference

Aiken, L. R. (1976). Update on Attitudes and Other Affective Variables in Learning Mathematics. *Review of Educational Research*, **46** (2): 293–311. https://doi.org/10.3102/00346543046002293

Aliyu, B. S. (2019). Impact of Golosia and Japanese Multiplication Techniques on Attitude and Performance Among Primary Five Pupils in Tureta, Sokoto State Nigeria. *Unpublish Masters Thesis Department of Science Education Ahmadu Bello University Zaria, Nigeria.*

Atebe, H. U. & Schäfer, M. (2011). The Nature of Geometry Instruction and Observed Learning-Outcomes Opportunities in Nigerian and South African High Schools. *African Journal of Research in Mathematics, Science and Technology Education*, **15** (2): 191–204. https://doi.org/10.1080/10288457.2011.10740712

Delamater, J. D. & Myers, D. J. (2010). *Social Psychology* (E. Mitchell (ed.); Seventh). Cengage Learning Products are Represented in Canada by Nelson Education, Ltd.

Hashim, M. H. . (2016). *Design and Development of E-Learning Environment for Deaf Students in Learning Nuclear Energy* (Issue September). Universiti Teknology Malaysia.

Hassan, M. N. & Binji, B. U. (2016). Effect of Gelosia Method of Multiplication on Primary Five Pupils' Mathematics Performance in Sokoto South Local Government, Nigeria. *International Journal of Contemporary Education and Management*, **11** (2): 35–44.

Mazana, M. Y., Montero, C. S. & Casmir, R. O. (2019). Investigating Students ' Attitude towards Learning Mathematics. *International Electronic Journal of Mathematics Education,* **14** (1): 207–231. https://doi.org/doi.org/10.29333/iejme/3997

Mill, C. R. (1960). Attitudes Affect Pupils ' Learning. In *Educational Leadership* (pp. 212–216). http://www.ascd.org/ASCD/pdf/journals/ed_lead/el_196001_mill.pdf

Ngussa, B. M. & Mbuti, E. E. (2017). The Influence of Humour on Learners' Attitude and Mathematics Achievement: A Case of Secondary Schools in Arusha City, Tanzania. *IJRDO-Journal of Educational Research*, **2** (3): 170–181. https://ijrdo.org/index.php/er/article/view/165/139

Ogan, G. C. & George, N. R. (2015). Investigating Difficult Concepts in Senior Secondary School Mathematics Curriculum as Perceived by Students. *International Journal of Academic Research and Reflection*, **3** (6): 67–74. http://www.idpublications.org/wp-content/uploads/2015/07/Paper-Investigating-Difficult-Concepts-In-Senior-Secondary-School-Mathematics-Curriculum.Pdf

Pavlovicova, G. & Zahorska, J. (2015). The Attitudes of Students to the Geometry and Their Concepts about Square. *Procedia - Social and Behavioral Sciences*, **197** (April): 1907–1912. https://doi.org/10.1016/j.sbspro.2015.07.253

Robinson, K. M., Dubé, A. K., & Beatch, J. A. (2016). Children's multiplication and division shortcuts: Increasing shortcut use depends on how the shortcuts are evaluated. *Learning and Individual Differences*, **49**: 297–304. https://doi.org/10.1016/j.lindif.2016.06.014

Tsao, Y. (2018). The Effect of Constructivist Instructional-Based Mathematics Course on the Attitude Toward Geometry of Pre-Service Elementary School Teachers. *US-China Education Review*, **8** (1): 1–10. https://doi.org/10.17265/2161-623X/2018.01.001

Verešová, M., & Malá, D. (2016). Attitude toward School and Learning and Academic Achievement of Adolescents. *ICEEPSY 2016 : 7th International Conference on Education and Educational Psychology*, *November*, 870–876. https://doi.org/10.15405/epsbs.2016.11.90

Wallace, A. H. & Gurganus, S. P. (2005). Teaching for Mastery of Multiplication. *Teaching Children Mathematics2005*, **12** (1): 26–33.

Wonu, N., & Zalmon, I. G. (2017). Diagnosis and Remediation of Senior Secondary Students' Common Learning Difficulties in Mathematics From Chief Examiners' Report. *European Journal of Research and Reflection in Educational Sciences*, **5** (1): 7–23. https://www.idpublications.org/wp-content/uploads/2016/12/Full-Paper-Diagnosis-And-Remediation-Of-Senior-Secondary-Students'-Common-Learning-Difficulties.Pdf

Yara, P. O. (2009). Relationship between teachers' attitude and students' academic achievement in Mathematics in some selected Secondary Schools in South-western Nigeria. *European Journal of Social Sciences,***11** (3): 364–369.

Yilmaz, Ç., Altun, S. A. & Olkun, S. (2010). Factors affecting students' attitude towards Math: ABC theory and its reflection on practice. *Procedia - Social and Behavioral Sciences*, **2** (2): 4502–4506. https://doi.org/10.1016/j.sbspro.2010.03.720

Zhang, S., Cao, Y., Wang, L. & Li, X. (2019). Characteristics of teaching and learning single-digit whole number multiplication in china: the case of the nine-times table. *ZDM - Mathematics Education*, **51** (1): 81–94. https://doi.org/10.1007/s11858-018-01014-8.

THE MASSACRE OF HIGHER INSTITUTION STUDENTS BY BOKO HARAM, BANDITS AND KIDNAPERS IN NIGERIA: THE VICTIMS' NARRATIVES

Louis Okon Akpan, Ph.D.

Department of Educational Foundations, National Open University of Nigeria, Abuja.
e-mail: airmailo@yahoo.com

Abstract

In recent times, Nigeria has witnessed an astronomical surge in criminality and violence occasioned by the activities of Boko Haram, Banditry and Kidnappers. No day passes-by without various media houses reporting that these hideous groups has killed, kidnapped and even abducted Nigerians for ransom. The most pathetic and unfortunate situation now is their concentration on killing, kidnapping and abduction of secondary and higher institutions students. For instance, some students of Greenfield University, College of Forestry Mechanisation in Kaduna, Abia State University in Abia state and Federal Polytechnic in Akwa Ibom state to mentioned but a few has been kidnapped and some were killed by these groups. Based on this discourse, the study seeks to investigate students' experience on Boko Haram, Bandits, and Kidnappers' den. This study is located in qualitative approach. In line with qualitative methods, interpretive paradigm is used as lens to understand and interpret participants' narratives. Ethical issues were obtained from the participants' parents, Ministry of Education and the participants before structured interview was administered on them. In fact, ten participants who were kidnapped or abducted, later freed were selected for the study. Data were transcribed, coded and emerging themes were analysed using thematic analysis. Findings indicated that students were always abducted in the night and lectures' time. Additionally, students were subjected to inhuman treatment such as physical torture, rape and starvation. Based on the grounds that university campuses have been as theatre of death instead of citadel where scientific knowledge is acquired, it is recommended among others that more security agents should be sent to the universities to ensure that life and property of students are protected from the insurgents.

Keywords: Massacre, Boko haram, Banditry, Kidnapping, Ransom, University students

Introduction

Before the advent of civilian administration in Nigeria in 1999, there was no reported case of kidnapping, banditry and boko haram. In this study, kidnappers, bandits and boko haram are groups of criminal gangs which take up arms with Nigerian state causing major social, economic, religious and educational instability. During this period, the country only witnessed some pockets of armed robbery in some build-up cities such as Lagos, Benin, Port Harcourt, Kano, Ibadan and Onitsha to mention but a few. In fact, the country was generally peaceful and Nigerians were free to move at any time. It was very common for Nigerians to live in any part of the country without molestation. Furthermore, it was fun those days for a student from any ethnic nationality in Nigeria to live freely and harmoniously in any higher institution of their choice without fear of being kidnapped or killed. Additionally, social activities at nights were at their peak; moreover, students spent midnight oil in their classrooms preparing for their examinations unhindered. From all indications, this violent-free era in Nigeria has been mutilated, killed and buried. Today, however, the hitherto peaceful Nigeria enjoyed by all has been replaced by kidnapping, banditry, gender related violence, armed robbery and boko haram activity. No day passes-by without radio and television stations, newspaper houses reporting that these hideous

groups have killed, kidnapped and even abducted Nigerians for ransom. The number of reported abductions for ransom across the country is rising on daily basis according to security experts.

In recent times, boko haram, kidnappers and bandits has directed their attention to secondary and higher institutions students. For instance, in 2014, boko haram kidnapped 300 girls from Girls secondary school in Chibok, Borno State. In a similar circumstance, more than 150 secondary school students were kidnapped after armed men raided a boarding school there in Kaduna State. Again, Voice of America (VOA) news aired on 25th August, 2020 reported that about 317 girls were abducted from government school in Zamfara state. In the area of higher institutions of learning, about 18 students were abducted after bandits invaded their hostels in Greenfield University in Kaduna State. Five of these students were later killed and report has it that parents of these kidnapped students were made to pay over five million dollars as ransom before these students were released. Still in Kaduna State, over twenty three students were kidnapped by bandits in College of Forestry Mechanisation. They were held for over three weeks until over two million dollars was paid for their released. From all indications, documented evidence revealed that all students kidnapped were usually held at-least for two weeks for ransom negotiation and payment before their released. Personal observation has shown that kidnapped students were kept as long as two months for ransom to be raised and paid before they are released. In light of the above discourse, the big questions that guide study are as follows; at what times are university students usually kidnapped by insurgents? What are kidnapped students' experiences while in insurgents' captivity? These questions will guide in the investigation of the phenomenon under study.

Theoretical Framework Underpinning the Study

Theoretical framework underpinning this study is known as hopelessness theory. The theory was formulated by Abramson, Metalsky and Alloy in 1989 as a response to limitation in Seligman's (1972) theory of helplessness in depression. Looking at helplessness theory briefly, it was established that repeated exposure to uncontrollable and aversive environmental stimuli leads gradually to the belief that the aversive situation is inescapable and a sense of helplessness ensues regarding the situation (Abramson, Seligman & Teasdale, 1978). Abramson, Metalsky and Alloy (1989) therefore frowned at Abramson, Seligman and Teasdale's (1978) position because helplessness was not able to explain why certain people become depressed when confronted with uncontrollable stressor whereas others did not. This led to theory of hopelessness in which it was argued by Abramson, Metalsky and Alloy (1989) that a proximal sufficient cause of depression is an expectation that highly desired outcomes are unlikely to occur or that highly aversive outcomes are likely to occur and that no response in one's repertoire will change the likelihood of occurrence of these outcomes. Here, hopelessness theory did not only specify the proximal sufficient cause of depression, rather, it also specifies the sequence of events in a causal chain hypothesised to culminate in this proximal sufficient cause. The theory says that "given equivalent situational cues, individuals who exhibit the hypothesised depressogenic attributional style should be more likely than those who do not attribute any particular negative event they confront to internal, stable, global factors and view the events as very important, thereby incrementing the likelihood of becoming hopeless and, in turn, developing (hopelessness) depressive symptoms" (Liu et al, 2015, p.345). This theory has been adopted for many empirical studies. For instance, Haeffel et al (2005) used the theory to explain negative cognitive styles, dysfunctional attitudes, and

the remitted depression paradigm. In the similar circumstance, Hankin and Abela (2011) used hopelessness theory on non-suicidal self-injury in adolescence, however, it was discovered that negative inferential style is significant predictor of the behaviour in adolescents. In like manner, hopelessness theory is appropriate for the study because it is used to tease out hopelessness situation of students kidnapped by kidnappers, bandits or boko haram in universities in Nigeria.

Literature review

Genesis of Kidnapping and Banditry for Ransom in Nigeria

The researcher stated at the introduction of this study that there was no case of kidnapping or banditry in Nigeria during the military administration. This ugly situation started prior to 2003 general election. It was obvious that some unscrupulous elected politicians in order to perpetuate themselves in office recruited some youths in the Niger Delta and North East regions of the country for this mission. Apparently, these youths were armed with guns and other dangerous weapons to ensure that their masters are re-elected into various political offices. As someone from the Niger Delta region, this researcher observed that almost of these politicians from the region were violently returned to their offices against electorates' wishes. In fact, elections were lost by the most popular candidates, but won by most criminal minded candidates. It is unfortunate that after the election, those guns and other dangerous weapons were left in the hands of these youths. Moreover, these frustrated youths were abandoned after they assisted their boss to perpetuate themselves in office. It was documented by Akpan (2010); Albert, Danjibo and Albert (2020) that some youths were one time or the other arrested for using those guns for armed robbery and rape. After initial 'petty' criminalities perpetuated by these youths, they regrouped and began using the weapons for the kidnapping of oil and gas companies expatriates in the Niger Delta for ransom. From my position as a citizen of the Niger Delta region, the agitation against environmental degradation by oil companies and general lack of basic social amenities in the region was initially championed by the group to cover up their nefarious criminalities. It was in 2007 that the group started drawing the world attention that they are into kidnapping because of years of neglect of the region by oil companies and Nigerian state.

Kidnappers, Bandits and Boko Haram: Are they Nigerians?

From all indications, not much scholarly works has been done to establish whether those kidnappers, bandits and boko haram members are actually Nigerians or not. In fact, researchers and scholars only focused on the causes of this insurgency, leaving out the identity and nationality of the insurgents. In spite of this, Ojo (2020), Torkwembe (2020), Okpalaojiego (2021) still went on to identify unemployment, politics and greed as the causes of insurgency in Nigeria. Though, these causes might be true. The big question which is debatable is, can foreigners knowing too well that they cannot be employed or engaged in politicking due to Work Visa and Residential restrictions takes up arms with the host country?

On 19th April, 2021, Television Investigative Reporter known as Mr Babajide Otitoju said that most insurgents terrorising Nigeria are from republics of Chad, Niger, Libya and Syria. He went further to say that these countries witnessed decades of civil war. After the war, most of those redundant and mobilised combatants illegally penetrated the country

and engaged in all manners of criminalities. Specifically, Nowak and Gsell (2018) argued that the death of the Libyan President Mu'ammar Ghaddafi actually paved way for arming of insurgents and other armed groups from Europe and America through the North African borders to the Central Africa and West Africa to Nigeria. Small weapons influx into Nigeria from Libya through Mali and Niger after the collapse of order and security in Libya is enormous. Similarly, The Nation Newspaper of 25th June, 2021, reported that state governors in Nigeria have finally came to realisation that bandits, kidnappers and boko haram members are not Nigerians but foreigners who are mostly from Niger, Mali and Senegal. Furthermore, report from TheCable Newspaper of 14th May, 2021, stated that Nigeria-Niger border is one of popular cross-border trafficking hubs and routes in the West African region, where criminal terrorists from other West African countries suddenly found an abode in Nigeria. Apparently, the presence of these criminal elements in Nigeria is for financial gains. Sule, Mikail and Yahaya (2020) argued that foreign insurgents in Nigeria are largely driven by financial motives, with no known ideological leanings. Aside from hostage taking and cattle hustling for ransom, some of the insurgents engage in Small Arms and Light Weapons (SALWs) deal for money. In this paper, SALWs are portable weapons made or modified to military specifications for use as lethal instruments for war or kidnapping. Though, most guns' traffickers operate in black market where these commodities are sold at amount far cheaper than in the conventional market. In spite of sale of these arms cheaper than what is obtainable in international market, Okeke and Oji (2014) held that guns and light weapons trade in Nigeria has made dealers billionaires overnight. In fact, Egbuta (2019) stated that where physical cash is not available to buy these arms, natural resources like crude oil and diamond are exchanged for weapons. These has made the armed actors rich and powerful to the extent that they could control instruments of violence or even challenge government's monopoly of power (Egbuta, 2019).

Effect of Students' Kidnapping in Nigeria

A lot has been written by scholars and researchers about the negative effect of kidnapping students. In Nigeria, President Buhari's government have never allocated huge amount in his annual budget to education ever since he came to power. In 2021 annual budget, a meagre 5.6 per cent was allocated for all levels of education. However, about 25.8 per cent of the budgeted sum is presumed to be wasted through boko haram destruction of school facilities. Dumba, Shittu, Adeyemi and Momoh (2017) using Lagos state as a case study argued that it has been established in recent times that many parents have been forced to withdraw their children from boarding schools due to kidnapping. In states like Borno, Niger, Zamfara and Kaduna, higher institutions of learning has been closed for months due to the menace of kidnappers, bandits and boko haram. The closure of these institutions has compelled students to take to minor crimes such as handset theft, political mugger and streets fight, among others. Fadipe, Uwadia and Kayode (2021) averred that petty criminalities have been on the increase in recent times due to students who were forced to remain at home due to activities of insurgents. On the issue of universities teachers, Joda and Abdulrasheed (2015); Olaniyi and Aminu (2021) held that majority of the higher institutions closed indefinitely and the teachers working escaped during series of attack on their university communities. These universities teachers are currently living at internally displaced camps.

Research Methodology

This study is located in qualitative method. The reason for choosing qualitative method is based on the fact it is valuable in providing rich descriptions of complex phenomena, tracking unique or unexpected events, illuminating the experience and interpretation of events by participants with widely differing stakes and roles and giving voice to those whose views are rarely heard (Vindrola-Padros & Johnson, 2020). In other words, voices and experiences of participants who were once taken hostage by kidnappers, bandits and boko haram and later freed were deeply understood and narrated verbatim. Since participants narrated their experiences when they were in captivity, interpretive paradigm is employed to interpret and make sense of their experiences. Apparently, Siponen, Solimanand and Holtkamp (2021) argued that interpretive paradigm is concerned with understanding the world as it is from subjective experiences of individuals.

Population and Sampling Technique

All kidnapped and later freed victims formed the population of this study. In this study, however, purposive sampling technique was used. After all, Campbell, Greenwood, Prior, Shearer, Walkem, Young and Walker (2020) opined that purposive technique is often adopted to ensure that a researcher relies on his or her own judgment when he or she is choosing members of population to participate in the study. Drawing from Campbell et al's (2020) assertion, the researcher adopted purposive sampling to select participants who were kidnapped and later freed after ransom has been paid for the study.

Since these kidnapped and later freed victims (participants) are spread across thirty-six states of the federation and federal capital territory (Abuja), six geopolitical zones (South South zone, South East zone, South West zone, North Central zone, North East zone and North West zone) were used in the selection of participants. In each of the zone, two participants were selected. In total, twelve participants were selected for this study. The method in which information is going to be solicited from participants quickly came to mind. Since this is a qualitative research where participants will volunteer information on his/her experience during and after kidnapped, it is appropriate that semi-structured interview was used to elicit information from the participants.

To reduce old traumatic memories, all ethical issues were taken care of before the actual date for the interview. For instance, this researcher wrote letters to participants' parents requesting their permission to allow them to participate on the study. At the same time, letters of permission were sent to these participants for their voluntary participation on the interview. Consent forms were designed and distributed to all the participants for signature indicating their willingness to volunteer information. Since identification of these students during interview may lead to stigmatisation, their real names were replaced with pseudonym. For avoidance of any ugly incidence of traumatic disorder during interview conversation with the participants, a traumatic therapist was hired to counsel them before the commencement of conversation. However, during the interview session, audio recorder was used. The reason for audio recorder was to ensure that participants' narratives were recorded verbatim. In fact, Nordstrom (2015), Rutakumwa, Mugisha, Bernays, Kabunga, Tumwekwase and Mbonye (2020) had earlier submitted that the reason why audio recorder is used in qualitative research is based on the fact it normalises discursive practice. Similarly, fieldnote was also used during the interview. The reason for the use of fieldnote was because it allows the researcher to write down participants'

feeling in an unobtrusive manner (Canfield, 2011). After the conversation with participants, the information collected was transcribed. The transcribed text was coded using Teman and Saldaña's (2019) model which allow for a pattern which is repetitive, regular and consistent occurrences of action/data that appear more than twice (Saldaña, 2021). The emerging themes after the text has been codified were analysed using narrative analysis (Atkinson & Carver, 2020). The choice of narrative analysis is to understand how my participants construct stories and narrate same based on their kidnapped experience.

Findings

From the analysis of the first research question which bordered at what time did university students usually kidnapped by insurgents are explained below.

They came by night

From the analysis, most of the participants stated me that it was at night that they were captured from their halls of residence by boko haram members. Specifically, Amina narrated how she spent hours in the day studying in the school library. She was forced to return to her room by 9.12 P.M after she felt exhausted with her academic work. On getting to her room, she could only take her bath and went straight to her bed. After some hours, her sound sleep was disrupted with sound of gunshots. She went on to state that before she knew what was going on at that particular moment, she was dragged out of her bed to a waiting truck by three hefty men. In probing further, this researcher asked Amina whether these three men did inform her where they were taking her to. In her reply, she said:

> *I could not ask where they were taking me to due to that fact I was afraid of being raped or killed. Secondly, since this event happened at night, there was no opportunity to ask any question. Moreso, they used soldier's voice to order me around, therefore, I was so afraid to ask them anything.*

In a similar circumstance, Bako who was released from bandits' captivity after ransom of almost six hundred thousand dollars was paid by his parents was still traumatised when this interview was conducted. However, he was able to report that he was abducted by bandits at the middle of the night. He stated that the bandits numbering about twenty-one gained entry into the university campus after they killed security guards on duty. They divided themselves into four groups, thereafter, they moved one room after another picking students. Probing further, Bako was asked how many students they were able to capture and how many trucks were there to convey the kidnapped students. Bako was reluctant to answer the question, after few minutes, he replied:

> *I would not want to be reminded of the event of that faithful night. But if you insist, the bandits effortlessly kidnapped eighty-six students because all security guards at the university gate were killed and there was no policeman or soldier to give them any resistance. We were all carried away by three lorry trucks they came with.*

Narratives from the participants indicated that most kidnappings were carried out at night. In fact, Amina and Bako specifically stated that they were abducted at night by bandits who were ruthless and deadly. Further investigation revealed that before students were taken into captivity, bandits have to kill all security guards on duty. Bako reported that aside from killing of security guards, three lorry trucks were used to transport kidnapped victims to bandits' den.

It happened during lecture period

From the analysis, it was discovered that kidnappings were executed by bandits when students were receiving lectures. A clear oral testimony came from Philips who reported that they were having lecture that particular Tuesday at around 12.25 pm when bandits struck. According to Philips, the incident was like Hollywood film. In fact, we were kidnapped in commando's style during Political Economy class. Within few minutes, all class members were rounded up and matched in a single file to three lorries which were parked outside. This researcher was forced to ask Philips if some students escaped during pandemonium ensued. In his reply, he said:

> *My brother, I do not want to remember what happened that day because I am still traumatised. Well, to answer your question, actually some students tried to run away but none of them are alive today. Frankly speaking, they were all shot with AK 47 and other automatic guns bandits came with.*

In another circumstance, Fatima declared that university communities in Nigeria have become theatre of bloodletting. Students are kidnapped, raped and even killed in broad day light by bandits and government is not doing anything about it. She narrated that she was kidnapped by heavily armed men who dressed in army uniforms. They stormed the university campus in mid-day. Initially, she thought that they were men from Nigerian Army in Kaduna. However, tension developed when these men began to shoot indiscriminately killing policemen who provided security in the campus. In order to establish to what Fatima was doing when bandits struck, this researcher asked Fatima to explain what time bandits kidnapped her and what she was doing before the kidnapped happened? Fatima looked at me for a moment then replied:

> *These guys (bandits) came around 2 pm. She was having a group discussion with other students on the assignment my lecturer gave. While we were still discussing on this assignment that was when other students and I were forcefully taken away.*

It was established other participants that bandits carried out their nefarious activity during broad day light. From the quotes, it was obvious that some students were kidnapped when they were in the class taking lectures, while others were kidnapped during when they having group discussion. It was also pointed out that bandits had a free day each time they went for kidnapping of students in the school because there is no adequate security put in place to counter the insurgents.

The findings from the second research question which touched on kidnapped students' experiences while in insurgents' captivity revealed that they were tortured, raped and starved of food.

We were tortured

The majority of kidnapped students narrated the ugly experience they had in the hands of bandits and boko haram group. Danladi specifically stated that he was captured while he was taking lecture with other students. After his captured, he was driven for over three hours to unknown destination inside the bush. He went on to report that him and other students kidnapped were detained in small closed container. The researcher therefore asked Danladi to narrate what happened after they were detained inside closed container. Danladi responded:

> *In fact, immediately I was detained, I was told to give my parents cell phone numbers in which I did. They informed my parents that I have been kidnapped through the cell phone numbers I gave them. They informed my parents that I can only be released when the sum of two hundred thousand dollars is paid. Aside from ransom demand, I was constantly beaten up.*

Besides beating, the researcher asked whether there was any other form of punishment given to him. In his response, he said; "*I was also informed that if in three days' time my parents failed to pay the ransom, they demanded I will be executed. I was going through both physical and mental torture.*"

Danladi's narrative notwithstanding, Aisha's story was very pathetic. She began by saying that after she was kidnapped by bandits on the 16th May, 2021, and that she was forced to trek for over 72 kilometres inside a thick forest. While she was subjected to the strenuous trekking, she was also beaten when she wanted to rest in order to regain her strength. In the midst of this physical torture, her menstrual flow started. Aisha continued; "*I was confused when it happened due to fact it was unusual since the date for the beginning of my 'flow' was still far. It dawned on me then that I was forcefully taken away from the class, hence I did not carry any sanitary pad.*" Aisha concluded by saying that she was dripping while trekking, and was seriously stained. Physical torture Godwin went through was unbelievable. He narrated how attempted to escape on so many occasion, but was closely monitored. An opportunity came for him to escape when he went to answer call of nature in which he gladly seized. However, luck ran out of him when he was later caught. Out of curiosity, this researcher asked Godwin what happened after he was caught. In his reply, Godwin declared:

> *I was thoroughly beaten by these bandits till I became unconscious. When I regained consciousness, I was chained for days. Look at the scars in which I was beaten and chained on my back and legs.*

Apparently, narratives from the participants have shown that they were subjected to both physical and mental torture by the insurgents. One of the participants specifically mentioned how she was left in her menstrual flow for days without any help. Meanwhile,

Godwin was detained in dehumanised manner. He asserted that he was chained like an animal for days, and as at the time of the interview scars was still fresh in his legs indicating how he was chained.

I was raped

Aabidah was very unlucky when she was taken hostage from her university by bandits at Kaduna state in North Central zone of Nigeria. Frankly speaking, Aabidah was reluctant to open up on her experience with the insurgents. After much persuasion, she began by saying that what happened to her should not happen to her enemy at all. Her narrative goes this way:

> *I was kidnapped around 2 pm on that faithful Monday while I was doing an assignment given to us by our lecturer. I was taken away with other eighteen students to a thick forest. I want to tell you that four female students were killed by the bandits when they attempted to escape. For fear of being killed, I was forced to cooperate with them. After I have spent three days in the camp, the leader among these bandits called me out and I was raped repeatedly for days. I cannot imagine myself being violated by a total stranger. I wish this invasion of my body should not result in pregnancy, otherwise I will kill myself.*

Unlike Aabidiah who was still in shocked and distressed but managing to response to my questions, Cecilia was unable to say a word on the issue of rape because of traumatic experience she went through. All she was able to say was; "*I do not to talk about that, I went through horrible experience. I wish God can take my life.*"

The above narrative has shown the precarious experience kidnapped female students went through in the hands of bandits. Aabidah and Cecilia's self-esteem has been eroded due to invasion of their privacy.

I was starved of food

Analysis clearly indicated that all the kidnapped students complained of starvation while in captivity. For instance, Moses was quick to point out that for almost two months he was in captivity he vividly remembered how many times he was provided with food. When the researcher probed further how often he was provided food, he looked at me for a minute and replied:

> *Sincerely speaking, the day I was lucky, I was provided with a half plate of spaghetti. But most times, four slides of bread were always provided to me as food. It was not easy to eat dry bread without water because one has to count his/herself lucky to drink half cup of water.*

Moses's view was supported by Bello and Jumai who reported that they were starved for the number of days spent at insurgents' camp. Specifically, Jumai gave narration on how she was not given any food the first three days she was taken into hostage. The researcher

interrogated how she survived during the said three days, she responded; "*I survived through the mercies of God. I was terribly weak and dehydrated because there was no drinking water.*" Furthermore, Jumai was blunt to say that when the insurgents finally brought food, she was compelled to scramble for it. The reason why she scrambled for the food was because it was very small and was not enough for all hostages. In the same circumstance, Bello said; "*I could not believe I will live to see this day. I was terribly hungry throughout the period I was in captivity. Though I was physically tortured, but I was able to endure it. However, I was nearly killed by hunger.* Meanwhile, Bello explained that food was sparingly provided and its taste was often unpalatable. He therefore submitted that most times he ate it was just for sustenance of life throughout my detention.

Discussion of findings

From all indications, findings have established that insurgents often attacked universities institutions. Majority of the participants pointed out that these insurgents usually came at night to abduct students. These insurgents probably struck at night to hide their identities. It is obvious that the majority of students usually slept on their beds at night than in the day. Therefore, they (insurgents) were aware that they will be easy to kidnap more students at night while sleeping hence their frequent attacks on students at night. After all, in 12th April, 1986, a former Chief of Defence Staff in person T.Y. Danjuma said that only an insane man stage coup d'état in the day. Olaniyan (2018) have argued that frequent abduction of students in the middle of the night were by insurgents were to ensure that they carried out their nefarious activities unhindered by Nigerian security agents.

While some kidnapped students said that bandits usually came at night, others were of view that they were kidnapped in a broad day light. It was established that most students were kidnapped while receiving lectures or doing assignment given to them by their lecturers. It was discovered that day light attacked by the insurgents often resulted in heavy casualties. In other words, each time bandits attacked university campuses, many security agents and students were killed before other lucky ones were abducted to the bush. Insurgents' attacked of students in a broad day light implies that they were not only prepared adequately for the attack, but they adequately armed with sophisticated weapons to counter whosoever tries to stop their deadly mission.

The issue of abducted students being subjected to series of torture were raised by the majority of the participants. In fact, Danladi and Aisha narrated how they were physically and mentally abused by bandits when they were taken hostage. Ordinarily, subjecting these detained students to both physical and mentally torture was not only seen as senseless and absurd, but it was the highest level of inhumanity to man. However, from my interpretive perspective, it can be argued that these students were kidnapped and subjected to physical and mentally abused in order to inform their parents on the urgent need for payment of ransom to secure their release. In fact, this finding is at variance with position canvassed by Fayah (2021) who reported that the crime of kidnapping people in Iraq was done in order to embarrass government. Similarly, findings indicated that some female students were raped by bandits. Specifically, Aabidah and Cecilia explained how they were serially exploited by bandits in detention camps. For fear of stigmatisation by the society, other female detainees refused to comment on the issue of rape, though, their different body languages indicated that they were violently desecrated by the bandits.

Aside from stigmatisation, these female students were afraid to air their views on the issue of rape because of their unborn children being called different unspeakable names if unwanted and forced copulations finally result in pregnancy.

Furthermore, finding has equally shown that aside from the abducted students being subjected to all forms of torture, they were also starved of food. A physical observation revealed that most released or freed students looked malnourished indicating they were either starved or food given to them lack good nutritional value. It is argued that the detained students were starved because bandits did not have enough foodstuffs due to their inability to go to public market square to purchase food for fear of being recognised and eventually arrest.

Conclusion

There is no gainsaying that kidnapping or taking people hostage which millions of Nigerians used to witness in countries such as Afghanistan, Pakistan, Iraq and other Arab worlds have finally arrived in Nigeria. The advent of democratic governance in Nigeria instead of bring development to Nigerians has brought insecurity. It has been observed that Nigerians sleep every night with one eye closed due to insurgents' activity. In fact, bandits, kidnappers and boko haram group have taken thousands of Nigerians hostages for ransom. In recent times, the most worrisome is the frequent kidnaping of university students for ransom. In light of the above, the study explored the time in which university students were attacked by insurgents and their experiences while in insurgents' captivity. It was reliably found that insurgents attacked students at night and while they were taking lectures in the afternoon. Similarly, it was discovered that students' experiences while in captivity were horrible. In fact, they were subjected to inhuman treatment such as torture, rape and starvation.

Recommendations

In all previous scholarly articles, the researcher found it uncomfortable to proffer any recommendation based on his conviction that these articles are not feasibility studies which demands recommendation(s). In this article, however, he found it completely different from the previous ones on the ground that Nigerians and even our foreign partners need urgent solution to the challenges of insurgency in the country. In light of the above assertion, the researcher, therefore, recommend the following:

1.   More security agents should be sent to the universities to ensure that life and property of students are protected from the insurgents.
2.   At the time of carrying out this study, students from various universities across the country are still being held hostage, therefore, government should expedite action in securing the release of these students in order for them to re-unite with their families.
3.   From all indications, it appears the activities of bandits, kidnappers and boko haram groups in the country has overwhelm the government of the day, consequently, it is appropriate for government to seek foreign assistance in combating these criminals.

References

Abramson, L.Y., Metalsky. G. I. & Alloy, L. B. (1989). Hopelessness depression: A theory- based subtype of depression. *Psychological Review*, **1** (96): 358-372.

Albert, I. O., Danjibo, N. & Albert, O. (2020). Back to the past: Evolution of kidnapping and hostage taking in the Niger Delta, Nigeria. *Beijing Language Review*, **11**: 211.

Akpan, N. S. (2010). Kidnapping in Nigeria's Niger Delta: An exploratory study. *Journal of Social Sciences*, **24** (1): 33-42.

Atkinson, P. & Carver, N. (2020). Ethnopoetics and narrative analysis. *Narrative Works: Issues, Investigations and Interventions*, **10**: 60-70.

Böhmelt, T. & Pilster, U. (2015). The impact of institutional coup-proofing on coup attempts and coup outcomes. *International Interactions*, **41** (1): 158-182.

Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., & Walker, K. (2020). Purposive sampling: complex or simple? Research case examples. *Journal of Research in Nursing*, **25** (8): 652-661.

Canfield, M. R. (2011). *Field Notes on Science & Nature*. New York: Harvard University Press.

Egbuta, W. (2019). The proliferation of small arms and light weapons: A nexus to asymmetric threats in Nigeria. *International Politics and Country Analyses*, **2**: 23-28.

Fayah, J. A. (2021). The crime of kidnapping people in Iraq causes, challenges and prevention. *Psychology and Education Journal*, **58** (2): 7463-7473.

Fadipe, R. A., Uwadia, J. C. & Kayode, O. C. (2021). Causes and the remedies for curbing the menace of kidnapping in Nigeria. *International Journal of Multidisciplinary and Current research*, **9**: 25-34.

Haeffel, G. J, Abramson L.Y, Voelz, Z. R, Metalsky, G. I, Halberstadt, L., Dykman, A. & Alloy, L. B. (2005). Negative cognitive styles, dysfunctional attitudes, and the remitted depression paradigm: A search for the elusive cognitive vulnerability to depression factor among remitted depressives. *Emotion.* **5**: 343-348.

Hankin, B. L. & Abela, J. R. Z (2011). Non-suicidal self-injury in adolescence: Prospective rates and risk factors in a 2 ½ year longitudinal study. *Psychiatry Research,* **186**: 65–70.

Joda, F. & Abdulrasheed, O. (2015). Effects of insurgency on girls education in North Eastern Nigeria. *European Journal of Education and Development Psychology*, **3** (1): 44-50.

Liu, R. T., Kleiman, E. M., Nestor, B. A. & Cheek, S. M. (2015). The hopelessness theory of depression: A quarter-century in review. *Clinical Psychology: Science and Practice*, **22** (4): 345.

Nordstrom, S. N. (2015). Not so innocent anymore: making recording devices matter in qualitative interviews. *Qualitative Inquiry,* **21** (4): 388-401.

Nowak, M. & Gsell, A. (2018). Handmade and deadly craft production of small arms in Nigeria. Retrieved from https://bit.ly/32BSlQa date 25th October, 2021.

Odumba, T. A., Shittu, T.O., Adeyemi, I. & Momoh, Y. Z. (2017). Students' kidnapping and security brouhaha: Implications on secondary schools in Lagos metropolis, Lagos State, Nigeria. *International Journal of Academic Research in Progressive Education and Development,* **6** (3): 102-118.

Olaniyan, A. (2018). Foliage and violence: Interrogating forests as a security threat in Nigeria. *African Security Review*, **27** (1): 88-107.

Olaniyi, A. J. & Aminu, H. P. (2021). Examination of the incidence of kidnapping and its implications for education in Nigeria. *Sapientia Foundation Journal of Education, Sciences and Gender Studies*, **3** (1).

Okeke, V. O. S. & Oji, R. O. (2014). The Nigerian state and the proliferation small arm and light weapons in the Northern part of Nigeria. *Journal of Educational and Social Research,* **4** (1): 12-25.

Ojo, J. S. (2020). Governing "ungoverned spaces" in the foliage of conspiracy: Toward(re) ordering terrorism, from boko haram insurgency, Fulani militancy to banditry in Northern Nigeria. *African Security*, **13** (1): 77-110.

Okpalaojiego, E. C. (2021). Causes and implications of insecurity on entreprenuarial development and small business operations in Nigeria: The panacea. *Academic Journal of Current Research*, **8** (6): 12-24.

Rutakumwa, R., Mugisha, J.O. Bernays, S., Kabunga, E., Tumwekwase, G. & Mbonye, M. (2020). Conducting in-depth interviews with and without voice recorders: a comparative analysis. *Qualitative Research*, **20** (5): 565-581.

Saldaña, J. (2021). *The coding manual for qualitative researchers*. London: Sage.

Seligman, M.E. (1972). Learned helplessness. *Annual Review of Medicine,***1** (2): 207-412.

Siponen, M., Soliman, W., & Holtkamp, P., (2021). Research perspectives: reconsidering the role of research method guidelines for interpretive, mixed methods, and design science research. *Journal of the Association for Information Systems*, **22** (4): 1-10.

Sule, B., Mikail, I. K., & Yahaya, M. A. (2020). An overview of the genesis, sources, manifestations and impact of small arms and light weapons (SALW) in Northern Nigeria. *Journal of International Studies*, **16**: 195-218.

TheCable Newspaper (2021). Bandit routes: How Nigeria's porous border with Niger.

Teman, E. D. & Saldaña, J. (2019). The cowboy code. *Cultural Studies Critical Methodologies*, **19** (1): 43-54.

Torkwembe, C. M. (2020). Armed Banditry, Kidnapping and Human Rights Abuse: An Ethical Analysis. *Jos Studies*, **1** (2): *28*-38.

Vindrola-Padros, C. & Johnson, G. A. (2020). Rapid techniques in qualitative research: A critical review of the literature. *Qualitative Health Research*, **30** (10): 1596-1604.