

TECHNOLOGY READINESS AMONG UNDERGRADUATE STUDENTS IN AN EMERGING NORTHERN NIGERIAN UNIVERSITY: PLANNING IMPLICATIONS

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ABSTRACT

One major area of interest when it comes to the issue of technology is people's readiness to use technology. This study therefore investigated technology readiness among undergraduate students in an emerging Northern Nigerian University. The study was guided by three research questions and two null hypotheses. The descriptive survey research design was used, focusing on the entire 3159 undergraduate students in the studied university as the target population. The sample size comprised 450 students selected through stratified disproportionate random sampling technique. The updated and streamlined version of Technology Readiness Index (TRI 2.0) developed by Parasuraman and Colby (2015) was adopted for data collection. The Mean and Standard Deviation were used to answer research questions, while Independent t-test and One-Way Analysis of Variance and Scheffe Post-hoc statistics were used to test hypotheses. The findings showed that the level of technology readiness among the participants was high. Also, it was revealed that optimism motivated more than innovativeness, while discomfort inhibited more than insecurity in technology readiness. There was significant gender difference in technology readiness among the participants. There was also significant difference in technology readiness based on faculty. The study concluded that undergraduate students were ready to use technology for their studies. It was recommended that students should be optimistic and innovative in the use of technology for the enhancement of their studies and attainment of learning objectives. Also, institutional management should provide enabling technology-friendly environment that will enhance students' motivation for technology usage.

Keywords: Technology readiness, Optimism, Insecurity, Innovativeness, Discomfort

INTRODUCTION

Globally, education systems are rapidly changing so as to keep pace with the latest technology and pedagogical innovations required to meet up with the 21st Century teaching-learning expectations. The rapid and remarkable developments

in technology in the last one decade have greatly impacted almost every aspects of human endeavours, including education. The outbreak of COVID-19 pandemic birthed digital transformation in all sectors stretching from the developed nations to the underdeveloped ones (Oladejo

et al., 2021). Oladejo et al. however remarked that digitization in the developed countries is not new because they already embrace and create room for innovations, creativity, and advancement. On the other hand, developing and under developed nations find it hard to finance innovations and embrace changes brought about by technological advancement.

According to Oladejo et al. (2021), technological advancement before the advent of the pandemic introduced different applications for online meetings which have also been found very useful for virtual teaching and learning, common examples are Zoom, Google Meet, Microsoft Teams, Skype, et cetera. Current innovative technology used within a college classroom learning environment may include items such as course web sites, Microsoft's Power Point, discussion boards, E-mail, and web-based research (Gustafson, 2004), as well as web-based hypermedia environments, interactive animations and simulations, and interactive hyper-videos (Gerjets & Hesse, 2004).

The development of technology has had a tremendous impact on society and has transformed the way that the global population lives in the 21st Century (Organisation for Economic

Cooperation and Development, OECD, 2010). Alduwairaj (2014) observed that although technology was initially dismissed as a fad, it has grown to dominate society in every conceivable way. This technological dominance, according to Karoly and Panis (as cited in Alduwairaj, 2014) has led to the view that the education sector has also had to develop with it, implementing curriculum that enables students to develop their understanding of technology so that they are able to benefit the workforce once they become old enough. The integration of technology into the education system has been seen as necessary and vital to the development of society as a whole.

One major area of interest when it comes to the issue of technology is people's readiness to use technology, more so that formal education practice is being shifted from the classroom (on-site) learning to online learning occasioned by the spread of Covid-19 measures the capacity of respondents to learn and adopt technologies. For the evaluation of technology use behavior, Parasuraman (2000) coined the term "technology readiness (TR)" which refers to people's propensity to embrace and use new technologies for accomplishing goals in their home life and at work (Parasuraman, 2000, p. 308). Technology readiness can be

considered as a general attitude, a predisposition which consists of several driving and inhibiting factors. According to Parasuraman (2000) technology readiness refers to people's propensity to embrace and use new technologies for accomplishing goals in home life and at work. The construct can be viewed as an overall state of mind resulting from a gestalt of mental enablers and inhibitors that collectively determine a person's predisposition to use new technologies. Specifically, by implications, Students' technology readiness refers to their willingness to leverage and embrace emerging technologies for achieving learning objectives.

Technology readiness should not be confused with "attitude," defined as an individual's positive or negative feelings (evaluative affect) about using a specific technology (Venkatesh et al., 2012). Although both are attitudinal variables (Parasuraman 2000), the former is an individual's general innate attitude (that is, attitude toward technology in general), and the latter is a context-specific behavioral attitude (that is, attitude toward using a specific technology; Wixom and Todd 2005). Third, TR differs from "self-efficacy" and "expertise," which capture beliefs in one's ability to use a technology. While readiness implies some level of

ability, TR is a more generalized individual difference concept compared to the two specific technology-related ability beliefs. Finally, TR is distinct from "perceived risk," which refers to concerns about security, system failure, reliability, and other personal, psychological, or financial risks associated with using technology (Walker et al. 2002). TR captures both positive and negative views of technology in general, whereas perceived risk focuses only on the negative side of using a specific technology. For the purpose of this study, TR has been classified into five levels according to their grand mean and standard deviation as shown in Table 1.

Table 1: Classification of Technology Readiness

Level Range	Interpretation
4.50 - 5.00	Very High
3.50 - 4.49	High
2.50 - 3.49	Moderate
1.50 - 2.49	Low
1.00 - 1.49	Very Low

Researchers like Chen and Lin (2018) and Smith et al. (2018) observed that there have been several studies that had been conducted in different countries of the world, using Technology Readiness Index in relation to usage behaviour, and such studies focused mainly on specific services or technologies. For

instance, in Chile, Rojas-Mendez and Parasuraman (2015)'s study which focused on a wider range of technological solutions such as diagnosing and treating medical problems through the Internet, shopping online or voting on parliamentary elections, established that factors of the TRI predicted consumer behaviour when an economic or physical risk came into view. Joo (2015)'s study reported that innovativeness positively predicted the social commerce behavior of Korean college students, especially to the extent they perceive this information communication technology useful, easily usable and controllable. Furthermore, the components of the TRI, with optimism being the strongest, predicted the attitudes toward certain software used by employees of a Belgian financial enterprise (Wahlster et al., 2015). In addition, TRI anticipated judgements and adaptation to several technology-based services on the sample of Greek college students (Roumeliotis & Maria, 2014).

According to the study of Ramtohul (2015) conducted in the United Kingdom, from high-levels of technology readiness, solid predictions can be made for the usage of technological services (e.g. online shopping, having internet access, using a computer or cellular phone,

drawing on E-health services). In addition, findings from a recent studies conducted in Chile and the USA revealed evidence that technology readiness is a reliable predictor of technological attitudes and also behavioral intentions in significantly different cultures (Rojas-Mendez et al., 2017; Martens et al., 2017). It is obvious that most of the reviewed studies did not focus on which of the motivator and the inhibitor components of TRI seem more important than the other in getting ready for technological usage. Besides, most of them were carried out in advanced countries, and not even in emerging institutions located in a developing nation like Nigeria. It is true that today, most university students are digital natives and they use technology well (Prensky, 2001), however, the extent to which they are ready to use technologies in an emerging institution, especially in less educationally-advantaged region is still unexplored. The desire to fill this lacuna motivated the Researcher to embark on this study. This study therefore investigated technology readiness among undergraduate students in an emerging Northern Nigerian University with emphasis on planning considerations.

Problem Statement

The use of technology within the education system and the classroom

in particular has been the subject of intense debate in recent years (Zhang & Barber, 2008). There is a current debate about the role that technology should play and whether the impact is always positive or if there are certain challenges involved and problems that exist in applying technology to the teaching and learning process (Selwyn, 2011; Domine, 2009).

There is the view that “the structured and successful infusion of mobile technologies is one way of creating a student-centered classroom. Since students see their mobile devices as integral to their lives, encouraging them to bring in and use their devices in novel ways can increase motivation” (Wankel & Blessinger, 2013, p. 103). It is then presupposing that attempts be made at examining the readiness of students to adopt technology in their learning. This study therefore investigated the planning implications of technology readiness among undergraduate students in an emerging Northern Nigerian University.

Purpose of the Study

The goal of this study is to investigate technology readiness among undergraduate students in an emerging Northern Nigerian University with emphasis on planning implications. Specifically, the study achieved the following objectives:

- i. to determine the technology readiness level among undergraduate students.
- ii. to examine the more important motivating factors of technology readiness among undergraduate students.
- iii. to establish the more important inhibiting factors of technology readiness among undergraduate students.
- iv. to determine difference in technology readiness among undergraduate students based on gender.
- v. to determine difference in technology readiness among undergraduate students based on faculty.

Research Questions

The following research questions were raised and answered so as to achieve the first-three specific objectives of the study:

- i. What is the level of technology readiness among undergraduate students?
- ii. Which of the motivating factors of technology readiness among undergraduate students is more important?
- iii. Which of the inhibiting factors of technology readiness among undergraduate students is more important?

Null Hypotheses

Two Null hypotheses were postulated and tested at .05% of significance in order to achieve the last-two specific objectives of the study

- i. There is no significant difference in technology readiness among undergraduate students based on gender.
- ii. Faculty makes no significant difference in technology readiness among undergraduate students.

METHODOLOGY

Research Design

The descriptive survey research design was used for the study. This design is appropriate because according to Oladejo (2019), descriptive survey research design is the one in which the researcher uses a questionnaire to collect data over a large population with a view to describing the existing situation between the study variables.

Participants

The population for the study is the entire undergraduate students at Sule Lamido University, Kafin Hausa, in a North-Western Nigerian State of Jigawa in the three Faculties namely: Education, Humanities, and Natural and Applied Sciences. There were 3159 undergraduate students as at April 2019 according to the Statistical

Digest of the National Universities Commission (NUC) 2019. A total number of 450 undergraduates participated in the study. They were selected through stratified disproportionate random sampling technique. The entire population was first stratified into Faculties. Each Faculty was later divided into Departments. Students in each of the Departments were also stratified based on gender, made up of 280 Males and 170 Females. Participants in the study were then selected through simple random technique.

Instrumentation

The instrument used for the study is Technology Readiness Index (TRI), first developed by Parasuraman (2000). It consists of 36 attributes that measure the construct and its components. It was published in the Journal of Service Research over a decade ago. An updated and streamlined version with 16 attributes, (TRI 2.0), was later produced by Parasuraman and Colby (2015). TRI is multifaceted, including two dimensions that are motivators and two that are inhibitors. The specific dimensions cover the Motivators and the Inhibitors. The Motivators consist of:

- i. Optimism – a general belief that technology and innovation has positive benefits

- ii. Innovativeness – an inherent tendency to want to experiment with, learn about and talk about technology.

While the Inhibitors on the other hands comprise:

- i. Discomfort – a perceived lack of control over technology
- ii. Insecurity – a belief that technology can result in adverse impacts on the user and society

TRI was adopted for the study, having found the items very suitable for the research participants and the environment. Hence, it was used without any modifications. Four subscales; optimism (e.g. "technology makes you more efficient in your occupation"), innovativeness (e.g. "you keep up with the latest technological developments in your areas of interest"), discomfort (e.g. "there is no such thing as a manual for a high-tech product or service that is written in plain language") and insecurity (e.g. "the human touch is very important when doing business with a company"). The instrument was scored on a 7-point Likert-type scale (1 = strongly disagree, 7 = strongly agree) which the participants responded to.

Validity and Reliability

The Technology Readiness Index has been validated as being a predictor of

adoption of innovative technologies, and the findings it provides in a certain context equate to different strategies that would apply to a cutting-edge product or service.

The TRI scale has demonstrated high internal reliability. Coefficient alpha scores range from .74 to .81 (Parasuraman, 2000) across the four dimensions of the scale. The TRI scale has also demonstrated high construct validity by being able to discriminate across different levels of ownership of products/services for which one might a priori expect different levels of technology readiness to be very relevant.

Procedure for Data Administration

An email, seeking permission to use TRI from the owners was first sent to one of the Authors, Emeritus Professor Parasuraman (parsu@miami.edu). This becomes necessary because both the TRI and TRI 2.0 instruments are copyrighted, and academic researchers may license them at no cost by contacting the authors for permission. Later, I was directed to contact the second author, Charles Colby (ccolby@rockresearch.com) who engaged me in further discussions, and later sent me a form which I filled before the instrument could be released. Upon my signing and returning the form, the instrument

was sent to me alongside its instructions for usage.

The researcher later prepared the google form version of the instrument, and sent the link to students. The instrument was administered when the students were on end of the Session holiday that also coincided with strike action of the academic staff union of universities (ASUU). Based on the sample size earlier determined, the responses were extracted because over six hundreds of the students responded to the survey. Thus, only 450 responses were used for the study.

Method of Data Analysis

The three research questions were analysed with the Mean and Standard

Deviation, while Student's distribution (Independent) t-test and One-Way Analysis of Variance (ANOVA) were used to test hypotheses one and two at 0.05% level of significance. Whereas, Scheffe Post- hoc analysis was used to compare the significance levels of the group means in the study

RESULTS

Data collected for the purpose of achieving the objectives of the study were analysed in this section. The results obtained thereof, and subsequent discussions were also brought to the fore.

Research Question 1: What is the level of technology readiness among undergraduate students?

Table 2: Level of Technology Readiness among Undergraduate Students

SN	Statements on Total Technology Readiness	Mean	SD
1	Technology gives me more freedom of mobility.	4.55	.90
2	Technology makes me more productive in my personal life.	4.31	.96
3	In general, I am among the first in my circle of friends to acquire new technology when it appears.	3.97	1.20
4	I keep up with the latest technological developments in my areas of interest.	4.04	1.19
5	Sometimes, I think that technology systems are not designed for use by ordinary people	3.03	1.50
6	I am too dependent on technology to do things for me.	2.41	1.30
	Grand Total	3.72	1.18

Note: These questions comprise the Technology Readiness Index 2.0 which is copyrighted by A. Parasuraman and Rockbridge Associates, Inc., 2014. This scale may be duplicated only with written permission from the authors. <https://rockresearch.com/techqual/>

Mean and Standard Deviation was used in determining the level of technology readiness among undergraduate students. Based on the classified levels of technology readiness in Table 1, it was revealed from Table 2 that the level of technology readiness among undergraduate students at Sule Lamido

University was high as indicated by the grand mean and standard deviation of 3.72 and 1.18 respectively.

Research Question 2: Which of the motivating factors of technology readiness among undergraduate students is more important?

Table 3: Motivating Factors of Technology Readiness among Undergraduate Students

S/N	Statements on Optimism	Mean	SD
1	New technologies contribute to a better quality of life	4.50	.76
2	Technology gives me more freedom of mobility	4.51	.90
3	Technology gives people more control over their daily lives	4.17	1.23
4	Technology makes me more productive in my personal life	4.31	.96
	Grand Total	4.40	.96
	Statements on Innovativeness		
1	Other people come to me for advice on new technologies	3.75	1.20
2	In general, I am among the first in my circle of friends to acquire new technology when it appears	3.97	1.24
3	I can usually figure out new high-tech products and services without help from others	3.31	1.50
4	I keep up with the latest technological developments in my areas of interest	4.04	1.19
	Grand Total	3.77	1.30

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Mean and Standard Deviation was used in determining the motivating factors of technology readiness that is

more important among undergraduate students. From Table three, it was revealed that optimism (Mean= 4.40;

SD= .96) as a motivating factor for technology readiness among undergraduate students at Sule Lamido University was more important than innovativeness (Mean=3.77; SD=1.30). By implication, being optimistic motivates students more than being

innovative in their readiness to use technology.

Research Question 3: Which of the inhibiting factors of technology readiness among undergraduate students is more important?

Table 4: Inhibiting Factors of Technology Readiness among Undergraduate Students

SN	Statements on Discomfort	Mean	SD
1	When I get technical support from a provider of a high-tech product or service, I sometimes feel as if I am being taken advantage of by someone who knows more than I do	2.00	1.21
2	Technical support lines are not helpful because they don't explain things in terms I understand.	3.47	1.28
3	Sometimes, I think that technology systems are not designed for use by ordinary people	3.03	1.49
4	There is no such thing as a manual for a high-tech product or service that's written in plain language	2.98	1.62
	Grand Total	2.87	1.40
SN	Statements on Insecurity	Mean	SD
1	People are too dependent on technology to do things for them	2.41	1.29
2	Too much technology distracts people to a point that is harmful	2.85	1.54
3	Technology lowers the quality of relationships by reducing personal interaction.	2.30	1.39
4	I do not feel confident doing business with a place that can only be reached online	2.64	1.53
	Grand Total	2.55	1.44

Note: These questions comprise the Technology Readiness Index 2.0 which is copyrighted by A. Parasuraman and Rockbridge Associates, Inc., 2014. This scale may be duplicated only with written permission from the authors. <https://rockresearch.com/techqual/>

Mean and Standard Deviation was used in determining the inhibiting factors of technology readiness that is more important among undergraduate

students. It was revealed from Table 4 that insecurity (Mean= 2.55; SD= 1.44) as an inhibiting factor for technology readiness among

undergraduate students at Sule Lamido University was less an inhibiting factor than discomfort (Mean=2.87; SD=1.40). This implies that discomfort, rather than insecurity

inhibits students from their readiness to use technology.

H0₁: There is no significant difference in technology readiness among undergraduate students based on gender.

Table 5: Gender Difference in Technology Readiness Among Undergraduate Students

Variable	Gender	Mean	SD	N	df	t	P	Remark	Decision
Technology Readiness	Male	21.96	2.80	450	448	-3.105	.002	Sig	H0 ₁
	Female	22.78	2.73						

The test is significant at the p<.05 level

Student Independent t-test was used in testing significant difference in technology readiness among undergraduate students based on gender. Finding from Table 5 showed that there was significant gender difference in technology readiness among undergraduate students at Sule

Lamido University (t= -3.105; P=.002; Df=.448), with female students more ready than their male counterparts.

H0₂: There is no significant difference in technology readiness among undergraduate students based on faculty.

Table 6: Difference in Technology Readiness among Undergraduate Students Based on Faculty

Total Technology Techno	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	517.697	2	258.848	39.538	.000
Within Groups	2926.401	447	6.547		
Total	3444.098	449			

Analysis of Variance was used in testing significant difference in technology readiness among undergraduate students based on faculty. From the analysis on Table 6, it was shown that there was significant difference in technology readiness among undergraduate

students based on faculty ($F= 39.538$; $Df= 2, 447$; $P=.000$). However, in order to determine where lies the significance, a Scheffe post- hoc analysis was run. Finding is as shown in Table 7.

Table 7: Multiple Comparisons of the Significant Difference

Dependent Variable: Total Technology Techno

(I) Faculties	(J) Faculties	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	Upper Bound
Education	Humanities	2.44554*	.28906	.000	1.7356	3.1555
	Natural & Applied Science	1.69554*	.29490	.000	.9713	2.4198
Humanities	Education	-2.44554*	.28906	.000	-3.1555	-1.7356
	Natural & Applied Science	-.75000	.32512	.071	-1.5485	.0485
Natural & Applied Science	Education	-1.69554*	.29490	.000	-2.4198	-.9713
	Humanities	.75000	.32512	.071	-.0485	1.5485

*. The mean difference is significant at the 0.05 level.

From Table 7, it was revealed that there was significant difference in technology readiness among undergraduate students in the Faculties of Education and Humanities, as well as Education and Natural and Applied Science, but no significant difference between undergraduate students in the Faculties of Humanities and Natural and Applied Science.

DISCUSSION

Finding from the first research question that probed into the level of technology readiness among undergraduate students at Sule Lamido University showed that the level was high as indicated by the grand mean and standard deviation of 3.72 and 1.18 respectively. This finding is not surprising because according to Prensky (2001), most university students today are digital natives and use technology well.

Gustafson (2004) argued that college students today expect to use and learn cutting-edge technology during their academic careers and believe that these learning technologies are integral to their course work.

Finding from the second research question which probed into the more motivating factor of technology readiness among undergraduate students between optimism and innovativeness revealed that optimism (Mean= 4.40; SD= .96) as a motivating factor for technology readiness among undergraduate students at Sule Lamido University is more important than innovativeness (Mean=3.77; SD=1.30). This finding is in agreement with that of Wahlster et al. (2015) in their study on factors of the TRI that predicted consumer behavior when an economic or physical risk came into view and reported that optimism had the strongest prediction of attitudes toward certain software used by employees of a Belgian Financial enterprise.

This finding however runs contrary to those from some previous studies such as Chen and Lin (2018); Smith et al. (2018), and Joo (2015) that mainly focused on specific services or technologies. For instance, innovativeness was reported to have positively predicted the social

commerce behavior of Korean college students, especially to the extent they perceive this information communication technology useful, easily usable, and controllable (Joo). It could be deduced from this study's finding that participants seem not either too innovative or that they do not believe that technology has really brought about innovativeness that is good enough to motivate them to be ready for technology but they are still optimistic.

Furthermore, result from research question number three, which probed into the less inhibiting factor of technology readiness among undergraduate students between discomfort and insecurity revealed that insecurity (Mean= 2.55; SD= 1.44) as an inhibiting factor for technology readiness among undergraduate students at Sule Lamido University was less an inhibiting factor compared with discomfort (Mean=2.87; SD=1.40).

Finding from the first hypothesis which postulated that there is no significant difference in technology readiness among undergraduate students based on gender was rejected because finding showed that there was significant difference in technology readiness among undergraduate students at Sule Lamido University ($t= -3.105$;

$P=.002$; $Df=.448$) based on gender, with female students more ready for technology than their male counterparts. This finding corroborates those of Cai et al. (2017), Rojas-Mendez et al., (2017), Rojas-Mendez & Parasuraman (2015) and Zhou et al, (2007) who all established significant difference in technology readiness and adoption between men and women. However, while in this present study, female students were found to have more readiness than their male counterparts, some previous studies reported contrary results. For instance, based on the meta-analysis, Cai et al. (2017) incorporating scientific results from 1997 to 2014 established that males overall hold more favorable perceptions about new technologies. Similarly, a considerable amount of research has further provided evidence that women are less open to new technologies (Rojas-Mendez et al., 2017; Rojas-Mendez & Parasuraman, 2015; Zhou et al., 2007). Some probable reasons that could be adduced for this noticeable difference may be due to basic differences in fields of interest (Billington et al., 2007) or that women consider these innovations less socially useful (Cai et al., 2017), experience higher levels of anxiety (Venkatesh & Morris, 2000), and lower levels of self-efficacy (Cai et al. (2017).

Finally, finding from the second hypothesis which postulated that there is no significant difference in technology readiness among undergraduate students based on Faculty was rejected because finding showed that there was significant difference in technology readiness among undergraduate students at Sule Lamido University based on faculty ($F= 39.538$; $Df= 2, 447$; $P=.000$). This significant difference in technology readiness among undergraduate students was noticed between the Faculties of Education and Humanities, as well as Education and Natural and Applied Science. The studies of Zhou et al., (2007) and Billington et al., (2007) had earlier confirmed this finding.

CONCLUSION

The importance of technology in the promotion of effective learning has been further underscored in this study. The study therefore concluded that students' optimism and innovativeness are critical to their readiness to use technology in their studies.

RECOMMENDATIONS

The study recommends as follows:

- i. The Institutional Management should encourage students to be optimistic and innovative in the use of technology for the enhancement of their studies and

attainment of learning objectives. This can be achieved by exposing students to regular training on technology utilisation and provision of enabling technology-friendly environment that will enhance students' motivation to use technology for their studies.

- ii. Anything that will bring discomfort for students when using technology in their studies should be prevented. Stable internet provision and good devices need to be possessed by the students.
- iii. Male students should be encouraged to be ready to adopt technology for their studies, rather than using it more on non-academic activities.
- iv. Every Faculty leadership should ensure that their students are encouraged and exposed to the use of technology.

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ENVIRONMENTAL AND PSYCHOSOCIAL DETERMINANTS OF ATHLETES' PEAK PERFORMANCE

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ABSTRACT

Globally there is a growing recognition that sport performance especially at the professional level needs athletes with sustained outstanding performance at any point in time they are called on. This is seen as a state of mind in which athletes show feeling of superior functioning and have clearly focused attention, lack of concern with outcome, effortless performance, perception of time slowing down, and a feeling of supreme confidence. Various factors have been observed to either enhance or impair an athlete from achieving such state of mind. Therefore, this current review examined the effect of several psychosocial and environmental factors that influences, impairs or increase the chance of an athlete from actualizing this peak performance in their career. Some of the psychosocial and environmental determinants addressed include age, family relationship, emotions, stereotyping/pressure, jet lag, weather condition, coach, playing surface and emotions. This article enhanced the understanding of individual athletes, coaches and other individuals on how these various determinants influence athletes' performance in any sporting activity.

Keywords: Peak performance, Psychosocial determinants, Environmental determinant

INTRODUCTION

When an athlete experiences a feeling of sense of purpose, direction, a clear sense of identity, a sense of destiny during performance, such moment or experience is known as peak performance. Gaining and sustaining this experience by an athlete is a tremendous achievement for both the athlete and his or her coach because performing at such peak levels brings various episodes of meaningful achievements. Accordingly, being aware of one's purpose and deriving

significant meaning during performance promotes the peak performance state of mind. The consistency of achieving this peak state of mind differentiates elite athletes from their counterparts. Meanwhile peak performance does not depend on physical strength alone but health, environmental, emotional and mental focus is also critical to the achieving the best.

However, after a great performance, athletes have described a feeling of

being in the zone as when they feel invincible, as if the game slowed down, the crowd noise fell silent and they achieved an incredible focus on their mission. It is seen as the feeling of being moved down a river by the current. Understanding this phenomenon of flow or peak performance among athletes is very important because its occurrence is not unique to athletes but other individuals in any other activity especially when they are completely focused, incredibly productive and have lost track of time. This period is usually when such individuals is more productive in his or her endeavor. In achieving such state, several factors which are known as determinants play a role in either promoting or impairing its actualization. This article reviews the psychosocial and environmental determinants of athletes' peak performance. The psychosocial determinants are seen as the psychological and social determinants of achieving peak performance among athletes while the environmental determinant involves the external factors in the athletes surrounding. For the environment factors emphasis was on the factors in the physical environment such as weather condition, altitude, playing surface of athlete, jet lag amongst others. The importance of consistently achieving peak performance state of mind

during performance led the researcher to review the various factors that influences athletes in reaching such state of mind. In view of this, the researchers discussed the following in this review and they include concept of peak performance, overview of psychosocial and environmental determinants, psychosocial determinant of athletes' peak performance and environmental determinants of athletes' peak performance.

Concept of Peak Performance

Peak performance is also seen as been in the zone. According to Privette as cited by Adeyeye and Kehinde (2013), peak performance is the level of optimal functioning where athletes found themselves in the zone and things are just working out fine. In actual sense, it is the primary goal of most athletes. It can also be seen as the moment when an athlete puts it all together, when they are in the zone, when everything flows and when they achieve an exceptional performance. However, Wells (2010) described the state as when an athlete is of superior functioning and whose characteristics are clearly focused attention, lack of concern with outcome, effortless performance, and perception of time slowing down and a feeling of supreme confidence.

Although peak performance is seen as an experience which is difficult to

capture and usually last for a very short time, various research has been embarked upon to create episodes of peak performance through applying skill training techniques. This is usually done because when athlete physical skills do not differ much from competition to competition, it is significant that they consistently perform at their peak during each competition. In view of this, various characteristics has been reported by athletes on identifying peak performance. They include feeling of being complete control, feeling effortless performance, a narrow focus of attention, being relaxed, feeling confident and not having a fear of failure during their most exceptional moment in sports (Wells, 2010). Other characteristics include high self-confidence, ability to self-regulate arousal, expectation of success, total concentration, keen focus on the task at hand, viewing difficult situations as exciting and challenging, being productively a perfectionist, having a positive attitude and positive thoughts about performance and having a strong determination and commitment (Krane & Williams, 2006). Loehr and Schwartz as reported by Hallett (2011) summarized the description of a peak performance of an athlete as feeling calm, challenged, engaged, focused, optimistic and confident.

Overview of Environmental and Psychosocial Determinant

Environment normally is used to speak of biological and natural surroundings. All the external factors and conditions that affect people's lives are in the environment. Evidence has been put forward that there is a great connection between environment and health which is one of the determining factors of athlete performances.

However, determinants have been viewed to be factors that decisively affect the nature or outcome of something. The environmental factors are considered external if they involve either variable that are out of the athlete's conscious decision. Similarly, psychosocial determinant addresses voluntary consumption of alcohol, sleep, a variety of emotions of the athlete and also the team's environment reveals a better understanding of a wider variety of factors that may influence athletic performance.

Dahl (2013) categorized the playing environment into hot and cold he explained that as an athlete exerts energy when exercising in a hot environment, that the individuals core temperature will rise greater than if the individual was exercising at a moderate temperature this is due to excessive fluid loss and impaired thermoregulation in external environment. In warm environments,

when an athlete exercise it induces a rise in core temperature, sweating rate and progressive dehydration. This effect may be the explanation for decreased athletic performance when environmental temperature rises because at this point the athlete body innately anticipates an undesirable rise in core temperature which makes the player slows down before a critical temperature is reached thus producing a reduction in performance by about two to three percent. In the same vain, Ozgunen et al. (2010) confirmed this view when he submitted that soccer players covered fifteen percent less distance in hot environment. Based on this evidence it is pertinent to say that hot environment can adversely affect athlete performance. Dahl, (2013) also ascertain that cold weather influence athlete performance negatively, cold wind contributes to decrease in body temperature through the process of convection. Prolonged exposure to cold temperature reduces core body temperature this is more visible with athlete with small body size as heat is able to escape more readily due to less body surface area.

However, psychosocial determinant involves both psychological and social factors and they include age, marital status and education. It can also negatively influence an athlete's performance factors such as

performance anxiety; anxiety is a maladaptive emotional state that is typically associated with heightened arousal and the interpretation of a situation as threatening or dangerous. Anxiety is a well-known pregame emotion. Performance anxiety can manifest itself in two ways; physical or somatic anxieties which include excessive sweating need to use the toilet often. The second performance anxiety is mental or cognitive anxieties which include worrying, negative thoughts, confusion and lack of concentration. Another emotion that affects performance is anger. Sleep, it is a known fact that our body needs sleep in other to function at its highest level. It is during sleep that the brain relaxes and our body gain energy for the next day activities. A good night sleep is important to enhance athlete performance but most athletes tend to have limited sleep time due to competition schedules, prolonged training days. Underwood (2010) opined that the muscle need sufficient amount of sleep in order to meet the demands of reflex and reaction impulses he further stated that lack of sleep also reduces blood flow to the brain resulting in performance anxiety.

Psychosocial Determinant of Athletes' Peak Performance

Psychosocial determinant of athletes' peak performance involves both the

psychological and social factors that influence an athlete attainment of peak performance state of mind consistently. Based on this determinant that affects the achievement of being in the flow, athletes need to maintain the following components during their training and performing in a game. They include control (ability to maintain emotional control regardless of distraction), confidence (the belief in one's own abilities), concentration (ability to maintain focus) and commitment (the motivation to continue working to agreed goals). Therefore, the following psychosocial factors can either impair or enhance the attainment of any of the four components that drives towards peak performance. They include:

Family Support: Family support especially from parents and loved ones is high necessary in determining the performance of an athlete developing especially from childhood. Also during adulthood stage of the athlete, parents continue to provide support in a background role, as providers of financial support, and more importantly emotional support which athletes utilize to activate the state of mind to perform at their peak.

Age: Many sporting codes group children by age to moderate

evaluation and competition; however, research indicates that older individuals in a given age cohort, (i.e. that have a greater 'relative age'), report higher levels of proficiency. According to Malinowski (2011), for athletes' peak performance, age is everything. It has been observed over the years that athletes' performance tends to decrease as people get older and their bodies wear down physically. Hence Malinowski further stated that for actualizing peak performance or setting world records in a given sporting discipline, the average age is 26 years.

Emotions of Athletes: Anxiety, arousal, hope and happiness are some emotional control factors that can impact on performance of athletes. Competitive anxiety has the ability to make athletes react physically or mentally that can impair their achievement of peak performance. Arousal can be seen as a continuum ranging from drowsiness/sleep to a psyched up, hyperactive state. In order to achieve the most optimal level of arousal for a given performance depends on the athlete arousal level and how well that level aligns with the expected arousal level demands of the sporting activity. According to Dahl (2013), emotions of vigor, calmness and happiness were associated with successful performance that is pleasant

emotional state correlated to the attainment of performance goals such as a consistent peak performance state of mind.

Stereotyping and Pressure: In most professional sports in the world, the pressure on athletes to perform well is excessively high. This could arise from the expectation of these athletes. If an athlete feels the expectance to perform well, he or she is said to be experiencing a positive stereotype, but on the other hand, if the athlete is expected to perform poorly, it is a negative stereotyping. Hence when an athlete enters a game with positive stereotype, he or she will have the tendency to perform well and aim at been in state of flow. According to Dahl (2013), stereotyping may cause a player to play a better or worse in a self-fulfilling prophecy based on the stereotypes that pertain to him or her.

Stress: Various stressors have been observed to affect the performance of an athlete because it leads to fatigue which affects the concentration, confidence and control of the emotions of the athlete. Some of these stressors include being adequately physically prepared, internal and external expectations, athlete image, opponent of the athlete, sustaining injury, the playing environment and organizational stressors. If not

checked, it can adversely affect the performance of an athlete.

Mental Imagery and Toughness: Mental imagery of previous good performance can help athletes remind themselves on the feeling of successful performance which help sustain or ensure the repetition of such performance. While in mental toughness, the individual or team with more superior toughness usually triumph more than their counterparts who are mentally weak (Guccianrdi, Gordon & Dimmock, 2008).

According to Dahl (2013) coaches have a direct ability either to catalyze or thwart the development of mental toughness among athletes. A coach can positively develop mental toughness in many ways including, “developing and maintaining positive coach–athlete relationships... creating training environments that continuously challenge and expose players to various challenges and employing specific techniques that include coaching behaviours and game awareness” (p. 162).

Motivation: Motivation of athletes could be seen as either extrinsic or intrinsic motivators. Motivation that comes from within the individual is intrinsic and they include enjoyment, satisfaction, improvement and enhanced feelings of self-worth.

While the motivations that are externally focused and involve material gains such as financial reward, awards, trophies, recognition and glory are extrinsic motivations. Hence in achieving peak performance by athletes, it depends on athletes' motivation towards achieving their goals. In this regard, motivation is seen as a rationale for partaking in an activity, learning the skills involved, training and practicing and dedicating efforts to improve by an athlete.

Goal Setting: According to Wells (2010), goal setting has been observed to influence athletes' performance. He further stated that goals that result in the highest level of performance are those that are specific and challenging. It is also seen as an extremely effective motivational technique.

Relationship: According to Douglas and Carless (2011), relationships are closely linked to sports performance in various ways. They include family and personal relationships which provide the first line of support when things go wrong. Then positive relationship with teammates and squad members which improve performance and a trusting, communicative, supportive coach-athlete relationship are also important for most athletes' performance but usually takes time to develop.

Therefore, positive relationship is paramount in achieving peak performance state of mind.

Environmental Determinant of Athletes' Peak Performance

Environmental factors have a tremendous influence on the performance of athletes. These factors are not merely the physical characteristics of the athletes surrounding but they also include biological, social and economic characteristics that contribute to the athletes' physical and mental well-being. The environment as a determinant of athlete performance can also be categorized into microenvironment (those factors over which the athletes have a relatively large amount of personal control and include most personal behaviour) and macro environment (those factors which influences the athlete performance that they have little immediate control). The following are some of the environmental determinant of athlete peak performance.

Weather Condition: Weather is seen as the atmospheric condition of a place at a particular point in time or period. It plays a major role in determining the achievement of peak performance of an athlete. For instance, Dahl (2013) stated that when environmental temperature

risers, it tends to reduce athletes' performance due to excessive fluid loss and impaired thermoregulation in extreme environment. On the other hand, cold environment is also a major concern in attaining optimum performance by an athlete as it can affect their pulmonary system (bronchospasm can occur) which results in higher exertion and a decrease performance. Hence, the ability of an athlete to thermoregulate adequately depends on his or her body type. Condition of field, pitch or turf: The condition of the playing surface have a great influence on achieving a peak performance state of mind. This can affect the athlete concentration, control, commitment and confidence at a particular game. In terms of playing surface, it can be categorized into unfavorable or favorable condition and bad or good playing condition. In terms of favorability of playing surface, fields are being installed as artificial or natural turf to take the place of regular grass field. There tend to be some significant negative impact to athletes playing on synthetic grass. According to Dahl (2013), most of the concern over the switch to artificial grass is focused on injury rates and types of injury which can affect significantly the athletes' commitment, confidence and control in a game.

Pollution: Pollution is seen as the introduction of substances or

materials into the environment in amounts that reduce the natural quality of the air, soil or water thereby making them harmful to man. The harm seriously affects athletes. Athletes exercising or performing in urban environment may be exposed to a variety of pollutants that may affect their performance. The most common of this pollutants include carbon (II) Oxide (Carbon monoxide), ozone, particulate matter, sulphur oxide, nitrogen oxide and peroxyacetylnitrate (PAN). The pollutants are of great concern due to their tendency to impair the effectiveness of the pulmonary and vascular system which in turn impairs performance (Rundell, 2011).

Altitude: This factor has a pertinent influence on the performance of athletes especially in aerobic events (short lasting events) because the partial pressure of oxygen decreases as barometric pressure falls. In the athletes' physiological system, this can lead to a decline in pulmonary diffusion of oxygen into the blood and a measurable effect on maximal oxygen uptake can be seen at elevations as low as 1524meter (5000ft) (IAAF, 2010). However, prolonged stay at altitude maybe detrimental to achieving peak performance, so altitude training should be interspersed with periods near sea level. A large amount of

oxygen throughout the body leads to physiological changes that have been shown to decrease prolonged athletic performance (Dahl, 2013). Actually most athletes who recognize the impact of altitude, may not be aware of how altitude affect some sporting techniques such as throwing, kicking or even reaction to an approaching ball.

According to Dahl (2013), the decrease in air density that accompanies increasing altitude translates into a decrease in the drag and lift forces in the air acting on a ball. Also while altitude can affect the player's physical performance concerning the player's ability to adapt to the aerodynamics differences in ball movement. Also in elevations above 1500m, there tend to be cases of acute mountain sickness or serious altitude illness syndrome such as high altitude pulmonary oedema or high altitude cerebral oedema.

Jet Lag: It is the extreme tiredness and other physical effects felt by a person after a long flight across different time zone. It is also known as dysrhythmia (rhythmic oscillations). Jet lag affects numerous physiologic functions that contribute to athlete performance. They are expressed as oscillations in physiologic systems (body temperature, heart rate, hormones,

secretory rate) and responsiveness to internal stimuli (neurotransmitters, electrolytes, metabolic substrates) or external factors (environmental factors, food, drugs, other stressors) (IAAF, 2010).

Coach: In this review, the coach is observed to play an important role in preparing the athlete with the ability to overcome mental obstacle and gain peak performance mindset. According to Baric and Bucik (2009), varieties among coaching styles on the basis of their characteristics of personality, knowledge, experience, communicative skills, team leadership and motivation methodology can directly influence the same characteristics in the athletes. Dahl (2013), reported a survey conducted by Zourbanos, et al. (2010) when they revealed that positive coaching environments correlated positively with positive self-talk. In this regard, coaches are the main facilitators in enhancing program effectiveness, team relations, group and personal performance of an athlete. Therefore, they play a major role in the control, commitment, confidence and ensuring concentration of focus of athletes in achieving peak performance consistency in any given competition.

CONCLUSION

It is noteworthy that peak performance does not only happen to athletes but also individuals in various activities especially when the individual is completely focused and incredibly productive, therefore the individual can be said to be in the flow. This reveals that peak performance state of mind should be emphasized in various activities in order to gain maximum satisfaction and productivity. Achieving peak performance is the ultimate goal of most athletes especially the elite sportsmen and women in every competition they engage in.

RECOMMENDATIONS

Therefore, coaches and the athletes are mandated to strive towards getting into the zone especially through control the various factors that could either mar or encourage its achievement.

Also, in actualizing and sustaining peak performance among athletes, they should focus on rehearsing and practicing some weeks or months before a competition some psychological skills needed for peak performance in order to make such skills automatic on them. Also before the actual competition, athletes can perform some routines or rituals such as telling jokes, light physical activity, systematic breathing,

listening to music, practicing entering technique and so on. This is done to encourage positive thinking, self-imagery and prepare the athlete mentally to the performance. During the competition proper, the athlete should try to stay focused on the present task, have immediate control over it and skills should be automatic and performed unconsciously by the athlete.

Thereafter reflection of the performance on the competition by the athlete should be done immediately after the performance in order to gain feedback that can be used for improvement purposes. This is necessary because it is the time where the performer is most aware of aspects of their performance. Ultimately these activities proposed by the researchers from the pre competition, competition and after the competition are geared towards ensuring consistency in attaining peak performance by athletes. All these can only be possible if the psychosocial and environmental determinants are effectively recognized and utilized to favor the athlete performance.

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EFFECTS OF COMPUTER ASSISTED INSTRUCTIONAL PACKAGE ON ADULT LEARNERS' ACADEMIC ACHIEVEMENT IN NON- FORMAL EDUCATION CENTERS IN MINNA, NIGER STATE, NIGERIA

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ABSTRACT

This study focused on investigating the effect of Computer Assisted Instructional Package on adult learners' academic achievement in Non-Formal Education Centres in Minna, Niger State, Nigeria. The study employed correlational and survey research designs. Two Adult Education Centres in Minna were selected for the study. The population of the study was 900 adult learners in both centres. Sample of two hundred and sixty-nine (269) respondents was randomly obtained using the Cochran formulae. The instruments employed in the study were Computer Assisted Instructional Inventory and Adult Learners' Achievement Questionnaire. One of the centres was treated using Computer Assisted Instruction during facilitation process while the other was not before the administration of the instruments. Data collected for the study was analyzed using Multiple Regression analysis. The finding of the study revealed that Computer Assisted Instruction contributed positively towards the adult learners' achievement in Minna, Niger State Nigeria, in favour of the Adult Education centre treated using Computer Assisted Instruction during facilitation. It was therefore recommended that Adult Education teachers should integrate Computer Assisted Instruction Package during the process of instruction in order to improve adult learners' achievement in adult and non-formal education centers.

Keywords: Computer assisted instructional package, Adult learners, Academic achievement, Adult education, Non-formal education

INTRODUCTION

The integration of contemporary and innovative technology into teaching has change the landscape of education in the world, Nigeria is no exemption.

The advent of technology-based learning has caused a paradigm shift of instructional methods from traditional methods to computerized methods of instruction in developed

nations. In Nigeria, computers are used not only as a means of helping schools for analyzing data, it is also a pervasive tool toward optimizing student's learning (Gambari et al., 2013).

Bawa and Moyijo (2015) noted that educational needs have grown beyond the competence of teachers alone, thus there has been growing emphasis on the quality of teachers, teacher education programmes and availability of training and development facilities in all educational planning and development in Nigeria (Yunusa & Geraldine, 2020).

The potential benefits of Computer Assisted Instruction (CAI) cannot be underestimated in the contemporary world since there are established findings on the instructional value of computers, particularly in advanced countries (Gambari et al., 2013). The Integration of ICT in the teaching learning process has been adopted through the use of computers and other technological gadgets for curriculum content delivery (Ayuba & Timayi, 2018). The computer could be accessed individually or as a group unlike in a conventional classroom where students are lumped together irrespective of their individual differences and class size (Laleye, 2019). CAI is undoubtedly a relevant

and functional ICT tool for providing education to learners in order to assist them develop the required capacity for the world of work.

According to Sharma (2017), Computer Assisted Instruction (CAI) is the presentation of instructional content on a computer flat form with features of interactivity, sound effect and illustrations. It allowed learners to drive their own canoe in a learning route with little assistance from the teacher. Instructions assisted by a computer are considered a new way of learning because the instructional content is programmed using a computer software. The potential benefit of these ways of teaching and learning are enormous with a number of researchers advancing arguments of instructional value and relevance, especially in countries that technologically has advanced. Computer assisted instruction is regarded as means of strengthening the education whether formal or informal. It is concerned with improvement of the level of achievement of students globally. Lots of efforts and reforms were made in both the developing and developed countries in ensuring the actualization and the use of computer during the teaching and learning processes (Eyo, 2018). There is relationship between the use of computer as medium of instruction

and learners' achievement, teaching is only possible if the necessary teaching facilities are available and effective methods of teaching are adopted (Soni, 2020). The Chief Examination Officer of Mass Literacy Education explained that, the performance of adult education students is not encouraging as a result of teaching with traditional method (Yusuf, 2021).

In another development, Ayuba and Imai (2018); Lashley (2017) documented the instructional value of computer in enhancing students' performance in counselor education. In support of this, Okoli and Onyeagba (2016) noted that mixing traditional method of teaching with computer as a supplement yielded a better result than using traditional instruction alone. Instructional materials and strategies, such as Computer Assisted Instruction were documented to increase learning achievement and retention. Sharma (2017) equally confirmed the improvement in both the performance and attitude of learners towards mathematics with the use of computer package. Sharma (2017); Habib, Mustapha and Ali (2019) undertook a research on the uses of CAI to examine the students reading ability. The result proved that the CAI highly improved the students' abilities. None of these studies has been conducted in

Adult and non-formal education centers. Similarly, adult learners because of their complexity in nature and as a result of their disability there is the need that facilitators should use CAI as a strategy for teaching in adult and non-formal education centers.

Okwuduba (2016) noted that introduction of computer into educational system has added value to instruction, developed teaching in more flexible way and made students responsible to learning. Computer has been found useful in almost all aspect of endeavor. It can therefore offer education the opportunity to provide new approach to learning and develop interest to learn, which may eventually enhance students' achievement.

Computer assisted instruction package is extremely crucial in assisting the students towards the adult learners' achievement in formal and non-formal education. From the reviewed literature, it was also observed that many of the researchers, Lashley (2017); Sharma (2017); Ayuba and Timayi (2018) focused their studies on formal school settings and on some concepts in mathematics. However, little has been done on the effects of computer assisted instruction on adult learners' achievement in Adult and non-formal education centers. Thus, the newness

of learning packages is in developing countries not in developed countries. Similarly, the existence of these learning packages is mostly at the formal school levels while there are little on adult and non-formal education centers. This study tends to extend such to Adult and Non-Formal Education Centers in Minna Metropolis. Thus, the focus of this study is to investigate the effects of computer assisted instructions on learners' achievement among adult learners in adult and non-formal education centers in Minna metropolis.

Objectives of the Study

The aim of the study is to investigate the effect of computer assisted instructional package on adult learners' academic achievement in Non-Formal Education Centres in Minna, Niger State. Specifically, objective of the study will be:

1. To examine the relationship between computer assisted instruction and adult learners' academic achievement in Non-formal education centres in Minna.

Hypothesis (Ho)

Null hypothesis (Ho): There is no significant relationship between computer assisted instruction and adult learners' academic achievement

in non-formal education centers in Minna, Niger State.

Review of Related Literature

Shamsideen (2015) focused on the continuing education and relevance of educational technology for adult learners; explains the using of computer based educational technologies such as Computer Assisted Instruction (CAI), computer assisted interactive learning and Computer-Mediated Communication (CMC) in adult education; and examines the advantages and suitability of these methods from the point of the adult learning characteristics. A descriptive survey research design was adopted; using simple random sampling technique to pick 50 adult teachers and 50 adult learners in Ojo Local Government Area of Lagos State. The data collected were analyzed using descriptive statistics of frequency counts and percentages for demographic data, while inferential statistics of chi-square was used to test hypotheses. Three hypotheses formulated and tested. It was deduced from the findings that continuing education is a process of self-directed inquiry through which individuals systematically learn from their daily experiences and other resources and educational technologies in their environment. Technologies offer ways of individualizing instruction to

meet the needs of adult learners and can offer opportunities to individualize instruction; reaching all adult learners in ways they learn best.

Samaila et al. (2016) conducted research on the development of computer aided instruction for effective teaching for use of electrical and electronic devices at the Nigeria Certificate in Education (NCE) technical level in north eastern Nigeria. CAI was tested by using it to teach an experimental group (S1), while control group (S2) was taught using the lecture method. The results of the study revealed that there was variation between the mean scores of students taught about the use of electrical and electronic devices using CAI and students taught using the lecture method. The CAI was found to be effective in teaching use of electrical and electronic devices. In a related development, Laleye (2019) used a quasi-experimental pre-test – posttest design to find out the efficacy of a computer assisted instructional package (CAIP) on students' performance in basic science in Ondo State, Nigeria. Two secondary schools were purposively selected and assigned to experimental groups 1 and 2 in equal numbers. Students in experimental group 1 were exposed to CAIP individually and experimental group II in cooperative groups. An equivalent school was selected as the

control. The results of the analysis revealed that students taught with the developed package performed significantly better than their counterparts taught with the conventional method of instruction.

Also, Adeshina and Hanna (2016) carried out a study that investigated the effects of CAI on independent learning skills of economics students in secondary Schools in Kaduna State, Nigeria. A two by two pre-test, post-test quasi experimental control group design was adopted. A targeted population of twenty-three thousand four hundred and sixty (23,462) public senior secondary students (SS2) in twelve educational zones of Kaduna State was used. The results revealed that students taught with the use of CAI performed significantly better than those taught without CAI.

Eyo (2018) conducted a study that investigated the effects of a computer assisted multimedia instructional (CAMI) package on secondary school students' achievement in biology in two educational zones of Niger State, Nigeria. The sample comprised of 364 students (206 boys and 158 girls) selected from six senior secondary schools in two educational zones. The samples were divided into an experimental group and a control group. The experimental group was taught using a CAMI package while

the control group was taught using lecture method. The findings of the study showed that students in the experimental group achieved significantly better than their counterpart in the control group.

Busari et al. (2016) carried out research on the effect of CAI on senior secondary students' achievement in chemical reaction and equilibrium in Egbeda local government area of Oyo State, Nigeria. The instrument used in the study was the chemical reaction and equilibrium achievement test (CREAT). The students' scores from CREAT were collected and analyzed using mean and standard deviation to answer the research questions. The results showed a significant difference between the mean achievement of students taught chemical reaction and equilibrium using CAI and those taught using a conventional teaching strategy. Thus the students taught using CAI performed better than their counterparts.

Yunusa and Geraldine (2020) investigated the impact of computer assisted instruction (CAI) on teaching and learning in Nigeria. The methodology adopted for the study is secondary data analysis. Two research questions were used to guide the study to a logical conclusion. The

concept of CAI is discussed together with a review of some of the related literature on its impact on teaching and learning in Nigeria. CAI was assessed as having powerful features that could positively improve the performance of teachers and learners in Nigeria and thus transform the education system. However, the study identified some factors militating against the adoption and efficient use of CAI in Nigeria, such as, inadequate funding of the education sector, a poor maintenance culture and the lack of a constant supply of electrical power.

By the peculiarities of Adult Learners, student of Adult and Non-Formal Education need devices such as computer assisted instructional materials that will support their abilities to learn. Based on this, a theory of motivation is needed to support their learning abilities. However, different theories have supported the use of different modes of computer assisted instruction for different subjects, different group of students based on their ability levels. Learning is a constant which is not directly observable but only inferred from behavior or activities of the learner. Obidigbo (2000) concluded that as learning is completed, a change of behavior and experience is expected which is the ingredient of solving problems. The use of

computer machine also has some bearing from behavioral theories such as the stimulus-response learning theories (S-R theories). The theories explain an association or a connection between the stimulus (S) and response (R). A stimulus refers to or excites the sense organs-eye, nose, tongue, skin and ear. Therefore, stimulus refers to all sight, smell, sound or any other influence on our senses from the environment. Response is the individual's reaction to the stimulus. In this study, the computer package serves as the stimulus' reaction to them is the response which is adult learners' achievement in adult and non-formal education centers.

A Russian Psychologist, Ivan Pavlov, (1849-1936) a behaviorist put forward the theory of classic condition as explanation of how learning take place. The major contribution of the theory is that the external environment is important in learning. Therefore, the theory emphasized on the provision of stimulating environment in schools for efficient learning. Secondly, the theory pointed out that practice exercises are essential in learning since they strengthen the S-R bond. Another behaviorist, Thorndike (1874-1949) agreed with this and stated that learning is the formation of bonds or connections between

stimulus and response (S-R), and this depends on factors which operate in the organism. From the view of these theories, the implications of the whole theories in relation to teaching and learning can be better taught using appropriate materials that can stimulate learners, such as Computer Instructional Packages.

The Dual Code theory (DCT) by James and Allan (1991) also supported the use of CAI package with it is assumption of using verbal and nonverbal approach to lesson presentation which according to him have important influence on learners' memory and retention. The important parameter for this theory is presentation of information in verbal mode and that of pictorial modes in one package where the two are serving as synergy to each other. The example of CAI packages that have this combination includes: graphics with text, animations with narration, simulation with narration, video modes and interactive games. These packages have been found to support learning in different subject areas. Although the theory recognizes cognition as the central focus for learning, the major application in literacy has been found to be effective. Reacting to this, Mayer, (2004) expresses the view that CAI has also been found to be of great

value in achievement, attitudes and interest in various subjects.

Considering the above premise of DCT, the researcher wants to experiment the use of CAI in teaching to ensure the adult learner achievement in Minna, Niger State with the believe that learning through CAI will help adult learners retains some good and concrete features of internal and external understanding of the learning concepts as enunciated by (Chandler & Sweller, 1991).

METHODOLOGY

Research Design

The research design employed for this study was correlational and survey research designs. This justification for the research designs was the study is a quantitative and qualitative research. The correlational design of the study focused on the objective and hypothesis of the study and the survey design is concerned with instrument of the study. The study employed 4-point likert scale questionnaire for the survey research.

Participants

The participants of the study comprised of adult learners in two Non-formal education centres in Minna. The two Centres have total population of 900 adult learners and the sample size was 269 which was

obtained by using the Cochran formula

Instrumentation

Two instruments were employed for the study. These are computer assisted instructional inventory (CAII) and adult learners' achievement questionnaire (ALAQ). A pilot study was conducted to determine the effectiveness of the instrument. The pilot study comprises of 38 students from the adult and non-formal education department in Niger State College of Education, Minna. The reliability test generated a Cronbach Alpha of 0.82 and 0.79 respectively for the (ALAQ) and (CAII). This indicated that, the instrument was valid for final study. Finally, the Cronbach Alpha of 0.86 and 0.94 respectively was obtained during the reliability test of (ALAQ) and (CAII). Validation process was carried out by three experts to ensure its construct, content and face validity.

Procedure for Data collection

Prior to the conduct of the study, the researchers seek the permission of the centres Directors to carry out the study. The facilitation lasted for 3 weeks. One centre received treatment using Computer Assisted Instruction during facilitation process while the other was not treated with computer

assisted instruction during facilitation process. The instruments were administered to both centres at the end of the third week by the researchers. The computer assisted instruction inventory and adult learners' achievement questionnaire were all retrieved from the respondents for the data analysis.

Data Analysis

Multiple regression analysis was used to analyse data collected from respondents. It was the form of analysis that expresses the degree at which independent variable has effect on dependent variable, Beta value (β) is the symbol indicating the degree at which computer assisted instructional package have effect on the achievement of the adult learners. Therefore, the regression model is

made up of computer assisted instruction (X) and adult learners' achievements (Y).

The Effect equation is

$$\hat{Y} = b_0 + b\chi + e_i \dots\dots\dots (1)$$

Where:

\hat{Y} = Adult Learners Achievement;

χ = Computer Assisted instructional Package;

ϵ = Random error.

RESULTS

The proposed hypothesis test, which examines the validity of the model, is expressed as follows:

$$H_0: Y = \beta_0 + e_i$$

$$H_A: Y = b_0 + b\chi + e_i$$

Table 1: Multiple Regressions on Adult Learners Achievements

Model	Unstandardized Coefficient		Standardized Coefficient	T	Sig.
	B	Std. Error	B		
(Constant)	.392	.154		2.532	.031
Computer assisted instruction	.680	.055	.635	13.87	.000

a. Dependent Variable: Adult learners' achievements

The above table of the multiple regressions analysis is expressing the effect of computer assisted instruction on the adult learners' achievements in Minna centers; the mathematical derivative of the

regression equation for the adult learners' achievement model is as follows:

$$\hat{Y} = b_0 + b\chi + e_i \dots\dots\dots (1)$$

$$\hat{Y} = .392 + (0.680)\chi + \text{Error}$$

It is therefore concluded that, the null hypothesis in the equation was rejected, ($\beta = .640$, $t = 13.87$, $P = .000$). The findings on the indicator explained the variance in the adult learners' achievements has support the alternate hypothesis that is; computer assisted instruction have effect on adult learners' achievements; Y is not equal to zero. It is concluded that computer assisted instruction has a statistical significant effect on adult learners' achievement in Minna affirm that, Computer assisted instruction has significant and positive effect on adult learners with ($\beta = .680$, $t = 13.87$, $p = .00$).

DISCUSSION

Computer Assisted Instruction (CAI) has been found to be one of the essential factors affecting the learner's academic achievement in Nigeria and globally in general. Most scholars revealed that; computer assisted instruction is interrelated with the learners' achievement, being the most suitable method of instruction that enhances the acquisition of skills and knowledge that equip students of which may eventually leads to the optimal academic achievement of students (Shamsideen, 2015). The study was set out to investigate the effect of computer assisted instruction on adult learners' achievement. This segment concerned with the discussions of the

analysis. The finding is in line with the study conducted by Samaila et al. (2016), the study was on enhancing students' performance using Computer Aided Instruction (CAI) in tertiary institutions. The study used 150 respondents as sample from 250 students of Federal College (Technical), Omoku. Respondents were grouped into two: the control team and experimental class. The two groups were treated with inorganic chemistry lessons for 4 weeks. The control class was given the ordinary lecture method and experimental class was treated with Computer Aid Instruction (CAI) package. After the instruction, both groups were given a 20-item achievement test (posttest). The result of the posttest revealed that there were significance differences in the teaching and learning of organic chemistry using Computer Aided Instruction and the ordinary lecture method. It also indicated enhanced students' performance in chemistry with the use of CAI package. A research conducted by Azuka (2013) collaborate the current study which emphasized on the use of (CAI) in tutoring and learning chemistry and its impact on students' performance in tertiary education. The research adopted the pretest-posttest experimental-control group design.

From the result, it was clear that Computer Assisted Instruction (CAI)

enhance students 'performance much better than teaching with instructional materials, that is students' performance in chemistry is enhance when Computer Assisted Instruction is effectively utilized. The current research is also in accordance with that of Gambari et al. (2013) findings, which studied the effect of computer-aided learning package on students' physics achievement among senior secondary students. The study used Eighty (80) students (40 males & 40 females) were selected using stratified random sampling techniques the control group was taught with the conventional lecture method while the experimental class was treated using the CAI package. Physics Achievement Test (PAT) was used to collect data. This was administered as pretest and posttest subjects. The study outcome shows that scores of physics students taught with CAI package was better than the one exposed to lecture method. And little significance variation was found in the mean achievement score of girls and boys' physics students treated with CAI package. In occlusion Computer Assisted Instructional (CAI) package should be used regularly and facilitators should be given regular training on the package.

CONCLUSION

This research investigated the effect of computer assisted instruction on adult learners' achievements in adult and non-formal education centers in Minna, Niger State Nigeria. The study capitulated an important result towards feeding the future researchers with empirical and conceptual on the effect of computer assisted instruction on adult learners' achievements. Based on the outcomes of the analysis, computer assisted instruction have significant and positive effect on the adult learners' achievement in adult and non-formal education centers in, Minna. Computer assisted instruction play a vital role in improving the learner achievement as it was discovered from the current and previous studies. However, there are needs to conduct similar research using a larger sample size, thus may provide an effective and efficient generalized database. The impact of computer assisted instruction on learners in Adult and Non-formal education centers in Minna Niger State was empirically acknowledged. It was therefore concluded that, the study yielded several important results towards the teeth fillings an empirical and conceptual gap between the computer assisted instruction and adult learners' achievements in the adult and non-formal education centers in Minna. There are needs to develop a

training programme with a substantial package of improving the computer skills on the instructors and facilitators of adult and non-formal education program; this may prepare them for the multifaceted teaching roles to improve learner's achievement in adult and non-formal education centers.

RECOMMENDATIONS

The researchers are of the view that the following recommendations will be important based on the reaction of respondents.

- (1) Adult and non-formal education facilitators should be stimulated to integrate the use of computer assisted instructional in their various centers.
- (2) There should be a standard computer laboratory in all the centers of adult and non-formal education in the country.
- (3) Computer lessons should be integrated into the curriculum of adult and non-formal education programme.
- (4) Facilitators should be trained regularly to be current on usage of appliances provided for the centers.

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DELIVERING QUALITY EDUCATION AMID COVID-19 PANDEMIC AND BEYOND: THE CASE FOR INFORMATION TECHNOLOGY AND TEACHER DEVELOPMENT

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ABSTRACT

This paper attempted to highlight the importance of policy framework, the provision of Information and Communication Technology infrastructure and a sound teacher training policy as panacea to the problems posed by COVID-19 and other social upheavals that the country is facing today. Essentially, the paper emphasized the redrawing of the teacher training programmes in Nigerian universities by the regulatory bodies to include more content in Information and Communication Technology with specific focus on 21ST century skills that are needed to create new knowledge and engage lifelong learning through e-learning, e-teaching and e-resources, the expansion of the role of educational technology centers and the institutes of education in universities to provide the necessary support for the paradigm shift. The paper also talked on the professionalization of the teachers and the possibility of the extension of the training period from four to five years. It is hoped that government and other stakeholders will provide the necessary policy direction and funding to make this important paradigm shift possible, for the sake of quality teaching, learning, and ultimate survival of our nation.

Keywords: COVID-19 pandemic, Quality education, Information technology, Teacher development

INTRODUCTION

The Corona Virus is a member of a group of viruses called Severe Acute Respiratory Syndrome Corona Virus (SARS COV2) which cause respiratory infections and even death among humans (Artino, 2020). However, a novel variant of the family a deadly infectious mutant medically named COVID-19 is a disease that started in a small locality called Wuhan far away in China but

rapidly moved to every corner of the globe within weeks of its emergence. The speed with which it infects human and the attendant morbidity and mortality rates have not been experienced in recent history anywhere in the world. In order to reduce the rapid infection and death through the disease, certain protocols were put in place across the globe by the World Health Organization (WHO) (2020). These protocols

include social distancing, lockdowns which included extended school holidays, wearing of face masks and attention to personal and environmental hygiene among others. The disease also brought fundamental changes to people's way of thinking, governance and business, but its impact on education is monumental given the extended school holidays where almost all educational activities were put on hold as 1.5 billion children were kept away from school for weeks.

The COVID-19 protocols as handed by the WHO and the highly infectious nature of the disease means that the regular classrooms or lecture halls would no longer suffice for the conventional teaching of large groups, accompanied with this is the extensive and over reaching lockdowns that brought the world to a standstill in almost all areas of endeavour. Education was always on the table when national think-tanks discussed the pandemic. Many solutions were proffered on how to continue to teach pupils and students under lockdown. Many universities around the world adopted strategies to sustain learning using various technologies. Ingenious proposals emerged but IT pointed the way and e-learning became the veritable tools for teaching and learning. But a lot of skepticism arose on the use of IT and

multimedia tools as they are limited and unaffordable to many especially in a low income country like Nigeria. This is buttressed by the result of a joint UNESCO UNICEF-World Bank Survey (WBS) (2020), which revealed that among low income countries only 20% considered online learning sufficient to account for official school while an average of 80% middle and high income countries considered it to be a valid alternative to official school. Nigeria as a nation with low it capability was caught unawares Thus the education system was severely threatened (WBS, 2020).

It is interesting to note how much interest the pandemic has generated among academia, as the researcher have in the past five weeks participated in three conferences and public discussions about the pandemic and way forward for education. Themes for the discussions were: Teaching with technologies opportunities challenges and prospects 2019 for the conference of Nigerian academy of education, COVID19 pandemic educational attainment and labour productivity. SCIENCE, TECHNOLOGY, ENGINEERING, ARTS AND MATHEMATICS STEAM and collaborative education in post COVID-19 twenty first century. Following the trend of conversation

my paper attempts to discuss the paradigm shift occasioned by covid-19 in relation to the delivery of high quality teaching during Covid-19 and beyond. it also highlights the role of a sound policy framework, deployment of technology infrastructure and teacher training, in enabling the delivery of quality teaching in the post pandemic era.

COVID-19 Pandemic and Education

Due to the protocols imposed on the general population mainly the social distancing and stay home-stay safe (lockdown) protocols, education around the world became severely disrupted, the regular classroom was aborted; those who would afford it opted for e-learning. Reports from around the world indicated that not only did Covid-19 disrupt classroom teaching, but many professors resigned their jobs on account of the disease. Many countries around the world adopted what is called the new normal where social isolation was imposed via lockdowns, social distancing disrupted basic human interactions that reinforced love, family, community life and other relationships peculiar to humans. The school as a community of children and their teachers was lost. Teachers became the most affected because not only were they unable to teach, but many also lacked the tools to teach as

teaching has become an activity for those who have specialized skills and knowledge as the world turned to Information Technology for solutions (Artino, 2020).

Not only the teacher but many nations were caught unprepared as those with strong IT infrastructure easily migrated to teaching and learning online. Studies have shown that countries like China, the United States of America and the United Kingdom, achieved more than 80% migration while in sub Saharan Africa less than 20% of the populations have the wherewithal to afford or to access e-learning resources (Huber & Helm, 2020). Thus, when the Federal Government directed that universities should move teaching and learning online, the private universities were able to do that leaving public universities in the doldrums. The nation therefore was put on hold as far as education was concerned as efforts to teach via electronic media like radio and television was frustrated by power outages and lack of interest by students. Research on student's interest in learning via these media showed only thirty per cent (30%) participation in some parts of Jigawa state (Huber & Helm, 2020).

Policy Framework: The Role of the Federal Government

We need however to acknowledge the sustained effort of the Federal

Government in equipping the universities' functional e-libraries, e-resource center and supportive infrastructure for teaching and learning.

Since the turn of the century the world turned its attention to Africa and put in place the Millennium Development Goals (MDGs) in order to bring poorer countries of the world at par with the rest on some basic development indices. In line with this, by the year 2000 many countries in Africa have articulated their ICT policies based on regional or country specific IT priorities. The Federal Government of Nigeria in its effort to provide the needed support to governance and the economy floated the Ministry of Information Technology and the Information Technology Development Agency (NITDA) charged with the responsibility of policy. But this policy is tailored towards Science, Technology and Innovation with research centres engaging most of the policy direction. It is however pertinent to make education the centre point of the federal government's Science, Technology and Innovation policy. For schools to survive the pandemic and beyond, there is the need to provide robust ICT infrastructure with good broadband access, basic telecommunications services and the provision of reliable

electricity to cover the country as much as possible.

Today there is a lot of debate on the National Policy on Education as to its efficacy in delivering education after the pandemic. The National Policy on Education (NPE) (2014) has articulated its policy for all levels of education under Section 11 titled: Educational Services, specifically states as follows:

“Each State and Local Government Authority shall establish Teachers' Resource Centres where teachers will meet for discussion, investigations, study workshop, short courses and conferences. These centres shall also be used for the development and testing of teaching materials. Federal and State shall establish Educational Resources Centres whose activities shall be multi-disciplinary. Their functions shall include the enhancement of the study of language, science and mathematics. They shall provide for the need of special education and serve as foci for Educational Research and Development Council” (NERDC) (NPE, 2014, p.35).

Against this backdrop, there were calls for the review of the National Policy on Education with regard to a paradigm shift in the provision of education particularly teacher training. Such policy should look at

the disaggregated classroom that provide small group of children with instruction and home schooling as alternatives to conventional schools.

Remodeling of distance learning programme, and other alternative routes to non residential tertiary education programmes to take the classroom to the learner instead of the conventional method where learners must congregate in the classroom. Today, there are virtual classrooms and there are computers, android phones, iPhones and the rest of them to log onto learning platforms anywhere. A new policy directive may wish to look at: (i) Log-in learning in clusters for secondary education through the virtual classroom; (ii) Well packaged radio and television programmes; (iii) Provision of well trained teachers and support personnel to be able to deliver on teaching outside the conventional classroom; (iv) Re-engineering of the technology infrastructure to be able to deliver education with the backup of Information Technology; (v) Provision of uninterrupted power; and (vi) Funding.

The Role of State Governments: The Story of Jigawa State

Achieving global visibility was however an uphill task as no country in West Africa was able to do that until Jigawa State launched her policy

in 2000. The aim of the policy was to put the State on the world map with e-government, e-education, e-commerce and e-health. To do this, the State in collaboration with development partners established Galaxy in Dutse and also established the Informatics Institute in Kazaure, under a franchise agreement with the Informatics Education Institute Singapore. The aim was to provide training in the area of Information and Communication Technology to the citizens of Jigawa state. This was met with an overwhelming response from across the country as Nigerian youths streamed to the State to obtain training in Information Technology. To date, this effort has produced hundreds of Diplomas in ICT the State in collaboration with Singapore in 2012 Jigawa State promulgated her ICTs in Education Policy to support in a sustained effort to provide training in Information Technology so that the teaming number of students in the state can have Computer Literacy in order to take Computer-Based- Examinations (CBE) and join millions of youths worldwide in e-learning. To this end, the State embarked on a sustained training of school administrators and ensured that all the senior secondary schools had computer laboratories. As at 2012, the State has already deployed computers to its 70 Senior Secondary School.

With the coming of the pandemic, Jigawa state only needs to dust her drawing board and gear up to the challenges of the pandemic. It's clear that the provision of quality education can be done through a well thought out policy framework that is designed for New Normal children with instruction that...

Institutional Support: The Role of Universities

To be able to provide quality teachers and teaching in the post COVID-19 classroom, there is need for the universities to go back to the drawing board and provide the intellectual content for a paradigm shift and a new framework accordingly on the New Normal for education so that government can formulate the necessary policies and use the relevant institutions to translate the policies into action.

The universities should also reactivate, expand and equip their educational technology centers to make them veritable hands on workshops for teachers in training in the improvisation of teaching resources, multimedia and other e-resources for the contemporary demands of teaching. Universities should provide computer laboratories dedicated to education faculties for the purpose of training teachers on the acquisition of computer skills and

technology. Universities should also reposition the institutes of education to provide the necessary support for the in- service training of teachers to meet the challenges of the New Normal.

Also, the only way for academic institutions, especially at the University level to remain relevant and effective in performing their roles after the Corona virus was to embrace Blended (Hybrid) Classrooms Learning Environment (BCLE). It is imperative as a New Normal for Universities' survival of post-Covid-19, and that any institution that fails to develop capacity to work along that direction would be left behind.

Teacher Preparation in Post COVID-19 Era

With the advent of the COVID-19 pandemic, technology came to the rescue of the world and played a particular positive role in education pointing the way to the future where students can receive instruction at home or in small cohorts, take examination and interact with their teachers through a virtual world. It therefore means that every teacher has to be trained in the use of Information and Communication Technology, e-learning tools and their resources to attain relevance in the profession. While conventional education will be around for a long

time and there may be no significant alternative to the book. It is perhaps necessary to take a look at the content of the curriculum of the undergraduate teacher training programme in order to enrich it or realign it to meet the teaching demands of today. Educational technology, ICT in education and media and methods courses.

In order to prepare for post COVID-19 era, there should be a significant departure, from the conventional methods of delivery of education today. This means high investments in infrastructure, formulation of new learning and teaching constructs amenable to e-learning, availability of teachers trained on pedagogical tools, management of curricular content and technological content tools. This implies realigning the curricular content to technology and e-learning that the student and teacher have to master during training.

As envisaged by Mishra and Koehler (2009), the 21st century teacher may be a digital migrant but may struggle with technology. They therefore developed a framework for integrating technology into teaching called the TPCK an acronym for Technology, Pedagogy and Content Knowledge. They advocated that the 21st century teacher when put through this integrated framework can

undertake everyday practice of teaching using all the available tools and media that technology can offer. Koehler (2014) posited that the TPCK framework has had an enormous influence in teacher education and professional development because of their focus on higher order thinking skills, collaboration and creativity.

Some key regulators of the teacher training programme like the national universities commission, the national commission for colleges of education, especially now that the NUC is reviewing the BMAS can pay attention to the courses that are related to ICT which can be remodeled to accommodate content on the New Normal or the paradigm shift in teaching and learning some of which are: (i) Media and Methods Classes at 300level; (ii) Educational Technology; and (iii) ICT in Education (Koehler, 2014). The courses listed above are core i.e., compulsory to the undergraduate teacher in training as stipulated by the Basic and Minimum Academic Standards (BMAS). It is therefore necessary to explore these courses and the mandatory teaching practice in order to redefine their objectives so as to make them more relevant to the realities of today. The aim is to create knowledge which would include: (i) Include the 21st century skills that are needed to create new

knowledge and engage in lifelong learning; (ii) This includes the ability to collaborate, communicate, create, innovate and think critically; (iii) From the teacher's perspective, the use of technology must be understood in terms of cultural artifacts, surrounding both the subject student and the subject teacher; and (iv) From the student's perspective is necessary to be prepared for the development of pedagogical activities that will require the effective use of virtual communities, collaborative applications, teamwork, tools for communication and creation and problem solving (Koehler, 2014).

It is perhaps necessary at this juncture to still revisit the issue of a five-year degree programme for teachers more so that the Federal Government has extended their time in service. If this is done many professionalization issues will be resolved. The Final Year will be tailored towards true professionalization of teachers in which e-teaching and e-learning will be one of its cardinal requirements; this would include one semester of teaching practice and well-scheduled internship training, while the second semester will be geared towards other professionalization input and requirements for registration and induction into the teaching profession. In this way, we can say that the post Covid-19 era will be met

with better prepared teachers capable of delivering quality education to the teeming population of youths in our school.

Other Ways to Mitigate COVID-19 Disruptions to Education

The British Education Policy demands that a child must be computer literate at age 5 (i.e., before starting Elementary School). It was easier for them to migrate to e-learning because of the availability of Information Technology knowledge and tools (Baumert et al., 2019). Educators have pointed out that handset tabloids and other e-learning tools that enable individual's access information send and receive message can form the basic tools for login into e-learning platforms. Information Technology education is very important at the basic level as no child should proceed to Senior Secondary School without becoming conversant with basic computer skills and how to login to e-learning platforms. There are thousands of Computer Science graduates who can be employed to Basic Education schools to teach the students basic computer skills and ability to access e-resources.

CONCLUSION

Based on the discussion in this paper, it can be concluded that in order to prepare for post COVID-19 era, there

should be a significant departure from the conventional methods of delivery of education today. This means high investments in infrastructure, formulation of new learning and teaching constructs amenable to e-learning, availability of teachers trained on pedagogical tools, management of curricular content and technological content tools. This implies realigning the curricular content to technology and e-learning that the student and teacher have to master during training.

RECOMMENDATIONS

1. The universities must go back to the drawing board and provide the intellectual content for a paradigm shift on the New Normal for education.
2. Also, universities should also reposition the Institutes of Education to provide the necessary support for the in-service training of teachers to meet the challenges of the New Normal.
3. Universities must embrace Blended (Hybrid) Classrooms Learning Environment (BCLE) to remain relevant and effective in performing their roles after the COVID-19 pandemic.

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**THE IMPACT OF NON-TEXTUAL MATERIALS ON GENDER AND
MOTIVATION OF PHYSICS STUDENTS IN PUBLIC SENIOR
SECONDARY SCHOOLS IN KANO METROPOLIS, KANO STATE,
NIGERIA**

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ABSTRACT

This study investigated the impacts of using non-textual materials in teaching physics on male and female students' motivation in secondary class two (SSII) in Kano metropolis. A pre-test, post-test, quasi-experimental research design was used. The population of the study was 11,739 SSII students in public senior secondary schools in Kano Metropolis. The sample consisted of 221 SS II students selected using simple random sampling technique. A Physics Motivation Questionnaire (PMQ) was used for data collection. The experimental group was taught Physics concepts using Non-Textual Materials (NTM) while the control group was taught the same Physics concepts without non-textual multimedia. Mean and Standard Deviation were used to answer the research questions. The findings revealed that, there was a statistically significant motivational impact on Physics among male students in senior secondary school in Kano Metropolis. Also, a statistically motivational impact on Physics existed among female students in senior secondary school in Kano Metropolis. Thus, the study concluded that non-textual materials improves students' motivation to Physics in public senior secondary schools in Kano Metropolis. It was recommended that Non-Textual Materials should be employed in teaching Physics in senior secondary school in order to enhance motivation among senior secondary school students.

Keywords: Non-Textual Materials, Motivation, Gender, Physics, Kano Metropolis

INTRODUCTION

Physics is a concept laden science subject or discipline, with notable concepts or fields such as electricity, classical mechanics, quantum mechanics, heat and thermodynamics, waves and optics, astrophysics, nuclear Physics, plasma Physics, geophysics, solid state Physics, among others. Various applications of these concepts help to improve, modify and then control the environment for human sustenance and the improvement of human condition of living and its standard, which make the position of Physics, among other science subjects unique. Physics as a school science subject is not only important to scientific and technological innovations, but a gateway to understanding so many phenomena such as waves, optics, shadow formations, reflections, and velocity of moving objects. Application of Physics in information communication technology has been found to be very useful in making the world to be a global village, through the use of satellites, computers and the internet (Ilhan, 2016).

Learning of Physics involves the acquisition of practical skills that expose the students to a wide variety of environmental as well as societal changes in sectors like health, industries, climatic conditions and economic developmental changes,

which demand the application of the principles and concepts of Physics at various educational levels. Physics is a science subject whose laws, formulae and principles are mostly experimentally determined. It has been established that the advancement of nations through their economy, politics, social and military might is a consequence of the quality of science teaching and the application of the acquired scientific knowledge given to its citizens (Ahmed, 2017).

Generally, there is a feeling of dissatisfaction with the condition of teaching and learning in developing countries like Nigeria. In spite of the huge budgetary allocations to educational sectors across board, from primary through to university levels. With training and retraining of personnel at all levels by federal, states, local governments, international donor agencies like the United Nations Educational Scientific and Cultural Organization (UNESCO), some Non-Governmental Organisations like United State International Agency for International Development (USAID), Britain's Department for International Development (DFID), Science Teachers Association of Nigeria, (STAN) among others, in the form of seminars, workshops, on the job training, some specialized

programmes like; the learning Improvement and Enhancement Programme, LIEP, Educational Support Programme in Nigeria, ESPIN, yet the condition of teaching and learning is not showing a corresponding improvement (Bello, 2016).

The act of teaching is viewed as a process of, and practice of knowledge transfer from the teacher to the students (Inan, 2017). Teaching can also be defined as the art and science of guiding the students to acquire the necessary ingredients as contained in a given doctrine (Ahmed, 2017). Daoquan (2012) described teaching as an intensely psychological process and believed that a teacher's ability to maintain productive classroom environments, motivate students and make decisions based on personal qualities and ability to motivate and create personal relationship with students.

Teachers teaching style is his/her ability to embrace a set of instructional techniques over time. As no two individuals are the same so also no two teachers are exactly the same. Thus a teacher's teaching style is articulated in the subject he or she teaches and that it reflects his or her teaching philosophy and the method he or she prefers to take when conveying or presenting learning

materials to the students in the classroom (Inan, 2017).

Darren (2007) was of the view that teaching style is reflected in how a teacher presents himself or herself to the students; how learning materials are presented to the learners, how the teacher interacts with the students; how he or she manages tasks before him or her; how he or she supervise learning tasks; how he or she socializes with the learners. Teaching style can also be how learning materials are presented to the learners to suit the learners' needs, beliefs, attitudes and behaviours.

According to Williams (2017), there are five major types of teaching styles some of which are; expert teaching style, formal teaching style among others. The single most important aspect of teaching and learning session is the medium of instructions Bent (2017) indicated that various forms of medium of instructions are combined to give a single more meaningful mode of teaching and learning session. These combined media of instructions is what is termed multimedia in teaching and learning (Bello, 2016).

Non-textual materials help to define the characteristics of learning styles as cognitive, affective, and physiological behaviours that serve as

indicators on how students perceive, interact with learning materials how students respond to the learning environment (Christopher, 2012). Non-textual materials can be used to develop a more inclusive curriculum that appeals to visual, aural and kinaesthetic learners and overcome difference in students' academic performance that may result from different learning styles. Ibrahim (2011) stated that presenting material in a variety of modes has been used to encourage students to develop a more versatile approach to learning. Moving from textual materials to non-textual materials, book to the computer is the opportunity for greater interactivity and novel ways to think about a learning style.

James (2008) opined that technology provides more ways to represent concepts through different media formats, such advances in technology ask for pedagogical enquiries to confirm the usefulness of such new activities in facilitating learning. Students who have access to multiple representations of learning materials have enhanced comprehension of learned items, more learning capabilities, more enhanced memory, much more developed communication skills and more advanced abilities to make good inferences.

According to Sharma (2013), only 30% of secondary school students appear to be auditory learners, 40% are visual learners, and 30% are tactile/kinaesthetic or visual/tactile learners. Sharma (2013) stated that for secondary school students, the most frequent modality of learning are: visual (30%), visual and auditory (30%), followed by auditory (25%), and then by kinaesthetic (15%). Richard (2014) stated that primary school children learn better through auditory (verbal) means and they learn least kinaesthetically. However, between primary school children and secondary school students, a modality shift occurs and vision becomes the dominant mode of learning and kinaesthetics learning overtakes auditory learning. Williams (2017) also wrote that adults are more likely to have mixed mode of learning strengths than children. In addition, it has been found by Richard (2014) that mode of learning strengths differed remarkably as a child progressed from lower level to higher level.

Williams (2017) opined that very young children are the most kinesthetic, that there is a gradual development of visual strengths through the elementary grades, and that only in secondary school can most youngsters learn and retain information through the auditory

sense. Novak (2010), while investigating the perceptual styles of readers, found that good readers prefer to learn through their visual and auditory senses, while poor readers have a stronger preference for kinesthetic learning. Multimedia-based learning when used in certain situations would maximize the returns (Bello, 2016). Using it in every circumstance would not give the desired results and also require huge amounts in infrastructural costs (Sharma, 2013).

When dealing with students with low motivation, it is very important to keep them interested in learning. Interesting lessons would keep the students interested and enable them to do their own self-directed learning and research. Use of pictures, animations and sounds can help in keeping the students interested in learning about a new domain. The interactivity generated by the use of non-textual multimedia instruction would also help in motivating the students towards learning. On the other hand, highly motivated students might not necessarily need these audio-visual aids (non-textual multimedia materials) and may be able to understand the instructions given in textual format itself (Williams, 2017). Williams (2017) suggested key design principles in planning and creating multimedia

structured instructions to include; Multimedia Representation Principle, Contiguity Principle, Split Attention Principle, among others such that students are motivated.

Bello (2016), defined motivation as the involvement of students in their own learning process that makes them more likely to take personal responsibility for their own learning. Li, (2012) conducted a survey on teachers in California and found that students' motivation was the greatest limitation on a teacher's effectiveness. Motivation is critical for productive learning. Motivation must be addressed as students tend to learn more when they are able to create their own learning opportunities.

Williams (2017), defined motivation as the involvement of students in their own learning process that makes them more likely to take personal responsibility for their own learning. Li, (2012) conducted a survey on teachers in California and found that students' motivation was the greatest limitation on a teacher's effectiveness. Motivation is critical for productive learning. Motivation must be addressed as students tend to learn more when they are able to create their own learning opportunities. In recent times, world trends and researches had emphasised

on issues relating to gender, following the United Nations Millennium Declaration of September 2000, of which the main goal was the promotion of gender equity, women empowerment and elimination of gender bias in secondary education the world over by 2005, and at all levels by 2015 (Williams 2017). For the complete realization of this objective by the UN, it sought that enrollment in the school subjects should be equally and evenly distributed across gender. The under population of female students in sciences has led some scholars to postulate that science is gender bias (Sharma 2013).

In Nigeria, especially the northern part, culture and the environment are some of the issues that are at play as far as gender discriminations are concern (Li, 2012). The society fixes gender roles and conditioned the male to take on physically and more challenging tasks like construction works among others (Ahmed, 2017). Some gender based science researchers, Ahmed (2017) had argued that given the same learning environment and the same treatment with their male counterparts, female students will equally perform well depending on their own abilities. This study investigated the impact of non-textual multimedia materials on teaching and learning of Physics

among secondary school students of varied abilities in Kano Metropolis, Kano State Nigeria. And the study used Bruner theory of constructivism.

Statement of the Problem

It has been observed by Ikpe (2014) that Physics as a science subject in secondary schools in Nigeria faces severe problems in relation to its instructional strategies and curriculum content delivery by the Physics teachers. Similarly, the teaching and learning of Physics in our secondary schools has multi-dimensional problems which impeded successful implementation of Physics curriculum in schools (Ikpe, 2014). At the centre of the problem are the teachers who are ill-equipped for the task of teaching, and are usually not having the necessary teacher training to implement the curriculum in the classes they are assigned to teach (Bent, 2017). Also, the inadequacy of instructional facilities (Multimedia facilities) has greatly contributed to the low academic performance of students especially in sciences and Physics in particular.

Li (2012) pointed out that teachers mainly teach concepts through lecture method to enable their students pass examinations only and also to cover the syllabus on time, not minding if the students actually understand the

actual concepts involved. As such students fail their examinations and become unserious with Physics as a subject as pointed out by. Li (2012) observed that Physics teachers who are able to make learning meaningful in the classroom make their students appreciate the physical meaning of learned (concepts) knowledge to real life situations (application).

Objectives of the Study

1. Investigate the impact of non-textual materials on motivation to Physics among male secondary school students in Kano Metropolis,
2. Determine the impact of non-textual materials on motivation to Physics among female in Kano Metropolis.

Research Questions

1. What is the impact of non-textual materials on motivation to Physics among male students in Kano Metropolis?
2. What is the impact of non-textual multimedia materials on

motivation to Physics among female students in Kano Metropolis?

METHODOLOGY

Research Design

The research design is pre-test, posttest Quasi-Experimental/Control group design. Four groups of students were used for both the experimental group and the control group (i.e. two experimental groups and two control groups). The four groups were given pre-test and posttest exercises. The posttest came up after both the experimental group (EG) and the control group (CG) received treatment for six (6) weeks using non-textual multimedia materials for the experimental group and lecture method for the control group. At the end of the treatment period, a post test (O₂) will be administered to both the EG and CG to evaluate the effectiveness of the two teaching strategies in the academic performance in physics concepts learning. The research design is presented in Figure 3.1

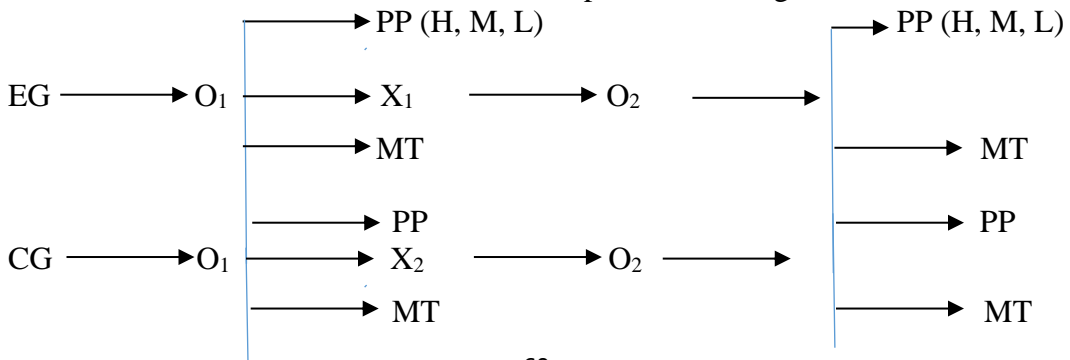


Figure 3.1: Research design

Where: EG = experimental Group
 CG = Control Group
 PP = Physics Performance
 MT = Motivation
 O₁ = Pre test
 X₁ = Treatment to the
 Experimental Group
 X₂ = Treatment to the Control Group
 O₂ = Post test

Participants

Simple random sampling technique was used to select two (2) male schools out of fourteen (14) and two (2) female schools out of ten (10). A sample of 221 out of a population of 11739. The sampled 221 SS II students are divided into two groups (the experimental group, N = 111 and the control group, N = 110). According to Kerlinger & Lee (2005), a sample of at least 15 – 30 subjects is sufficient for experimental studies involving comparison of groups. The selection of this sample size was based on the central limit theorem which states that when a given population is large, its distribution tends towards normal (Sambo, 2008). The sample size is also based on two assumptions: that each school has a similar cluster of students needed for the experimental study; and the schools selected have many things in common, for example in terms of location and characteristics of students with mixed ability classes of

SS II students in government schools. This is done in order to reduce the chances of bias, error variance with either group and inaccurate measurement and evaluation (Sambo, 2008).

Validation of the Instrument

The instrument was validated by members of staff from the Department of Science Education whose qualification is Ph.D and they are of the rank of senior lecturer and above from Ahmadu Bello University Zaria (ABU), Bayero University Kano (BUK), and some few others from other higher institutions of learning and also Physics teachers from some secondary schools.

Reliability Coefficient of Physics Motivation Questionnaire (PMQ)

The Physics Motivation Questionnaire (PMQ) was administered to the students that participated in the pilot study before the treatment and after the treatment for reliability testing. The two set of data collected was correlated using Spearman rho and the Spearman correlation coefficient was found to be 0.78

Data Collection Procedure

After teaching both the control and the experimental groups (the experimental group using non-textual materials and the control group using

textual multimedia materials/lecture method) for 6 weeks, the two groups were then given the motivation questionnaire (PMQ) items as posttest and the data generated used to answer the research questions.

Research Question 1: find the impact of non-textual multimedia materials on motivation to Physics among male students in Kano Metropolis. To answer this research question, the posttest data was subjected to H-test and results presented in Table 1.

Table 1: H-test Analysis for Male Students

Group	N	Mean Rank	MD
Experimental	58	90.27	19.35
Control	56	70.92	

Table 1 showed the experimental group and the control group having a mean rank of 90.27 and 70.92 with a mean difference of 19.35, thus clearly the experimental group are more motivated than the control group.

Research Question 2: What is the impact of non-textual multimedia materials on motivation to Physics among female students in Kano Metropolis. To answer this research question, the data generated from the questionnaire was subjected to H-test and the results presented in Table 2

Table 2: H-test Analysis for Female Students

Group	N	Mean Rank	MD
Experimental	53	93.21	19.10
Control	54	74.11	

Table 2 showed the experimental group and the control group having a mean rank of 93.21 and 74.11 with a mean difference of 19.10, thus clearly the experimental group are more motivated than the control group.

DISCUSSION

This study investigated the Impact of Non-Textual Materials on Motivation to Physics among Secondary School Students in Kano Metropolis, Kano State, Nigeria. The findings made in this study is herein discussed in relation to available literature in this field. The result from Table 1 showed that motivational level can be improve in the teaching and learning processes when non-textual materials are used during instructions. This research work has concurred with the findings of Isa (2012), Haruna (2015) Zarewa (2016), Bello (2016), Joseph (2017), Wing (2017), Li (2012), Kamara (2018) and Ducas (2019) who independently reported a significant difference in the level of motivation in their respective research works when non-textual materials are used during instructions. But Rizwan (2016), disagreed with

those results saying that motivation is across level irrespective of medium of instructions. The result from Table 2 showed that students are motivated across gender. That is with non-textual materials, both male and female are motivated to learn more. Thus it has been established that with non-textual materials, both male and female are equally motivated towards learning. This finding have concurred with the findings of Isa (2012), Joseph (2017) Haruna (2012) Kwon (2016) Bello (2016) Kamara (2018) who independently reported a positive motivation to learning with multimedia learning materials.

This finding has equally concurred with those of Sharma (2013), Williams (2017), Wing (2017) and Bent (2017) who independently reported a positive no difference in motivation based on gender. But Dallatu (2017) reported a disparity in motivation between male and female students. Dallatu (2017) reported that male students are better motivated than their female counterpart. This finding has concurred with those of Sharma (2013), Williams (2017), Bello (2016) and Joseph (2017) who independently reported a positive no difference in motivation based on gender. But Dallatu (2017) reported a disparity in motivation between male and female students. Dallatu (2017) reported that male students are

motivated more than their female counterpart. Thus non-textual materials is seen to help in bridging the gap that exist between groups. This research work has also concurred with the findings of Isa (2019), Haruna (2015) Zarewa (2016), Kwon (2016), Joseph (2017), Wing (2017), Luis (2018), Kamara (2018) and Ducas (2019) who independently reported a no significant difference in the level of motivation when non-textual multimedia materials are used during instructions. But Rizwan (2016), disagreed with those results saying that medium ability group of students are motivated more than high ability group when instructions involve pictures and real objects.

CONCLUSION

When non-textual materials are employed in teaching and learning processes, students' conceptual ability and their motivation are highly enhanced in the following ways:

1. Students are motivated when mode of instructions is non-textual materials.
2. Both male and female students equally benefitted when taught Physics concepts using non-textual materials, thus non-textual materials are gender friendly.
3. Non-textual materials have proved to be indispensable in

motivating students across gender as both male and female students are motivated equally.

RECOMMENDATIONS

Based on the outcome of this research work, the following recommendations are made:

1. Teachers should endeavour to use this innovative teaching strategy that is capable of engaging in constructive and stimulating pre class and post class students' discussion and with the teachers.
2. Ministries of Education, non-governmental organisations and other stake holders in the education sub sector should recommend the use of non-textual multimedia materials in the teaching and learning processes especially in secondary schools.
3. For good learning environment and classroom management, conferences, workshops and seminars be organised by professional bodies like Science Teachers Associations of Nigeria, STAN and other NGOs like the UNESCO to sensitised teachers and other relevant stakeholders on how to use non-textual multimedia materials in the classroom.

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EXAMINING STUDENTS' COGNITIVE STYLES FOR EFFECTIVE TEACHING

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ABSTRACT

For effective teaching, learner's disposition in terms of individual characteristics has to be taken into consideration. This is in line with what psychologists in the field of cognition have shown for a long time that no two people in a given learning situation approach the subject in the same manner. In essence, people differ from one another in the ways they think, perceive, remember and use information. The paper, therefore, examines individual distinctive cognitive functioning with a view to make all stakeholders in school, especially teachers, to understand this phenomenon for better teaching and general improvement of students' academic achievement. In this regard, the concept of cognitive styles and its theoretical perspectives have been discussed. Equally highlighted was the fact that teacher effectiveness in the classroom depends largely on understanding cognitive styles. The paper concluded that learning strategies or cognitive styles of the learner affect the quantity and the quality of what is being learned; and for effective teaching, teacher's clear understanding of the learners' cognitive styles is not only important but necessary. The implication of these cognitive styles in relation to the teaching-learning process has been discussed.

Keywords: Cognition, Cognitive styles, Academic performance, Effective teaching

INTRODUCTION

The need to improve on the students' academic achievement is of concern to all stakeholders in educational pursuit. As a teacher, for example, serious considerations need to be given to the type of classroom environment and instructional strategies that will allow students the chance to attain the highest academic success. It is essential that teachers should become much aware of what factors best contribute to and promote academic success for students.

Ormrod (2011) asserted that "students with the same general level of intelligence often approach classroom tasks and think about classroom topics differently" (p.147). Some of these individual differences reflect cognitive styles which Sankar and Raju (2011) identified to be one important factor that contribute to academic success among students. Furthermore, Aydin Ceran and Ates's (2020) emphasized that cognitive style differences are an effective factor in student success. In this

regard, in an effort to create the best learning environment for students, teachers need to understand the major factors that impact student learning.

According to Aydin Ceran and Ates (2020), the concern of education should not only be with the acquisition of knowledge but also with the way the student thinks for educational outcomes. Depending on the proximity to the extremes of the dimension, Tinajero et al. (2012) draw attention that individuals show diverse ways of information processing, which seem to exert influence on their academic achievement. That is to say, people learn and process new information in different ways; that is, individuals differ in the way they think, perceive, and remember or use information.

As the effects of success or failure in schools are far-reaching, it is significantly valid to study factors associated with educational achievement. The idea of cognitive styles, according to Graham (2015), was established on the basis of the statement “people do not all think the same way.” As such, the popularity of the use of cognitive styles in educational settings is underscored by the fact that, if students do not all think the same way how can they be expected to all learn the same way? Teaching, as a triadic process –

involving the teacher, the subject matter, and the student – is perceived as a means of guiding the students in securing the amount and quality of experience which will promote the optimum development of their potentials as human beings.

Therefore, teachers use of differentiated instruction, based on cognitive styles in the classrooms, all students are given the opportunity to explore topics and concepts through their own cognitive styles; and allow students to be engaged and active in their learning (Graham, 2015). It is therefore imperative for teachers to have clear understanding on how to incorporate students’ cognitive styles in the classroom in order to create a positive learning environment. This will enable the teachers to appreciate different teaching techniques and its utilization by studying the classroom situation.

Concept of Cognitive Styles

According to Aydin Ceran and Ates (2020), the concept of cognitive style was introduced for the first time in a study conducted by Allport (1937). However, modern research on cognitive styles began with Witkin's work. Witkin et al. (1971) conducted a series of standardized psychological test development studies, which they called the Group Embedded Figures Test, to classify and define cognitive

styles. Sternberg (1997) defined cognition as being aware of and understanding something. Cognition is seen (Musya, 2015) as a general term used to refer to the higher mental processes. It includes such mental activities as thinking and conceptualization, memory, mental imagery, perception and retention, reasoning and decision making and representation. Sternberg et al. (2014) describe style as individual differences in approaches to tasks that can make differences in the way person perceives, learns or thinks; these differences in learning exist among male and female students. Thus, cognitive styles represent a bridge between cognition and personality, two different areas of psychological research (Sternberg and Grigorenko, 1997). Knappenberger (1998) mentioned that cognitive style has a far-reaching influence on many aspects of personality and behavior, including perception, memory, problem-solving, interest, and even social behaviors and self-concept.

In this regard, Chen (2021) thinks of cognitive style as a kind of learning style and learning tendency with distinct personality that learners manifest in long-term learning activities. Thus, cognitive styles are considered to be relatively stable strategies, preferences and attitudes

which determines an individual's typical modes of perceiving, remembering and problem-solving (Abubakar, 2016). This is in line with Arisi's (2011) definition of cognitive styles as psychological constructs which describe individuals' ways of perceiving, organizing, and presenting information. Furthermore, cognitive style is viewed as the differences in which individuals chose ways of processing (perceiving, organizing and analyzing) information by the use of cognitive brain-based mechanisms and structures (Armstrong and Peterson, 2012). From another perspective, cognitive style is described (Chapelle & Green, 2012) as a personality dimension which influences attitudes, values, and social interaction. Jena (2014) considered cognitive style to be static, relatively in-built, and fairly fixed characteristic of an individual. This implied that individuals may vary their learning strategy or approach to learning as required, but the underlying cognitive style will remain fairly stable.

With the intention of creating the best learning environment for students, teachers need to understand the major factors that impact student learning. As such, to further our understanding of cognitive functioning, a number of theories have been postulated to explain this individual cognitive task.

And these theoretical approaches have stimulated a number of empirical studies.

Theoretical Perspectives

Different theorists have offered diverse explanations on individual cognitive functioning. Styles refer to individuals preferred ways of using the abilities that they have (Zhang, 2010). Using different theoretical backgrounds and test situation, the theorists employed different terminologies in their description of cognitive style as a psychological concept. According to Zhang (2004), the three most commonly used terms are cognitive style, learning style, and thinking style. Thus, over the decades, cognitive researchers and theorists have identified a number of cognitive styles. For instance, while Witkin et al. (1977) study identified two cognitive styles – field-dependence and field-independence, Pavio (1971) revealed two cognitive styles to include ‘verbalizer and visualizer’, and Kagan (1965) recognized two cognitive styles as ‘Impulsivity and reflectivity’.

After extensive work in the area of cognitive styles, Witkin et al. (1977) defined two basic styles – field-dependent (FD) and field-independent (FI). Triantafillou et al. (2003) stated that FD and FI dimension is probably the most well-

known division of cognitive styles. ‘Field’ here means context or surroundings; some people are more, and some less, influenced by the context when performing a skill or learning. In other words, field dependence/field independence measures the degree to which a learner’s perception or comprehension of information is affected by the surrounding environment, or fields (Witkin et al., 1977). Witkin discovered that individuals who are field dependent show greater difficulty in detecting an embedded geometrical figure; that is to say that they have a difficulty with structuring information, are characterized by passive style, weakly articulated, and dispersed. On the other hand, individuals who are field independent quickly identify embedded figure, demonstrating active and analytical style (Nosal, 2009). Thus, field dependence is considered to be a global dimension while field independence focuses on the details of the fields.

The field dependent learners are most affected by their environment and are inclined to overall field learning and tend to get the whole idea, whereas the field independent learners are more analytical and are more likely to break a model into different sections and details and tend to depend on their inner knowledge and analyze

problems (Eriba, et al., 2021). Aydin Ceran and Ates (2020) highlighted that field-independent students are concept-oriented, analyze concepts and think analytically. Field-dependent students are real-oriented, influenced by the format and shape structure, and think globally. In addition, Triantafillou et al. (2003) emphasized that FD/FI dimension have the tendency to approach the environment in an analytical as opposed to global way. FI learners are generally analytical in their approach, while FD learners are more global in their views. Likewise, FD learners have difficulty separating the part from the complex organization of the whole. That is, they see things in the entire perceptual field. In addition, FI individuals tend to be intrinsically motivated and enjoy individualized learning, as opposed to FD learners who tend to be extrinsically motivated and prefer cooperative learning.

Reflective-impulsive cognitive style, also known as conceptual tempo, was proposed by Kagan et al. in 1964. It represents a preference for making responses quickly versus pausing to decrease the number of errors in problem-solving situations (Kagan et al., 1964). The reflective-impulsive cognitive style refers to differences in the aspect of speed which individuals make decisions under uncertain

conditions (Chen, 2021). Huang (2010) opined that impulsive personalities tend to make a quick decision after a brief examination of various possibilities, and the general error rate is relatively high. While reflective individuals incline to think in detail before reaction, take some time to carefully consider all the possibilities, with relative high accuracy. That is to that this dimension focuses on the degree to which an individual thinks before proffering a solution to a problem; that is either slowly or quickly and corresponding with either high or low accuracy in solutions with response uncertainty. One extreme of the dimension, the impulsive person responds quickly and the response is often incorrect. On the other hand, the reflective individual delays a longer time and ponders until he is virtually sure he is right before reporting a solution. This approach stems from the proposition that impulsive and reflective person would differ in the way they process information; that is in the way they analyse visual stimuli into component details. As such, reflective individuals may have a greater tendency than impulsive ones to analyse visual stimuli into component details. Impulsive persons, on the other hand, may have greater tendency to focus on the total stimuli or to apply a strategy of more global analysis. It was however

emphasized that the impulsive-reflective dimension was moderately stable over time and across different contexts (Kozhevnikov, 2007).

The instrument most often used to measure impulsivity–reflectivity was the Matching Familiar Figures Test (MFFT; Kagan et al., 1964). This test involves selecting the figure from among six similar variants that is identical to an original figure. Response times and error rates are measured, and a median split criterion is used to classify individuals as reflective, if they make few errors and exhibit long response times, and impulsive, if they make more errors but respond faster (Kozhevnikov, 2007).

In addition, according to Mora (1998), a number of different labels have been given to cognitive styles. However, it has been argued that many of these are just different conceptions of the same dimension. Along this line, Riding and Cheema (1991) surveyed the various labels and after reviving the descriptions, correlations, method of assessment and effects on behaviours, concluded that they may be grouped into two principal cognitive style dimensions: The Holist-Analytic and the Verbal-Imagery.

The holistic-analytic style tries to determine whether an individual to

process information in wholes or in parts. In other words, this style refers to individual tendency to respond to a problem-solving task with either a holistic or a focused (step-by-step) strategy (Kozhevnikov, 2007). Analytic personalities tend to operate with a step-by-step approach to problem-solving. They choose to deal only with small amounts of material at a time, before linking these steps. Holistic individuals, on the other hand, utilize a significant amount of information from the onset, looking to achieve understanding by identifying and focusing on major patterns or trends in the information. Previous research indicates that holistic thinking is characterized by viewing the world as composed of connected elements, whereas analytic thinking considered by viewing the world as composed of isolated elements (Hossain, 2018; Monga and John 2007). For instance, when provided with an Embedded Figures Test (EFT), holistic thinkers, due to their connected-thinking orientation, found it difficult to isolate elements embedded within a context, whereas analytic thinkers can engage in context independent thinking (Hossain, 2018).

One of the most commonly acknowledged cognitive styles is the Visual–Verbal cognitive style dimension that describes

consistencies and preferences in processing visual versus verbal information, and classifies individuals as either visualizers (also called imagers), who rely primarily on imagery when attempting to perform cognitive tasks, or verbalizers, who rely primarily on verbal-analytical strategies (Blazhenkova & Kozhevnikov, 2009). Verbal-imagery or verbal-visual cognitive style tries to determine whether an individual is more inclined to represent information during thinking verbally or visually (Kozhevnikov, 2007). One view of visual and verbal cognitive styles places those who prefer visual processing strategies and those who prefer verbal processing strategies as on opposite ends of a visual-verbal continuum (Mealor et al., 2016). That is, visualisers who prefer to use visual mental imagery to process information are placed at one end of the continuum and verbalisers who prefer verbal techniques, are on the other. The visual-verbal dimension of cognitive information processing derives from the dual-coding theory (Paivio, 1986) which states that information is processed and mentally represented in distinct channels: visual and verbal; and both mental representations are used when selecting, organizing, integrating, storing, and retrieving information (Koć-Januchta et al., 2019).

Teacher Effectiveness

Teacher effectiveness has been described as a teacher's ability to produce higher than expected gains in students' standardized test scores (Goe et al., 2008). However, a more varied and broader in scope definition of teacher effectiveness has been provided by Campbell et al. (2014) in which they viewed teacher effectiveness as the impact that classroom factors, such as teaching methods, teacher expectations, classroom organization, and use of classroom resources, have on students' performance.

Furthermore, while evaluating discussions of teacher effectiveness in the research literature as well as in the policy documents, standards, and reports, Goe et al. (2008) provided a broader and more comprehensive five-point definition of effective teachers that consists of the following:

- Effective teachers have high expectations for all students and help students learn, as measured by value-added or other test-based growth measures, or by alternative measures.
- Effective teachers contribute to positive academic, attitudinal, and social outcomes for students such as regular attendance, on-time promotion to the next grade,

- on-time graduation, self-efficacy, and cooperative behavior.
- Effective teachers use diverse resources to plan and structure engaging learning opportunities; monitor student progress formatively, adapting instruction as needed; and evaluate learning using multiple sources of evidence.
 - Effective teachers contribute to the development of classrooms and schools that value diversity and civic-mindedness.
 - Effective teachers collaborate with other teachers, administrators, parents, and education professionals to ensure student success, particularly the success of students with special needs and those at high risk for failure.

It is the hope of every teacher therefore, to be effective in the classroom. This hope probably emanates from the teacher's self-perception of his role and his commitment to the community to which he belongs. It is important for teachers to consider what type of classroom environment and instructional strategies will allow students the highest chance of academic success. As leaders in the classroom, teachers should be aware of what factors best promote academic success for students. One

essential factor that all teachers need to be aware of and fully understand is the differential students' cognitive styles. This for the fact that if students do not all think the same way, reasoned Graham (2015), how can they be expected to all learn the same way? Through the use of differentiated instruction, based on cognitive styles, all students are given the opportunity to explore topics and concepts through their own chosen ways of processing information. Thus, teachers teaching styles that consider multiple cognitive styles in the classrooms make for all students to be engaged and active in their leaning. It is therefore vital for teachers to understand how to incorporate student cognitive styles in the classroom in order to create a positive learning environment.

Implications for Teaching-Learning Process

Differences in cognitive styles among learners often make them to differ in their interests, personalities, emotions, and motivations; as such they adopt different learning strategies to study. People often choose the way they think is the most suitable for them to deal with information (Chen, 2021). Chen further emphasized that for teachers to be effective, they should understand the cognitive styles of students, and then designs their

teaching according to these styles. That is to say that the sensitivity of the teacher in dealing with individual learner differences in cognitive styles may have significant influence in facilitating learning in their classroom.

Teachers in our schools need to know that to motivate students for an effective learning they need to consider the differences in their cognitive styles. Knowledge of cognitive styles will enable the teacher to have an idea on how students' responses or achievements are related to their cognitive styles. Mora (1998) asserted that when there is mismatch between cognitive styles and material or mode of presentation, performance is reduced. Knowledge and understanding of cognitive styles should, therefore, be of relevance not only for the course of individual learning in various subject areas, but also in the course of teacher-student relationships. For instance, difficulties experienced by students in learning mathematics as a subject, according to Abdulraheem (1997), may not be unconnected with the poor instructional strategies employed by the teachers. He further maintained that the success of instruction and the rate at which learning takes place depends, to a large extent, on the preparation put in place by teachers.

For the fact that cognitive styles are related with school achievement, reasoned Adeyanju (1997), the importance of teachers to understand students' cognitive styles could not be over emphasized. This is for the fact that theoretically, cognitive and learning styles could be used to predict what kind of instructional strategies or methods would be most effective for a given individual and learning task (Dunn & Dunn, 1999). More so, teachers should strive to make students understand their own cognitive style; with this understanding, according to Chen (2021), students can achieve twice the result with half the effort.

CONCLUSION

Teachers, by virtue of their position, have a great influence on students during the process of transferring knowledge and enhancing pupils' cognitive growth. However, the effectiveness of any strategy is dependent largely on the aptitude of the learners given adequate contents and on effective delivery system by the teachers. Similarly, learning strategies or cognitive styles of the learner affect the quantity and the quality of what is being learned. For teaching to be effective therefore, clear understanding of the learners' cognitive styles by the teacher is not only important but necessary. Teacher should therefore make effort

to understand, and make learners understand, their cognitive (or learning) style for effective delivery and better performance.

RECOMMENDATIONS

1. To enrich and make teaching-learning process more effective, teachers should get to know their students' cognitive styles; and expose students to many different styles of teaching.
2. Students themselves should be made to understand that they can adopt variety of learning strategies, as one's cognitive styles may be dynamic and not static. This is to say that students need to know how to modify their particular preferences and style to better fit different learning environments.
3. Teacher training institutions and other stakeholders should ensure that concepts of cognitive styles are included in the teacher training curriculum.
4. Through professional development workshops/seminars, from time to time, teachers should be made to be aware of how cognitive preferences relate to learning and teaching styles may translate into more effective teaching for all students.
5. Teachers should strive to enhance learner strategy development by

working closely with learners to improve the efficiency of working memory and development of long-term memory.

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EXAMINING INCLUSION OF LEARNERS WITH DISABILITIES IN EDUCATIONAL SETTING IN NIGERIA: A WAY FORWARD

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ABSTRACT

The importance of inclusive education in Nigeria educational setting cannot be overemphasised especially in the present day when the policy and agitation for an inclusive system of education is gaining recognition in the field of education. As a result of some tremendous improvement witnessed in the last decade despite some barriers in implementation of inclusive education in a larger society, children with and without disabilities are gradually being educated together in large scale societies. However, in Nigeria the implementation of inclusive education is still faced with challenges such as shortcoming in integrating special children in a regular education classroom and the barriers in implementing inclusive education system. The paper observed that the purpose of inclusive education is to bring together all children with and without disabilities under the same classroom, learning condition and opportunities irrespective of their learning ability and disability status. This means that children are able to benefit from each other through interaction. It was recommended that inclusive education programme should begin with the primary school as the formation level for formal behavioural development, while special directorate of inclusive education should be created in the country.

Keywords: Inclusive education, Implementation, Disability, Barriers, Benefits.

INTRODUCTION

The fundamental right of children with developmental disabilities to receive an education was the first issue to mobilize the community living movement in the 1950s. At the time, it was widely believed that children with developmental disabilities could not learn. The government, therefore, accepted no responsibility for their education (Michael & Oboegbulem, 2013).

Parents of children with developmental disabilities, understanding the potential of their sons and daughters to learn and grow, responded by creating their own schools in places like church basements and private homes (Michael & Oboegbulem, 2013). In 1955, parent created a provincial organization, which eventually grew into inclusion. Ever since, families have steadily advocated for changes in government laws and policies so

that their children with disabilities would have the same right to be educated as other school-aged children. Government slowly accepted responsibility for funding parent-run schools and eventually agreed that not just funding, but public schooling, should be available to children with disabilities. Although the first educational programs developed by school boards were segregated, they successfully laid the groundwork for parents and others to call for the inclusion of children in general education classes. (Alquraini & Gut, 2012).

Concept of Inclusive Education

Inclusive education is when all students, regardless of any challenges they may have, are placed in age-appropriate general education classes that are in their own neighborhood schools to receive high-quality instruction, interventions and supports that enable them to meet success in the core curriculum (Alquraini & Gut, 2012). According to Alquraini & Gut, (2012) Inclusive education means that all students attend and are welcomed by their neighborhood schools in age-appropriate, regular classes and are supported to learn, contribute and participate in all aspects of the life of the school. Upon the importance of inclusive education, the Nigeria government and educational

administrators have failed to put forth resources to facilitate the provision of inclusive education in some schools in Nigeria (Michael & Oboegbulem, 2013). However, Nigeria, in 1993, made a decree for the provision of inclusive education with clear and comprehensive legal protection and security backing, yet due to government policies and cultural constraints, such decree did not succeed. (Michael & Obogbulem, 2013).

The benefits of inclusive education to students cannot be overemphasized as both students with and without disabilities learn better in the same classroom. Many studies over the past three decades have found that students with disabilities have higher achievement and improved skills through inclusive education, and their peers without challenges benefit too. (Alquraini & Gut, 2012). For students with disabilities (SWD), this includes academic gains in literacy (reading and writing), math and social studies both in grades and on standardized tests – better communication skills, and improved social skills and more friendships. More time in the general classroom for SWD is also associated with fewer absences and referrals for disruptive behavior (Alquraini & Gut, 2012).

This could be related to findings about attitude they have concept.,

they like school and their teachers more, and are *more* me around working and learning. Their peers without disabilities also show more positive attitudes in these same areas when in inclusive classrooms. They make greater academic gains in reading and math. Research shows the presence of SWD gives non-SWD new kinds of learning opportunities. One of these is when they serve as peer-coaches. By learning how to help another student, their own performance improves. Another is that as teachers take into greater consideration their diverse SWD learners, they provide instruction in a wider range of learning modalities (visual, auditory, and kinesthetic), which benefits their regular students as well (Alquraini & Gut, 2012).

Researchers often explore concerns and potential pitfalls that might make instruction less effective in inclusion classrooms. But findings show this is not the case. Neither instructional time nor how much time students are engaged differs between inclusive and non-inclusive classrooms. In fact, in many instances, regular students report little to no awareness that there even are students with disabilities in their classes. When they are aware, they demonstrate more acceptance and tolerance for SWD when they all

experience an inclusive education together.

Benefits of Inclusive Education

The following are benefits of inclusion education as observed by Bui et al (2010):

- i. All children benefit from inclusive education. It allows them to: Develop individual strengths and gifts, with high and appropriate expectations for each child (Bui et al., 2010).
- ii. Work on individual goals while participating in the life of the classroom with other students their own age (Bui et al., 2010).
- iii. Involve their parents in their education and in the activities of their local schools.
- iv. Foster a school culture of respect and belonging. Inclusive education provides opportunities to learn about and accept individual differences, lessening the impact of harassment and bullying (Bui et al., 2010).
- v. Develop friendships with a wide variety of other children, each with their own individual needs and abilities (Bui et al., 2010).
- vi. Positively affect both their school and community to appreciate diversity and inclusion on a broader level (Bui et al., 2010).

Having seen the benefits of inclusive education, teachers are expected to guide themselves with the following questions:

- i. How can I make the school in my community more inclusive?
- ii. Ask your school principal what is being done to support teachers to include students with diverse needs in the classroom.
- iii. What should I expect? (Bui et al, 2010)

Strategies to Put Inclusive Education in Practice

There is a definite need for teachers to be supported in implementing an inclusive classroom. A rigorous literature review of studies found most teachers had either neutral or negative attitudes about inclusive education (de Boer et al., 2011). It turns out that much of this is because they do not feel they are very knowledgeable, competent, or confident about how to educate SWD. However, similar to parents, teachers with more experience and, in the case of teachers, more training with inclusive education — were significantly more positive about it. Evidence supports that to be effective, teachers need an understanding of best practices in teaching and of adapted instruction for SWD; but positive attitudes toward inclusion are also among the most important for creating an

inclusive classroom that works (Savage & Erten, 2015). Of course, a modest blog article like this is only going to give the highlights of what have been found to be effective inclusive strategies. For there to be true long-term success necessitates formal training. To give you an idea though, here are strategies recommended by several research studies and applied experience (Morningstar et al., 2015).

Teaching the Whole Class, and Grouping Students or Peering Students to Teach:

Start with whole group instruction and transition to flexible groupings which could be small groups, stations/centers, and paired learning. With regard to the whole group, using technology such as interactive whiteboards is related to high student engagement. Regarding flexible groupings: for younger students, these are often teacher-led but for older students, they can be student-led with teacher monitoring. Peer-supported learning can be very effective and engaging and take the form of pair-work, cooperative grouping, peer tutoring, and student-led demonstrations (Morningstar et al., 2015).

Students to Use the Same Curriculum that Will Support or Aid SWD: All students need the

opportunity to have learning experiences in line with the same learning goals. This will necessitate thinking about what supports individual SWDs need, but overall strategies are making sure all students hear instructions, that they do indeed start activities, that all students participate in large group instruction, and that students transition in and out of the classroom at the same time. For this latter point, not only will it keep students on track with the lessons, their non-SWD peers do not see them leaving or entering in the middle of lessons, which can really highlight their differences. (Morningstar et al., 2015).

Using Instructional Materials that Aid Learning for both SWD and Non-SWD: These are methods that are varied and that support many learners' needs. They include multiple ways of representing content to students and for students to represent learning back, such as modeling, images, objectives and manipulative, graphic organizers, oral and written responses, and technology. These can also be adapted as modifications for SWDs where they have large print, use headphones, are allowed to have a peer write their dictated response, draw a picture instead, use calculators, or just have extra time. Think too about the power of project-

based and inquiry learning where students individually or collectively investigate an experience. (Morningstar et al., 2015).

The Shortcomings of Integrating SWD in a Regular Education Classroom

Inclusion is a term to describe the placement of special education students in regular education classrooms. However, placing special students in regular classrooms can be quite challenging especially in Nigeria where disabled children are treated as outcasts (not in all cases though). The idea of quality as far as special children are concerned, refers to the provision of equal educational treatment to the end that the child gets an opportunity to develop to the best of his ability. Therefore, it entails the provision of a free education and deliberately planned programs to suit the child's ability at no cost to him and his parents. Further, this researcher believes some children just need an environment different from the regular environment they've been used to in order to thrive coupled with all the attention they can get for the best environment to learn.

Identification and Referral: In an inclusive education setting, placement of exceptional learners is one of the fundamental aspects of special education. Administrators

without knowledge and experience of special education usually encounter difficulty. Without appropriate identification and referral of exceptional learner, it is often difficult to have an appropriate placement. Due to lack of legal mechanism, inclusive education is hard to maintain, talk less of providing appropriate services for children with disabilities. Further, in an inclusive setting, the referral process does not provide a suitable method for documenting and gathering systematic data for record-keeping and reporting purposes. Although there is a variation of practice among states and districts, the referral process is not seen to be a procedure used throughout this country, because it neither helps parents know their rights nor give them the freedom to litigate when their children are inappropriately identified or targeted for inappropriate placements. (Michael & Oboegbulem, 2013).

Assessment: Informal measures, tests, class work, homework, and assignment projects are equally used with modifications for people with special needs. The flexible and individualized nature of these assessment strategies encourages higher motivation for all learners and increases their development of confidence. Furthermore, it eradicates

the discriminatory nature of fixed tests that are used in labeling and that may be culturally insensitive to address the day-to-day reality of persons within some given culture. Assessment which is an integral part of Nigerian education and has a high degree of diversity is rare. Instructional programs are arranged to allow for assessment that will monitor student's programs while other assessments are referred to a specialist at various centres. The problem is the lack of standardized tests, hence, children are placed in schools at the discretion of their parents and are planned and taught by teachers who may not have been previously trained to handle diverse learners with special needs. (Michael & Oboegbulem, 2013).

Funding: The Federal Government of Nigeria's inability to fund general education has led to the total abandonment of any request for setting up suitable structures for inclusive education and for those children with disabilities. The lack of adequate funding has created problems for school administrators to effectively carry their administrative duties well. The policy document has neither classified any criteria for personnel training nor co-ordination of its special education unit. This situation has led to the stagnation of inclusive education in Nigeria

(Eskay, 2009). Conversely, the government has not come up with an accurate number of those in need of special education funding. Further, the lack of professional training in the field of special education has led to some school administrators in poor planning and thus, perceives children with disabilities negatively (Eskay, 2009). In fact, lack of training facilities, human and material resources, and the unfavorable attitude of the society towards children with disabilities have added to the funding constrain

Environment: One goal of special education programs in today's world is to place learners with exceptionality in the least restrictive environments that would allow them to maximize their academic and social potentials. Children with varying disabilities have a right to education in a non-threatening environment. In the National Policy on Education (NPE) (1998), Section 8 clearly stated that all children, in spite of their physical mental, and emotional disabilities, must be provided with equal educational opportunities. Adequate education must be ensured for all children, so they can fully play their roles in the development of the nation. The school's administrators, according to the National Policy on Education, are supposed to provide for students with

disabilities in order that they may contribute towards nation building. Unfortunately, the objectives have not yet been achieved in many Nigerian inclusive classrooms. The lack of a legal mechanism to enforce the necessary stipulations, such as placement decisions by law, is not made through an M-team (multi-disciplinary team). This team includes a psychologist, educational diagnostician, teacher, administrator of special education, physician (if requested), parent(s), student (where appropriate) and other specialists who work with the students, (Michael & Oboegbulem 2013). The truth is that these theoretical objectives are yet to be fully realized in schools. The practices of policies in the National Policy on Education are yet to be implemented and the objectives are not yet functional. Yet, it is of great importance that equal educational opportunities be made available for all children since everyone has to have the same chance of getting a job or doing well (Ajuwon2008).

Legal Mandates: In spite of the fact that Nigeria IS a member of the United Nations Edict on Human Rights and Child Right, yet the child has no right to be free, enjoy leisure and play, and be protected from harmful practices, violence, injury, and abuse. Nigerian legal protection and security for children with

disabilities are only in theory instead of being put in practice. This means that these children with disabilities are not guaranteed equal treatments, integration, education, and their eventual mainstreaming in an inclusive setting in Nigerian society. (Michael & Oboegbulem, 2013).

Teachers’ Professional Abilities:

Likewise, Lots of school administrators and teachers do not have the professional skills to work effectively with the various disabilities in an inclusive setting. Because of this lack of professional skills, educational policies and programs do not reflect the need for individual differences or disabilities. The educational set-up is mainly structured and not accommodating to children with disabilities in an inclusive setting. Children with a disability may also become lost in a large group getting considering the fact that regular teachers may not understand the students with disability and become rather impatient with them, a child with a disability, on the other hand, may also feel stupid for struggling when other children are already getting it in class. (Michael & Oboegbulem 2013).

Barriers to the Implementation of Inclusive Education in Nigeria

Inclusive education does away with the practice of segregating students

with learning and/or physical challenges from the rest of the student body. While the practice of inclusion places extra demands on students and facility logistics, there are numerous benefits to all students. Both disabled and non-disabled. Teachers in inclusive classrooms must incorporate a variety of teaching methods in order to best reach students of varying learning abilities (UNESCO, 2020).

This has benefits even for those students who would be placed in a traditional classroom, as this increases their engagement in the learning process. Even gifted and accelerated learners benefit from an environment that stresses responsiveness from all students. Perhaps most importantly, inclusive classrooms encourage open and frank dialogue about differences as well as a respect for those with different abilities, cultural backgrounds and needs. Despite the benefits, there still are many barriers to the implementation of inclusive education (UNESCO, 2020).

A UNESCO article, “Inclusive Education,” outlined many of them, including:

Attitudes: Societal norms often are the biggest barrier to inclusion. Old attitudes die hard, and many still resist the accommodation of students

with disabilities and learning issues, as well as those from minority cultures. Prejudices against those with differences can lead to discrimination, which inhibits the educational process. The challenges of inclusive education might be blamed on the students' challenges instead of the shortcomings of the educational system (UNESCO, 2020).

Physical Barriers: In some districts, students with physical disabilities expected to attend schools that are inaccessible to them. economically-deprived school systems, especially those in rural areas, dilapidated and poorly-cared-for buildings can restrict accessibility. Some of these facilities are not safe or healthy for any students. Many schools don't have the facilities to properly accommodate students with special needs, and local governments lack either the funds or the resolve to provide financial help. Environmental barriers can include doors, passageways, stairs and ramps, and recreational areas. These can create a barrier for some students to simply enter the school building or classroom (UNESCO, 2020).

Curriculum: A rigid curriculum that does not allow for experimentation or the use of different teaching methods can be an enormous barrier to

inclusion. Study plans that don't recognize different styles of learning hinder the school experience for all students, even those not traditionally recognized as having physical or mental challenges (UNESCO, 2020).

Teachers: Teachers who are not trained or who are unwilling or unenthusiastic about working with differently-abled students are a drawback to successful inclusion. Training often falls short of real effectiveness, and instructors already straining under large workloads may resent the added duties of coming up with different approaches for the same lessons (UNESCO, 2020).

Language and Communication: Many students are expected to learn while being taught in a language that is new and in some cases unfamiliar to them. This is obviously a significant barrier to successful learning. Too often, these students face discrimination and low expectations (UNESCO, 2020).

Socio-Economic factors: Areas that are traditionally poor and those with higher-than-average unemployment rates tend to have schools that reflect that environment such as run-down facilities, students who are unable to afford basic necessities and other barriers to the learning process. Violence, poor health services, and

other social factors create barriers even for traditional learners, and these challenges make inclusion all but impossible (UNESCO, 2020).

Funding: Adequate funding is a necessity for inclusion and yet it is rare. Schools often lack adequate facilities, qualified and properly-trained teachers and other staff members, educational materials and general support. Sadly, the lack of resources is pervasive throughout many educational systems (UNESCO, 2020).

Organization of the Education System: Centralized education systems are rarely conducive to positive change and initiative. Decisions come from the school system's high level authorities whose initiatives focus on employee compliance more than quality learning. The top levels of the organization may have little or no idea about the realities teachers face on a daily basis (UNESCO, 2020).

Policies as Barriers: Many policymakers don't understand or believe in inclusive education, and these leaders can stonewall efforts to make school policies more inclusive. This can exclude whole groups of learners from the mainstream educational system, thereby preventing them from enjoying the

same opportunities for education and employment afforded to traditional students. Overcoming the many barriers to inclusive education will require additional funding, but even more importantly, it requires the change of old and outdated attitudes. Studies support what many classroom teachers know by experience; that the benefits inclusion provides to all students easily justified the effort (UNESCO, 2020).

The Way Forward

This paper strongly agreed with the suggestion of Michael and Oboegbulem, (2013) who stated that: teacher educators and the mainstreaming program for learners with special needs should be accepted and respected. Teacher educators for students with disabilities in most of the Nigerian schools should be aware of special needs of these diverse learners and their potential negative effects on learning. More attention should be given to social and emotional education in the implementation of children with special needs. The teacher educator should make it clear to the learners with special needs that even if they were educated separately, they would still interact with children without disabilities outside the school environment Both students with and without disabilities should be made to understand the essence of living with

each other in the school, The school authority should see to the proper integration of learners with special needs (Michael & Oboegbulem, 2013).

CONCLUSION

The purpose of inclusive education is to bring together all children with and without disabilities under the same classroom, learning condition and opportunities irrespective of their learning ability and disability status. This means that children are able to benefit from each other through interaction in order to achieve a desirable behaviour for a successful life for a better society.

RECOMMENDATIONS

The following are recommendations on how to facilitate the practice of inclusive education in Nigeria:

- (1) The inclusive education program should begin with the primary school as the formation level for formal behavioural development;
- (2) A special directorate of inclusive education should be created in federal, state ministries of education charged with the responsibilities of planning, strategizing, implementation, and monitoring of inclusive education activities in Nigerian schools;
- (3) Adequate plans should be put in place to take a special census (house to house and school to School) to identify and document children with categories of disabilities. This will make it easier to plan the proportion of different kinds of learners with Special needs to be assigned or place in schools set aside initially for inclusive education;
- (4) Initial training and retraining of general and special education teachers to partake in the principles and practices of inclusive education must be put in place prior to their utilization;
- (5) Special task force to be set up by federal government made up of educational technocrat to design and streamline the goals and objectives to be attained by inclusive education in the short medium and long run;
- (6) Special committee special committee at community to be set up by state, in collaboration with local governments to brainstorm ideas to establishing priorities, assigning responsibilities for action, and reviewing progress towards defined goals;
- (7) There should be a national campaign spear-headed by orientation agency for the identification of children with

- special needs for purposes of enrolment in inclusive education programmer;
- (8) State and local governments with the Federal Ministry of Education, Information and Women Affairs to mandatory earmark substantial funds in their annual budget for inclusive education program campaign, development, and implementation;
- (9) Inclusive education should be specially provided for and funded in terms of planning and implementation designing instructional environments, such as accommodation, adaption modifications to materials strategies, equipment, and others facilities.

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PARENTAL AND PEER GROUP INFLUENCE ON DEVIANT BEHAVIOUR AMONG ADOLESCENT STUDENTS IN KATSINA METROPOLIS

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ABSTRACT

This study examined parental influence on adolescent students' deviant behaviour in Katsina Metropolis. The research design used was descriptive survey. The population of the study comprised of 3,210 adolescent students in Katsina Zonal Education Quality Assurance, Katsina State. The sample was 60 adolescent students who displayed signs of deviant behaviours in the classroom, and were selected using purposeful sampling technique. Self-report instruments called Parental Influence Deviant Behaviour Questionnaire (PIDBQ) and Peer Group Influence Questionnaire (PGIQ) developed by the researchers were used to collect data in the study. Data collected were analysed using frequency and percentages. The results revealed that peer group influenced adolescent students' deviant behaviour; and their friends equally joined them in indulging in deviant behaviour. Also, adolescent students were not punished when they found indulging in deviant behaviour in school; while some of adolescent students who indulged in examination malpractice, sex immorality were not scolded. It was recommended that parents should put their children under watch so that they can observe and correct any deviant behaviour noticed in them.

Keywords: Adolescent students, Deviant behaviour, Parental influence, Peer group, Metropolis

INTRODUCTION

The joy of teachers in any academic settings is to see their students

excelling as far as their academic performance is concerned, not only to see them with good academic

performance but to have total control over them. If a teacher is not in control of his classroom, the class becomes noisy, uninteresting and the learning process is disrupted to the extent that the innocent students may find it difficult to comprehend in the class. Therefore, it is one of the sole responsibilities of the teachers to have knowledge of educational psychology so that behaviour that could disrupt classroom management can be taught in the class and the procedures to understand such behaviours can be explained to the students.

This will indeed help the teachers to identify any unwanted behaviour in the class with the aim of curtailing it before it goes out of control. Many of these unwanted behaviours are usually carried out by adolescent students. Adolescent is a period of transition when the individual changes physically and psychologically from a child to an adult. It is period when rapid physiological and psychological changes demand for new social roles to take place. The adolescents, due to these changes often face a number of crises from their parents and peer group.

Mangal (2011) defined adolescent as a period from 13 years to 19 years or in a strict sense from onset of puberty

till attainment of maturity. Erikson, (2019) defined adolescent as a stage of development during which the individual is searching for an identity. The crisis he called identity verse role confusion. At this period if adolescents are not properly guided by the parents or peers against any unwanted behaviour they may likely go astray which may result to indulging in deviant behavior.

Understanding the meaning of adolescent is important because adolescents are the future of any society. Adolescent psychology involves looking at the issue, stages and various influences that an adolescent experience throughout their development into functioning adult. Adolescence is a particularly hard time for children. They are experiencing all kinds of new changes in their bodies and in their feelings which may result to formation of new behaviour. As well, they often feel misunderstood as they are struggling to leave behind their childhood and become adults. Idris opined that (2016) adolescence has commonly been characterized by issue such as deviant behavior, lying, cheating, school performance problems, negative attitudes, disobedience and disrespect, sibling rivalry drug and alcohol abuse, pressures from peers, depression and issues of sexuality. Adolescent in a perfect world, will

grow up to be happy, healthy and functioning adult if he is properly guided and morally supported by his parents or peer group. An adolescent feels all kinds of pressures from parents, school and peer group, as well as, the influence of peer pressure and the introduction of such pressures from drugs, alcohol and the opposite sex may lead to deviant behavior. Past studies on deviant behavior have mostly referred to cutting classes, using filthy language, stealing, smoking and drinking (Sokol-Katz, Dunham, & Zimmerman, 1997); however, instances of students bullying others and threatening teachers in public have become common.

In educational psychology, it is very easy for teachers to modify the behaviour of students irrespective of his family background; there are methods to use when teachers want to stop any unwanted behaviour noticed by the students for better academic performance. Such methods could be by observation, interview, among others. Antisocial behaviour such as deviant behaviour is common among adolescent students and this deviant behaviour is one of the commonest behaviour among adolescent students. Some research has indicated that family factors significantly influence the deviant behavior of teenagers (Cheng, 2001). In addition,

research has indicated that teenagers' is significantly influence by family factor and parental supervision (Laser, Luster, & Oshio, 2007). There are many causes of deviant behaviour; family background and peer group influence are the common factors that contribute to the development of deviant behaviour among adolescent student. Idris (2016) defined deviance as any behaviour that does not conform to the established rules of a group of individuals or the society at large. At adolescent stage, students from broken families tend to have anti-social behavior (Murray & Farrington, 2005). Deviant behaviour is a behaviour that contravenes the laws of the society or rules and regulations of the school. Odunmuyiwa (2001) and Esere (2008) found that truancy, examination malpractice, substance abuse, bullying, vandalism and sexual immorality are types of deviant behaviours among adolescent students in the school setting. Heveans (2001) found that the peer group has a significant influence on the teenagers' social development because it sets the cultural norms. Lawal (2009) was of the opinion that the following are the causes of deviant behaviour:

Family Influences: Factors like defective home management,

immorality, drunkenness, deprived children, criminality, broken homes, poverty, bad child rearing practices that is parental attitude to upbringing, over affection, under affection, issue of step mothers and some experiences in the first five years of life are thought to promote deviant behaviour.

Personality Influence: A small percentage of adolescents have personality problems like behaviour disorders (e.g., psychopathic disorder, character disorder and excessive emotional stress).

Situational Influence: This is due to the influence of the environment the children find themselves. For example, area boys in the cities, ghetto and other youth gang where the adolescent is able to create identity if they get mixed up with them.

Environment is one of the factors that contribute to the development of deviant behaviour in a child. The school environment should be conducive in such a way that the adolescent students will be free to discuss their problem with the teachers. It is advisable for parents to always look after their children especially those who are at adolescent stage as it is known to be the most dangerous stage out of all the

developmental stages in human life. Parents should not display any form of deviant behaviour in the presence of their children because they sometimes copy from their parents' actions. Some studies also found that parental personality composition contributes to the children deviant behaviour; that if parents have deviant behaviour, because of genetic inheritance the child may likely be deviant. Foluke and Mary (2018) believed that if an area of the brain has the properties that predispose people to deviant behaviour; such students are likely to develop more severe deviant attitudes. Omotosho (2009) explains that psychological theory suggests that people are predisposed to deviant behaviour when they are located at any stage of development. It was found that students from low social economic status families showed signs of deviant behaviour than those from high social economic status (James, 2001). However, recent studies have indicated that family type is not significantly related to deviant behavior in schools (Jou, 2010).

Yara (2009) found that behaviours are acquired by watching people around in the environment or by watching the person that performs an action. People learn deviant behaviour through observing people living around them like their parents, friends

and teachers. Children therefore, observe their parents and friends behaviour and use them as the bases for the development of their behaviour. The acquisition of deviant behaviour is the belief that behaviour are formed or learnt from people in the environment. It is learnt like any other habit; it is not in any way inherited. As people acquire information and facts, they also acquire feelings and values associated with these facts. Once deviant behaviour is formed, the individuals are no longer passive. Any new actions will be processed in accordance with what he has learnt.

Statement of the Problem

School is a place where students learn and copy their peers' behaviours for good academic outcomes and character formation but the rate at which students misbehave in the schools is alarming and this students' misbehavior has been causing a lot of unrests in the school. A number of researchers have carried out researches to find out causes of deviant behaviour among adolescent students but these researchers have failed to investigate influence of parents and peers on students' deviant behaviour. A number of factors contribute to students' good academic performance as well as formation of their character, of which students' peer group and parental influence

could be among those factors. This study is set to find out if parental influence and peer group are the predators of deviant behavior among adolescent students. This research will help to find out if these two variables (parents and peer group) are among the causes of deviant behaviour with the aim of providing lasting solution to deviant behaviour among adolescent students.

Research Objectives

1. To investigate if parents influence deviant behaviour among adolescent students.
2. To examine if peer group influence deviant behaviour among adolescent students.

Research Questions

1. How do parents influence deviant behaviour among adolescent students?
2. To what extent do peer group influence deviant behaviour among adolescent students?

METHODOLOGY

Research Design

The research design adopted in this study is descriptive survey design. The rationale behind this is that the researchers chose questionnaires as their instruments for data collection. Attempt is made to describe parental and peer group influence on deviant

behaviour of adolescent students in Katsina metropolis.

Participants

The population of the study comprised of 3,210 SSII students in Katsina Zonal Education Quality Assurance, Katsina State. Specifically, the participants of the research were members of the SSS II students who displayed signs of deviant behaviour in Katsina Zonal Education Quality Assurance, Katsina State. Purposeful sampling technique was used to carefully select them and this was done by the help of their form masters and class monitors. The students with deviant behaviour signs (substance abuse, bully and lying, fighting, to mention only a few, were 60 in number which constituted the sample size of the study.

Instrumentation

Self-report instruments called Parental Influence Deviant Behaviour Questionnaire (PIDBQ) and Peer Group Influence Questionnaire (PGIQ) were developed by the researchers and used for data collection. Parental Influence Deviant Behaviour Questionnaire (PIDBQ) consists of 10 items. On this instrument, we have 6 positive items and 4 negative items. Items 1, 3, 4, 5, 7 and 9 were worded passively while items 2, 6, 8 and 10 were negative. The range of score here is from 10-30.

Positive items were scored 3= strongly agree, 2=agree, 1= disagree. For negative items, the items were scored in a reverse way.

Peer Group Influence Questionnaire (PGIQ) consists of 10 items and it is the second instrument. On the instrument, there are 5 positive items and 5 negative items. Items 1, 4, 6, 7 and 10 were worded passively while items 2, 3, 5, 8 and 9 were worded negatively. The range of score is from 10-30. Positive items were scored 3 = strongly agree, 2=agree, 1= disagree. For negative items, the items were scored in a reverse way.

Validity and Reliability of the Instruments

Face validity was used to validate the two instruments and the content validity of the instruments was carried out by experts in the fields of Educational Psychology, Guidance and Counselling, Tests and Measurement. The experts' opinions included removal and recasting of some items on the instruments. Researchers used Cronbach Alpha formula to establish the internal consistency of the two instruments. This was done by administering 20 copies of each of the instrument to 20 students of GSSS Kofar Kaura, Katsina State. The school selected to conduct pilot study, was among the population of the study but it was not

among the sampled schools where the researcher conducted the main study. The pilot study was conducted because the researchers were interested in finding out how compatible the items on the instruments are. The reliability coefficients of Parental Influence Deviant Behaviour Questionnaire (PIDBQ) and Peer Group Influence Questionnaire (PGIQ) were 0.610 & 0.602 respectively. The accuracy in the reliability coefficients of the two instruments made the instruments usable in the study.

Data Collection

Sixty (60) copies of each of the instruments were distributed to the

participants and after the administration of the instruments; the total number of the instruments given were equally retrieved from the students. The instruments were scored and the total score on each of the instrument was recorded. The data collected were analyzed using frequency distribution and percentages.

RESULTS

Research Question One: How parents influence deviant behaviour among adolescent students? In responding to the research question one, the table below shows the descriptive analysis of the students' responses.

Table 1: Parental Influence on Students' Deviant Behaviour

My parents will not scold me if I	Agreed	Disagreed	Undecided
1. Abuse Substance abuse	50(83.3)	10(16.7)	0(0)
2. Copy his dubious behaviour	40(66.7)	20(33.3)	0(0)
3. Involve in sexual immorality	20(33.3)	40(66.7)	0(0)
4. Involve in examination malpractice	30(50)	30(30)	0(0)
5. Bull students	30(50)	26(43.3)	4(6.7)
6. Watch them when fighting with their neighbours	35(58.3)	22(36.7)	3(5)
7. Indulge in cult related activities	45(75)	5(8.3)	10(16.7)
8. I abuse people	33(55)	25(41.7)	2(3.3)
9. Lie	29(48.3)	25(41.7)	6(11)
10. I refuse to go to school sometimes	40(66.7)	15(25)	5(8.3)

The table above showed that 50 students representing 83.3% their parent will not berate them if they abuse substance while the remaining students 10 representing 16.7%

responded that their parent will berate them if they abuse substance. More so, 40 out of 60 responded that their parents will not scold them if they copy their dubious behaviour while

the remaining 20 responded otherwise. Also, 20(33.3%) students responded that their parents will scold them if they involve in sexual immorality while the remaining 40(66%) responded that their parents will scold them. The table also showed that 30 (50%) of students responded that their parents will scold them if they involve in examination malpractice while the remaining 30(50%) responded otherwise. More so, 30 (50%) students bullied students responded that their parents will scold them if they bullied other students in the school while 26 (43.3) responded otherwise and the remainig 4 (6.7%) students were undecided. Also, 35 (58.3%) students responded that their parents will not scold them if they watch them when fighting with their neighbours, 35 (58.3%) responded that they will scold them and 3 (5%) were undecided. Furthermore, 45 (75%) responded that their parents will scold them when they indulge in cult related activities, 5 (8.3%) students responded otherwise while the remaining 10 (16.7%) were

undecided. 33 (55%) students responded that their parents will scold them if they abuse people, 25 (41.7%) responded that they will not scold them while 2 (3.3%) were undecided. 29 (48.3) students responded that their parents will scold them if they lie, 25 (41.7%) responded otherwise while the remaining 6 (11.0%) were not decided. 40 (66.7%) responded that their parents will scold them if they refuse to go to school sometimes, 15 (25.0%) responded that they will not be scolded while 5 (8.3%) were undecided. From the explanation, it was discovered that a large number of students responded that their parents will not scold them if they indulge in any form of deviant behaviour and it was an indication that parental influence is one of the factors contributing to adolescent students' deviant behaviour.

Research Question Two: How do peer group influence deviant behaviour among adolescent students? In response to research question two, Table 2 below shows the responses of students

Table 2: frequencies and percentage for peer group and students' deviant behaviour

My friends join me in	Agreed	Disagreed	Undecided
1. Abusing substance abuse	40(66.7)	20(33.3)	0(0)
2. Sexual immorality	20(33.3)	37(61.7)	3(5)
3. Examination malpractice	48(80)	12(20)	0(0)
4. Bullying students	35(58.4)	23(38.3)	2(3.3)
5. Abusing people	46(76.7)	14(23.3)	0(0)

The first item in the table above indicated that 40 (66.7%) students responded that their friend usually joins them whenever they were abusing substance while the remaining 20 (33.3%) responded that their friends did not join them whenever they were abusing substance. 20 (33.3%) responded that their parents will join them in sexual immorality, 37 (61.7%) responded that they will not join them while the remaining 3 (5%) were undecided. More so, 48 (80.0%) responded that their friends will join them in examination malpractice while 12 (20.0%) students responded otherwise. 35 (58.4%) responded that their friends will join them in bullying students, 23 (38.3%) responded otherwise while the remaining 2 (3.3%) were undecided. Also, 46 (23.3%) students responded that their friend will join them in abusing people while the remaining 14 (23.3%) responded that they will not join them in abusing people. From the explanation, it was discovered that a large number of adolescent students responded that their friends will join them in scold them if they indulge in any form of deviant behaviour and it was an indication that peer group is one of the factors contributing to adolescent students' deviant behaviour.

DISCUSSION

The findings of the study indicated that parents contributed to the adolescent students' deviant behaviour due to the negligence of their duties. Some of the adolescent students copied the behaviour of their parents. The study is in line with that of Yara (2009) who found that behaviours are acquired by watching people around in the environment or by watching the person that performs an action, as he believed that people learn deviant behaviour through observing people living around them like their parents, friends and teachers. More so, the findings also showed that peer group contributed to the deviant behavior of adolescent students and this is also in line with the study of Yara, (2009). This finding was also in line with the study of Heavens (2001) who found that peer group has a significant influence on the teenagers' social development.

CONCLUSION

The findings of this study revealed that parents influenced deviant behaviour of adolescent students and at the same time students' peer group has significant influence on deviant behaviour of adolescent students. Therefore, the findings of the study clearly showed that parents contributed to adolescents' deviant behavior via displacement of deviant behavior in the presence of their

children and examination malpractice is the most deviant behaviour exhibited by adolescent students as a result of peer group influence.

RECOMMENDATIONS

From the findings in this study, the following recommendations were suggested:

1. Parents should scold their children whenever they were found indulging in any activities that may lead to deviant behaviour,
2. Parents should put their children under watch so that they can quickly observe and correct any deviant behaviour noticed in their children.
3. Teachers should take measure to ensure that students are discouraged from any act of deviant behaviour.
4. Parents should advise their children on the kind of friend they keep and they should quickly without any hesitation disengage their children from students with deviant behaviour.

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INVESTIGATING THE CONTENT ANALYSIS OF PRINT MEDIA IN THE PROMOTION OF TOURISM INDUSTRY IN KANO STATE

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ABSTRACT

The purpose of the study was to investigate content analysis influence of the print media in the promotion of tourism industry in Kano State. The sampled newspapers comprising of Daily trust, Kano chronicles, Leadership, Vanguard and Desert Herald. All these newspapers devoted one to two pages to tourism daily; while the period selected for content analysis was 2017 to 2021. The study utilized content analysis to find out how content on tourism was covered through editorial, news report, commentary and pictures of the sampled newspapers. The editorials of the sampled print media in Kano state contributed to the promotion of tourism industries as stated by the study. It was concluded that editorials section of the sampled papers does influence tourism promotion while the newspapers report sections of the papers have very low coverage of tourism potential for the promotion of tourism in Kano State. The paper recommended that the editorials sections of the newspapers should give priority to tourism attraction sites for the promotion of tourism in Kano and that the newspapers report sections should reports more on tourism attraction sites and accessibility for the promotion of tourism in Kano State.

Keywords: Content analysis, Tourism potential, Promotion, Print media, Tourism industry

INTRODUCTION

Tourism is the world's largest growing industry with no signs of slowing down (World Tourism Organization (WTO) (-2002). Tourism is usually described in terms of a person who travels for non-business reason for more than 50 miles from their day-to-day place of residence and sometimes overnight (Zillinger, 2004). According to Agba, et al (2010) tourism is a business

entity that provide places and events to occupy people when they are on holidays; in its original thought, tourism is seen as a source of relaxation and site seeing. According to the United Nations World Tourism Organization (UNWTO) (2008), tourism has experienced continued growth and diversification to become one of the largest and fastest growing economic sectors in the world with an increasing number of destinations

which has opened up investment tourism development and turning tourism into a key driver for socioeconomic progress and a source of growth, employment and revenue. The income generated by tourism globally ranks fourth after fuel, chemicals and automotive products and tourism thus represents one of the major international trades (UNWTO, 2008).

Kano State is richly endowed with natural and manmade features in form of hills, waterfalls, and springs and mountainous areas with temperate climate with a range of unique and common species of tropical wildlife. And cultural resources. The cultural assets of the State are of universal recognition, which has made the State one of the richly endowed potential tourist destinations in Nigeria (Etim, 2008). All these can be developed by government investing more capital in collaboration with private individuals or corporations to preserve and maintain them and creating awareness of the existence of these tourist sites will also go a long way in promotion and development. Klabi (2012) pointed out that print media play significant role in the promotion of tourism in the world, by which a large number of audiences are reached and informed about a particular product delivery via the use

of papers, such as books, magazines and newspapers.

According to Etim (2008), tourists usually decide on the destination based on what they have heard or seen from media then seek the assistance specialists to decide on accommodation, travel arrangements, tour guide support and so on, which can be provided by print media. The stronger the destination and brand recall, the greater the chances of attracting these new tourists (Crosbie & Yin, 2002). Therefore, branding and positioning the destination is an important aspect for all emerging tourism markets. Print Media contributes immensely towards achieving the promotion of tourism industries (Klabi, 2012).

According to Ramey (2007), researches have shown that the media have significant impacts on public awareness, perception and their behaviour towards buying, making decision and voting. Yazid (2005) observed that editorial media contents influence readers, viewers and listeners more than the advertising and editorial content and format. Tourism is one of the world's largest industries and for the developing countries it is one of the biggest income generators with huge infrastructural and resource demand, if it is not properly managed (Klabi

2012). The terms tourism and tourist are sometimes used pejoratively, to imply a shallow interest in the cultures or locations visited by tourists (Mill & Morrison, 1992). Tourism is vital to the Kano state and is a major industry globally and as a major sector, it has impacted on its immediate surroundings and if well promoted, tourism can facilitate the restoration, conservation and protection of physical environments (Kang, & Mastin, 2008).

For example, through the print media tourism can be promoted through provision of columns, commentaries, news report, pictures and editorials within the tourism industry in Kano State thereby sensitizing government in creating an enabling policy that will allow investors to invest. The universal accepted role of the print and other media is to educate, inform, publicize, advertise and entertain. Print media disseminate news through editorials, commentaries and opinions expressed in shaping and influencing people's perception of what is newsworthy about tourism issue and other issues that dominate public discourse. In addition to informing and educating people, the newspapers also entertain through picture, cartoons, commentary and editorials.

Kano State has a lot of tourist attraction sites such as famous gates, Kofar Mata Dyeing pits, Gidan Makama Museum, Falgore game reserve, Kurmi market and so on, which if utilized can serve as sources of income to the government as well as provide job opportunities for the youths and also enable the local people to generate income. Cohen (2013) opined that print media may not be successful in telling their readers how to think, but are stunningly successful in telling their readers what to think about,

Accordingly, the contents of the three newspapers chosen were used to find out the editorials, news reports, commentary and pictures, on the state of tourism in the state. The papers selected are widely read and accepted in Kano state and the years that were selected was from (5) years 2017 - 2021. The method adapted was to satisfy the true test of reliability, accuracy and error of measurement thus, by applying content analysis and the adopting some of the units' analysis of Barelson (1952). According to Ramey have significant impact and effects on public awareness, perception and sometimes behaviour such as buying and decision and sometimes influence readers' opinion about tourism destination.

Statement of the Problem

Print media consists of Newspapers, magazines and books, all of these are very influential and reports tourism products and services in a variety of ways, not only influential but informative, educative and entertaining in the way they print editorials, commentaries, news reports and sometimes pictures of tourism products and services (Yazid 2005). Through adequate coverage the profile of tourism is raised and information to local and international tourists on latest development and information about the happening in the tourism industry is made available. Kano State has the potential and is endowed with tourism products and services scattered in all the nooks and crannies of the state, but it is quite disturbing that Kano state with all its rich diverse culture, multi-ethnic and religious background as well as beautiful sceneries have not been able to harness its tourism products to its advantage. To this end it is creating developmental setback to this industry at the period when the industry will be accruing a huge financial benefit to the Kano state government (Barau 2007).

For example, print media has made products and type of product known at destinations easier and knowing where attractive sites are located and

best tourism service offered, this has resulted in the increase in the number of intending tourists, it is the most cost-effective way of communicating with target market and in the dissemination of information, it reduces costs through increased efficiency in the internal operations and purchasing processes (Ekaneyeke, 2012). If tourism industries of Kano state do not receive adequate attention and coverage from the print media interest will fade and it will lead to a decline in patronage and this will have adverse effects on the industry, as the kind of things people discuss, think and worry about is powerfully shaped and directed by what the print media choose to publicized (Larson, 2012). The role of print media in the promotion of tourism industry in Kano State seems to be low, probably due to lack of patronage, or due to the tourism centers inability to utilize, exploit and harness the potential of the print media in the promotion of tourism industry in Kano State. The relationship between tourism and the media is vital, complex and tourism is highly dependent on media reporting because the vast majority of travel decisions are made by people who have never seen the destination for themselves. If tourism industries of Kano state do not receive adequate attention and coverage from the print media interest will fade and it will

lead to a decline in patronage and this will have adverse effects on the industry, as the kind of things people discuss, think and worry about is powerfully shaped and directed by what the print media choose to publicized (Larson, 2012).

Objectives of the study

The objective of the study was to investigate content analysis influence of print media in the promotion of tourism industry in Kano state: A content Analysis, using the medium of print media in the promotion of tourism industry. Therefore, the specific objectives of this study are to:

- i. determine whether print media editorials influenced the promotion of tourism in Kano state.
- ii. examine whether print media news reports influenced the promotion of tourism in Kano state
- iii. investigate whether print media commentaries influenced the promotion of tourism in Kano state.
- iv. determine whether print media pictures influenced the promotion of tourism in Kano state.

Research Hypotheses

Based on the above and the numerous attraction sites that abound in the

state, the following hypotheses were raised:

1. Print media editorials do not significantly influence the promotion of tourism in Kano State
2. Print media commentaries do not significantly influence the promotion of tourism in Kano State
3. Print media News reports do not significantly influence the promotion of tourism in Kano State
4. Print media pictures do not significantly influence the promotion of tourism in Kano State

METHODOLOGY

Research Design

The research design adopted for this study was content Analysis for analyzing and understanding collections of text. Barelson (1952) define content analysis as a research technique used for objective, systematic and quantitative description of the manifest content of communication. McQuail (2004), summed up the method of content analysis in the following steps:

- Chose a universe or sample of content and establish a category frame of external reference relevant to the purpose of the enquiry, e.g. (tourism).

- Choose a unit of analysis from the content (words, picture, story, sentence etc.) then match content category frame, per chosen unit of content and express the result as an overall distribution of the total universe or sample in terms of the frequency of occurrence (Barelson, 1952).

Participants

The Universe): Daily Trust, Kano Chronicle, Vanguard, Desert Herald and leadership newspapers.

Instrumentation

Unit of Observation, Editorials, News Reports, Commentaries and Pictures

Data Collection

Data was collected from the print media narratives of Daily Trust, Kano Chronicles, Vanguard, Desert Herald and Leadership newspapers for the period of 2017-2021 covered to allow for a wide coverage.

Data Analysis

Statistical technique used in analyzing the data was one sample T-test

Table 1. Breakdown of all the Newspapers that are in Circulation

SIN	Newspapers	Circulation Figures
L	Daily trust	5000
2.	Leadership	300
3,	Kano chronicles	5000
4.	Desert herald	400
5.	Vanguard	3000
	Total	13700 Copies

Source: Media House, 2021

Table 1 above showed the selected print media used as the instrument for content analysis which were determined by circulation figure, ownership and location of chosen newspapers to be content analyzed. Accordingly, Daily Trust, Kano chronicles and Leadership Newspapers constituted the sample

publications that were content analyzed. With regard to ownership, Daily Trust, Kano Chronicle and Leadership Newspapers are owned by private individuals and groups. Daily Trust published five thousand copies (5,000) daily, Kano Chronicle published five thousand copies (5000) weekly while Leadership

newspapers 300 copies daily (Media Houses, 2021). As for their location, Daily Trust and Leadership newspapers are based in Abuja while Kano chronicles is based in Kano. Since the focus of Content analysis is on character of newspaper and the reports of tourism issues, the sampled newspapers were analyzed along the following units of observation as identified by (Yazid 2005).

Editorial: This represents the official stand of the medium on any event or process of interest. It is usually published consistently on the center page of the Newspaper.

News Reports: As the account of events, activities and often short, written preferably in active rather than passive sense and basically end at satisfying the yearnings of the prospective reader in term of what has happened, why, where, when, who is involved and how. Attention is on the subject (s), of the news and how that positively, negatively or naturally relate to tourism.

Pictures: This is a graphic depiction of a process, an event and/or actors associated with various events, activities and processes. Concern here is with the graphic depiction of personage, events and activities that relate to tourists either positively, negatively or neutrally.

Commentary: This is a written report by experts or non-experts on controversial issues such as appointment, retirement or deployment of a ranking tourism official.

Directionality: This refers to content of the newspapers as it relates to promotion comprising of personnel, funding, tourism sites and security (Yazid 2005).

To achieve this purpose, a sub-sample of (3 months) edition of vanguard newspapers was used, to ensure that the content coding was reliable. This study used inter-coder reliability determining the consistency of different raters who respond to the same events by using some sort of a check list (Reinard, 2008). Two coders separately analyzed the Daily Trust; Kano Chronicles and Leadership newspaper or the sample and coded for editorial, commentary, news report and picture contents of tourism within all issues in the samples. Prior to conducting the study, two assistant researchers (coders) were trained on how to use the content codebook, which described the categories that the content covered. Both assistant researchers (coders) tested for reliability by comparing results of their separate analyses. After analyzing the same content, the

coders met to discuss the coding of the content to see if there were areas of problems where the coders have. If it was determined that there was an error in the description of a category within the content codebook, the category was edited so that both coders agreed on the terminology. The inter-coder reliability was 86%.

Inter-coder reliability was also tested of both coders, so as to test for Inter coder reliability. The coders analyzed the content of three newspapers separately, and then a week later they analyzed the same newspaper to see how consistent their coding methods were based on the content code book. Coder one had 94 % Inter-coder reliability while the remaining assistant researchers (coders) had 92 % and 90% Inter-coder reliability respectably, all with well above the 70% reliability needed to conduct a reliable analysis of 'content. Descriptive statistics of frequency count and percentage were used to analyze the demographic

characteristics of the respondents, while inferential statistics of one sample t-test was used to test the hypotheses at 0.05 level of significance.

RESULTS

This study carried out content analysis of print media narratives in the promotion of tourism industries in Kano State which was categorized into low and high coverage and a standard mean of 400.00 was set for the purpose of this analysis where mean falling below 400.00 is considered low while a mean above 400.00 is considered high. Furthermore, the low and high coverage is obtained by considering the number of times a newspaper featured tourism promotion under a particular caption (editorial, commentary, news report, or pictures). Thus, 0-2 times in every week fall within the circle of low coverage while 3-4 times in every week fall under high coverage.

Table 1. Demographic Characteristics of the sampled newspapers

Variables	No. of papers	Years of coverage
Newspapers		
Leadership Newspaper	1380	2017-2021
Daily Trust Newspaper	1380	2017-2021
Kano Chronicles Newspaper	1380	2017-2025
Total	4140	

Table 1 presents the demographic characteristics of the sample newspapers. As shown 1380 each table Leadership, Daily Trust and Kano chronicles newspaper's publication for five years totaling

4140 for the period of the study (2017-2021).

Ho1: Print media editorial do not significantly influence the promotion of tourism in Kano State

Table 2. One Sample T-Test on Print Media Editorial on Tourism Promotion

Variable	N	Mean	SD	SE	t-cal	df	Sig
Editorial	12	0.92	1.24	358	2.56	11	.026

(Standard Mean = 400.00) t — 2.561 at df 11, p=0.26

Table 2 from the above table it clearly shows that the mean coverage of tourism promotion on print media editorial of selected newspapers stood at .92, which is lower than the standard means of 400.00. This means that there is low coverage of tourism promotion under the editorial caption of the newspapers used in the study. The null hypothesis was

therefore accepted. Hence, the print media editorials on tourism potentials in Kano state have very low significant influence on tourism promotion.

Ho2: Print media commentary do not significantly influence the promotion of tourism in Kano State.

Table 3: One Sample T-Test on Print Media Commentary on Tourism Potential of Kano State

Variable	N	Mean	SD	SE	t	Df	p-value
Editorial	12	133.83	147.88	42.69	3.135	11	0.009

(Standard Mean — 400.00) t = 3.135 at df 11, p=0.009

Table 3 above showed the mean coverage of 133.83 on tourism promotion under print media commentary on the promotion of tourism in Kano State was obtained, which is lower than the standard means of 400.00. Therefore, the null hypothesis was retained. Hence, the

commentary on tourism potential of Kano State has very low significant influence on tourism promotion.

Ho3: Print media News report do not significantly influence the promotion of tourism in Kano State

Table 4: One Sample T-Test on Print Media News Report on Tourism Potential for Promotion of Tourism in Kano State

<u>Variable</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>SE</u>	<u>T</u>	<u>df</u>
Editorial	12	104.50	84.804	24.481	4.26911	.001

(Standard Mean = 400.00) t = 4.269 at df 11, p=0.001

Table 4 above indicated that the mean coverage of 104.50 of print media news report on tourism potential for promotion of tourism in Kano State; the mean is below the 400.00 standard mean set for the study. Therefore, the null hypothesis was retained. Hence, the news report captions on print

media in Kano state have very low significant influence on tourism promotion.

Ho 4: Print media pictures do not significantly influence the promotion of tourism in Kano State

Table 5. One Sample T-Test Print Media Pictures on Tourism Potential for Promotion of Tourism in Kano State

<u>Variable</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>SE</u>	<u>t-cal</u>	<u>df</u>	<u>p-value</u>
Editorial	12	464.83	367.703	106.147	4.379	11	.001

(Standard Mean = 400.00) t = 4.379 at df 11, p-0.001

Table 5 above showed the mean coverage of pictures on tourism promotion in print media stood at 464.83 which is well above the set standard mean of 400.00. This means that there is high coverage on print media pictures for tourism promotion used in the study. Moreover, the p-value is .001 which is less than the alpha value (0.05). Therefore, the null hypothesis was rejected meaning that the pictures captions on print media in Kano state have high significant influence on tourism promotion.

DISCUSSION

This study found that the editorial captions of the three newspapers have very low significant influence on tourism promotion in Kano state. This means that there is very low contribution made by print media on tourism promotion in Kano state. By implication, stakeholders in Kano state tourism industries do not utilize the editorial captions of the print media to promote tourism industries in the state. However, this very low coverage of tourism promotion by the editorial captions of print media might not solely be the responsibility

of the stakeholders but the print media themselves. Tourism promotion would be much talked about in the editorial caption of the print media if it has great interest in the tourism industries.

The outcome of this study is in line with Bolaji (2009), who investigated print media and tourism promotion in Oyo State, reported that print media barely reflect tourism sites in their editorial captions. His findings were further buttressed by Aliyu (2010), who investigated assessment of four newspapers role in enlightening public on tourism industries in Katsina state and reported that there was no mention of tourism activities in the editorial caption of four selected print media in Katsina State between 2007 and 2009. Song & Lee (2008), who worked on Tourism demand modeling and forecasting, concluded that Australian magazines barely spoke of tourism Centre's under the editorial captions. These three findings concurred with the current study, which indicates that editorial captions of print media pay no attention to tourism promotion. However, Aliyu (2010), opined that stakeholder are reluctant to pay money for tourism issues to be reflected in the editorial because many people tend to ignore the editorial captions of newspapers.

Further, news report of the three newspapers have very low coverage on tourism promotion in Kano State which means that the news report have very low significant influence on tourism promotion in Kano State. This finding supported Yakowa (2009), who investigated on Newspaper's coverage of tourism locations in Plateau State and reported that out of ten newspapers only one had a high coverage of tourism promotion under news report caption in Plateau state. In a similar report Joshua (2011), who studied Assessment of tourism promotion and recreation in print media of Kaduna State stated that print media have very low coverage of tourism sites in Kaduna State. However, Joshua (2011), concluded that print media in Australia have a high coverage of tourism promotion under news report. It is possible that the Nigerian print media are more engaged with security issues facing the country or the stakeholders are not willing to make tourism industries headlines of newspapers.

Also, commentary captions of the newspapers have very low coverage on sustainable tourism development in Kano State. Commentary in the opinion of Sabo (2009) who wrote on selective readings of newspaper article by readers and its effects on information dissemination find out

way by which people as it opens a forum for argument which many people according to him are fond of. He further states that most of print media do not feature tourism matters in their commentary captions. Solaji (2009), also reported that commentary captions of print media in Oyo State barely cover tourism issues and that commentary section of most of the daily newspapers do not cover tourism issues.

In addition, print media pictures do not significantly influence the promotion of tourism in Kano State. Picture of the newspapers have high coverage of tourism promotion in Kano State. The findings of this study agreed with Bolaji (2009) who reported that picture of print media in Oyo State have a very high coverage on tourism industries. However, this study disagreed with that of Aliyu (2010) that investigated newspapers role in enlightening public on tourism industries in katsina state and reported that there was no mention of tourism activities of the selected newspapers nor pictures of tourism sites of the state.

CONCLUSION

Based on the results of the content Analysis of the selected newspapers carried out, the following conclusions were made:

- i. The editorials of the selected sampled papers selected do influence tourism promotion in Kano State
- ii. The newspapers report of the selected newspapers have very low coverage of tourism potential for the promotion of tourism in Kano State.
- iii. The commentary of the selected papers have low coverage on tourism potential for the promotion of tourism in Kano State
- iv. The pictures of tourism potential of the selected newspapers have high coverage for the promotion of tourism in Kano State

RECOMMENDATIONS

On the basis of the findings of this study the following recommendations were made:

- i. The editorials of the selected newspapers should give priority to tourism attraction sites for the promotion of tourism in Kano state
- ii. The selected newspapers should report more on tourism attraction sites and accessibility for the promotion of tourism in Kano State
- iii. The selected newspapers should make a lot of commentaries on activities, accommodation and amenities, which should add value and make tourists to visit.

- iv. The selected newspapers should continue to use more pictures in their news reports, this will add more value to the tourism potential of the state.

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RECIPROCAL TEACHING AND PRIOR KNOWLEDGE AS ANTIDOTES FOR CHEMISTRY LEARNING OUTCOMES AMONG ADOLESCENTS IN EDUCATION DISTRICT FIVE OF LAGOS-STATE

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ABSTRACT

Chemistry is one of the most essential science subjects in every society as it influenced the pace of scientific and technological development. Chemistry teaching can only be result oriented when students are willing and the teachers are favorably disposed to swing the appropriate methods. It was in line with this, that the researcher embarked on this study in order to examine the impact of reciprocal teaching and prior knowledge as an antidote for senior secondary school students' achievements in chemistry. The quasi - experimental design was employed. The population of the study consisted of all the Chemistry students in Senior Secondary Two in Education District Five of Lagos state. The Multi-stages sampling technique was used to select 200 participants 'consisting of 100 subject each for both experimental and control groups in the study. The instruments used for the study was Reciprocal Teaching and Prior Knowledge Questionnaire (RTPKQ) and the Chemistry Achievement Test (CAT) items. Data collected were analyzed using both descriptive and inferential statistical tools. The results revealed that there was no significant difference in the learning outcome of adolescents exposed to reciprocal teaching; but there was a significant difference in the learning outcomes of adolescents exposed to prior knowledge and those in the control group. Also, there was a significant difference between reciprocal teaching and prior knowledge on the learning outcomes of adolescents in Chemistry. Based on the findings, it was concluded that the prior knowledge is the most potent strategy and best antidote for improving students' achievement in chemistry. The study recommended that there should be incorporation of more effective and efficient teaching methods into the teaching and learning of the subject Chemistry, while teachers should ensure that learners' prior knowledge are activated before they are exposed to any new topic.

Keywords: Reciprocal teaching, Prior knowledge, Antidote, Chemistry achievement

INTRODUCTION

All the nations of the world in this 21st century accord priority attention to science and technology in their Millennium Developmental Goals. (Ezeudu,2011). The reason for

according such priority attention to science and technology is that it is a road map to great economic improvement and equally serves as the only means to national development (Ajewole, 2010). In the

age of fast-developing technology, it has become necessary for all countries of the world, especially the developing ones, to organize and improve the teaching of science that helps in understanding of the fundamental base to develop technology. Science is a discipline, a body of knowledge about the universe, the structure and reactions of matter, the conservation and transfer of energy, the interaction between living things and their environment (Ezeudu, 2011). According to Webster dictionary of English (2009), science is a system of knowledge that covers general truth or the operation of general laws especially as obtained and tested through scientific methods. In the Senior Secondary School, science is being divided into three areas for teaching and learning which are: Physics, Biology and Chemistry.

Chemistry being one of such science subjects is a branch of physical science that helps us to describe and explain our world. Chemistry is the branch of science that deals with the properties, syntheses and uses of matter. Chemistry's role in our society has long been a selling point for the subject, particularly for O-level, A-level and University study. In a survey carried out by the Royal Society of Chemistry (2015), the public agreed that chemistry largely

had a positive role to play in solving problems related to energy, food and water, security, combating antimicrobial resistance and dealing with pollution among others. In order to improve its advancement, teachers should be trained on how to help students develop enough scientific skills and this cannot be totally achieved without correct and workable teaching methods that will bring out these skills from the students.

The instructional strategy that must be used in the classroom should be learner-friendly, activity-based, practical, innovative and meaningful, if students are to achieve maximally (Odeyemi, 2014). Such instructional strategies are meant to engage, motivate, arouse and sustain the interest of the learners. Several efforts have been made to evolve tested and student-friendly instructional strategies. These include: peer tutoring, heuristic problem-solving, programmed instructional strategies, behavioural objective, study question-based instructional strategies, self and cooperative instructional strategies. (Akinsola and Ifamuyiwa, 2008). Although most of these instructional strategies produced positive results, there is the need to find more strategies that would improve students' memory and

make teaching and learning of chemistry students' centred. So for this reason, Reciprocal teaching and prior knowledge method of instruction are to be considered in this study to ascertain if they have more positive results than the ones mentioned above. One approach to teaching students to use strategies to comprehend expository text in collaborative, mixed-ability groups is reciprocal teaching.

Reciprocal teaching strategy is defined as a strategy that directly teaches learners to use meta-cognitive thinking while constructing meaning from a text. Reciprocal teaching is a strategy that allows the students to become the teachers in a small group (Colestock 2013). According to Carter (1997), reciprocal teaching is an interactive process of reading, where readers interact with the text as their background knowledge is activated. The content would be meaningless, if learners do not follow this construction on the text. Also learning does not take place without meaningful construction, so learners monitor their own thinking through the reading process.

Palinscar (2013) describes the concept of reciprocal teaching as an instructional activity that takes place in the form of a dialogue between teachers and students regarding

segments of a text. With commonly discussing reading material contents to enhance and monitor individual students' understanding of reading materials, it could assist teachers in promoting students' self-regulation and thinking of reading comprehension through the dialogues. Cheng and Kong (2017) indicated that Reciprocal teaching should contain the following points:

Predicting: This refers to readers based on their prior knowledge, predicting the possible contents of reading materials or the results with the titles or graphic illustrations or the possible contents of the following paragraphs according to the description in the previous paragraph in the reading materials

Questioning: Questioning refers to readers' forming questions before, during, and after reading from the key concepts in the articles and self-requesting to check the comprehension condition. It does not only help readers recognize main messages and key points in the article and explain readers' integration of the article but also lead readers to be more active in monitoring personal comprehension.

Summarizing: Summarizing refers to readers being able to find out the key concepts of the author from the

paragraph contents and the full contents of reading materials

Clarifying: Clarifying refers to readers immediately adopting proper strategies, when encountering difficult and incomprehensible sentences in the reading process, to improve the reading comprehension by applying some repair strategies, such as read-again and context reasoning, so as to simplify difficult comprehensive contents to guide the thinking. Even when we think we may not know anything about a topic, we may have heard something about it, seen it before, or experienced something similar. Our previous experiences, as limited as they may be, are our prior knowledge. Psychologists who study how humans learn have stated that prior knowledge is the single most important factor in learning.

Prior knowledge makes it easier for us to learn new things because of how our brain works. When we learn, we connect new learning to what we already have in our brains, forming something like a bridge between the old and the new knowledge. That bridge or connections makes learning meaningful. (Norma.2017). Successful knowledge construction is suggested to happen through reactivation of previously learned information during new learning

Kesteren et al (2018). According to them, this reactivation is presumed to lead to integration of old and new memories and strengthen long-term retention. Activating prior knowledge is important in students understanding, because it allows them to make connections to the new information. By using what students already know, it helps the teacher assist students with the learning process because it gives him/her an idea of what students know and what they still need to learn. It is simply to use background knowledge to make understanding of what the text mean. But sometimes, students don't access their background knowledge because they never think that it is important or if they don't have an opportunity to really build that background knowledge (Clewell, 2013). As a result of this, when teachers assist students in developing their background knowledge and using their experiences for learning new information, this will help them to gain a better understanding of the content because they are able to use what they already know (Echevaria, Vogt and Short, 2013). Using prior knowledge helps students create meaning from the text by relying on background knowledge to reject or affirm what the author suggests.

Clewell (2013) is of the view that we are guilty of hurrying through

teaching some concept or skill, and not taking the time to slow down, ask the kids what they already know about the matter, and make important connections to what is to come. It has also been revealed that one of the key factors influencing learning outcomes is the relevant knowledge that a student has about a particular subject prior to a learning event (Biggs, 2003). So in order to activate students' prior knowledge, instructors should engage in the following:

- ❖ Talking to their colleagues who teach prerequisite courses that students are expected to complete to ask them about the contents that were covered, the types of assignments completed, and the assignments students struggled to complete and why, the areas or topics students enjoyed, and so on.
- ❖ Using low-stake assignment or quiz to find out what prior knowledge students bring to your class early in the term. Students' performance on this kind of assignment will be a good indicator of the skills and knowledge they already possess.
- ❖ Self-assessment of students' prior knowledge, they will be given opportunity to assess their own knowledge and skills. This can be done by posing questions like: I have heard of the term, I can define the term, I can explain the

term to a colleague and so on. Students' responses should assist the instructor to plan appropriate instructional activities that could enhance students learning. (Ambrose et al., 2010).

According to Hailikari (2007) Prior knowledge is of two major types which are: declarative and procedural knowledge.

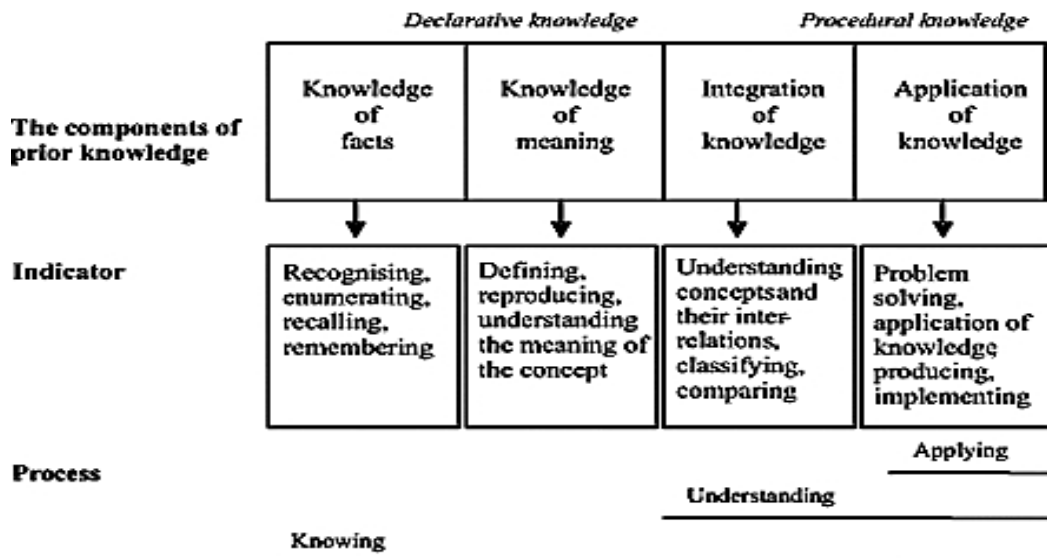
Declarative knowledge can be thought of as 'knowledge about' or answers to 'WH- questions.' Categories of declarative knowledge are facts, world or personal history, and rules for mathematics operations. A key feature of declarative knowledge is that it is easy to express declarative knowledge in the form of words or symbols. Declarative knowledge is **explicit**, which means you know that you know it. You are consciously aware of your understanding of declarative information. Examples of declarative knowledge are: knowing that: the capital of Nigeria is Abuja, A is the first letter of the alphabets in English language, and Lagos is located in the western part of the country and so on.

While Procedural knowledge means "knowing how to do something". Think of the word 'procedural;' its root is 'procedure,' which is an action. Some examples of procedural

knowledge are how to drive a car and how to throw a boomerang correctly. A key feature of procedural knowledge is that it is hard to explain verbally. So why was it so easy to do the bicycle card in charades? That's because riding a bike is a procedure; something you can do. Charades is a 'doing' game in that you must act out the actions of what you are trying to get your partner to guess. Acting out is a visual demonstration and a great way to show procedural knowledge.

What is very interesting is that once procedural knowledge is gained, it

tends to become implicit, which means that you are no longer consciously aware of the knowledge. For actions, some people refer to this as muscle memory because it's like your muscles remember how to do something even when you aren't aware of how you know. "You never forget how to ride a bike" is such a common phrase because the procedural knowledge needed to ride a bike becomes purely implicit after mastery is accomplished. The two major types of prior knowledge are modeled as shown in the diagram below:



Model of prior knowledge (Copyright 2007. Hailikari, Nevgi & Lindblom-Ylänne). Source: ESERA Summer School 2016: Book of synopses

From the diagram above, it can be seen that when prior knowledge of students' is activated using either

declarative or procedural knowledge, students' tends to apply, understand and know new concepts that are introduce by the teacher. Which is a

very good indicator of the learning process and hence achievements of the behavioral objectives. Hence, if we don't ignite the prior knowledge of our students when we teach, we may fall prey to what the late Brazilian educational theorist Paulo Freire (1973) referred to as "the banking concept" (p.79) in pedagogy—treating students as if they are empty vessels waiting to be filled with the knowledge of the teacher. Basically, taking on a view that the kids have very little to offer to the classroom learning and discussion. While trying to find out what the students know, teachers should also try to find out if the two teaching methods described above influence adolescents learning outcome in chemistry. (Hailikari, 2007). Achievement is the process or fact of achieving something. It means level of attainments of an educational goals or getting a things done successfully with effort, skill. or courage. Example of achievement is graduation after finishing a course or learning a vocation. On the other hand, an antidote can be defined as something that counteracts an unpleasant feeling or situation or a medicine taken or given to counteract a particular poison. Many of our secondary school students see chemistry as a difficult subject or as a poison which is insurmountable. Hence, the reason while majority do

not do well in the subject in schools and in the WASSCE.

On the basis of the above, the researcher tends to explore the strategies of reciprocal teaching and prior knowledge to find out their influence on senior secondary school achievements in chemistry. Thus, this study sought to examine reciprocal teaching and prior knowledge as an antidote for senior secondary school student's achievements in chemistry. Chemistry has been recognized as a central science subject in secondary schools in Nigeria and therefore it is important for the scientific and technological development of Nigeria as a nation. The critical role of chemistry in daily life, in industry and society is limitless. Many of our day to day activities revolve around chemistry. Chemistry is everywhere, chemistry is life, chemistry is the oracle of modern science Despite the key role of chemistry as the central science that forms the basic foundation to many disciplines on improving the quality of life, the performance of Nigeria secondary students' in the subject has for many years remained a matter of serious concern. However, the incessant poor performance of students in chemistry especially at national and international examinations, as being attributed to factors such as: lack of scientific attitude, lack of problem

solving skills, lack of scientific inquiry skills, lack of acquisition of scientific skills, lack of scientific research environment and the high rate of failure has hampered students from furthering their education in science leading to a gradual fading-off of science education because at least a credit pass in Chemistry is needed by students seeking admission into tertiary institutions to study science-related courses and technological development. Student attitude toward learning chemistry is a factor that has long attracted researchers. Adesokan (2002) asserted that in spite of realization of the recognition given to chemistry among the science subjects. It is evident that pupils still show negative attitude towards the subject chemistry, thereby, leading to poor achievement. The achievement of pupils in chemistry is also reported to be casually influenced by the previous experience of the pupils in integrated science. A pupil cannot learn chemistry effectively without passing through some experience on in integrated science, (Adesokan, 2002).

Consequently, the scientific and technological development of the country is at stake if students' performance in chemistry and other science subjects is poor. This is because of the importance of science

and technology in national development, especially in this era of Millennium Developmental goals (MDGs') which almost all the nations of the world are emphasizing on. If something is not done urgently to arrest this ugly situation, many students who cannot cope with the rigors of science may change their fields of study while some that decide to stay will do anything possible to pass their exams without minding whether they have what it takes to be a science student or not. Many researchers have tried to ascertain whether the cause of this problem is as a result of other factors or methods of teaching that is adopted by the teachers during classroom teaching and laboratory activities as secondary school chemistry is taught with a variety of methods. But lack of resort to innovative teacher methods that could facilitate greater interaction has led to continuous poor achievement in chemistry. When the students are taught chemistry without using effective teaching methods, the students will not learn properly.

Other factors that may have casual's relationship with pupils' achievement in science chemistry are achievement in science articulatory, teachers' attitude at chemistry workshop, laboratory inadequacies, class size of school location, the professionalism of chemistry teachers among others.

It has been observed that, majority of teachers employed in the past decades have been using/doing the same thing using the same strategies and the same art of pedagogy. They have no current ideas and information that have taken place in the educational field since the recent past. What accounts for this is that most teachers have not been given the opportunity, for re-training (Ogunbiyi, 2004). There is therefore the need to adopt strategies of teaching that can facilitates interaction among students', teachers' and instructional resources which is a major reason that necessitate the need for this study. Hence, the need to examine reciprocal teaching and prior knowledge strategies as an antidote for senior secondary school student's achievements in chemistry.

Objectives of the Study

The objectives of the study are specifically to:

1. Determine difference in the learning outcome of adolescents who are exposed to reciprocal teaching and those in control group.
2. Find out difference in the learning outcome of adolescents whose prior knowledge is activated and those in the control group.
3. **Investigate if there be any** difference between reciprocal teaching and prior knowledge

based on the learning outcomes of adolescents in chemistry.

Research Hypotheses

1. There is no significant difference in the learning outcome of adolescents who are exposed to reciprocal teaching and those in control group.
2. There is no significant difference in the learning outcome of adolescents whose prior knowledge is activated and those in the control group.
3. There is no significant difference between reciprocal teaching and prior knowledge based on the learning outcomes of adolescents in chemistry.

METHODOLOGY

Research Design

This study adopted a pre-test/-post-test, control group quasi-experimental design. One experimental group was exposed to reciprocal teaching and prior knowledge-based instructional strategies respectively. The control group was exposed to conventional method. The research design is represented as follows:

E ₁	O ₁	X ₁	O ₂
E ₂	O ₃	X ₂	O ₄
C	O ₅	X ₃	O ₆

Where:

E₁ represents experimental group 1

E₂ represents experimental group 2

C represents control group

O₁, O₃, O₅ represent pre-test scores

O₂, O₄, O₆ represent post-test scores

X₁ represents Reciprocal teaching instructional strategy

X₂ represents Prior-Knowledge-based instructional strategy

X₃ represents Conventional teaching method

Participants

The population for this study comprised of all the senior secondary two chemistry students from Education District Five of Lagos state. The sample for the study consisted of some selected Senior Secondary Schools Class two (SS 2) in Education District Five. The Education District is made up of four zones namely: Ajeromi-Ifelodun, Amuwo Odofin, Badagry and Ojo zones. Simple random sampling procedure was used to select Amuwo-Odofin Educational zone, where the study was carried out. There are thirty (30) schools in this Zone; thirteen (13) schools out of these thirty (30) schools are Senior Secondary Schools. This study is limited to the Senior Secondary Class Two students (SS II) that are offering chemistry. The Multi-stage sampling was employed because it involves the use of different methods of sampling

techniques. Firstly, eight (8) Senior Secondary schools were selected using simple random sampling technique; secondly, the purposive sampling of only students offering chemistry in the science classes in the school, followed by using stratified random sampling to select one hundred participants for each group (experimental and control group).

Research Instrument

This study employed two instruments for data collection which was developed by the researchers. The first instrument was a researcher constructed instrument titled "Reciprocal Teaching and Prior Knowledge Questionnaire (RTPKQ)" and the second instrument was a 30-item "Chemistry Achievement Test (CAT)". The RTPKQ contained forty items, twenty items measured Reciprocal Teaching (RT) and twenty items measured Prior Knowledge (PK) under four major divisions. These are: very often (4pts); Often (3pts); sometimes (2pts) and never as 1point. The second instrument was a 30-item Chemistry Achievement Test (CAT). The CAT items in the achievement tests are multiple choice standardized objective test compiled and prepared by the researcher from past chemistry question papers of WAEC/NECO for seven years (2012-2018) based on a prepared Table of specification. The items prepared

covered only the topics studied during the experimental period in the SS2 syllabus and scheme of work. Table below shows the test Blue Print used

for the construction of the CAT instrument.

Table 1: Table of Specification for the Chemistry Achievement Test

S/N	Behaviours Content	Recall 40%	Understanding 30%	Computational Skills 15%	Problem Solving/ Application 15%	Total Items 100%
1.	Electronic Structure of the Atom and Periodicity of Properties of Elements (40%)	50% 5-Item (0.50)	30% 3-Item (0.30)	20% 2-Item (0.20)	20% 2-Items (0.20)	12
2.	Oxidation-Reduction Reaction (30%)	40% 4-Item (0.40)	20% 2-Item (0.20)	20% 2-Item (0.20)	10% 1-Item (0.10)	9
3.	Chemical Equilibrium(10%)	10% 1-Item (0.10)	10% 1-Item (0.10)	-----	10% 1-Item (0.10)	3
4.	Rates of Chemical Reactions (20%)	20% 2-Item (0.20)	10% 2-Item (0.20)	10% 1-Item (0.10)	10% 1-Item (0.10)	6
	Total (100%)	12	8	5	5	30

Validity and Reliability of the Research Instruments

The research instruments were validated using experts' judgment. Specifically, both instruments were submitted to colleagues who are expert in the field of measurement and evaluation. The experts helped to ascertain that the items in these instruments are well structured to measure the variables of interest in the study, thereby ensuring the

content validity of the research instruments. The research instrument was validated using face, content and experts' validity procedure. A pilot study was conducted on 20 students in a school which is from another educational district which was not included in the main study. Also, since the second instrument is CAT, a Multiple-Choice Question (MCQ), the reliability suitable for a dichotomous test/objective test which

is the called Kuder-Richardson Formula (KR_{21}) was employed. The reliability coefficient of the research questionnaires, which was 0.87 and 0.82 for the CAT. Hence, the instruments were found valid and usable.

Data Collection

The actual studies spanned a period of 6-weeks. The researcher met with the school's chemistry teacher and gave them orientation regarding the application of the treatments, the purpose and importance of the study. The researcher with the cooperation of the chemistry teachers administered the pre-test instrument to the students 'in the first week before exposing the experimental group to the treatment whereby the Reciprocal Teaching and Prior Knowledge Questionnaire (RTPKQ) and the Chemistry Achievement Test (CAT) were administered to all the participants. The researchers actually visited the experimental schools and taught the students the subject matter content, which spread over four weeks with an average of two hours minimum per session plus extra remedial classes. After the treatment, the posttest instrument was then administered to both the experimental and control groups in the last week of the treatment, making six weeks in all. Both the test package and the

questionnaire were collected immediately.

The stages of treatment discussed:

Treatment Stages

The treatment processes in this study passed through these three stages:

1. Pre-assessment stage
2. Instruction towards the study stage; and
3. Post-assessment

Pre-assessment: The participants in this study were pre-tested using the two instruments developed for the study which included Reciprocal Teaching Prior Knowledge Questionnaire (RTPKQ) and Chemistry Achievement Test (CAT). The pre-assessment treatment was carried out to gather the subjects' scores on their learning outcomes in chemistry before actual treatments were performed on the experimental groups.

Instruction towards the Study Stage

This was actual treatment phase. The subjects in the experimental group were given instruction on the use of the two teaching methods in chemistry.

Treatments on Experimental Group

The experimental group in this study was the Reciprocal Teaching and Prior Knowledge group. With the intent to affirming the influence of these approaches to assessment practice on learning, the subjects were given treatment as outlined below:

a) Treatment of Reciprocal Teaching Group:

- i. Instruction on the meaning of Reciprocal Teaching
- ii. Instruction on how to carry out Reciprocal Teaching during chemistry teaching and learning

b) Treatment of Prior-Knowledge Group

- i. Instruction on the meaning of Prior Knowledge
- ii. Instructions on how to activate Prior knowledge of students during chemistry teaching
- iii. and learning

The instructional contents for each of the teaching methods included the outlines below:

Instruction on Reciprocal Teaching Practice:

- i. Meaning and benefits of Reciprocal teaching method

ii. Process and practice of Reciprocal Teaching

The students were taught the meaning and benefits of reciprocal teaching. Also, the researcher stated and explained the process of Reciprocal Teaching and practiced the process with them. These include:

1. Choosing an appropriate text for students in the subject area. Build and/or activate background knowledge on the subject.
2. Put students in groups of four.
3. Distribute one note card to each member of the group identifying each person's unique role: Summarizer, Questioner, Clarifier and Predictor
4. Have students read a few paragraphs of the assigned text selection.
5. At the given stopping point, the Summarizer will highlight the key ideas up to this point in the reading.
6. The Questioner will then pose questions about the selection:
7. The Clarifier will address confusing parts and attempt to answer the questions that were just posed.
8. The Predictor can offer predictions about what the author will tell the group next.

Instruction on Prior Knowledge Practice:

- a. Meaning and importance of Prior knowledge
- b. Process and practice of prior knowledge

The students were taught the meaning and importance of building prior knowledge during instruction. Also, the researcher stated and explained the process of building prior knowledge and practiced the process with them. These included,

- Reading across the curriculum.
- Use a variety of reading materials from different sources.
- Stock school and classroom libraries
- Plan field trips.
- Organizing community service and other activities.

c) Placebo Treatment for Control Group

The subjects in this group were not involved in any of the two assessment techniques used which were Reciprocal Teaching and Prior knowledge. The researcher used traditional (conventional) method of assessment for the control group. More so, the control group subjects were located at different environment to avoid experimental contamination.

3. Post-assessment stage: this was conducted after the actual treatment stage. The achievement tests were re-administered to the students in both experimental and the control groups. While the questionnaire were distributed only to students in the experimental group. The post-test scores and pre-test scores were analyzed using appropriate statistical tools.

Table 2: Analysis of Demographic Data of Respondents

Variables	Frequency	Percentage
RECIPROCAL TEACHING and PRIOR KNOWLEDGE GROUP	Gender	
	Male	50
	50	50
Female	100	100
	Total	
	Age	30
	14-	70
15yrs 16yrs & above	100	100
	Total	
CONTROL GROUP	50	50
Gender	50	50
	100	100
Male		
	30	30
Female	70	70
	100	100
Total		
Age		
14-15yrs		
& above	16yrs	
Total		

The above shows the analysis of the demographic information of respondents in each group. In reciprocal teaching group, 50% were male while the other 50% were female; in the same group, 30% were within the ages of 14-15 years, while 70% were within the ages of 16 years and above. In prior knowledge group, 50% were male while the other 50%

were female; in the same group, 30% were within the ages of 14-15 years, while 70% were within the ages of 16 years and above. In control group, reciprocal teaching group, 50% were male while the other 50% were female; in the same group, 30% were within the ages of 14-15 years, while 70% were within the ages of 16 years and above.

Table 3: Mean and Standard Deviation of Pre and Post Test Chemistry Achievement Test (CAT) Across Groups

Groups	Pre-test Scores			Post-test Scores		Mean Difference
	N	Mean	Std. dev.	Mean	Std. dev.	
Reciprocal teaching	50	9.92	1.41	23.12	2.43	13.2
Prior knowledge	50	10.4	1.98	24.4	3.39	14
Control (Conventional)	100	16.01	3.86	20.06	3.90	4.05
Total	200	13.11	2.42	21.5	3.24	8.42

***Higher mean scores on the CAT scores are indicative of higher learning outcome.**

As the table 3 above indicated, the prior knowledge method recorded the highest score in the learning outcome of students with mean difference of 14, followed by the reciprocal teaching and then the control (conventional) group. From the table above, it was also observed that the prior knowledge method has the highest posttest mean score of 24.4, followed by the reciprocal teaching

method with mean score of 23.4 and then the control group.

Testing of Hypotheses

Hypothesis One: There is no significant difference in the learning outcome of adolescents who are exposed to reciprocal teaching and those in control group. This hypothesis was tested using Analysis of Co-variance (ANCOVA) and the results are presented in Table 4.

Table 4: Analysis of Co-variance on Learning Outcome of Adolescents' Exposed to Reciprocal Teaching and in the Control Group

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	361.961	2	20.109	0.897	0.583
Intercept	502.027	1	502.027	22.404	0.000
Pre	1.178	1	1.178	0.053	0.819
Group	349.826	1	20.578	0.918	0.556
Error	1815.039	197	22.408		
Total	42578.000	200			
Corrected Total	2177.000	200			

****Not significant at $P > 0.05$; Degree of freedom=2 and 197**

The ANCOVA results presented in Table 4 shows that for the Experimental condition, the F-value obtained was 0.918 as P-value ($0.556 > 0.05$), given 2 and 197 degrees of freedom at the 0.05 level of significance. This indicates that reciprocal teaching technique did not make any impact on the learning outcome of students in chemistry.

With this, the hypothesis one which maintains that there is no significant difference in achievement of adolescents is accepted. We therefore conclude that the reciprocal teaching technique does not contribute in the

improvement on the learning outcomes of adolescents.

Hypothesis Two: There is no significant difference in the learning outcome of adolescents who are exposed to prior knowledge treatment and those in control group.

In order to test the second hypothesis, the initial scores (covariates) and the final scores from pre-test and post-test administration to the students in prior knowledge treatment group and those in control group were subjected to Analysis Covariates Test. The results obtained are presented in the Table 5 below:

Table 5: ANCOVA Test on Learning Outcome of Adolescents' Exposed to Prior Knowledge and the Control Group

Tests of Between-Subjects Effects					
Dependent Variable: Learning Outcomes					
Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	938.957 ^a	2	52.164	3.413	0.000
Intercept	1124.918	1	1124.918	73.599	0.000
Pre	32.964	1	32.964	2.157	0.146
Group	926.822	1	54.519	3.567	0.000
Error	1238.043	197	15.284		
Total	42578.000	200			
Corrected Total	2177.000	200			

a. R Squared = .431 (Adjusted R Squared = .305)

**** Significant at P<0.05**

The ANCOVA result in Table 5 above reveals that based on Experimental condition, the F-value was 3.567, P-value < 0.05 at 2 and 197 degree of freedom and 0.05 level of significance. Since the obtained P-value (0.000) is < 0.05, it affirms that prior knowledge technique had a very high significant difference on students' learning outcome in chemistry. On this basis, the hypothesis two which states that, there is no significant difference in the learning outcome of adolescents who are exposed to prior

knowledge treatment and those in control group is hereby rejected. Therefore, the use of prior knowledge technique has significant influence on adolescents' chemistry learning outcome.

Hypothesis Three: stated that there is no significant difference between reciprocal teaching and prior knowledge based on the learning outcomes of adolescents in chemistry. This hypothesis was tested using the Analysis of Co-Variance and the results are presented Table 6.

Table 6: Analysis of Co-Variance on Significant Difference between Reciprocal Teaching and Prior Knowledge Based on the Learning Outcomes of Adolescents in Chemistry

Tests of Difference Between-Subjects Effects					
Dependent Variable: Learning Outcomes					
Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	942.724 ^a	2	52.374	3.437	0
Intercept	1244.44	1	1244.44	81.667	0
Pre	36.731	1	36.731	2.411	0.124
Group	911.399	1	53.612	3.518	0
Error	1234.276	197	15.238		
Total	42578	200			
Corrected Total	2177	200			
a. R Squared = .433 (Adjusted R Squared=.307)					

**** Significant at P<0.05**

The ANCOVA result in Table 6 above indicates that based on different treatments from the two methods of assessment, the F-value was 3.518, with P- value (P=.00) <0.005 at 2 and 197 degree of freedom and 0.05 level of significance. Since the P-value obtained is <0.005, it shows that application of reciprocal teaching and prior knowledge techniques generated significant difference in adolescents' learning outcome in chemistry. The null hypothesis which states that there is no significant difference between reciprocal teaching and prior knowledge based

on learning outcome of adolescents in chemistry is therefore rejected. Therefore, there is significant difference between reciprocal teaching and prior knowledge based on the learning outcome of adolescents in chemistry.

DISCUSSION

The result from hypothesis one revealed that there was no significance difference in the learning outcome of adolescents who are exposed to reciprocal teaching and those in control group. This led to the acceptance of the hypothesis. This finding was supported by Kinniburgh

and Shaw (2007), who reported that students find it difficult to understand many concepts in science texts since it contains difficult academic vocabulary and ambiguous explanations. However, the findings of the study disagree with many researchers such as Riyanningsih (2009) who suggests that reciprocal teaching when applied to chemistry will make the subject to be more interesting to students. The strategies for reciprocal teaching in sciences are similar to those in language-based classes. Although, several studies have shown that vocabulary is a contributing factor to reading comprehension. However, Imam et al. (2014), disagreed with the findings when they observed and reported that reading comprehension is a crucial factor that causes students' low science achievement. Therefore, improving students' reading comprehension may be one of the means that can lead to their improved science achievement. Accordingly, results of the study of Imam (2016) showed that the only skill that predicted the overall science performance of all the participants in the study was understanding vocabulary in context. He emphasized that having a good vocabulary among students from both public and private schools may contribute to their higher

achievement in their national examinations

The finding from second hypothesis revealed that there is no a significant difference in the learning outcome of adolescents whose prior knowledge is activated and those in the control group. However, the Analysis of Covariance (ANOVA) showed a significant result as P-values was less than 0.05 leading to the rejection of the hypothesis. This means that there is a significant difference in the learning outcome of adolescents whose prior knowledge is activated and those in the control group. This finding corroborates with Gee (2012) that the instructor's work of facilitating students' learning never ends. In order to facilitate learning, one of the fundamental principles instructors employ is to understand students' prior knowledge. Similarly, the finding agrees with Norma (2017) that in order to identify specifically the knowledge and skills the students have gained during the course or program, there are variety of methods to assess students' prior knowledge and skills such as the use of portfolios, pre-tests, auditions are direct measures of students' capabilities entering a course or program. In addition, the finding is also in support of Eberly (2016) who opined that other methods (e.g., students' self-reports, inventories of

prior courses or experiences) are indirect measures that can also be applied to assess students' prior knowledge.

The findings from hypothesis three revealed that there was a significant difference between reciprocal teaching and prior knowledge based on the learning outcomes of adolescents in chemistry. However, the Analysis of Co-Variance (ANOVA) showed a significant result as P-values was less than 0.05 leading to the rejection of the hypothesis. The finding confirms Dill (2012), when teachers tap into what a struggling reader knows before presenting new material; they are paving the way for connections to be made in their students' brains. The stronger the connections, the easier it should be for children to learn the new concepts. Activating prior knowledge reviews old concepts and connects them to new ones. According to him, we should view it as the new information finding a home with the children's prior knowledge where the new material can be nurtured and cared for. Without those connections, the new material will just be floating around in the brain and will be easily lost. Similarly, the finding supports Dilorenzo (2011) that the reciprocal teaching intervention resulted in improved science comprehension overall, and for each student group. In

the same vein, the findings corroborate with Capanza and Avilla, (2017) that reciprocal teaching approach and self-regulated learning contribute to students' reading comprehension, achievement and self-regulation in chemistry.

CONCLUSION

Based on the findings, it could be concluded there is no significant difference in the learning outcome of adolescents who are exposed to reciprocal teaching and those in control group, there is a significant difference in the learning outcome of adolescents whose prior knowledge is activated and those in the control group and that there is a significant difference between reciprocal teaching and prior knowledge based on the learning outcomes of adolescents in chemistry.

RECOMMENDATIONS

In view of the findings of this study, the following recommendations are here given:

1. Teachers need to develop skills in facilitating instructional process for effective and a more robust method in order to improve the learning outcome of students in sciences.
2. Learner's prior knowledge should always be activated for better

- understanding of new concepts or what they are to be examined on.
3. Teachers should adopt systematic formative evaluation process for proper integration of prior knowledge and reciprocal teaching methods.
 4. Incorporation of rubrics into teaching-learning process. And infusion of prior knowledge and reciprocal teaching methods; into feedback discussion during the teaching/learning process will help boost students' understanding of chemistry in our secondary schools.

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INFLUENCE OF SMART PHONE USAGE ON BIOLOGY STUDENTS' ACADEMIC ACTIVITIES IN KADUNA STATE COLLEGE OF EDUCATION, GIDAN-WAYA, KADUNA STATE

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ABSTRACT

This study examined the influence of smart phone usage on academic activities amongst biology students in Kaduna State College of Education. A descriptive survey research design was employed in the study. The Population comprised of 3,874 all Nigeria Certificate in Education (NCE I-III) students who registered for their courses during 2020/2021 academic session in the college; from which a sample of 380 Part II Biology students were randomly selected from the department of Biology in the College. Data were collected using a self-structured questionnaire entitled: "Smart Phone Usage and Students' Academic Activity Questionnaire (SPUSAAQ)". The data collected were analysed using frequency and percentages to answer research questions, while Pearson Product Moment Correlation statistical method was used to test the hypothesis. The findings revealed that there was a significant influence of smart phone usage on Biology students' academic activity in Kaduna College of Education. It was recommended that the College Academic Board might need to consider smart phone devices as possible learning tool in the course of developing academic content.

Keywords: Academic performance, Biology, Student, Smart phone

INTRODUCTION

Over time, technologies have continuously influenced the educational sector through innovations and concepts that improve the teaching and learning enterprise. As such, technology is fast becoming an inevitable part of life in the 21st century. Karpinski, et al. (2013); Masiu and Chukwuere (2018) asserted that Information and Communication Technologies (ICTs)

have improved interactions in teaching and learning skills by providing mechanisms of communication which fosters teamwork, collaboration, and interpersonal skills development. Smart phones have recently been added to the list of devices in ICT. Mobile devices such as smart-phone have proven to possess increasing value to education than just their operational function to students.

With their growing computing strength, smart phone now presents a huge medium for engaging learners within and without school environments (West, 2013).

In addition, smart phone provides students with a vast prospect of extending contact with academic content beyond the conventional learning environment. Overall, many educational-related applications are produced annually, thereby providing smart-phones with the ability to access, retrieve and open nearly all the formats of information through Wi-Fi networks and the internet (Lundquist et al., 2014). It is therefore rational to expect that having a smart-phone is a vital step towards having knowledge and educational resources readily available at one's finger tips, a concept known as e-learning.

Chukwuere et al. (2016) cited in Anyanwu (2019) noted that e-learning is a learning experience that poses no restriction, developed to augment tutor-student interaction, as well as delivery of effective teaching and learning contents across various platforms, such as smart phones, tablets, iphones, amongst others. The e-learning platform enhances self-development and efficient learning processes that enable students access to premium learning contents (Hussin et al., 2012; Kuznekoff & Titsworth,

2013). Boruff and Storie (2014) observed that although the system can sometimes be difficult to navigate and use, the acceptance of smart phones in classrooms could enhance students contact with e-learning materials and prospects therein. According to Siew et al. (2017), it is still unclear on the possible effect of mobile devices on tertiary education and their impact on lifelong learning opportunities, as this is an evolving field of study. However, it is not strange that educationists are advocating the use of mobile devices such as smart-phone in education, given their affordability, popularity and realistic functions (Ismail et al., 2013; Pullen et al., 2015). The ease of use and flexibility, especially through apps, are considered the real reasons why smart phone is appealing for learning. It reduces the intrinsic obstacles in conventional processes or activities that are carried out in schools and universities (Valk et al., 2010).

Anyanwu (2019) noted that the position of mobile technologies and smart phone in effective education must not be cast aside. Smart phone and other media have enabled academic learning to be innovative in advancing and enhancing the skills and expertise needed for the 21st century (Tikoria & Agariya, 2017; Emerson & Berge, 2018). Students now have experiences of digital

surroundings in a concrete and individual manner, which is mostly possible through mobile devices including smart phones and tablets (Cano, 2012). As students connect to the internet through smart phones, collaborative learning is further improved (Mokoena, 2012). It is therefore logical to assert that the use of smart phones could be a driving force for students to be more engaged in learner-centered participatory learning. There are numerous benefits that smart phones pose to the students: advancement of students understanding through increased academic performance, better social media participation and sharing of information; enhancement of students' social skills as it opens them to opportunities to seek academic support and assistance (Mokoena, 2012).

Furthermore, the high level of smart phone addiction proves that it could affect students' academic performance (Kibona & Mgaya, 2015). This obsession draws concerns as to whether the use of smart phones impedes or promotes students' performance generally. Chukwuere et al. (2017) opined that the innovation of mobile devices technology flourished with the pursuit for more knowledge. This in turn heightened the quest for information among tertiary education students. For

instance, the challenges of communication with students in lecture are addressed with the use of smart phones (Kinsella, 2009; Anyanwu, 2019). In tandem with this assertion, Mokoena (2012) observed that group work and assignment given to the students by their lecturers are seamlessly and expediently carried out with the help of smart phones. It follows that students are now able to record lecture sessions and class teachings in real time, after which they could listen to repeatedly. This recording is achievable by the sophisticated applications and features available on smart phones. From diverse viewpoints, it is no wonder that people accept the use of smart phones not just a communication tool (for calls and text messages), but a tool for the social and work lives of individuals, and a potential tool in their academic lives (Cano, 2012).

However, Sarwar & Soomro (2013) stated that the use of smart-phone by students could affect their academic performance negatively. These may include spending much on their smart-phones for non-academic purposes. Nevertheless, it is unclear whether such findings apply to Nigeria as well, particularly considering the fact that most of the students enrolled in Nigeria's tertiary institution are matured as they are

aged 18 and above. Masiu and Chukwuere (2018) opined that there is need to plan when to use and when not to use smart phones, so as not to distract a student from the entirety of a learning process. They further stated that smart phones have operational multimedia features, which include camera function, sound recording function, and video function, among others. These features aid students in driving their learning process and academic ideas effectively and efficiently. Since it is palpable that there might be some positive and negative consequences of using smart phones hence, this research was undertaken to investigate the influence of smart-phones usage on academic activities amongst biology students in Kaduna State College of Education, Gidan-Waya, Kaduna State, Nigeria.

World over, smart phones usage among tertiary education students has experienced a tremendous increase in recent times. Institutions of higher learning therefore need to develop strategies that support students' smart phone use to create a more independent learning environment. Various studies (Mokoena, 2012; West, 2013; Pullen, Swabey, Abadoo, & Sing, 2015; Siew, Nor, Nor & Nur, 2017; Masiu, & Chukwuere, 2018; Anyanwu 2019) have been carried out to explore the

use of mobile devices. Most of the available researches reported on the benefits and limitations of smart phones, as such there is insufficient pragmatic evidence to support their claims (Chukwuere, Mbukanma & Enwereji, 2017). Despite the fact that there are evidences supporting students' use of smart phones in tertiary institutions, there are limited studies on how smart phones use have supported learning activities and how it relates to students' academic performance. This study considered the amount of time tertiary education students use smart phones and how it influences their academic performance. Understanding this connection may provide valid insights whether smart-phone use have indeed supported increased prospects to students' learning and whether their academic performance is affected. This study therefore seeks to answer this question so as to determine the influence of smart phone devices usage on academic performance of biology students in Kaduna State College of Education, (KSCOE) Gidan-Waya.

Objectives of the Study

The objectives of the study are to:

- i. identify the extent of smart-phone usage among Biology students in Kaduna State College of Education.

- ii. determine whether smart phone usage has any influence on biology students' academic activities in Kaduna State College of Education

Research Question

To what extent smart-phone usage influence Biology students' academic activities in Kaduna State College of Education?

Hypothesis

HO₁: There is no significant influence of smart phone usage on Biology students' academic activity in Kaduna State College of Education.

METHODOLOGY

Research Design

Descriptive survey research design was adopted in this study. This design was adopted because it enabled the researcher to generate data through the use of questionnaire.

Define descriptive survey research design in one or two sentences with authority.

Population

The population of the study comprised all full-time Nigeria Certificate in Education (NCE) Biology students in Kaduna State College of Education, who registered

for their various courses in the College during 2020/2021 academic session. The target population comprised of 3,874 Part I-III, NCE Biology students (Academic Office, KSCOE, 2021).

Table 1: Population of the Study

S/N	Name of school	No of Students
1	NCE I	1175
2	NCE II	1703
3	NCE III	996
TOTAL		3,874

Source: Academic office KSCOE, Gidan-Waya 2021

Sample and Sampling Technique

380 NCE Biology students were purposively selected from the research population as research sample, using Taro and Yemanne (1967) formula. The sample also represents 9.61% of the total research population.

Instrumentation

The instrument was a self-structured questionnaire titled "Smart Phone Usage and Students Academic Performance Questionnaire (SPUSAPQ)" was used to elicit the required information from the students. The questionnaire was divided into four sections (A, B, C and D). Section A comprised of bio-

demographic information of respondents, while Section B-D contained questions in relation to the research. The options are on 4-Likert scale, from Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD).

Validity of the Instrument

The instrument was by two senior lecturers in the department of Science Education, Ahmadu Bello University, Zaria. They ensured the face and content validity of the instrument. Constructive criticism was made to remove every form of ambiguity on the research items.

Reliability of the Instrument

A pilot sample was administered to 40 NCE II students in the School of Secondary Education (Sciences), F.C.E. Zaria. Split-half test using two halves of odd and even number items was used to determine the reliability of the research instrument. The

instrument's reliability was calculated using Pearson Product Moment Correlation Coefficient. A co-efficient value of 0.76 was obtained. This indicates that the research instrument was reliable; as such, it was adopted for the study.

Procedure for Data Collection

The researcher personally administered the questionnaire to the respondents. 380 copies of the questionnaire were distributed to obtain responses from the students and were retrieved immediately.

Procedure for Data Analysis

The responses from the research instrument were analyzed thus: descriptive statistics of frequency distribution and percentage was used to analyze the research questions, while Pearson Product Moment Correlation Coefficient was used to test the hypothesis at 0.05 level of significance.

RESULTS

Table 2: Demographic characteristics of Respondents

Variable	Response	Percentage (%)
NCE I	150	38.89
NCE II	130	33.33
NCE III	100	27.78
Total	380	100

Result from the Table two above shows that 38.89% of the respondents

are NCE I students, 33.33% are NCE II, while 27.78% are NCE III

students. From the table, majority of the students are NCE I who have left home for school with a means of communication, most likely a mobile/smart phone. Table 3

examines the extent of smart-phone among biology students of Kaduna State College of Education, Gidan-Waya.

Table 3: Extent of Use of Use of Smart Phone by Biology Students

Variable	Response	Percentage (%)
Very frequent	190	50
Frequent	150	38.99
Less frequent	30	8.33
Rare/Never	10	2.78
Total	380	100

Results from Table 3 indicated that a preponderant majority (89%) of the respondents use their smart phone frequently for academic activities,

while a handful of the respondents (11%) used it less frequently or never used for academic activities.

Table 4: Positive influence of Smart Phone on Students’ Academic Performance

S/N	Item Statement	SA	A	D	SD	Total
1	The use of Wikipedia for research has helped improve my grades.	155 40.28	165 43.05	35 9.72	25 6.94	380 100%
2	I engage in academic forums on whatsapp and email to enhance my rate of understanding.	144 38.61	172 43.39	36 8.61	28 6.39	380 100%
3	I utilize information gotten from internet sites to supplement class lessons.	135 36.11	130 34.72	72 18.61	43 10.56	380 100%
4	I may not perform well in my academics even if I stop using social media.	90 23.61	125 33.33	97 25.56	68 17.50	380 100%

Table 4 indicates that 40.28% of the respondents Strongly Agreed that Wikipedia has helped improved their grades, 43.05% agreed, 9.72% disagreed while 6.94% strongly

disagreed. 38.61% strongly agreed to use their WhatsApp and email for academic purposes, 43.39% agreed. On using materials gotten from the internet to supplement their class

lessons, 36.11% strongly agreed while 34.72% agreed. From the above table, majority of respondents agreed that smart phone usage could significantly influence students'

academic performance. The significance of these scores will be subjected to PPMC statistical analysis.

Table 5: Influence of smart phone usage on Biology students' academic activity

Variables	N	Mean Scores	SD	r-cal.	r-critical
Students' Smart Phone Usage	380	13.55	6.83	1.24	0.138
Students' Academic Activity	380	5.26	1.76		

Table 5 indicates that the calculated r-value of 1.24 is greater than the critical r-value of 0.138 at 0.05 level of significance. Therefore, the null hypothesis which stated that there was no significant influence of smart phone usage on Biology students' academic activity in Kaduna College of Education was hereby rejected. This means that students' addictiveness to their smart phones significantly influenced their academic activity in the College.

DISCUSSION

The finding revealed that there was a significant influence of smart phone usage on Biology students' academic activity in Kaduna College of Education. Indeed, the social media have become a major part of the students' lives in recent times and smart phone device makes this possible. This finding agrees with the

report of West (2013), who stated that the positive contributions of smart-phones towards students enables them to obtain academic aid and succor. The finding concurs with the finding of Ebiye (2015) and Anyanwu (2019), who suggests that smart phone usage improves access to learning materials. The finding agrees with the report of Chukwuere, Mavetera and Mnkandla, (2016) who argued that the use of the internet is now a daily routine for people and a medium used by the students to search for information conveniently and comfortably.

This result corroborates with the report of Lundquist, Lefebvre & Garramone, (2014) who opined that nowadays, students are so absorbed with the social media that they are spend more time online at the detriment of their studies. It is also in

tandem with the findings of Abu-Shanab & Haddad (2015), Kibona & Mgaya (2015) and Anyanwu (2019), who noted that the incessant use of smart phones could be obsessive and counterproductive. The times that should be directed at studying, research and discoveries have been thwarted by the zest for chatting and social networking. Hence, most students' academics suffer setback because of distraction from the social media.

CONCLUSION

This study has shown that the mainstream of the students possessed and use mobile phones for their educational exercises. The high rate of smart phone acceptance and usage by students for their academic activities makes it perceptible that tertiary institutions have a prospect awaiting its utilization. This opportunity demands the institutions to evolve ideas that will help exploit mobile phones for academic purposes, bearing in mind that students are pleased with their ability to perform academic activities through their phones. Thus, tertiary institutions should start considering users of mobile phone when developing academic programs since these devices are proven to be effective academic tool.

RECOMMENDATIONS

The following recommendations were made as follows:

- i. Since social networking provides an enhanced and suitable platform for library to get in touch students with much ease, it is therefore, recommended that the library take cognizance of this prospect.
- ii. Institutions of learning should also put in place policies that can restrain students from utilizing non-academic sites and applications while attending lectures. Network jammers that restrict internet usage could be placed in some lecture halls and switched on during classes.
- iii. Since the development of a digital collection is on course by the College library, it is recommended that the developers enshrine smart phone devices in their plans. Since students access, read and utilise study materials and other online documents through their mobile devices, they would love to access the library's digital collection at their fingertips also.
- iv. The college academic board might need to consider smart phone devices as a possible learning tool in the course of developing academic content. Since the results of this research showed a high rate of smart

phone usage for academic purpose, it becomes imperative for the developers of academic content to create contents that are attuned to most mobile phone operating system. The college could offer multiple services to students through their phones that are in sync with the internet.

- v. The management of the Kaduna State College of Education, Gidan Waya through its Management Information System (MIS) Unit, should develop college applications that are tailored to meet the peculiarities and academic needs of students of the college.

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INFORMATION COMMUNICATION TECHNOLOGY AND TRUANCY AMONG PUBLIC SENIOR SECONDARY SCHOOL STUDENTS IN EPE LOCAL GOVERNMENT AREA OF LAGOS STATE, NIGERIA

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ABSTRACT

The study was designed to ascertain the influence of Information and Communication Technology (ICT) in the management and control of truancy. It also determined the major causes of truancy and how it can be curbed among public senior secondary school students in Epe Local Government Area of Lagos State, Nigeria. The population consisted of 195 respondents randomly selected from 6 schools out of the 22 public senior secondary schools in the Local Government Area of the State. Self-structured questionnaire titled "Evaluation of the use of Information and Communication Technology in controlling and managing truancy among public senior secondary school students" was used to elicit information for the study. Data collected were analysed using frequency counts, percentages and Chi-square Statistics. The findings revealed that there was a significant influence of the application of ICT in management and control of truancy in Nigerian Public Senior Secondary Schools. It was concluded that there was a need to make ICT specific learning tool in order to electronically register attendance and detect truant students thereby reporting them directly to their parents. The study recommended constructive strategies, which includes effective classroom management, humane-environmental awareness, planning, strong school leadership management and student-peer mentoring system.

Keywords: Control, ICT, Management, Students, Truancy

INTRODUCTION

Truancy or absenteeism is a reoccurrence attitude nowadays among senior secondary school students. The students absent

themselves from classes giving unnecessary excuses such as genuine sickness, fake suspension by the class teacher or school authority and involvement in sport activities.

Truancy can equally occur in a boring and boredom classes, harsh teachers who are difficult to approach and in an un-conducive school environment (Osarenren, 1999). It is also common these days to see students roaming about on streets doing nothing during school hours and this has led to many negative outcomes such as educational failure, social isolation, substance abuse, low self-esteem, unwanted pregnancy, unemployment, violence and adult criminality. Such act has often been followed by incidence of aggression and other terrible negative actions. Truancy has been defined by different people and agencies such as counselors, psychologists, sociologists, welfare authorities and educators in general. Muduabuchi (2013) defined truancy as absence from school for no legitimate reason. He went further to state that many students do skip either single class or even a full day school at least once during their academic career.

Adekunle (2015) explained truancy as the act of intentionally absenting of oneself from school without permission, leaving without authorization and dodging of specific lesson periods. The causes of truancy among secondary school students have been attributed to lack of writing materials such as pen, pencil, exercise book, recommended text books,

school uniform and midday meal (Kiran, 2008). The government is also another major cause of student truancy. This is attributed to the fact that Government do not pay teachers regularly and most of their allowance such as leave allowances, sport and science allowances are being withheld, most teachers find it difficult to be committed and dedicated to their primary duties of teaching. When this occurs and the students do not find their teachers in the class, the next plan of action is truancy. Adeyemo (2009) sees truancy as a delinquent act which occurs when a child often stays away from the school without good reasons. These definitions indicate certain elements of truancy that must be stressed and in order to have a proper understanding of the concept. Njutor et al. (2015) definition carries the implication that the act of truancy is deliberate and that the reason for absence is invalid from the viewpoints of parents and school authorities and not from that of the truant.

Due to the nature of their jobs, some parents show nonchalant attitudes to their children/wards and as such, they grow up to be corrupt and aggressive hence getting nothing and giving out nothing. Most parents do give too much money to their wards thus contributing to their truant

behaviours. Also, with the breakthrough in Information and Communication Technology (ICT) has led to the emergence of internet system in the World Wide Web (www). The use of internet system, though very beneficial to students, especially in the areas of research work as it provides them with a medium of interaction with renowned scholars and authors whom they would not have ordinarily met in their life time yet, it has equally contributed much to the promotion of truancy among senior secondary school students. This is because most students especially those in senior secondary school tend to abandon their lessons to visit internet cafes thereby spending much of their valuable time and resource only to visit pornographic sites and some other negative sites which may in turn ruin their lives thereby increasing the rate of immoral behaviour among youths in our society (Musa, 2014).

Onukwufor et al. (2016) stated that truant students cannot perform creditably in both internal and external examination, they eventually engage in examination malpractice in order to measure up in their academic works. Thus their inadequacies in academic work lead to waste of money and other resources. Worst of it all is the psychological trauma which parents of truants suffer due to

their failure in examination and other terrible negative attitude exhibited by their wards such as armed robbery, prostitution, drug abuse, drug trafficking, and other social crimes ranging from pick-pocketing to secret cult (Yahya, 2018). Staying in school is the first step to a good education and in order to achieve academic excellence, the students are mandated by the school rules and regulation to attend school daily. Many students absent themselves from formal school activities hence, engaging in truancy. When this happens, everyone loses; students lose the benefits of instruction, the society loses income and the community suffers from increase juvenile crime. Historically, the origin of truancy can be traced to the Massachusetts compulsory Education Act of 1647 and its subsequent school Attendance Act of 1852, which forced parents to send their children for at least 12 weeks in a term (Michael, 2005). To this Act, every school is by law required to notify any student who acquires five unexcused absences within a school year. However, it is through this unexcused absence from school without legitimate or legal knowledge of parents, guardian or the school that truancy among students came into being.

In a study by Gyimah and Daniel (2017), it was pointed out how school

factors could contribute to the problem of truancy. To them, some teachers have been found to be very hostile to the children put in their care. Some have been found not to have interest in teaching as a career, some were found not to be attending classes regularly thereby giving room for children to skip classes and develop the habit of truancy while some teachers have been found to be fond of punishing students for all offences they commit thereby scaring some of them from attending school regularly. In another study by Ehinmolo (2006) on perception of classroom teachers on causes of truancy and control among secondary school children, the following findings on school factors as the causes of truancy were made: educational problem is a cause of truancy among secondary school children – the educational problem may range from the child not being able to read, write and spell properly to not being able to assimilate and understand what is read, disinterest in certain school subjects as a cause of truancy – Students' hatred for certain teachers can be a cause of truancy as the hatred will be brought about through the interaction of students and teachers in the classroom. Also, non-stimulating or non-interesting lesson can cause truancy and distance from school just as transportation problems can also cause truancy

among school children. Non-attendance from school or truancy is becoming a matter of concern for many schools in Nigeria (Iwa, 2007). Educators have to contend with truancy problems as many young people are not willing to attend school for various reasons. It is from the foregoing that the study recognized truancy as a delinquent and social act that has a negative attitude on secondary school student's academic achievement as well as their moral lives. It is therefore on this ground that the study considers it pertinent and quite imperative to determine how information and communication technology (ICT) can assist in the management and control of truancy in Nigerian senior secondary schools.

Purpose of the Study

This study aims to:

1. examine the influence of Information and Communication Technology in the management of truancy.
2. determine the influence of Information and Communication Technology in control of truancy.

Research Questions

The following research questions arose:

1. Information and Communication Technology have any influence in the management of Truancy among public senior secondary

- students in Epe Local Government area of Lagos State?
2. Information and Communication Technology have any influence in control of Truancy among public senior secondary students in Epe Local Government area of Lagos State?

Research Hypotheses

Therefore, the following research hypotheses were formulated:

H₀₁: There is no significant relationship between information and communication technology and management of truancy among public senior secondary school students in Lagos State.

H₀₂: There is no significant relationship between information and communication technology and control of Truancy among public senior secondary school students in Lagos State.

METHODOLOGY

Research Design

The research design adopted in the study was the descriptive survey research design.

Participants

The sample size was made up of 195 students selected from 6 public senior secondary schools in Epe Local Government Area of Lagos State. The sample covered both male and female

gender and cut across the three levels of senior secondary (SS) school education (SS1- SS3). Simple random sampling technique was used in selecting 110 male and 85 female students.

Instrumentation

The research instrument used for the study was a two-part questionnaire designed by the researchers and externally validated by test and measurement experts who scrutinized the adequacy, arrangement and difficulty of the items and wording and matched each item of the questionnaire with the research questions and hypotheses to determine whether the instrument actually measured what is set out to measure. Section A of the questionnaire elicited some demographic information about age, sex and class of students while Section B contained 20 items designed to collect information on the use of ICT in the management and control of truancy among public senior secondary school students in Lagos State using 4-point Likert scale.

Reliability of the Instrument

The reliability of the instrument was derived through test-retest reliability co-efficient when a pilot study was carried out among 30 senior secondary (SS1-3) students in two

selected public senior secondary schools in a nearby Local Government Area (Ibeju-Lekki LGA). The data collected from the pilot study were analysed using Pearson Product Moment Coefficient. A correlation coefficient “r” of 0.72 was derived which was an indication that the instrument was suitable and reliable for the study.

Data Analysis

The instrument (questionnaire) was designed to elicit information on the subject matter using likert scale option to answer the questions raised. The views and opinions of the

respondents were obtained on various aspects of the study. The entire questionnaires distributed were collected. Data were analyzed using frequency counts, percentages and chi-square statistics to test the formulated hypotheses.

RESULTS

Hypothesis Testing

Ho₁: There is no significant relationship between information and communication technology and management of truancy among public senior secondary school students in Lagos State.

Table 2: Relationship between Information Communication Technology and Management of Truancy in Public Senior Secondary Schools

Variables	N	Mean	SD	r-cal.	Df.	r-critical
ICT	195	25.42	2.72	0.530	193	.138
Management of Truancy	195	24.88	3.69			

*Significant at 0.05

The critical r-value at 0.05 (5%) level is 0.138. Our observed r- value of 0.530 is more than the critical value hence, we reject the null hypothesis which states that there is no significant relationship between the use of Information Communication Technology and management of truancy in public senior secondary school and we accept the alternative hypothesis which states that there is a significant relationship between the

use of Information and Communication Technology and management of truancy in public senior secondary school in Lagos State.

Ho₂: There is no significant relationship between information and communication technology and control of Truancy among public senior secondary school students in Lagos State.

Table 3: Information Communication Technology and Control of Truancy in Public Senior Secondary Schools

Variables	N	Mean	SD	r-cal.	Df.	r-critical
ICT	195	25.42	2.72	0.314	193	.138
Control of Truancy	195	25.96	3.87			

***Significant, p-value .000 <0.05**

The critical r- value at 0.05 (5%) is 0.138. Our observed r-value of 0.314 which is more than the critical value hence, we reject the null hypothesis which state that there is no significant relationship between the use of Information and Communication Technology in control of truancy in public senior secondary school and we accept the alternative hypotheses which states that there is a significant relationship between the use of Information and Communication Technology in control of truancy in public senior secondary school in Lagos State.

DISCUSSION

It could be deduced from this study that there is significant influence in the application of Information and Communication Technology in the management and control of truancy in public senior secondary schools in Epe. The finding also showed that the use of ICT has been relatively successful in curbing truancy and this corroborate the finding of Longe et al. (2009) which showed that ICT helps

to reduce cybercrime, aggressive behaviour, sex crimes and truancy among youths. It was also discovered from the finding that greater access to internet helps the students to discover new technology which could make them to be responsible and flow with new trend of education and this is in accordance with the findings of Huston et al. (1998) which maintain that television and other ICTs play important roles in educating the students.

Also, in order to reduce difficulties with unauthorized absence, electronic registration can be adopted so as to monitor their attendance which helps in early detection of truant thereby reporting them directly to their parents and this tallies with the discovery of Geoff et al. (2010) which concluded that electronic registration can play an important role in helping schools to detect high rates of absence so as to improve attendance. Information and Communication Technology (ICT) application in the educational sector must include the

study of computer science as a core subject and this will help in using ICT as specific learning tool for science and technology related courses. Also, there must be the use of ICT such as e-mail and internet; data collection and word processing which are used in multi-media reading. Computerizing the educational sector would also expose staff to the use of innovative teaching approaches which in-turn helps them to improve on their methodology thereby affecting the students positively (Ugwuanyi & Agomuon, 2016). With today's economy, ICT equipment such as phone can be track to actually know where a particular student is at a particular time and this will help to monitor potential truant early. Information and Communication Technology also allow students to monitor and manage their own learning, think critically, solve simulated problems, work collaboratively, engage in ethical decision making and adopt a global perspective towards issues and ideas. ICT also provide students from remote areas access to expert teachers and learning resources and gives administrators and policy makers the data and expertise they need to work more efficiently. Also, the use of ICT such as videos, television and multi-media computer software that combine text, sound and colourful, moving images can be used to

provide challenging and authentic content that will engage the students in the learning process (Steve et al., 2009).

CONCLUSION

There is need to make Information and Communication Technology a specific learning tool in order to electronically register attendance and detect truant students thereby reporting them directly to their parents. Also, computerizing the educational system would also expose teachers to the use of innovative teaching approaches.

RECOMMENDATIONS

1. Government (both federal and state) should increase allocation to the educational sector and lay much emphasis on science and ICT education.
2. School authorities should establish close linkage with law enforcement agents like police, probation officer, juvenile and family court officials so as to help prosecute any student caught playing truancy.
3. Teachers should be good role models thereby relating closely and adopting a communicative approach which should mostly involve both the parents and the school authority.
4. Parents also should try to provide some of the basic needs of their

- children at school so as to encourage them to be punctual.
5. Guidance and counseling units should also contribute their quota in assisting truants to give up truancy.

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BROKEN HOMES AND PSYCHOLOGICAL DEVELOPMENT OF ADOLESCENTS IN NIGERIA: IMPLICATIONS FOR EMOTIONAL COUNSELING

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ABSTRACT

This study identified some socio-emotional behaviours and psychological developmental need of adolescents from single parenthood, in contrast adolescents who are brought up in intact homes. A review on the psycho-social variables showed that family structure played a very significant role in the development of an individuals' personality especially during adolescence period that is often characterized as a crisis ridden era for them. Adolescents learn through observing others' behaviours, attitudes, and outcomes of those behaviours. Most human behaviour is learned observationally through modeling; by observing others, one forms an idea of how new behaviours are performed, and on later occasions this coded information serves as a guide for action. The study concluded that both parents should keep the family union intact in spite of whatever challenges they may be encountering; as children from separated homes are more susceptible to emotional and behavioural problems which can vary by way of poor academic performance, bad personality development, social development among others.

Keywords: Psycho-social variables, Broken homes, Intact homes, Adolescents, Behaviours

INTRODUCTION

Childhood is a time when human beings are particularly susceptible and responsive to external experiences. Bornstein (2008) stated that human childhood duration is more prolonged than any living creature. According to Agulanna (2009), the family lays the psychosocial, moral and spiritual foundations in the overall development of the child, while mother's significant role in this

cannot be over-emphasized. Structurally family can be divided into two types: the intact family and a broken family. Cohen (2012) defined intact family as a home where both the biological mother and father are present and are duly carrying out their functions in their homes respectively. This type of home is also called dual or two parents' home. The broken family also called single parent family is not structurally intact for various reasons owing to death of a

parent, divorce, separation, dissertation and illegitimacy of marriage, adoption, artificial insemination arising from medical prescription, surrogate motherhood, extramarital pregnancy among others.

According to Salami (2008), in a dual parent family structure, parents play significant role in the educational and career development of their children. Children tend to behave better when both parents are together. With the advent of modernization, economic instability and industrial crisis, both parents engage in jobs in order to provide more income for the family upkeep thereby leaving their children for a long period of hours at home or school thereby depriving the family of an intimate parent child relationship. These contribute to the reasons why some children's behavior from dual homes becomes morally and socially poor. Single-parent is a term that is mostly used inaccurately with the assumption that the other parent is simply not alive (Allport, 2010). Single parenting as described by Amato (2013), is seen as a role in which one of the two individuals involved in the conception of the child is being responsible for the upbringing of the child. Single parenthood may also arise when either of the parents decides to produce and rear a child or

children outside wedlock (Agbo, 2007).

In western societies a child from broken or divorced homes may end up in the hand of a caregiver or be taken to schools that can help provide the child with emotional, social, academic empowerment among others (Blankenhorn, 2012). Concerned organizations at all levels of the society are increasingly feeling the need to intercede in childrearing while also fighting existing societal ills through some forms of interventions (Ayodele, 2012). These interventions seem to be on the increase when the adolescent child attains adolescence as that seeks to be a crisis ridden era for the child. To Ayodele (2012), adolescence as the transitional stage of development between childhood and adulthood, representing a period in life during which a person experiences a variety of biological changes and encounters a number of emotional issues. Adolescence period is very essential to the growth of any person.

The peculiarities of this period make it unique from other aspects of development. It is a transitional period from childhood to adulthood; it requires an atmosphere full of love and understanding to function well. The ages which are considered to be the part of adolescence vary by culture,

and ranges from preteens to 19years. According to the World Health Organization (WHO), adolescence covers the period of life between 10 and 20 years of age. Adolescence period is sometimes referred to as a period of stress and storm due to some biological changes they do experience in their bodies. Adolescence is often divided by psychologists into three distinct phases: early, mid, and late adolescence. Adolescence can be a specifically turbulent as well as a dynamic period of one's life. A period in which young people develop abstract thinking abilities, become more aware of their sexuality, develop a clearer sense of psychological identity, and increase their independence from parents. Adolescence is noted as one of "Storm and Stress" time in a human life, conflict at this developmental stage is normal and not unusual (Berzonsky and Adams, 2013). Bello and Ajayi (2010) attributed that there is some evidence that risk-taking adventure in adolescents is biologically driven, caused by the social and emotional part of the brain (amygdala) developing faster than the cognitive control part of the brain frontal cortex.

In Nigeria today, many adolescents are getting into problems simply because of how they were nurtured

and tutored while growing up. In Nigeria growing up sometimes depend on the types of homes and parents one have. The economic status of the homes whether low or high may likely contribute to the positive or negative development of the adolescents. The homes too, whether loving, caring and supportive may contribute enormously to the proper development of the adolescent child (Ichado, 2008). The home being the first agent of socialization needs proper nurturing for it to fulfil its obligation to the members. Adolescents benefit enormously when one or both parents are highly involved in their upbringing. The act of nurturing the young ones to adolescence stage is a great task for every parent to fulfill. Upbringing of the adolescents starts from attending to their physical needs based on the various physical developments they are experiencing. Apart from upbringing, lack of warmth and nurture from the parents may affect the development of self-control in adolescents. An environment characterized by love, understanding and good health is expected to promote the wellbeing of adolescents (Ichado, 2008).

Painfully enough, Choe (2009) noted that most adolescents from divorced families do have less intimacy of relationship with their parents than

adolescents from intact homes. Most of them sometimes drop out of school because of lack of concentration; become more sexually active at an earlier age because of lack of proper monitoring, exposure to various crimes at early age in life, engage in cultism related activities, masturbation, lesbianism, rape, involvement in illicit use of drugs and this may lead to the development of lower self-esteem.

According to Maccoby (2012), the family needs to be intact for adolescents to experience the warmth and nurture of a loving family. Emotional and behavioural problems may stem from parental conflict before and after divorce, as well as from the separation itself. As further buttressed by (Macoby, 2012), a smooth functioning family can provide support and nurture to an adolescent during times of stress and crises. Adolescents from divorced or single-parent family tend to underperform in school and also get into trouble with the school authorities. Perhaps it should be well stated that single parents find it difficult to monitor their children coupled with numerous responsibilities before them. Should the stressors be increased by parent's marital breakdown, then adolescents concerned may be stressed the more. Maccoby (2012) reiterated that

families become a source of stress when faced with divorce. The existence of both parents play roles in the lives of adolescents and these roles cannot be overemphasized.

For this study, some of the imperatives for this study would be to:

- a. Identify components of family structure
- b. Discuss adolescents' social behaviour
- c. Identify psychological development of adolescents

The Family Structure

Family structure, like society at large, has undergone significant changes. Most of the time when a person imagines the true definition of a family, the figure of a mother, father and children comes to mind. Family is one important aspect of any living thing. According to Odu (2008), one of the primary functions of the family is to produce and reproduce persons, biologically and socially. Owuamanam (2009) noted that there are four types of family structure which includes Nuclear, Single Parent, Extended, and Childless.

- The first structure from the four types is the Nuclear family. A nuclear family consists of a mother, father, and their biological or adopted descendants, often called the

- traditional family. It can be a fostering environment in which to hoist children as long as there is love, time spent with children, emotional support, low stress, and a constant economic upbringing.
- The second structure is the Single-Parent family. It is one most outstanding transformed family, from the four types of family structure Children are most likely to live in a single-parent structure for reasons other than the death of a parent. One of the most luxurious things for a single-parent is child care. Single families frequently have less pressure compared to the pressure in nuclear families. Usually, parents and children are more eager to work together with each other to find solutions to solve household chores and needs in single-parent families.
 - The third family structure is the Extended Family. It consists of more than parents and children; it may be a family that includes parents, children, cousins, aunts, uncles, grandparents, foster children At times children are raised by their grandparents when their biological parents have died or no longer can take care of them Extended families can be found all over the world in different communities and countries In the four types of structure nuclear

family is more probable to become an extended family than any other family type.

- The fourth and last structure from the four type of family structure is the Childless Family. A childless family is basically a group of people from all variety of backgrounds and all walks of life who, for whatever, reason, have never had children. Others will perhaps have children at some time in the future, but are not prepared just yet, and some sought to have children but were unable to because of a variety of social and/or biological forces (Owuamanam, 2009).

Adolescents' Emotional Behaviour

Amato (2013) claimed that during adolescence, emotional and psychological development is characterized by the quest for independence and identity formation. It is a time when young adolescents seek their own sense of individuality and uniqueness. They are searching for an adult identity as well as adult acceptance, while striving to maintain peer approval. As young adolescents' affiliation base expands to include family and peers, feelings of conflict arise because of competing allegiances (Berzonsky & Adams, 2013). Agbo, (2007) noted that adolescents search for identity and self-discovery may exacerbate

feelings of vulnerability as they become increasingly attuned to the differences between self and others.

Typically, the period of early adolescence is intense and unpredictable, as adolescents have a tendency to be moody, restless, and may exhibit erratic and inconsistent behavior including anxiety, bravado, and fluctuations between superiority and inferiority. They are also often self-conscious, prone to lack self-esteem, and are highly sensitive to criticism of their perceived personal shortcomings. Emotionally-charged situations may trigger young adolescents to resort to childish behavior patterns, exaggeration of simple occurrences, and vocalization of naive opinions or one-sided arguments.

Furthermore, Agbo (2007) stated that adolescents' emotional variability also puts young adolescents at risk of making decisions with negative consequences young adolescents are apt to believe that their experiences, feelings, and problems are unique. Most adolescents cope with the changes in emotion in positive ways. When emotional stress does arise, it often is the result of adolescents' conflicts with their parents. These conflicts frequently occur because adolescents are striving to make independent choices and do not agree

with parents' requests and opinions as readily as they did when they were younger. At this period the emotional behaviors is marked by changes that are relatively brief and not typically associated with long-term adjustment problems (Agbo, 2007). The normative timing of these changes has just begun to be more clearly established and most of these tend to occur at the onset of adolescence. First, there are relatively sudden changes in both positively- and negatively-valence affect. Blankenhorn (2012) emphasized that, adolescents experience less positive emotions.

The emotional landscape of a young adolescent becomes complex not just with an increase in emotional intensity but with a comprehension of mixed emotions as well. Most significantly, the incidence of dysphonic or depressed moods radically increases, especially for girls as their social aspects of emotion expression and regulation become more developed. There are increases in the ability to mask emotions as well as in the use of emotion to manage relationships, their social referencing aspects of emotion become highly attuned? According to Amato (2013), in the early adolescence, there is sharp increase in the, awareness of other's perception of their personality, and therefore shame, as

well as more daily fluctuations in self-esteem occurs. Emotions and emotion regulation in adolescence are often considered simply as more mature than childhood but less mature than adulthood. However, most evidence points to adolescence as being qualitatively distinct.

Adolescents' Social Behaviour

From both cultural and sociological perspective, adolescence period is considered as a transitional standardized human developmental phase, which is crucially important to every human identity and society as a whole (Bumpass and Raley, 2008). The family is the center of social life for 'children. Social development refers to a person's capacity for more mature interactions with individuals and grown-ups. Adolescents have a strong need to belong to a group with peer approval becoming more important as adult approval decreases in importance (Bello & Ajayi, 2010). The development of the social behavior of the adolescents prepares them to live among their fellow individual. Parent characteristics play an important role in the socialization of the adolescent. This need often results in fierce loyalty to peer groups. Friendships, positive peer relationships, and social interactions can boost young adolescents' self-esteem. As young adolescents mature socially, they often experience

opposing loyalties to peer group and family. Bello and Ajayi (2010) noted that as adolescents search for a social position within their peer group, they may 'experiment with slang and alternative behaviors. Young adolescents tend to emulate esteemed peers or non-parent adults and prefer to make their own choices, yet the family remains a critical factor in final decision-making.

According to Agbo (2007), described the attitude of young adolescents that they may be rebellious to parents and adults, while they still depend on them: Adolescents also tend to test the limits of acceptable behavior and often challenge adult authority. He further stated the feelings of adult rejection can drive young adolescents into the somewhat secure social environment of their peer group. Social maturity often lags behind physical and intellectual development. Consequently, young adolescents may overreact to 'social situations, ridicule others, and feel embarrassment Agulanna (2009). Young adolescents are also socially vulnerable due to influences of media and negative interactions with adults. Allport (2010), stated that during adolescence, the peer group begins to replace the family as the child's primary social focus.

Peer groups are often established because of distinctions in dress,

appearance, attitudes, hobbies, interests, and other characteristics that may seem profound or trivial to outsiders. Initially, peer groups are usually same-sex but typically become mixed later in adolescence. Peer groups assume an importance to adolescents' life because they provide validation for the adolescent's tentative choices and support in stressful situations. The radical and dynamic changes both at physical and psychological level throughout the adolescent period make it typically distinct from other phases of development. An adolescent, irrespective of gender, experiences an individualized form of self-consciousness, sensitivity about the surrounding environment and an increased concern over one's own body image along with excruciating evaluation between own self and peers. An important aspect of the psycho social development contributing to the, adolescence period is adolescent egocentrism.

According to Bello and Ajayi (2010), adolescent egocentrism included a belief system carried by adolescents that makes them to consider as special and unique individual that will accomplish new psychological abilities. Adolescent egocentrism is characterized with an imaginary audience with an increased self-consciousness. Adolescent consider

that the people in their surrounding areas, especially peers, observe their activities and appearance.

Parental Influences on Adolescents' Emotional and Social Development

As adolescent grow up, there are many aspects of their lives which influence and affect their development and behaviors. One of the most important facets during this time period of development is the parental figures in their life. They play a large role in the social and emotional behaviors a child which proceeds from childhood to late adulthood. The way a parent socializes may have a slight amount to do with their genetic makeup, but due to the child's interactions with and observations of, the parents contribute more to the social and empathy related development than heredity does, (Ailport, 2010). A parent, who shows concern and compassion for their adolescent, will help their child develop a high level of self-esteem. According to Berzonsky and Adams (2013) a national longitudinal study on adolescent health found that parental connectedness including feelings of warmth, love, and caring from parents was protective against many adolescent health risks including emotional health. It has been proven that children feel better about

themselves when they know their parents are interested in their lives and what they do; Also parents play a vital role in the socialization of the adolescent. Parents have the task of directing the behavioral development of adolescents towards the desired normative emotional and socially valued goals (Odu, 2008).

When children observe their parents' emotions, they feel that that is how they should be reacting as well. Parents need to take their adolescents into consideration before themselves at times, and often they don't do that. A research was carried out and it was found that children take their parents problems into themselves and worry about it just as much as the parent, even if it doesn't involve them therefore are not to blame their children for their own wrongs (Salami, 2008). This is a common problem many families face during a divorce or separation, 'children believe it is because of them and therefore it is their problem to deal with, even though in most cases it has nothing to do with them. The emotions adolescents' exhibits influence how they deal with. social interactions as well. Not only do the emotions of the parents affect how adolescents will deal with their own emotions, but social behaviors are also passed on through observation (Salami, 2008).

Emotional Behaviour of Adolescents from Single Parent Family

The family is the first and most important emotional support structure for children. When this falls apart children are bereft emotionally and the initial feelings are of extreme loneliness and abandonment. There is a feeling of great loss with acute sadness and confusion. The loss of a parent makes them feel emotionally and physically insecure and afraid of being discarded just like the parent who has gone away. Some children may in fact continue to experience emotional problems several years after, according to (Berzonsky & Adams 2013).

Teachers commonly describe children from single parents as more hostile, aggressive, anxious, fearful, hyperactive and distractible than children from intact families. It is difficult for children to grasp or appreciate how parents can stop loving each other and go their own ways in cases of divorce or separation. The result is increased anxiety on the part of the children over a possibility of their own abandonment. Almost inevitably children of separated parents feel that somehow the divorce is their fault; They think that the parent who left did so because of them or because he/she does not love them anymore. Girls in

fact feel the loss of a father directly and emotionally and often believe that this rejection by their father is because they are not pretty enough or smart enough.

Adolescents who experience conflict and are under this parenting structure suffer from serious emotional difficulties, living in shame, their sense of self undermined and with little confidence in the future. They are anxious, living in fear and waiting for the next violent episode to occur (Blankenhorn, 2012).

Adolescents can react either by running away or becoming involved in delinquent behaviors or trying to take on responsibility for keeping the peace and ensuring the safety of their family. Chavetien (2014), stated that adolescents from other single parent families have more psychological challenges as compared to those suffering the death of a parent. These children suffer from a debilitating loss of self-esteem and think that they are worthless or bad. Adolescent are also likely to go into depression, unable to deal with the acute feelings of loss and grief.

Chaverien (2014) further stated that broken homes suffer from higher rates of suicide of children than stable families. Often the parent with whom the children are left is too busy coping

with his/her own feelings of pain or betrayal. This leads to further feelings of loneliness and abandonment and older children may respond by rebellious and defiant behavior with an increased tendency to break rules and test limits within the family as well as the larger society. The sense of grief, anxiety and abandonment faced by children when their parents' divorce may be manifested in certain physical symptoms as well. Regular patterns of sleep and appetite may be disturbed while teenagers may fall prey to destructive food habits like anorexia and bulimia. Several previous studies have suggested that children from single-parent families are likely to be in poorer health compared with other children. The risk of accidental injuries and infections, in particular, seems to be elevated among children from single-parent families. The risk increase seems to vary from two- to over three-fold (Chaverien, 2014).

Social Behaviour of Adolescent from Single Parent Families

Adolescents from single parent families may have a tough time building and maintaining other relationships. They may have trouble getting along with members of the own family or bonding with their peers (Berzonsky & Adams, 2013). When they grow up, such children may have difficulty in committing to

or maintaining long-term relationships. Also children from single parent homes have greater chances of succumbing to teenage pregnancy, promiscuity and marital problems than adults who came from stable homes. Adolescent from single parent families seem to have a lot of problems in the area of discipline and many such adolescent have been found to be involved in alcoholism, smoking, drug addiction, cultism and other form of negative behavior (Odu 2008). Maccoby (2012) discovered that children living with parents of opposite sex were especially prone to problem behaviors. Bèrzonsky and Adams (2013) found no significant differences between sex of custodial parent and child's adjustment. It has also been argued that the differential impact of broken home/divorce on children may be linked to parenting styles- particularly with regard to the issue of discipline.

Maccoby (2012) also found that mothers on boys were a high predictor of the child's competent social behavior. Furthermore, custodial fathers and mothers have been found to differ in their parenting style, with fathers much less likely to become involved in coercive exchanges with boys than mothers. The very small number of father custody families and the very selective nature of this arrangement

compared mother custody families means that these studies must be interpreted with a great deal of caution. The experience of single parenting also affects the performance of children at school. Feelings of loss and anxiety caused by the separation of parents many cause younger kids to suffer from exhaustion and lack of concentration while older children may be more prone to absenteeism, falling grades and unruly behavior at school, according to Hughes (2008).

Salami (2008) is of the view that adolescents' from-broken homes are usually associated with anti-social behavior and poor academic records. The problem of deprivation of a second parent is bad enough but when the remaining parent cannot cope with the resultant problems a tragic situation arises. In such a situation, the child becomes a misfit in the society. These adolescents are also more likely to repeat a grade and drop out from school while in college they may struggle with lower grades and lack of self-discipline. Agbo (2007) noted that children from single-parenting homes exhibit lower self-esteem, lower achievement motivation, lower tolerance for delay, of gratification and lower academic achievement than those from intact homes where both father and mother are present. Families where there is

loss in the stability family structure may lead children to feel rudderless. As they no longer find role models in their parents. This may lead kids in their teens to experiment with drugs, gangs and engage in other kinds of delinquent behavior. A study found that seventy percent of long-term prison inmates grew up in broken homes (Allport, 2010).

Emotional Counselling Implication

To help children unlock buried emotions and to learn healthy ways to express their emotions in daily life is 'not a simple matter. A variety of creative, expressive, projective techniques assist in this work. These techniques involve, drawings, collage, clay, fantasy and imagery, creative dramatics, music, movement, storytelling, the sand tray, photography, the use of metaphors and a variety of games. Many of these techniques have been used for hundreds of years by people in all cultures to communicate 'and express themselves. You might say we are giving back to children modes of expression that are inherently theirs. These modalities lend themselves to powerful projections 'that can evoke strong feelings. Everything the child creates is a projection of something inside of her or, at the very least, something that interests her. So if a child tells a story, you can be sure that there is material in that story that

reflects the child's life or who she is and expresses some need, wish, want or feeling that the child has. If a child creates sand tray scene with the varied miniatures that are displayed on shelves, the very act of projecting this symbolic material is, in and of itself, therapeutic. Something within the child has been expressed. If the child tells a story about his scene, even more of himself is expressed on perhaps another level. If the child can own various aspects of the scene, integration takes place at a much quicker pace (Ichado, 2008).

CONCLUSION

From this paper, it can be concluded that both parents should keep the family union intact in spite of whatever they may encounter or face as children from separated homes are susceptible to experience emotional and behavioural problems such as poor academic performance, social development, poor interpersonal relation, lack of concentration, anti-social behaviour, drop out from school, lack of self-discipline, lower self-esteem, lower academic achievement among others.

RECOMMENDATIONS

The following recommendations were put forward in the study:

- An acceptable social and emotional behavior of adolescents should be

inculcated and monitored carefully by parents. This will help adolescents develop right attitude towards people in their environment.

- Teachers should study closely their students to understand them and know if their family structure is standing as a barrier to their academic, social and emotional develop, so as to counsel them wisely.
- Parents should and maintain a healthy relationship so as to prevent behavioral problems in their children.

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EFFECT OF ART THERAPY ON EXAMINATION ANXIETY AMONG PUBLIC SENIOR SECONDARY SCHOOL STUDENTS IN JIGAWA STATE, NIGERIA

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ABSTRACT

The study investigated the effect of Art Therapy on examination anxiety among public Senior Secondary School Students in Jigawa state, Nigeria. Quasi-experimental research design was used for the study with a population of 53,728 public senior secondary school students and the sample size of 383 using research Advisor. Systematic sampling technique was used to generate the sample. Test Anxiety Checklist (TAC) was adopted to collect data for the study. One Way Analysis of Variance and Independent t-test statistics were used to analyse the data. The findings of the study revealed that Art therapy on examination anxiety was effective on public Senior Secondary School students in Jigawa state; but, Art Therapy on examination anxiety is not gender sensitive. Also, there was no significant effect of Art Therapy on examination anxiety among Commercial, Arts and Science Senior Secondary School students in the state. It was therefore, recommended that Art Therapy should be part of the teaching and learning process in public Senior Secondary Schools in the country.

Keywords: Art Therapy, Anxiety, Commercial, Arts, Science students

INTRODUCTION

Many students at the verge of entering for school tests are seen to exhibit some forms of anxiety, restlessness, trembling, fidgeting or panicking. This should not be the case, because, tests are normal situation which one should not be

afraid to participate. Many secondary school students feel uneasy, fearful and anxious as tests approach, some went to the extent of falling sick. This anxious state of emotion exhibited by students toward-test-taking is what Sprelberger (2015) has referred to as test anxiety, and it contributes a

serious academic impediment to students. Educational standard of school children in Jigawa state Nigeria are primarily evaluated based on written examinations. Every year, Jigawa state Ministry of Education, Science and Technology in collaboration with Jigawa State Islamic Bureau and State Universal Basic Education Board (SUBEB) conduct examinations with a view to evaluate students' academic progress. Students suffer from various degrees of problems such as anxiety due to examination stress. Anxiety is emotional and behaviour disorder caused by the activation of sympathetic nervous system. High level of anxiety is often experience by students during performance related activities such as tests and examinations.

Anxiety as a natural phenomenon which has been experienced by everyone due to one reason or the other. It is a state of uneasiness in response to a perceived threatening situation that create emotional imbalance, the anxious person worries a lot particularly about unknown danger (Kessler & Eaton, 2015).

Anxiety as a disorder can be seen to involve an excessive or inappropriate state of arousal characterized by feelings of apprehension, uncertainty

or fear. It can be caused by environmental factor which may include trauma from events such as abuse, victimization or death of a love one, stress in personal relationship, friendship, divorce, stress at work, stress at school, natural disaster, accident, illness among others (Ruth & Argyle, 2013).

Moreover, Anxiety can occur as a result of medical factors such as anemia, asthma, infections and several heart condition it could be as a result of substance use and abuse of drugs, genetic factors among others. Examination is a very importance activity both to the instrument being used for the assessment of individual skills and knowledge both general or in a specified area of studies and overall academic achievement. It is a mean of evaluating students' or learners' ability through a set of questions to which students are expected to respond to determine the outcome of instruction in which value judgment is made (Kessler & Eaton, 2015).

Everyone has anxiety from time to time, but chronicle anxiety can negatively impact individual quality of life. It is a mental health that can also have serious consequence or physical health. Cameron and Hills (2016) confirmed the existence of gender difference in several types of

anxiety disorder. Ruth and Argyle (2013); Kessler and Eaton (2015) agreed that anxiety disorder is two to three times more likely to be diagnosed in women than in men. Different biological studies emphasized nutritional changes in anxiety disorder. With regard to class level and anxiety it is believed that the magnitude of the negative correlation coefficient between test anxiety and academic achievement decreased as a function of number of years in the school. Others are of the belief that there is general increase of test anxiety for students of upper academic class, they further highlighted that increase in competition within a reference group with relatively high academic standard leads to the high level of test anxiety.

Art therapy not only visual dance, but also music and dance have been integrated with traditional treatment in health care.

Art therapy is a mental health profession in which client facilitated by art therapist, use art media, the creative process and the resulting artwork to explore their feelings, reconcile emotional conflates, foster self-awareness, manage behaviour and addictions, develop social skills, improve reality fomentation, reduce anxiety, and increase self-esteem. A

goal in art therapy is to improve or restore a client's functioning and his or her see sense of personal well-being. (American Art Therapy Association 2013, p. 34).

Techniques associated with Art therapy such as communication, expression, painting, sculpting, and drawing helped in tackling examination anxiety. The therapy is based on the assumption that the creative process helps people to resolve conflict and problems, develop inter personal skills, manage behaviour, reduce anxiety, increase self-esteem, self-awareness and achieve insight.

Art therapy is a mental health profession in which clients facilitated by the art of therapist using art media, the creative process and the result network to explore their feelings, reconcile emotional conflations, foster self-awareness manages behaviour and addictions, develop social skills, improve reality orientation, reduce anxiety and increase self-esteem. A goal in art therapy practice required knowledge of visual Art (drawing, painting, sculpture, and other art forms) and the creative process as well as human development, psychological & counselling theories and techniques. Today, art therapy is widely practiced in a wide variety of setting including

hospitals, psychiatrist and rehabilitation centres, to mention only a few. When secondary school students develop extreme fear for performing poorly on tests, they usually experience test anxiety.

Anxiety influences test performance in substantial ways, some students would perform worse than their ability. Students at all levels who suffer from test anxiety most often choose and pursue careers which may not fully challenge their cognitive abilities.

Academic activities such as examinations, classroom activities, extra-curricular activities and other school works are considered to be the most stressful events of adolescent' life in efficiency study, nigh study before test and examination, lack of revision of study materials, emotional factors and negative irrational thinking about test are some of the causes of examination anxiety. (Roster, 2013). In view of the above, the researcher investigated the effect of art therapy on examination anxiety among senior secondary school students of Jigawa state Nigeria.

Statement of the Problem

Study found that most of the students are suffering from anxiety at some level during an examination. However, when anxiety affects

examination performance, it has become a problem. Examination anxiety is actually a type of performance, a feeling someone might have in a situation when performance really count or when pressures on to do well. Examination anxiety can bring to stomachache or headache. Some people might feel shaky, sweaty, feel their heart beating quickly as they wait for the test be given out. A student with strong test anxiety may even feel like he/she might pass out or throw-up. Almost everyone feels nervous before examination, a certain amount of nervous and tension probably helps to feel alert and focused, create a negative frame of mind, and sometimes lead to panic and potentially poor examination performance.

Anxiety is present in everyone, yet, few will admit to its presence. It is one of the most distressing built on enigmas of man. It is presumed to be a sign of weakness. It encompasses tension, nervousness, fear and worry in this age of competition the secondary school students feel fear, tension and stress. The examination anxiety is a very serious problem as many cases of suicide found in the newspapers during the period of examination, a cases of suicide were reported in University of Nigeria, ABU Zaria, to mention just a few.

Based on the above, the problems of the study are to explore the effect of art therapy on examination anxiety among senior secondary school students of Jigawa state Nigeria.

Objectives of the Study

The purpose of the study is to find out how effective Art Therapy is with regard to examination anxiety among public senior secondary school students in Jigawa state.

The following are the objectives of the study:

1. To find out difference in the effect of art therapy on examination anxiety among public senior secondary school student of Jigawa state Nigeria.
2. To find out the effect of art therapy on examination anxiety between male and female public senior secondary school students of Jigawa state Nigeria.
3. To find out difference in the effect of art therapy on examination anxiety among public senior secondary school student of Jigawa state Nigeria based on subject area.

Hypotheses

1. There is no significant difference in the effect of art therapy on examination anxiety among public senior secondary school students in Jigawa state.

2. There is no signification difference in the effect of art therapy on examination anxiety between male and female public senior secondary school students in Jigawa state.
3. There is no significant difference in the effect of art therapy on examination anxiety among commercial, science and art public senior secondary school students in Jigawa state.

METHODOLOGY

Research Design

The study was conducted using quasi-experimental design in form of pre-test post-test control group design. The term quasi-experimental includes non-random assignment of participants to groups for the experiment (Creswell, 2012). The quasi-experimental method of obtaining information was based on the assignment of the respondents into two groups: the treatment and the control group. The selection of the design was based on the fact that it has the advantage of testing the result obtained from the post-test in order to analyse the effectiveness of the treatment or otherwise when compared with the control group. The participants were divided into two groups: treatment and control group. Robson (2002) Quasi-experimental design is suitable because the variables are isolated, controlled and

manipulated. The independent variable is manipulated and the dependent variable is measured.

Participants

The population of the study comprised all the public senior secondary schools of Jigawa state. According to Jigawa state ministry of Education science and Technology (2021) there are 53,728 SS 3 students in Jigawa state which include male and female. According to Bichi (2004) a sample is a portion of the population being studied drawn through a definite procedure. Out of the 53,728 students, a sample of 382 students was used in the study using Research Advisor (2006) table for determination of sample size. The technique is purposive sampling technique. The purposive sampling technique is used for the study because the students possessed unique characteristics of examination anxiety.

Instrumentation

The research instrument used was adopted questionnaire named Test Anxiety Checklist (TAC). The instrument contains two parts; demographic information of the respondents and the statements which were responded by the respondents.

The items were scored by the researcher using the Likert scale

format. The instrument contains 10 items; the highest possible score is 50, while the lowest possible score is 10. Respondents with who obtained scores from 20-50 were considered as those with the symptoms of examination anxiety and they had met criteria for selection, while those who scored below 20 were considered as those not have symptoms of examination anxiety. The content and face validity were established by the research experts in the Department of Education, Sule Lamido University Kafin Hausa.

Procedure for Data Collection

The treatment and control groups were exposed to pre-testing condition. For each group, a time and day was fixed for the administration of pre-test that was done during their normal classroom settings. During the session, the respondent's consents were sought to participate in the study. The researcher explained to the students what to do as with the instruction, TAC was given to them and retrieved upon completion, analysed and scored by the researcher. The treatment was conducted for treatment group in a classroom setting and lasted for 25-30 minutes in every session for the period of six weeks consecutively (every Monday and Friday), While those in control group were given a fallacy treatment. All the two groups

(treatment and control groups) were exposed to posttest by administering TAC. That was done in their normal classroom setting. The result of pre-treatment (before treatment) and that of post-treatment (after treatment) were compared for difference. The extent of the differences in the TAC mean score determined the significant effects of treatment given during intervention.

Procedure for Data Analysis

The data obtained in this study was statistically analyzed using T-test for independent sample to answer hypothesis 1 & 2, and One Way Analysis of Variance (ANOVA) was used to test hypothesis 3. All the

hypotheses were tested at 0.05 level of significance.

Method of Data Analysis

The data analysis for testing the hypotheses was carried out using t-test for hypotheses one and two, and analysis of Variance on hypothesis three. The results are presented in tables 1 to 3.

RESULTS

Hypothesis One: There is no significant difference in the effect of art therapy on examination anxiety among public senior secondary school students of Jigawa state Nigeria.

Table.1: Difference in the Effect of Art Therapy on Examination Anxiety among Students

Group	N	Mean	SD	t-cal	Df	p-value
Experimental	191	40.85	2.89	-	189	.000
Control	191	44.68	2.87	5.311		

***Significant, p-value .000 <0.05**

Table 1 above shows that the t-calculated value is -5.311 with p-value of 0.000 tested at level of significance of 0.05 and degree of freedom 189. Therefore, the p-value .000 is less than 0.05 level of significance. This means that the null hypothesis one which stated that there is no significant difference in the effect of art therapy on examination

anxiety among public senior secondary school students of Jigawa state is rejected. This means that, art therapy is effective on examination anxiety in favour of treatment group.

Hypothesis Two: There is no significant difference in the effect of art therapy on examination anxiety between male and female public senior secondary school students.

Table 2: Difference in Art Therapy Effect on male and female Students’ Examination Anxiety

	Gender	N	Mean	SD	t-cal	Df	P-Value (2-tailed)
Post-test Scores	Male	191	47.813	6.265	.000	189	1.000
	Female	191	47.813	6.731			

Not Significant, p-value 1.000 >0.05

Table 2 above shows the post-test result of art therapy on examination anxiety between male and female respondents. The result shows that calculated t-value 0.000 and the p-value 1.000 tested with degree of freedom 62. Since the p-value 1.000 is greater than the level of significance 0.05. Therefore, the null hypothesis that states “There is no significant gender difference in the effect of art therapy on examination anxiety among senior secondary school students of Jigawa state, is retained, meaning no significant

effect was observed between the male and female respondents in the effect of art therapy on examination anxiety. This implies that art therapy is not gender sensitive on examination anxiety among senior secondary school students of Jigawa State Nigeria.

Hypothesis Three: There is no significant difference in the posttest mean scores of examination anxiety among commercial, Arts and science public senior secondary school students.

Table 3: Difference in Students’ Examination Anxiety Based on Their Subject Areas

Sources of Variance	SS	Df	MSS	F-ratio	p-value
Between Groups	40.278	2	20.139	.476	.624
Within Groups	2581.472	379	42.319		
Total	2621.750	381			

Not Significant; p-value .624 > 0.05

Table 3 above shows that the f-calculated value of .476 with p-value .624. Therefore, the p-value is

greater than 0.05 level of significance. Thus, the null hypothesis which states that, there is

no significant difference in the effect of art therapy on examination anxiety among senior secondary school students of Jigawa state based on class subject area is accepted. Meaning that there is no significant difference in the effect of art therapy on examination anxiety among senior secondary school students of Jigawa state Nigeria based on class subject area.

DISCUSSION

This study set mainly to find the effect of Art Therapy on Examination Anxiety among public senior secondary school students of Jigawa state. In this study, Art therapy had been used to help students overcome the examination anxiety. The first finding revealed there is significant difference in the effect of Art Therapy on Examination anxiety among public senior secondary school students of Jigawa state. This finding is consistent with the finding of Sri et al. (2015) who found that there is a difference in anxiety before and after the action of Art therapy among their experimental group, meaning that Art therapy reduced the level of anxiety in their subjects.

Result in testing hypothesis two revealed that no gender difference exists in the effect of Art therapy on examination anxiety among the participants of the experimental

group, the possible explanation to this finding can be offered that, intervention treatment (Art therapy) was done regardless of gender of the participant's equal attention and guide were given to the subjects during the treatment, this may likely motivate the two groups (male and female) to equally be affected by the therapeutic intervention aimed at reducing their level of anxiety which will in turn help them to perform better in their academic pursuits.

The third finding revealed that there is no significance difference in the effect of Art Therapy on Examination Anxiety between commercial, Art and science students, this is also in line with the finding of Pfeifer (2012) who found Art therapy as effective in reducing the level of anxiety among the subjects of their respective studies.

CONCLUSION

Based on the findings of the study, it is concluded that Art therapy has significant effect on examination anxiety among public senior secondary school students of Jigawa state Nigeria, but gender and class subject areas are not sensitive on art therapy on examination anxiety.

RECOMMENDATIONS

Based on the findings of the study, the following recommendations have been suggested:

1. Art therapy should be part of the teaching-learning process in senior secondary schools, since it is reducing examination anxiety among public senior secondary school students of Jigawa state.
2. Students should be exposed to the knowledge of reading habit and writing examinations prior the date of the examinations, this will indeed help in reducing anxiety during examination.
3. Constant orientation should be organised by the school heads to alert the teachers and the students to the effect of examination anxiety and the consequences.

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EFFECTIVENESS OF TESTING METHODS FOR STUDENTS WITH PHYSICAL DISABILITIES

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ABSTRACT

Education for special pupils takes cognizance of individual circumstances in the provision of learning through a careful selection of teaching methods and materials that are best suit the emotional, physical, psychological and intellectual capability of such individuals in school. This paper presented the procedures for which students with physical disabilities are being effectively tested after a series of instructional sessions so as to ascertain whether or not the knowledge that have been imparted on them has been successful. Also, this paper discussed physical impairment, which includes hearing impairment, visual impairment and motor impairment. It was concluded that if an appropriate way of testing students with physical disabilities are adopted, it would undoubtedly play greater role toward ascertaining the knowledge they have acquired and plan for further remediation. Thus, it was recommended that government and stakeholders should play a vital role toward improving the instrument being used to test the knowledge of physically impaired students and increase the number of special schools so as to cater for all students with special needs in the country. For educations and provide enabling environment for them and train qualified teachers for testing students with such impairments.

Keywords: Physical disabilities, Impairment, Handicapped students, Testing

INTRODUCTION

Students with physical disabilities are those individuals who face physical challenges because their bodies are impaired and their ability to learn is compromised, the degree of their disabilities may range from mild to moderate, severe, or profound (Abdulwahid, 2014). The term persons with disabilities is defined as persons who have a long-term or recurring physical, mental, sensory, psychiatric or learning impairment

and who Consider themselves to be disadvantaged in employment by reason of that Impairment, or believe that an employer or potential employer is likely to consider them to be disadvantaged in employment by reason of that impairment, and includes persons whose functional limitations owing to their impairment have been accommodated in their current job or workplace. An individual who is afflicted with a physical impairment that, in any way,

limits or inhibits his/her participation in normal activity is called

physically handicapped. The physically handicapped includes the deaf, partially deaf or hard of hearing, blind, partially sighted, crippled, cerebral palsied and those with special health problems such as cardiac, epileptic and diabetic.

The World Health Organization (1985) gives a definition for impairment, disability and handicap. An 'impairment' is any loss or abnormality of psychological, physiological or anatomical structure or function. A 'disability' is any restriction or lack of ability to perform an activity in the manner or within the range considered normal for a human being. A 'handicap' is a disadvantage for a given individual resulting from an impairment or disability that limits or prevents the fulfilment of a role that is normal for that individual. Handicapped persons are categorized as:

1. Physically handicapped
2. Mentally handicapped
3. Socially handicapped
4. Persons with the combination of the three categories above.

The physically handicapped persons have to adjust with their own disabilities as well as to their social circle. Actually, they have to bear a

double-burden, social handicap and actual physical loss. As the physically handicapped children deviate from normal children in physical and psychological characteristics, they cannot be benefited from a regular classroom program as special treatment in school.

The adjustment of the Physically Handicapped students is the process by which living organism maintains balance between its needs and the circumstances that influence the satisfaction of these needs. When the social and psychological needs of the physically handicapped children are not gratified, they may develop adjustment problems. The handicapped individual faces many problems in his adequate adjustment on account of his physical deformity. The handicapped individual is unable to participate in desirable normal activities and his incapacity develops in him emotional problems like resentment and discouragement. The handicapped develops a feeling that others have a low opinion about him due to his defect and an undue exaggeration of this feeling in his mind results in development of inferiority complex and self – pity in him. The deaf, the dumb, the blind, the crippled develop adjustment problems with these feelings.

The physically handicapped persons are generally divided as:

1. The visually handicapped or blind.
2. The aurally handicapped or deaf.
3. The speech handicapped or mute.
4. The orthopedically handicapped or crippled.

Testing Physically Handicapped Students

The testing of physically handicapped persons at an early age is especially important in order to provide appropriate educational experiences from the outset. Such an approach helps to prevent the cumulative learning deficits that would magnify the effects of the handicap on intellectual development. At any age, the testing of physically handicapped persons presents special problems with reference to the test administration and the proper interpretation of test performance. Thus far, the principal ways of handling such testing include: (1) modification of existing tests; and (2) individualized, clinical assessment that combines test scores with other sources of data from biographical history, interviewing, and the judgment of adequately informed everyday – life observers, such as teachers (Barnett, 1983; Sherman & Rogers, 1982; Weaver, 1984).

Efforts to establish separate norms for persons with specific physical

handicaps or to design tests specifically for such groups are usually hampered by small number of available cases. This limitation applies especially in the use of employment tests and tests for admission to college or graduate and professional schools, all of which involve specially selected samples. Nevertheless, research has been continuing on the performance of persons with different physical handicaps who have taken either standard or specially adapted administrations of such tests as the college board Standard Aptitude test SAT and the Graduate Record Examination GRE. The psychometric characteristics investigated include performance level, test completion, test reliability, differential item performance, and factor structure of scores. In general, the results show that the procedural adaptations were successful in providing fair measures for the handicapped test takers. There is tendency, however, for verbal and numerical scores to be more independent in the handicapped, suggesting the desirability of retaining the separate scores for interpretive purposes. Special testing procedures with reference to three major categories of physical handicap, namely, hearing, visual, and motor impairments are considered below.

Hearing Impairments

Owing to their general retardation in language development, hearing impaired children are usually handicapped on verbal tests, even when the verbal content is presented visually. The earlier the onset of deafness in young children the more severe is this handicap. The testing of deaf children was the primary object in the development of some of the earliest performance scales, such as the Pintner-Peterson Performance Scale and Arthur Performance Scale. Special adaptations of the Wechsler scales are sometimes employed in testing deaf persons. Most of the verbal tests can be administered if the oral questions are typed on cards. Various procedures for communicating the instructions for the performance tests have also been worked out. With such modifications of standard testing procedures, however, one cannot assume that reliability, validity and norms remain unchanged.

Whether or not they require special procedural adaptations, all the tests mentioned thus far were standardized on hearing persons. For many purposes, it is of course desirable to compare the performance of the deaf with general norms established on hearing persons. At the same time, norms obtained on deaf children are also useful in a number of situations

pertaining to the educational development of these children. To meet this need, some efforts have been made to establish special norms for existing tests, as illustrated by the standardization of the WISC-R performance scale for Deaf Children (Anderson & Sisco, 1977).

At a more basic level, the Hiskey-Nebraska Test of Learning Aptitude was developed and standardized on deaf and hard-of-hearing children. This is an individual test suitable for ages 3 – 16. Speed was eliminated, since it is difficult to convey the idea of speed to young deaf children. An attempt was also made to sample a wider variety of intellectual functions than those covered by most performance tests. Pantomime and practice exercises to communicate the instructions, as well as intrinsically interesting items to establish rapport, were considered important requirements for such a test. All were chosen with special reference to the limitations of deaf children, the final item selection being based chiefly on the criterion of age differentiation.

The Hiskey-Nebraska test consists of twelve subsets: (i) Bead patterns; (ii) Memory for color; (iii) Picture identification; (iv) Picture associations; (v) Paper folding; (vi) Visual attention span; (vii) Block patterns; (viii) Completion of

drawings; (ix) Memory for digits; (x) Puzzle blocks; (xi) Picture analogies; and (xii) Spatial reasoning. The manual provides parallel instructions for testing deaf and hearing children. Norms were derived separately from 1079 deaf and 1074 hearing children between the ages of 3 and 17 years, tested in 10 states. Split half reliabilities in the 90s. are reported for deaf and hearing groups. Inter-correlations of the 12 subsets range from the 30s. to the 70s among younger children (ages 11 to 17). Correlations of .78 to .86 were found between the Hiskey-Nebraska and either the Stanford-Binet or the Wechsler Intelligence Scale for Children in small groups of hearing children. Further evidence of validity was provided by substantial correlations with achievement tests among deaf children. The manual contains a discussion of desirable practices to be followed in testing deaf children.

Visual Impairment

Testing the blind students presents a very different set of problems from those encountered with the deaf. Oral tests can be most readily adapted for blind persons, while performance tests are least likely to be applicable. In addition to the usual oral presentation by the examiner, other suitable testing techniques have been utilized, such as type recordings.

Some tests are also available in braille. The latter technique is somewhat limited in its applicability, however, by the greater bulkiness of materials printed in braille as compared with ink print, by the slower reading rate of the braille readers. The test taker's responses may likewise be recorded in braille or typewriter. Specially prepared embossed answer sheets or cards are also available for use with true-false, multiple choice, and other objective-type items.

In many individually administered tests, of course, oral responses can be obtained. Among the earliest examples of general intelligence test that have been adapted for blind persons in the Binet. The first Hayes-Binet revision for testing the blind persons was based on the 1916 Stanford-Binet. In 1942, the interim hayes-Binet was prepared from 1937 Stanford- Binet (Hayes, 1943). All items that could be administered without the use of vision were selected from both Form L and Form M. This procedure yielded six tests for each year level from VIII to XIV, and eight tests at the average Adult level. In order to assemble enough tests for year levels III to VI, it was necessary to draw on some of the special tests devised for use in the earlier Hayes-Binet. Most of the tests in the final scale are oral, a few

requiring braille materials. A retest reliability of .90 and a split-half reliability of .91 are reported by Hayes. Correlations with braille editions of standard achievement tests ranged from .82 to .93. The validity of this test was also checked against school progress.

The Wechsler scales have been adapted for blind test takers. These adaptations consist essentially in using the verbal tests and omitting the performance tests. A few items inappropriate for the blind have also been replaced by alternatives. When tested under these conditions, blind persons as a group have been found to equal or excel the general seeing norms (Anastasi, 1990). Some group tests have likewise been adapted for use with the visually handicapped. For example, the College Board Scholastic Aptitude Test (SAT) is available in large-type, braille, or cassette editions (College Board, 1985 – 1986a, p. 6). Research with a tactile form of the progressive matrices has shown it to have promise as a nonverbal intelligence test for blind children between the ages of 9 and 15 years (Rich & Anderson, 1965).

The blind Learning Aptitude Test incorporates some items from the progressive matrices together with other nonverbal items in a tactile test

employing an embossed format. The emphasis is on the learning process rather than on the products of past learning, in which the blind child may have been handicapped. Normative data compare favorably with those usually available for instruments designed for special populations. Information regarding reliability and validity is inconclusive and requires further research.

Some efforts have also been made to develop adaptive behavior scales suitable for blind children. An example is the adaptation of the Vineland Social Maturity Scale for blind preschool children (Maxfield & Buchholz, 1957) in Anastasi 1990.

Motor Impairment

Although the speech handicapped students are usually able to receive auditory and visual stimulation, the orthopedically handicapped may have such severe motor disorders as to make either oral or written responses impracticable. The manipulation of form boards or other performance materials would likewise meet with difficulties. Working against time limit or in strange surroundings often increases the motor disturbance in the orthopedically handicapped. Their greater susceptibility to fatigue makes short testing sessions necessary. Some of the severest motor handicaps are found among the cerebral palsied.

Yet surveys of these cases have often employed common intelligence tests such as the Stanford-Binet or the Arthur Performance Scale. In such studies, the most severely handicapped were usually excluded as untestable. Frequently, informal adjustments in testing procedure were made in order to adapt the test to the child's response capacities. Both of these procedures, of course, are make shifts.

A more satisfactory approach lies in the development of testing instruments suitable for even the most severely handicapped individuals. A number of specially designed tests or adaptations of existing tests are now available for this purpose, although their normative and validity data are often meager. Several of the tests to be discussed in the next section, originally designed for cross-cultural testing, have also proved applicable to the handicapped. Adaptations of the Leiter International Performance Scale and the Porteus Mazes, suitable for administration to the cerebral palsied children, have been prepared (Allen & Collins, 1955; Arnold, 1951). In both adapted test, the examiner manipulates the test materials, while the test taker responds only by appropriate head movements. A similar adaptation of the Stanford-Binet was proposed (E. Katz, 1958). The progressive

matrices provide a promising tool for this purpose. Since this test is given with no time limit, and since the response may be indicated orally, in writing, or by pointing or nodding, it appears to be especially appropriate for the orthopedically handicapped. Despite the flexibility and simplicity of its response indicator, this test covers a wide range of difficulty and provides a fairly high test ceiling. Successful use of this test has been reported in studies of cerebral-palsied children and adults (Allen & Collins, 1955; R. H. Holden, 1951; Tracht, 1948) (in Anastasi, 1990).

Another type of test that permits the utilization of simple pointing response is *picture vocabulary tests*. These tests provide a rapid measure of "use" vocabulary, especially applicable to persons unable to vocalize well (such as the cerebral palsied) and to the deaf. Since they are easy to administer and can be completed in about 15 minutes, they are also useful as a rapid screening device in situations where no trained examiner is available but individual testing is needed.

The Peabody Picture Vocabulary Test is typical of these instruments. Its current revision (PPVT-R) consists of series of 175 plates, each containing four pictures. As each plate is presented, the examiner provides a

stimulus word orally; the test taker responds by pointing to or in some other way designating the picture on the plate that best illustrates the meaning of the stimulus word. Although the entire test covers a range from the preschool to the adult level, each individual is given only the plates appropriate to his or her own performance level, as determined by a specified run of successes at one end and failures at the other. Raw scores can be converted to standard scores ($M = 100$, $SD = 15$), percentile ranks, and stanines. These derived scores are plotted on a chart with confidence bands covering ± 1 SEM (standard error of measurement). Age equivalent scores are also provided, with instructions for computing the appropriate confidence bands. The PPVT-R is untimed, but requires from 10 to 20 minutes. It is available in two parallel forms, each using a different set of cards and different stimulus words.

The PPVT-R was standardized on a national sample of 4200 children and youth between the ages of 2 and a half and 18 years. The sample included 100 males and 100 females at each age level, and was representative of the population of the United States with regard to geographical region, parental occupational category, community size, and ethnic group.

Additional adult norms were obtained on 828 persons aged 19 through 40, selected so as to be nationally representative in geographical region and major educational groups. Reliability coefficients within single age groups were found by several procedures. Internal consistency coefficients fell mostly in the .70s and .80s, with medians in the low .80s. Alternative form reliabilities with immediate retest yielded similar values, with a median of .82. With retest intervals ranging from 9 to 31 days, alternative form reliabilities had a median value of .78.

The PPVT-R has been published too recently to permit a significant accumulation of direct validity data. Because of the basic similarity of the two editions, however, and because of a median correlation of .70 between scores on the two editions, validity data gathered with the first edition can contribute substantially toward an interim evaluation of the PPVT-R. A survey of over 300 studies using the PPVT yielded high correlations with other vocabulary tests, moderate correlations with tests of verbal intelligence and scholastic aptitude, and promising relations with performance on educational achievement tests (Dunn & Dunn, 1981). Correlations were similar in diverse populations, including physically handicapped, mentally

retarded and economically disadvantaged groups. Children participating in compensatory education programs showed more improvement on this test than on the Stamford-Binet, and their gains tended to be larger than those of non-disadvantaged pupils attending regular schools (Dunn & Dunn, 1981). Scores on the PPVT reflect in part the respondent degree of cultural assimilation and exposure to standard American English.

Similar procedures of test administration have been incorporated in *pictorial classification tests*, as illustrated by the Columbia Mental Maturity Scale (CMMS).

Originally developed for use with cerebral palsied children, this scale comprises 92 items, each consisting of a set of three, four or five drawings printed on a large card. The examinee is required to identify the drawing that does not belong with the others, indicating his choice by pointing or nodding. To heighten interest and appeal, the cards and drawings are varicolored. The objects depicted were chosen to be within the range of experience of most American Children scores are expressed as age deviation scores, which are normalized standard scores within age groups, with a mean of 100 and an SD of 16. Percentile and stanine

equivalents for these scores are also provided. To meet the demand for developmental norms, the manual includes a maturity index, indicating the age group in the standardization sample whose test performance is similar to that of the child.

The standardization sample for the CMMS comprised 2600 children including 100 boys and girls in each of 13 six-month age groups between the ages of 3 – 6 and 9 – 11. The sample was stratified in terms of the 1960 US Census with regard to parental occupational level, race, and geographical region; proportion of children living in metropolitan and non-metropolitan areas was also approximately controlled. Split half reliability ties within single age groups ranged from .85 to .91. Standard errors of measurement of the Age Deviation Scores are between 5 and 6 points. Retest of three age group after an interval of 7 to 10 days yielded reliabilities of .84 to .86. A correlation of .67 with Stanford-Binet was found in a group of 52 preschool and first-grade children. Correlations with achievement test scores in first- and second-grade samples fell mostly between the high .40s and the low .60s. More extensive data on validity and on applicability to various handicapped groups are available for an earlier form of the test.

CONCLUSION

The education for physically handicapped students require qualitatively differentiated educational experiences or services due to their inability to cope with normal school class organization and methods. This process involves the individually planned and systematically monitored arrangement of assessing the knowledge been conceived by the students, teaching procedures, adapted equipment and materials, accessible settings and other interventions designed to help learners with physically disabilities achieve a higher level of personal self-sufficiency and success in school and community than would be available if the student were only given access to a typical classroom education.

RECOMMENDATIONS

Since students with physical disabilities demands different consideration when it comes to testing and teaching, it is therefore recommended that government, stakeholders and policymakers should pay more attention toward improving the instruments being used in our schools so as to effectively ascertain the knowledge conceived by students with physical disabilities, efforts should also be made to judge the psychometric properties of the instruments discussed for possible adoption and increase the number of

special schools across the nation so as to cater for the needs of such students and provide enabling environment for them to ensure effective teaching and learning. It is also recommended that special training and coaching to assessors of such students in form of seminars and workshops on how to test the knowledge of these students should be conducted so as to ensure the objectivity of their outcomes and intimate them with different form of standardized tests of testing the learning activities of persons with physical disabilities.

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**ASSESSING THE IMPACT OF INDUCTION TRAINING PROGRAMME
ON WORK PERFORMANCE OF PUBLIC PRIMARY SCHOOL
TEACHERS IN MANGU LOCAL GOVERNMENT AREA OF PLATEAU
STATE**

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ABSTRACT

The major aim of this study was to assess the effectiveness of the Plateau State Teacher Induction Training Programme in terms of sustaining improvement in teachers' work performance in primary schools in Mangu Local Government Area of Plateau State. The descriptive survey research design was adopted in the study. The population comprised of 2,163 primary school teachers in Mangu Local Government Area of Plateau State. A sample of 200 primary school teachers from 203 public primary schools was selected using stratified sampling technique. The researcher-constructed instrument tagged "Assessment of Induction Training Programme Questionnaire (AITPQ)" was employed for data collection. Frequency distribution and mean were used to answer research questions, while Pearson Product Moment Correlation was used to test hypotheses at 0.05 level of significance. The results revealed that there was a statistically significant comparison between the mean scores of induction training programme and work performance of public primary school teachers. Also, a significant relationship existed between the impact of induction training programme and teachers' effectiveness in instructional delivery in public primary schools. The study concluded that induction training programme has improved the work performance of public primary school teachers. It was recommended that Teacher Education Development Services should develop workshops and seminars for mentors and school administrators; while the Ministry of Education should make policy to make it mandatory that all newly qualified teachers should complete a teacher induction training programme before they could be granted a license to teach in primary schools.

Keywords: Assessment, Work performance, Induction, Mentoring, Teacher

INTRODUCTION

In human resource development, induction training programme introduces new teachers to their new profession or job role, within an institution of learning. As a form of systematic training, induction training programme familiarizes and assists new teachers with their employer, work force and job design. Armstrong (2017) views induction training in educational setting as the process of receiving and welcoming new teachers when they first join the teaching profession and giving them the basic information they need to settle down quickly and happily and start work. While assessment is an important educational skill for ascertaining, at the end of a period of instructions, whether a learner has succeeded and the degree of success based on the measuring tools used. It is useful for determining the extent to which educational goals have been achieved (Leppma & Jones, 2013).

The Nigeria education system for teacher education has gone through an evolution. It was not until the early 1980's that new teachers were completing some form of pre-service training to learn pedagogy. Traditionally, teachers entered the profession with as little as a primary school education. Wong, et al. (2005) posited that an effective teacher is perhaps the most important factor in

producing consistently high levels of student achievement. Fresko and Nasser-Abu Alhija (2009) stated that beginning teachers who receive support from multiple sources are less likely to move to other schools or leave teaching. Adequate teacher's preparation is essential, especially when it comes to educating the nation's poorest children who are disadvantaged by the demographics of the community and who are assigned typically to the most inexperienced teachers. Therefore, it is essential for all children to have qualified teachers.

In Nigeria, although, there are recognized Teacher Training Institutions, however, the quality of teacher performance has not improved significantly over the years, (Federal Ministry of Education Nigeria, 2009). Education administrators and other stakeholders have long been concerned about the low performance of students at all levels of the system, (Bingham & Bingham, 2008; Brown; 2008; Seaga, 2010). According to Evans (2007), that without a well-planned induction programme, the newly qualified teacher can actually decline in competence, picking up qualities that are not conducive to good teaching and student learning. The complaints of most primary school administrators are that teachers are

not as prepared as they need to be. Unfortunately, many of the primary school heads are of the belief that the teaching profession attracts some of the weakest individuals in terms of academic performance. If this trend continues, those students who are at the greatest risk of failure are hurt the most by having weak teachers. Consequently, they are helped the most by having proficient teachers, (Grant & Secada, 1990).

The Primary School Induction Programme was designed to provide support for new teachers in the teaching profession. The first cohort of the Primary School Induction Programme for newly qualified teachers started in 2006. The overall goal of the induction programme was to contribute to the improvement of the quality of primary education by providing newly qualified teachers with sufficient support and structure to enable them to apply what they learned during their college-based study and refine it in the specific context of their school and classroom. An early study in the United States suggested that good induction programmes improved teacher retention, influenced teaching practices, increased teacher satisfaction, and promoted strong professional development and collegial relationships (National

Commission on Teaching and America's Future, 2003).

Furthermore, Fresko and Nasser-Abu Alhija (2009) opined that, "effective induction programmes offer teachers varying opportunities to expand their practical knowledge, improve their instructional skills, and apply effective teaching practices, all of which must occur within a supportive environment" (p. 280). More than 50% of the primary school teachers in Nigeria are untrained (Federal Ministry of Education, 2009). Several reform efforts have been implemented to address this issue; however, the percentage of untrained teachers has not decreased significantly. In order to attract and keep new teachers in the system Ministry of Education and Youth needed to create opportunities for teachers to access quality initial teacher preparation programmes. The effects of untrained teachers in the classroom have a direct effect on students learning. The results of Primary School Examination showed that pupils' performance has not improved. Policy makers believed the implementation of a teacher induction programme should help to improve teachers' performance in the classroom. In 2006, the Ministry of Education implemented the primary school teacher induction training programme to improve the

performance of entry-level teachers. This program has been operating for over four years; therefore, there is a need to evaluate the induction programme to determine its effectiveness and the impact it has on students' learning. According to Ingersoll and Kralick (2004), there has been little research done on the effectiveness of new teacher induction programs regarding either rigor or comprehension.

If teachers are going to be prepared to face the many challenges the learners bring to the classroom, mentors must become an essential component in induction programmes. Therefore, school administrators must identify mentors that are the most seasoned, well respected and those that have an effective track record in the classroom. Mentor training and release time are two essential components that must be included in any successful mentoring programme (Berry, 2004). Many induction programmes failed because the mentor component was not properly incorporated. In the induction programme, mentor training was the key to their success (Johnson, 2009). Experienced teachers and participating teachers in induction programmes indicated the mentoring process created an opportunity for them to self-reflect and to improve their teaching (Johnson, 2009).

Mentors addressed some of the reasons newly qualified teachers leave the profession. Mentors were able to advise and assist newly qualified teachers with valuable lessons. These lessons were essential to keeping newly qualified teachers in the system. Most programmes have varying specifics, but most provide the newly qualified teacher with a experienced teacher in the school. Administrators in many of these programmes provided release time so the new teacher could participate in mentor meetings or lesson planning (Gilbert, 2005). Induction programmes should provide structured support and assistance to new teachers if they are to become effective teachers (Golrick, 2002).

The National Science Board (NSB) (2004) posited that induction programmes have two major goals: to improve the skills of beginning teachers and to reduce attrition. Portner (2005) claimed that the lesson is quite clear and worth repeating: unless and until induction and mentoring become part of the school's everyday routine it runs the all-too-real risk of becoming just another fad of the month. Current statistics revealed that beginning teachers are leaving the profession at an alarming rate (Davis & Waite, 2006). Such statistics reminded policy makers and school leaders of

the importance to provide support to new teachers (Davis & Waite, 2006).

In Nigeria schools, Guidance Services have been observed to be inadequate and ineffective especially in primary schools (Udo-Aka, 2015). Montsi (2017) surveyed and reported that most schools actualized guidance and counseling services with varying degrees of completeness. In Nigeria, Okeke and Okorie (2006) reported that there was an absence of guidance and counseling units and offices in most of the schools. This had influenced the basic decision-making of school administrators and brought about maladjusted conduct. They also discovered that individual counseling between the counselors, teachers and the children was lacking and thus established the belief of counseling unavailability. In a similar manner, Offor (2008) agreed that guidance and counseling services in most Nigerian schools were not available to children as result of ineffective implementation of the programmes. Nwokolo, et al. (2010) discovered that guidance and counseling services were not accessible in schools and they also observed that group counseling which can be effective and powerful in addressing children needs in large schools was not carried out.

One way to decrease the high percentage of untrained teachers and

to improve pupils' performance on national examinations in Nigeria is to implement an effective teacher induction training programme (Moir, 2009). Moir stated that Induction programmes were most effective when all stakeholder groups were represented in the programme design and when new teacher induction was part of a district-wide initiative to improve teaching and learning. The purpose of this study was to assess the effectiveness of the Plateau State Teacher Induction Training Programme in terms of sustaining improvement in teachers' work performance in primary schools especially in Mangu Local Government Area of Plateau State.

The specific objectives of the study are to:

1. Determine the impact of induction training programme on work performance of teachers in public primary schools in Mangu Local Government Area of Plateau State.
2. Examine the impact of induction training programme on teachers' effectiveness in instructional delivery in public primary schools in Mangu Local Government Area of Plateau State.
3. Determine the impact of monitoring on work performance of teachers in public primary schools in Mangu Local

- Government Area of Plateau State.
4. Assess the implication of counseling intervention in induction training programme in public primary schools in Mangu Local Government Area of Plateau State

Research Questions

This study was therefore designed to answer the following research questions:

1. What is the impact of induction training programme on work performance of teachers in primary schools in Mangu LGA of Plateau State?
2. What is the impact of induction training programme on teachers' effectiveness in instructional delivery in primary schools in Mangu LGA of Plateau State?
3. What is the impact of monitoring on work performance of teachers in primary schools in Mangu LGA of Plateau State?
4. What are the implications of counseling intervention in induction training programme in primary schools in Mangu LGA of Plateau State?

Research Hypotheses

- i) There is no significant relationship between the impact of induction training programme and work performance of teachers

in primary schools in Mangu LGA of Plateau State.

- ii) There is no significant relationship between the impact of induction training programme and teachers' effectiveness in instructional delivery in primary schools in Mangu LGA of Plateau State.
- iii) There is no significant relationship between the impact of monitoring and work performance of teachers in primary schools in Mangu LGA Plateau state

METHODOLOGY

Research Design

The study adopted a descriptive survey research design. According to Rouse (2017) sees survey research design as the collection of data obtained by asking individuals questions either in person, on paper, on phone or online. This design was considered appropriate since the study sought information from a small segment of the population to be generalized for all teachers on induction training programme.

Participants

The population for the study comprised all primary schoolteachers in Mangu Local Government Area of Plateau State. There were 2,163 teachers in the 203 registered primary

schools. A stratified sampling technique was adopted. First, the Local Government Area was considered on the basis of the existing 203 public primary schools. All the 203 public primary schools were involved in the study. 10 male and 10 female teachers were selected randomly from each ten public primary schools using the dip hart procedure to obtain a total of 200 teachers.

Instrumentation

The instrument for data collection was a questionnaire tagged “Assessment of Induction Training Programme Questionnaire (AITPQ) “. The AITPQ was made up of two sections. Section A asked for name of school, years of service, qualifications and sex. Section B contained 20 items, 4-Point Likert-Scale format of Strongly Agreed (SA) =4 points, Agreed (A) =3 points, Disagreed (D) =2 points and Strongly Disagreed (SD) =1 point.

Validity of the Instrument

The instrument (AITPQ) was validated by two experts in Measurement and Evaluation at the Federal College of Education, Pankshin to determine if the items in

the instrument were valid and measure the variables they purported to measure in the study.

Reliability of Instrument

The reliability test of the instrument was carried out via a pilot test of the instrument outside the sampled schools. Using Cronbach Alpha reliability method, reliability coefficient of 0.78 was obtained, which was considered high in the study, hence its usage.

Procedure for Data Collection

Permission was sought from the selected schools’ management to grant the researchers access to their students. The instrument was administered by the researchers on face-face method to the respondents, after permission was gotten from the school authorities. The researchers ensured that all the 200 copies administered were dully returned.

Data Analysis

The data were analyzed using frequency distribution and mean to answer research questions, while Pearson product moment correlation (r) was used to test the hypotheses at 0.05 level of significance.

RESULTS

Research Question One: What is the impact of induction training programme on work performance of

teachers in public primary schools in Mangu LGA of Plateau State?

Table 1: Frequency and Mean Score of Impact of Induction Training Programme on Work Performance of Teachers in Primary Schools in Mangu LGA of Plateau State

S/N	Items	SA	A	D	SD	Total	Mean	Decision
1	Induction programme has enhanced my commitment to the teaching profession	78	47	42	33	200	2.85	Accepted
2	The induction programme has improved my level of comfort and support in the classroom	93	38	43	26	200	2.99	Accepted
3	The induction programme has increased my success and effectiveness in the classroom	96	38	35	31	200	3.00	Accepted
4	The induction training programme has improved the assessment of my pupils effectively	101	39	31	29	200	3.06	Accepted
5	The induction training programme taught me to be effective in teaching of linguistically diverse pupils	25	26	32	117	200	1.80	Rejected
Aggregate mean (\bar{X})							2.74	Accepted

Table 1 above presents the frequency and mean score of respondents of the impact of induction training programme on work performance of teachers in primary schools in Mangu LGA. Five questionnaire items were presented in which four (4) items were accepted based on the 2.50 decision point set in the study and one item was rejected as the mean was below the criterion mean of 2.50. The overall mean score was 2.74. This implies that the listed items on the

induction training programme improve work performance of primary school teachers in Mangu LGA were true statements except one item.

Research Question Two: What is the impact of induction training programme on teachers' effectiveness in instructional delivery in public primary schools in Mangu LGA of Plateau State?

Table 2: Frequency and Mean Score of Impact of Induction Training Programme on Teachers' Effective in Instructional Delivery in Primary Schools in Mangu LGA of Plateau State

S/N	Items	SA	A	D	SD	Total	Mean	Decision
1	Induction programme helps teachers to effectively carry out instructional strategies in schools	96	34	26	44	200	2.91	Accepted
2	Induction programme helps new teachers to get new idea on handling instructional materials in classroom	87	42	40	31	200	2.93	Accepted
3	Learning how to develop classroom rules during my induction year enhances my classroom management	132	15	26	27	200	3.26	Accepted
4	Induction programme creates teachers lesson presentation and effective use of instructional materials where needed	112	30	34	24	200	3.15	Accepted
5	The induction training programme improves my skills and knowledge of teaching	91	47	33	29	200	3.00	Accepted
Aggregate mean (\bar{X})							3.05	Accepted

Table 2 showed the grand mean score of impact of induction training programme on teachers' effectiveness in instructional delivery in primary schools is 3.05 which indicate that the induction programme was impactful on the teachers. Five questionnaire items were presented in which all the five items were accepted based on the 2.50 decision point set in the study. This implies that the listed items on

the impact of induction training programme on teachers' effectiveness in instructional delivery in primary schools in Mangu LGA were true statements.

Research Question Three: What is the impact of monitoring on work performance of teachers in public primary schools in Mangu LGA of Plateau State?

Table 3: Frequency and Mean Score of Monitoring on Work Performance of Teachers in Primary Schools in Mangu LGA of Plateau State

S/N	Items	SA	A	D	SD	Total	Mean	Decision
1	Monitory helps teachers to be effective in school and also master their subjects and this improves their performances in the classroom	32	36	39	93	200	2.04	Rejected
2	Monitory helps teachers learn how to introduce and present lesson logically and it helps in improving their capacity, hence improved performance in the class	98	44	31	26	200	3.07	Accepted
3	Monitory helps teachers to learn how to effectively communicate and this enhances their classroom performances	16	28	34	122	200	1.69	Rejected
4	Monitory helps teachers to improve their instructional skills	136	12	28	24	200	3.30	Accepted
5	Head-teachers not involve new teachers when organizing monitory programme, this contributes to teachers ineffectiveness	81	38	39	42	200	2.79	Accepted
Aggregate mean (\bar{X})							2.58	Accepted

Result presented in Table 3 indicated the frequency and the mean score of respondents of impact of monitoring on work performance of teachers in primary schools. Five questionnaire items were presented in which three items were accepted based on the 2.50 decision point set in the study and two items were rejected as the means were below the criterion mean of 2.50. The overall mean score was 2.58. This

implies that the listed items on the impact of monitoring on work performance of teachers in primary schools were true statements except two items.

Research Question Four: What are the implications of counseling intervention in induction training programme in public primary schools in Mangu LGA of Plateau State?

Table 4: Frequency and Mean Score of the Implications of Counseling Intervention in Induction Training Programme in Primary Schools in Mangu LGA of Plateau State

S/N	Items	SA	A	D	SD	Total	Mean	Decision
1	Guidance counselors encourage educational planners to organize induction programme to update teachers	83	44	43	30	200	2.90	Accepted
2	Counselors provide school management with effective information based on their experiences that increases knowledge of induction training programme	132	19	24	25	200	3.29	Accepted
3	Counselors effectively assist teachers to enroll in the most appropriate academic course work	123	21	31	25	200	3.21	Accepted
4	Guidance counselors organize effectively orientation services to teachers who wants to join teaching profession	115	24	31	30	200	3.12	Accepted
5	Counselors give teachers orientation on the impact of induction programme on their future	109	47	21	23	200	3.21	Accepted
Aggregate mean (\bar{X})							3.15	Accepted

Table 4 presented the frequency and the mean of respondents of the implications of counseling intervention in induction training programme in primary schools. Five questionnaire items were presented in which all the items were accepted based on the 2.50 decision point set in the study. The overall mean score was 3.15. This implies that the listed items on the implications of counseling

intervention in induction training programme in primary schools were true statements.

Testing of Hypotheses

Hypothesis One: There is no significant relationship between the impact of induction training programme and work performance of teachers in primary schools in Mangu LGA of Plateau State.

Table 5: Relationship between Induction Training Programme and Work Performance of Primary Schools in Mangu LGA of Plateau State

Variables	N	\bar{X}	SD	Df	r	p-value
Induction training programme	200	18.26	4.54	199	974**	0.000
Work performance		15.33	4.40			

The results of the above table 5 analysis revealed that the calculated $r=974$ with 199 degree of freedom is greater than 0.05 level of significance. We have enough evidence to accept the null hypothesis and state that there was a significant relationship between the mean scores of induction training programme and

work performance of primary school teachers.

Hypothesis Two: There is no significant relationship between the impact of induction training programme and teachers' effectiveness in instructional delivery in primary schools in Mangu LGA of Plateau State

Table 6: Relationship between the Impact of Induction Training Programme and Teachers' Effectiveness in Instructional Delivery in Primary Schools in Mangu LGA of Plateau State

Variables	N	\bar{X}	SD	Df	r	p-value
Induction training programme	200	18.26	4.54	199	941**	0.000
Teachers effectiveness		16.08	4.62			

The results of the above table 6 analysis showed that the calculated r value of 941 with 199 degree of freedom is greater than the 0.05 level of significance. We have enough evidence to accept the null hypothesis and state that there is a significant relationship between the impact of induction training programme and

teachers' effectiveness in instructional delivery in primary schools.

Hypothesis Three: There is no significant relationship between the impact of monitoring and work performance of teachers in primary schools in Mangu LGA Plateau state.

Table 7: Relationship between the Impact of Monitoring and Work Performance of Teachers in Primary Schools in Mangu LGA Plateau state

Variables	N	\bar{X}	SD	Df	r	p-value
Monitoring		13.29	1.59			
	200			199	672**	0.000
Work performance		15.33	4.40			

Table 7 analysis showed that the calculated r-value of 672 with 199 degree of freedom is greater than the 0.05 level of significance. We have enough evidence to accept the null hypothesis and state that there was a significant relationship between the impact of monitoring and work performance of teachers in primary schools.

DISCUSSION

The result of the analysis of hypothesis as shown in Table 5 indicated that there was a significant relationship between the mean scores of induction training programme and work performance of primary school teachers. This result agrees with Breaux and Wong (2003), and Fallon (2004) induction is the most essential ingredient in improving students' performance. Teachers do not only need to be more qualified, they also need to be more effective. Induction is important since it may result in improved teacher performance, decreased rates of attrition, and improved student performance

among other benefits (Weiss & Weiss, 1999; Breaux & Wong, 2003; Gordon & Maxey, 2000).

Result of analysis of hypothesis 2, as presented in Table 6, indicated that there was a significant relationship between the impact of induction training programme and teachers' effectiveness in instructional delivery in primary schools. The finding also in line with Ganser (2001) found that beginning teachers were most challenged by instructional factors and that the most important source of assistance at this time was people within the school environment itself.

The finding of analysis of hypothesis 3 as shown in Table 7 revealed that there was a significant relationship between the impact of monitoring and work performance of teachers in primary schools. The finding agrees with Golrick (2002) that induction programmes should provide structured support and assistance to new teachers if they are to become effective teachers.

CONCLUSION

Based on the above findings, if the induction training programme in Plateau State is not redesigned to include training for mentors and clearly defined expectations for teachers, the number of not qualified teachers fleeing the field will increase, rather than decrease.

The induction training programme helped teachers to develop commitment in the delivery of effective well-managed engaging lessons; in their preparation and execution of short and long range plans for teaching to improve students' performance.

The induction training programme did not only assisted beginning teachers to develop appropriate and effective classroom rules, but it also assisted them to become observant and to anticipate conditions in their classroom that led to students' misbehaviors. It helped them to be consistent and fair when using disciplinary measures in the classroom.

RECOMMENDATIONS

Based on the findings of this research work, the following recommendations were made:

1. The Teacher Education Development Services should develop workshops and seminars

for mentors and school administrators

2. The Teacher Education Development Services should ensure there is an effective communication system established between mentors, school administration, and the Ministry of Education.
3. The Teacher Education Development Services should include a follow-up component after the completion of the newly qualified teachers' induction year.
4. The Ministry of Education should pass legislation to make it mandatory that all newly qualified teachers should complete a teacher induction training programme before they could be granted a teacher's license to teach.
5. There should be an effective communication system that will help mentors and school heads to identify strengths and weaknesses of the programme in their schools.

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IMPROVING STUDENTS' PERFORMANCE IN WRITING THROUGH EFFECTIVE FEEDBACK STRATEGIES

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ABSTRACT

Writing is a critical medium by which man's feelings, ideas, emotions and perceptions are shared. It is very useful both in school and later life. It has been observed that students' writing ability has been declining. This could be caused by inappropriate strategies being adopted by English Language teachers. Feedback is a mechanism through which information is given to students on the strengths and weaknesses of their essay. There are diverse forms of feedback. These include, but not limited to, teacher feedback, peer feedback, criterion-referenced feedback and motivational feedback. For feedback to be effective, it has to be specific, timely, frequent, non-judgmental and immediate. To enable students, improve in their academic performance in writing, it was therefore, suggested that teachers of English Language should provide different forms of feedback to students. Workshops, symposia and seminars should be organised regularly Reading Association of Nigeria (RAN), English Language Teachers' Association of Nigeria (ELTAN) and Ministry of Education to acquaint English Language teachers with feedback strategies of teaching writing.

Keywords: Academic performance, Feedback strategies, Writing

INTRODUCTION

Writing is one of the four basic skills of language; the others are listening, speaking and reading. Essentially, writing is a form of communication and the primary purpose is to transmit ideas, feelings or thoughts or to send information through graphic symbols (Muodumogu & Yisa, 2013). The process of communication in writing

therefore, involves a sender (writer), a medium (written language) and a receiver (audience or reader) for whom the writing is intended (Nwogu, 2008). In a writing situation, the writer is the sender; the medium is the written language or words; and the receiver is the audience for whom the writing is intended.

Writing is a way of extending memory and process that involves series of actions aimed principally at communicating to the potential readers (audience) the ideas, feelings,

opinions, knowledge and beliefs of the writers. According to Aliyu (2010), writing involves putting down impressions, statements or declarations. Moreover, when writing is done in a sustained manner, it grows into a composition. It again indicates that writing has to do with the writer's intended information to be sent across to a specific audience (Nwogu, 2008). Lawrence (2012) looks at writing as a skill which aims at entertaining, informing, educating and preserving information. As a skill, writing demands the organization of thoughts to make it clear and effective since there is more to the art of writing than the mere learning of writing especially when an inappropriate strategy is used.

Writing remains a critical aspect of students' daily academic activity during and after school. This is because writing is an act of creating and imaginatively putting down ideas, feelings and opinions using correct words. Aliyu (2010) observes that writing is the mark of an educated person. Therefore, teachers need to take the teaching of writing seriously to enable students master the skills of

effective writing. Experience shows that students have difficulties in generating ideas (contents) and organising ideas logically and coherently in expressing their ideas in print. The teaching/learning of writing needs to consider writing activities under rubrics such as content, organization, expression and mechanical accuracy.

The primary goal of developing writing skills is to help students acquire writing skills which are: rehearsal, drafting, revising and editing (Murray, 2004). All these involve collection of enough information, creating more points in connection to the topic and targeting the audience using appropriate words in organizing the writing. Since composition writing is one way of expressing oneself and demonstrating one's ability to communicate effectively, it has to be written in accordance with the choice of words and ideas using meaningful sentences and grammar to suit the target audience.

Composition writing is taught to serve certain intentions (Federal Ministry of Education, 2013). It trains students to be analytical and to take the thoughts and ideas of others and put together an argument. By doing this, they (students) are forming a new argument and joining the

dialogue on the subject (Foerster, 2012). Composition writing improves analytical skills and self-expression among students. Writing has the ability to reveal students' inner thoughts and opinions to identify patterns; observe events; and consider possible solutions. Other purposes for teaching composition writing are to entertain the reader and put him on the right direction towards critical thinking around nation's leadership challenges. Teaching writing also helps students to scrutinize arguments and positions they may have taken for granted, gets them to develop their points more thoroughly, and to distinguish between relevant and irrelevant information. Bulya (2010) asserts that composition writing requires learning how to do research and learning to locate and decipher sources that are credible and relevant. These important skills serve students in all academic activities.

With effective writing skills, students convey their feelings, emotions, thoughts, points of view and perceptions. It is, therefore, necessary for children to be taught to write effectively to arouse the interest of readers and meet their learning needs. According to Nordquist (2011), effective writing responds to interests and needs of readers. Other qualities of effective writing include appropriate content, organisation,

expression and mechanical accuracy (WAEC Chief Examiners' Report, 2019). Content refers to the statement of ideas that are relevant to the question. Also, the points must be fully developed. The candidate must give necessary explanations and illustrations to buttress his/her points to earn a credit. Organisation is the ordering of sentences to form paragraphs and the unity of the paragraphs to make a whole composition are considered here. The qualities to look for are a suitable opening, adequate development, good paragraphing, balance, coherence and a suitable conclusion. Expression deals with issues such as the use of appropriate style and tone, choice of words and expressions that are apt for the context, variation of sentence structure and type, appropriate diction, figurative language as well as skilful use of punctuation marks. Mechanical accuracy deals with grammar, spelling and punctuation.

Statement of the Problem

Observation has shown that writing has been a frustrating task for students. The WAEC Examiner's Report (2019) observes that students' achievement in writing has been poor due to their inability to use expression. Adekola and Lawal (2017) lament that most students cannot write acceptable English

sentences. The problem is not only grammatical, but also semantic in nature. There is also a general lack of ability to use idioms of English language effectively. This results to several wrong use of collocations in English language. Many compositions are seriously marred by poor spelling, poor punctuation and faulty grammar. It has been observed that after learning writing from primary to secondary school levels, many students are ignorant of the correct use of comma, the full stop and question mark.

The aforementioned frustration being faced by students in writing tasks could be caused by ineffective teaching strategies. It has been observed that conventional strategies of teaching writing have been in vogue in secondary schools. In these strategies, the English Language teacher illustrates a few examples with little or no active engagement of learners in the composition writing process. Thus, the strategies are teacher-centred, rather than being student-centred. Such strategies include discussion strategy, lecture strategy and demonstration strategy. These strategies have been criticised because they do not give children ample opportunity to practice writing skills effectively (Nilson, 2010). The researcher's experience has shown that many teachers of English

Language fail to teach composition writing because they do not have the requisite training to do so. For instance, teachers give topics, write notes on the chalkboard, or sample compositions for students to memorise. Composition writing skills cannot be acquired in such learning arrangement unless the teacher engages students in a process approach to composition writing (Williams, 2004).

Concept of Feedback

Teaching composition writing as a process involves five basic steps. These are: organizing the classroom, selecting topics, modeling writing (which involves planning and drafting), revising/editing and publishing. Good writing involves constant interplay of thinking, drafting, revising and rewriting before publishing (Aliyu, 2010). Students' writing needs to undergo a series of drafting stages which teachers correct and comment on, and students need to revise these corrections and respond to them accordingly.

One of the ways of enabling students to write effectively is the provision of feedback on their writing. Feedback is a mechanism in writing by which comments are made in students' writing to guide them. *Grami (2004)* defines feedback as any procedure

used to inform a learner whether an instructional response is right or wrong. The term feedback refers to information about how we are doing in our efforts to reach a goal (Alitto, 2007). It includes written and oral information given by teachers or students as response to writers' strengths and weaknesses in writing. Feedback is information about how we are doing in our efforts to reach a goal. Nicol and Macfarlane-Dick (2006) define feedback as "anything that might strengthen the students' capacity to self-regulate their own performances" (p.206). Hattie and Timperly (2007) state that feedback means information provided by agents (such as teacher, peer, teacher and parent) regarding aspects of one's performance or understanding. It is information provided to students about their performance and includes written comments on assignments, verbal responses provided in class by the teacher, peer and self-evaluation. Feedback can be informal (for example, in day-to-day encounters between teachers and students or trainees, between peers or between colleagues) or formal (for example, as part of written or clinical assessment).

Effective feedback could result in high performance in writing (Brookhart, 2008; Aliyu, 2010). Effective feedback could clarify what adequate performance is in terms of

goals, criteria and standards. All these could facilitate the development of self-assessment and reflection; deliver high quality information to students about their learning; and encourage teacher and peer dialogue around learning (Nicol & Macfarlane-Dick, 2006). It could also provide opportunities to close the gap between current and desired performance; and provide information to teachers that can help shape the teaching of writing composition.

Forms of Feedback

There are different forms of feedback that have been identified by scholars. These include: peer feedback, teacher feedback, criterion-based feedback, reader-based feedback and motivational feedback (Hounsell, 2008; Iftikhar, 2011). Peer feedback is a practice in education where feedback is given by one student to another (Atay & Kurt, 2007). It provides students more opportunities to learn from one another. After students finish a writing assignment, the instructor has two or more than two students' work together to check one another's work and give comments to the peer partners. Peer feedback can be in the form of corrections, opinions, suggestions and ideas to each other. In a peer feedback session, students work with their peers to do more

practices in writing (Hattie & Timperley, 2007). Students can give one another feedback on drafts or assignment plans by making evaluative comments and offering suggestions for improvement. Students can discuss with one another what a tutor's written feedback on their assignments might mean, why it might be important, and how it might be acted upon (Liu & Carless, 2006). Teacher feedback involves information a teacher provides to students on the strengths and weaknesses that have been identified in their writing (Hattie & Timperley, 2007). Williams (2004) also points out that students need some feedback about how they are progressing in learning in form of marks or grades. Teacher feedback can be designed to give students on-the-spot responses to the work they are immersed in at the time (Hounsell, 2008).

The teacher can use this time to answer questions, provide suggestions, or just check in with the student to see how they are progressing. It can also be done in the form of periodic check-ups. Teacher feedback can be written responses in a learning log or on the work sheet or notebook. Teachers can provide feedback through conferences with specific goals. Conferences focus on suggestions and comments along with individualised goal setting on a

formal level (Paterson, 2012). The author further observes that teachers can meet with a few students once a day or a week depending on specific projects, deadlines, and individual students' needs. Comments should be specific to the work and elaborated on during the conference. The teacher should focus on two to three items that need work and be prepared to share examples on how to improve them. Plenty of positive feedback should be shared throughout the conference. Hattie and Timperley (2007) suggest that students should take the feedback form/checklist with them at the end of the conference to use as a reference in making revisions. This way, students are given multiple opportunities to make sure they are on the right track and make necessary improvements on their work.

Criterion-based feedback indicates how well the writing meets the criteria on scoring guides or rubrics. It refers to features such as the appropriateness of the ideas and information, the level of detail and the chosen point of view (Hattie, 2007). Criterion-based feedback also addresses the clarity of communication through the organisation of ideas and use of writing conventions and effective language. This type of feedback is most useful when students have

previously been given the assessment criteria and have a clear understanding of the expectations. Indeed, students gain a deeper understanding of the expectations when they have an opportunity to participate in determining the assessment criteria. It helps the writer find out how he or she is doing with respect to the objective criteria used to judge writing.

Reader-based feedback does not depend upon accurate knowledge of the rules and conventions of English prose. It depends on accurate portrayal of the reader's response to the piece of writing (Mayer, 2004). Reader-based feedback provides raw data about the effect the writing is having on the reader. The reader may indicate, for example, that an opening paragraph really grabs him/her, or it is boring to him/her (Ayres et al., 2004). Reader-based feedback can help learners to better reach a real-life audience. It lets learners to know how real people are likely to feel after reading your piece. This feedback is less evaluative and judgmental, and leads to more listening and learning, and less arguing. It is more likely to speak to the root causes of strengths and weaknesses in your writing, not just the surface effects.

Another type of feedback is motivational feedback (Iftikhar,

2011). It is used to reward and support positive behaviour. It is where you give someone approval for what they are doing as a way of reinforcing that behaviour. For example, if a student performs well on a writing task, the teacher has to appreciate his/her work. Developmental feedback is a form of feedback that is given when a particular area of performance needs to be improved. The area that needs improvement must be highlighted.

Features of Effective Feedback

For feedback to be effective, it should meet certain criteria. One quality of effective feedback is that it is specific and not vague. If a teacher has something to say, then he/she has to say it very clearly. Feedback has to be specific and to the point. Students do not excel with vague messages—they need to know exactly what it is that they have not done and exactly what they need to do next. Every second counts and learning time is precious. Hattie and Timperley (2007) argued that effective feedback answers three questions: Where am I going? How am I going? Where to go next? Conversely, feedback is considered particularly unhelpful when it is vague (Carless, 2006). Student writers will not possess strategies to act on written teacher feedback on their work unless teachers provide

specific guidance on how to use such feedback (Burke, 2009).

Another quality of effective feedback is that it has to be positive, not negative. Positive feedback is not only used to praise students' efforts and behaviours, but is also an effective way to modify behaviour. For example, increased use of praise directly impacts student behaviour by leading to more on-task behavior, and, when used in conjunction with clear, straightforward and positively-phrased commands significantly improves students' compliance to rules (Harris et al., 2014). This could lead to improved achievement in writing.

For feedback to yield the required result, it has to be positive by pointing out their strengths and weaknesses and guiding them on how to meet the criteria of effective in terms of content, organisation, expression and mechanical accuracy. Positive feedback equally builds confidence; encourages the writer to keep going; helps writers to see what they got right, and to avoid repeating it; and helps others to identify and model good examples. Students are less likely to pay attention to feedback if it is accompanied by judgmental comments (Ip, 2005). This implies that teacher's feedback should not sound as a judgment but an avenue

for improvement. In a similar vein, feedback should be continuous. Student writers need to receive feedback each time they perform a given task.

Another important quality of effective feedback is immediacy (Brookhart, 2008). Feedback should be provided during lessons, after a test or an examination is written (McGarrel & Verbeem, 2007). The purpose of giving immediate feedback is to help students use it. Immediate feedback can be used to help students to develop self-evaluation skills (Williams, 2004). Feedback needs to come while students are still mindful of the topic, assignment or performance in question. It needs to come while they still think of the learning goal—that is, something they are still striving for, not something they already did. Simply put, feedback needs to be given while learners still have some reason to work on the learning task. The longer the time gap between the completion of the work and its feedback, the less effective the feedback becomes. Ideally, feedback should be provided within minutes after the completion of a task.

Effective feedback is specific (Rucker & Thompson, 2003). Providing students with some details specific to their writing will help

them understand our response and work towards improvement. This means going beyond noting, for instance, that a write up is awkward, to explaining why that write up is awkward. Williams (2004) asserted that it is not sufficient to give the score or grade, or to make vague comments like “Good, keep it up!”, fair, can do better.” or poor, room for improvement.” Specific comments should be given to writers.

Feedback is most effective when it contains descriptions of how students’ work meets performance criteria and what students can do to improve it. This kind of descriptive feedback is more effective than feedback consisting of vague, general comments such as "nice work or "needs improvement (Brabeck et al., 2013). In other words, effective feedback gives information to students which they need to enable them understand where they are in their learning and what to do next. Hansen and Liu (2005) point out that effective feedback leads to meaningful revisions. Good feedback should be part of a classroom assessment in which students see constructive criticism as a good thing and understand that learning cannot occur without practice. If the classroom culture values finding and using suggestions for improvement, students would be able to plan and

execute steps for improvement their writing skills.

CONCLUSION

Learners learn faster and more deeply if they know what the strengths and weaknesses of their performance are and most importantly, how to improve future performance. Feedback is equally vital in schooling and performs a variety of functions including recognising, correcting, and encouraging, challenging and improving student performance.

RECOMMENDATIONS

This paper recommends that:

1. Teachers of English Language should provide different forms of feedback to students to enable students discover their strengths and weaknesses in writing.
2. Workshops, symposia and seminars should be organised regularly by Reading Association of Nigeria (RAN), English Language Teachers’ Association of Nigeria (ELTAN) and Ministry of Education to acquaint English Language teachers with feedback strategies as useful strategies of teaching writing.

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OUTDOOR PLAY AND PUPILS' COGNITIVE DEVELOPMENT IN MAINLAND LOCAL GOVERNMENT AREA, LAGOS STATE

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ABSTRACT

This study examined teachers' perception on the influence of outdoor play on pupils' cognitive development in Mainland Local Council Area, Lagos State. Descriptive survey research design was used in the study. A self-designed questionnaire was used for data collection. A total number of 100 teachers were selected as sample size for this study, using convenience and stratified sampling techniques (ten (10) teachers from each school). Pearson Product Moment Correlation was used to test the hypothesis. The findings of the study revealed that there was a significant relationship between outdoor play and cognitive development of nursery school children. Also, that outdoor play enhances children ability to think positively; helps children to understand the world around them; and enhances communication skills of young children as it enhances children memory. The study concluded that outdoor play is very significant in the overall cognitive development of young children. Therefore, curriculum for early childhood education should include outdoor play activities in the country.

Keywords: Perception, Outdoor Play, Pupils, Cognitive development

INTRODUCTION

Early childhood educators often make the point that "children learn through play and even described play as combined activities that are freely chosen and directed by children and arise from self-interest. Play is anything that is spontaneously done for its own sake which appears purposeless but produces pleasure and joy and leads one to the next stage of mastery. Play helps in developing key cognitive functions such as working memory, self-regulation,

internal language and the ability to organize, focus, plan, strategize, prioritize, initiate and perform other skills that determine later success in life (Mahoo, 2000). In most cases, engaging in active play activities outside the confines of the house is more result-oriented because it allows children opportunities to explore the environment.

Outdoor play is seen as a crucial and valuable experience for all children. It is not an optional extra, but an

essential component of a child's everyday life and environment. Play time is when children have the opportunity to engage with their immediate environment, peers and manipulate objects and materials around them. Outdoor play is moving away from the confines of the classroom to an open space. To many, the school playground is viewed as simply a space for physical play to run off extra energy during recess time, Whitebread (2017) credited this thinking to 19th century psychologist, Herbert Spencer, who espoused the 'Surplus Energy Theory'. However, outdoor play is an important part of each day's learning activities and is expected to be an integral part of the early childhood education curriculum. There is converging evidence (Oyundoyin and Adeleke, 2012) that repeated exposure to high quality, unstructured outdoor play opportunities have a positive impact on social and cognitive development of school children of any age. Quality outdoor play can present difficulties for parents and educators who may be used to high levels of supervision and instruction. Oyundoyin and Adeleke, (2010) discovered that play-oriented physical exercise can even serve as a therapy for children with disability. Their study on the use of physical exercise in reducing hyperactivity among children with severe mental retardation revealed that play-

oriented physical activities has great therapeutic effects in reducing hyperactivity among children and it equally makes children become more alert.

Play involves a free choice activity that is non-literal, self-motivated, enjoyable and process oriented. Critical to this definition is the non-literal, non-realistic aspect, this means external aspects of time, use of materials, the environment, rules of the play activity, and roles of the participants are all made up by the participating children. They are based on the child's sense of reality. According to Mahoo, (2000), children do not play for a reward-praise, money, or food but they play because they like it. The natural environment has conventionally been a site for play and physical activities for many children. Nowadays, however, modern societies seem to have neglected the value of such environments for the development of children. Children now spend far more time being taught and tested on literacy and math skills than they do learning through play and exploration, exercising their bodies, and using their imaginations. In young children's lives, playing and moving are very important and they associate with one another. Allowing the children to experience the natural and man-made elements in their

living environments would generate cognitive, social, and physical skills developments.

Outdoor environments in play stimulate all aspects of children's development more readily than indoor environments. More so, children who play in nature have more positive feelings about each other (Ooghenun, 2016). Child development refers to the sequence of physical, language, thought and emotional changes that occur in a child from birth to the beginning of adulthood. During this process a child progresses from dependency on their parents/guardians to increasing independence. Child development is strongly influenced by genetic factors (genes passed on from their parents) and events during prenatal life. It is also influenced by environmental facts and the child's learning capacity. Child development covers the full scope of skills that a child masters over their life span including development in cognition which is the ability to learn and solve problem. Others are social interaction and emotional regulation which involves interacting with others and mastering self-control, speech and language is the understanding and using language, reading and communicating. It equally includes physical skills for fine motor (finger) skills and gross motor (whole body)

skills as well as sensory awareness, the registration of sensory information for use. In the process of a child's development, the child is expected to begin formal education. The child is then enrolled into pre-school for early childhood education.

According to Oyundoyin and Adeleke, (2012), outdoor activities involve various out-of-door activities. It could be described as goal-oriented activities and opportunities programmed to facilitate interaction with the physical environment. Age appropriate activities that are evident in outdoor play for children provide exposure to a range of opportunities that may become lifelong habits, promoting physical and psychological health, facilitating skill development and enhancing perceptions of community membership (Mahoo, 2000). Outdoor play activities and interaction help to establish healthy communication, understanding and forming relationships. Rolston (1988) emphasised that outdoor activities in a physical and social settings may meet the needs of self-sufficiency, physical health, the building of social ties (including team-building), risk-taking and the need of achievement (such as practicing, enhancing and challenging skills, testing stamina and endurance, and seeking adventure or excitement).

Indeed, children learn best when they can act on the environment and construct knowledge themselves. Play helps children weave together all the elements of life as they experience it. Activity time for play can provide an effective learning experience for children. Children learn to communicate and to think during play, through play they face problems and see different ways of doing something to solve the problems. Children will express themselves more naturally, easily, spontaneously. Research shows that play activities help to develop the brain by stimulating it through formation of nerve cells. Play allows children to be creative while developing their imaginations and it is important to healthy brain development. It is through play that children engage and interact with the world around them and sustain attention during play (Gutstein & Sheely, 2002).

Development and learning are complex and holistic, and yet skills across all developmental domains can be encouraged through play, including motor, cognitive and social and emotional skills. Play sets the foundation for the development of critical social and emotional knowledge and skills. Through play, children learn to forge connections with others and to share, negotiate and resolve conflicts, as well as learn

self-advocacy skills. Play also teaches children leadership as well as group skills. Children acquire knowledge through playful interaction with objects and people (Okoghenun, 2016).

Early childhood education is a starting point for a child's development and the key foundation of the Nigerian Educational System. This type of education is recognized by the Nigeria National Policy on Education (FRN 2014). In the National Policy, provisions were made stating the objectives and guidelines taken by the government to achieve and meet early childhood education goals. This policy encourages and endorses private participation in the provision of pre-primary education. Pre-primary education is the education given to younger learners before the age of entering primary education (6 years). Early childhood education or pre-primary education is defined by the National Policy on Education (FRN, 2012) as education given educational settings for children aged 3 through 5 years in preparing their entry into primary school. It includes the crèche, the nursery and the kindergarten. However, effective use of play for young children in schools depends solely on teachers. According to Adeleke and Manuel, (2019), a teacher is highly essential in

maximizing learning and only through good teacher can quality of education be enhanced.

Statement of the Problem

The current over-emphasis on reading and writing skills development for children in nursery school level has made teaching activities for young children more classroom-indoor oriented. More time is spent in the classroom by children as against more time to be spent in outdoor activities. Many schools today in Lagos state do not observe outdoor play (Okoghenun, 2016), as teachers see the play time as an opportunity for the children to finish up with assigned activity in order to meet their expectations. Okoghenun, (2016) further discovered that teachers do not perceive play to be an important aspect of children's cognitive development. Facilities for play are not sufficient in preschools. The playgroup not well equipped and organized for preschoolers. Safety measures are not in place to guide children during outdoor play (Okoghenun, 2016). All these have denied young children to explore their environment through outdoor play activities, thereby denying them opportunities to learning in more natural way as required by their life stage. Outdoor play has been viewed as essential in teaching young children because they learn best and

are able to construct their knowledge when they are close to nature and given the opportunity to explore the environment. It is therefore against the aforementioned that the study examined the perception of teachers on the influence of outdoor play on children's cognitive development.

Objectives of the Study

This study was carried out to achieve the following objectives.

1. To examine the influence of outdoor play on children ability to think.
2. To determine whether outdoor play helps children to understand things and the world around them.
3. To determine how outdoor play enhance children communication skills.
4. To determine the role of outdoor play on the ability of young children to recall leaned materials.
5. To examine investigate the influence of outdoor play on children ability to work independently.
6. To ascertain the impact of outdoor play on children's problem solving skills.
7. To examine the impact of outdoor play on the ability of children to imagine and be proactive.

Research Questions

1. What are the perceived effects of outdoor play on children's ability to think?
2. What is the perception of teachers on the impact of outdoor play on the ability of children to understand things and the world around them?
3. What are the perceived effects of outdoor play on the communication skills of children?
4. What are the perceived effects of outdoor play in the ability of children to recall things?
5. What are the perceived effects of outdoor play on the ability of children to work independently?
6. What are the perceived effects of outdoor on the problem solving skills of young children?
7. What are the perceived effects of play on children's ability to imagine and be proactive?

Research Hypothesis

1. There is no significant relationship between outdoor play and cognitive development of nursery school children.

METHODOLOGY

Research Design

Descriptive survey method was adopted for this research work. Descriptive research design enables researcher to collect and describe data in systematic ways (Nworgu, 2005).

Participants

Population for this study includes all preschooler teachers at the private nursery schools within Mainland Local Government area, Lagos state. Total of 100 teachers were selected using stratified random sampling technique. The sample was drawn from all preschool teachers at the private nursery schools within Mainland Local Government Area, Lagos state.

Research Instrument

A validated self-structured questionnaire was used for data collection. The instrument is in two sections: Section A seeks the demographical information and Section B contains information on the perception of teacher on the subject area. The instrument contained 25 question items to elicit response from the teachers of preschoolers' children. The instrument was rated from Strongly Agreed (SA-4), Agreed (A-3), Disagree (D-2) and Strongly Disagree (SD-1) respectfully.

Data Analysis

Both descriptive and inferential statistical tools were used in analysing data for this study. Descriptive statistical tools include frequency and percentage for research questions, while Pearson product moment correlation coefficient was used to test the

hypothesis at .05 level of significance.

Research Question 1: What are the perceived effects of outdoor play on children's ability to think?

RESULTS

Table 1: Perceptions of Preschool Teachers on Effects of Outdoor Play on Children's Ability to Think

S/N	Statements	SA (%)	A (%)	D (%)	SD (%)	Total
1.	Children are capable of great cognitive skills with great thought when exposed to outdoor play.	50 (53.8)	28 (30.1)	5 (5.4)	10 (10.7)	93 (100)
2.	Children who are exposed to outdoor play are more willing to learn than those who are not.	37 (39.8)	40 (43)	12 (12.9)	4 (4.3)	93 (100)
3.	Whether a child is exposed to outdoor play or not, the child will still do well academically.	13 (14)	19 (20.4)	34 (36.6)	27 (29)	93 (100)
4.	Outdoor play is very important within the whole of children's education.	51(54.8)	42 (45.2)	-	-	93 (100)

Table 1 shows that 50 (53.8%) of the respondents strongly agreed and 28 (30.1%) agreed that children are capable of great cognitive skills with great thought when exposed to outdoor play. Also, 37 (39.8%) of the respondents strongly agreed and 40 (43%) agreed that children who are exposed to outdoor play are more willing to learn than those who are not. However, 34 (36.6%) of the respondents disagreed and 27 (29%) strongly disagreed with the assertion. Furthermore, 51 (54.8%) of the

respondents strongly agreed and 42 (45.2%) of them agreed that outdoor play is very important within the whole of children's education. From the data in Table 1, it can be concluded that outdoor play affects children's ability to think positively.

Research Question 2: What is the perception of teachers on the impact of outdoor play on the ability of children to understand things and the world around them?

Table 2: Preschool Teacher's Perception on Effect of Outdoor Play on Children Ability to Understand Things and the World Around Them

S/N	Statements	SA (%)	A (%)	D (%)	SD(%)	Total
5.	Outdoor play is effective in increasing the understanding of children.	35(37.6)	52 (56)	6 (6.4)	-	93 (100)
6.	Outdoor play keeps children alert and attentive.	29(31.2)	41(44.1)	13 (14)	10 (10.8)	93 (100)
7.	Outdoor play enables children to learn difficult things.	34(36.5)	40 (43)	13 (14)	6 (6.5)	93 (100)

Result from table 2 revealed that 35 (37.6%) respondents strongly agreed and 52 (56%) agreed that outdoor play is effective in increasing the understanding of children. Also, 29 (31.2%) of the respondents strongly agreed and 41 (44.1%) agreed that outdoor play keeps children alert and attentive. Furthermore, 34 (36.5%) of the respondents strongly agreed and

40 (43%) agreed that outdoor play enables children to learn difficult things. From the data in Table 2, it can be concluded that outdoor play helps children to understand things and the world around them.

Research Question 3: What are the perceived effects of outdoor play on the communication skills of children?

Table 3: Preschool Teacher's Perception on Effects of Outdoor Play on the Communication Skills of Children

S/N	Statements	SA (%)	A (%)	D (%)	SD (%)	Total
8.	Exposing children to outdoor play enhance their speech development.	50(53.8)	43(46.2)	-	-	93 (100)
9.	Outdoor play creates effective communication among the children.	31(33.3)	58 (62.4)	4 (4.3)	-	93 (100)
10.	Children interact with each other through outdoor play.	33(35.5)	60 (64.4)	-	-	93 (100)
11.	Children who are exposed to outdoor play socialize better than those who are not.	35(37.6)	52 (56)	4 (4.3)	2 (2.1)	93 (100)

Table 3 shows that 50 (53.8%) of the respondents strongly agreed and 43 (46.2%) agreed that exposing children to outdoor play enhance their

speech development. Also, 31 (33.3%) of the respondents strongly agreed and 58 (62.4%) of them agreed that outdoor play creates effective

communication among the children. It was also noted that 33 (35.3%) of the respondents strongly agreed and 60 (64.4%) agreed that children interact with each other through outdoor play. Furthermore, 35 (37.6%) of the respondents strongly agreed and 52 (56%) agreed that children who are exposed to outdoor

play socialize better than those who are not. From the data in table 3, it was evident that outdoor play enhances the communication skills of children.

Research Question 4: What are the perceived effects of outdoor play in the ability of children to recall things?

Table 4: Preschool teacher’s Perception on Effects of Outdoor Play on Children to Recall Things

S/N	Statements	SA (%)	A (%)	D (%)	SD (%)	Total
12.	Outdoor play helps children to retain learning permanently.	50(53.8)	28(30.1)	10(10.7)	5 (5.4)	93 (100)
13.	Outdoor play provides direct experience to the children.	31(33.3)	54 (58.1)	5(5.4)	3 (3.2)	93 (100)
14.	Outdoor play helps children to recall and remember things easily.	33(35.5)	45 (48.4)	9(9.7)	6 (6.5)	93 (100)

Table 4 shows that 50 (53.8%) of the respondents strongly agreed and 28 (30.1%) agreed that outdoor play helps children to retain learning permanently. Furthermore, 31 (33.3%) of the respondents strongly agreed and 54 (58.1%) of them agreed that outdoor play provides direct experience to the children. Also 33 (35.3%) of the respondents strongly agreed and 45 (48.4%) agreed that

outdoor play helps children to recall and remember things easily. From the data in Table 4, it was evident that outdoor play enables children to recall things.

Research Question 5: What are the perceived effects of outdoor play on the ability of children to work independently?

Table 5: Perceptions of Preschool Teachers on the Effects of Outdoor Play on the Ability of Children to Work Independently

S/N	Statements	SA (%)	A (%)	D (%)	SD (%)	Total
15.	Outdoor play helps children to work independently.	28 (30.1)	50 (53.8)	10 (10.7)	5 (5.4)	93 (100)
16	Outdoor play provides an opportunity for children to be creative.	34(36.5)	40 (43)	13 (14)	6 (6.5)	93 (100)
17.	Children who are exposed to outdoor play adapt to school life more easily than others.	35(37.6)	52 (56)	4 (4.3)	2 (2.1)	93 (100)
18.	Outdoor play is a major factor that helps the children to develop positive self-concept.	37 (39.8)	40 (43)	12 (12.9)	4 (4.3)	93 (100)

Table 5 shows that 28 (30.1%) of the respondents strongly agreed and 50 (53.8%) agreed that outdoor play helps children to work independently. Also, 34 (36.5%) of the respondents strongly agreed and 40 (43%) agreed that outdoor play provides an opportunity for children to be creative. It was also noted that, 35 (37.6%) of the respondents strongly agreed and 52 (56%) agreed that children who are exposed to outdoor play adapt to school life more easily

than others. Furthermore, 37 (39.8%) of the respondents strongly agreed and 40 (43%) of them agreed that outdoor play is a major factor that helps the children to develop positive self-concept. From the data in Table 5, it can be concluded that outdoor play helps children to work independently.

Research Question 6: What are the perceived effects of outdoor on the problem solving skills of young children?

Table 6: Perceptions of Preschool Teachers on the Effect of Outdoor Play on Children Development of Problem Solving Skills

S/N	Statements	SA (%)	A (%)	D (%)	SD (%)	Total
19.	Outdoor play creates an environment of interest for the children.	42 (45.2)	51(54.8)	-	-	93 (100)
20.	Outdoor play is a convenient way to overcome fear related to verbal difficulties.	35(37.6)	52 (56)	6 (6.4)	-	93 (100)
21.	Outdoor play provides an opportunity to express feelings and emotions.	28 (30.1)	50 (53.8)	10 (10.7)	5 (5.4)	93 (100)

Table 6 shows that 42 (45.2%) of the respondents strongly agreed and 51 (54.8%) agreed that outdoor play creates an environment of interest for the children. Also, 35 (37.6%) of the respondents strongly agreed and 52 (56%) agreed that outdoor play is a convenient way to overcome fear related to verbal. It was also noted that 28 (30.1%) of the respondents strongly agreed and 50 (53.8%)

agreed that outdoor play provides an opportunity to express feelings and emotions. From the data in Table 6, it can be concluded that outdoor play enables children develop problem solving skills.

Research Question 7: What are the perceived effects of play on children's ability to imagine and be proactive?

Table 7: Perceptions of Preschool Teachers on the Effects of Play on Children's Ability to Imagine and be Proactive

S/N	Statements	SA (%)	A (%)	D (%)	SD (%)	Total
22.	Outdoor play encourages children to participate fully during teaching and learning process.	37 (39.8)	40 (43)	12 (12.9)	4 (4.3)	93 (100)
23.	Outdoor play provides an opportunity for children to use their imagination.	29(31.2)	41(44.1)	13 (14)	10 10.8)	93 (100)
24.	Outdoor play provides complete example for conceptual thinking.	35(37.6)	52 (56)	4 (4.3)	2 (2.1)	93 (100)
25.	Without play, children would not learn anything meaningful in school.	34 (36.6)	27 (29)	19 (20.4)	13 (14)	93 (100)

Table 7 shows that 37 (39.8%) of the respondents strongly agreed and 40 (43%) agreed that outdoor play encourages children to participate fully during teaching and learning process. Also, 29 (31.2%) of the respondents strongly agreed and 41 (44.1%) agreed that outdoor play provides an opportunity for children to use their imagination while 13 (14%) of the respondents disagreed

and 10 (10.8%) strongly disagreed with the view. It was also noted that 35 (37.6%) of the respondents strongly agreed and 52 (56%) agreed that outdoor play provides complete example for conceptual thinking. Furthermore, 34 (36.6%) of the respondents strongly agreed and 27 (29%) of them agreed that without play, children would not learn anything meaningful in school. From

the data in Table 7, it can be concluded that outdoor play enhances children’s ability to imagine and be proactive.

Testing of Hypothesis

Hypothesis One: This hypothesis in the null form states that there is no significant relationship between outdoor play and cognitive development of nursery school children.

Table 12: Relationship between Outdoor Play and Cognitive Development of Nursery School Children

Variables	N	Mean	SD	Df	r-cal.	r-tab
Outdoor play	93	18.39	3.86	91	0.67	0.21
Cognitive Development		15.83	3.12			

$p= 0.000 < 0.05$

From the analysis presented in Table 12, the r-calculated (r-cal=0.67) is significantly higher than the r-critical (r-crit=0.21) given 91 degree of freedom at 0.05 level of significance. As a result of the above interpretation, the null hypothesis which states that there will be no significant relationship between outdoor play and cognitive development of nursery school children was rejected while the researcher upheld the alternative hypothesis that states that there is a significant relationship between outdoor play and cognitive development of nursery school children.

DISCUSSION

From the findings of this study, it was established that teachers perceived that outdoor play affects children’s ability to think positively. Outdoor

play enhances the communication skills of children. Outdoor play helps children to understand things and the world around them. Outdoor play enables children to recall things. Outdoor play helps children to work independently. Outdoor play enables children develop problem solving skills. Outdoor play enhances children’s ability to imagine and be proactive.

The major findings from the main objective of the study showed that there is a significant relationship between outdoor play and cognitive development of nursery school children. The deduction from this finding is that play enhances the cognitive development of children. Several researchers had backed this assertion that play is an integral part of child development and that no

child should be denied the right to play. This finding established if children are allowed to experience the natural and man-made elements such as outdoor play in their living environments it would generate cognitive, social, and physical skills developments. These findings support the position of Oyundoyin and Adeleke, (2012) who established that outdoor activities have multi-purpose effects in human life. Their study investigated outdoor activities as a therapy in enhancing social competence among children with autism disorder and it was concluded that outdoor activities have significant positive effects in enhancing social competence among children with autism. The result also supports the position of Fjortoft and Sageie (2000) who stated that natural elements in the environment including provides uncountable opportunities for toddlers to develop their motor skills, such as coordination, balance and agility as well as protect children from childhood obesity.

There is a significant relationship between teachers' perception and outdoor play. This finding indicates that teachers see the play time as an opportunity for the children to finish up with assigned activity in order to meet their expectations. There is need for teachers to begin to see the

positive roles outdoor activities play in the cognitive development of children and this will give about better perspective and understanding of the need for outdoor play in children education plans. This finding also supports Griives (2015) who reported that several teachers agreed that through outdoor play, children reveal behaviours which reflect their inner needs; and deep intellectual processes. Interpreting these behaviours enables teachers to gain a full picture of the whole child'. For example, one teacher stated that a child's behaviour can tell her 'things which have been going on at home' or 'if they are frightened of something'. From another perspective, Ladd and Coleman (2013) stated that assessment potentially has a diagnostic function, although from teachers' accounts this is not specified in any detail. According to Ladd and Coleman (2013), a teacher described a usually quiet and passive child as becoming dominant and much more vocal in imaginative role play. Indeed, several teachers asserted that children behave 'more naturally' in their play and displayed greater language competence. This enables them to assess a child's language ability in play far more accurately than in a formal situation.

Outdoor play that gives children opportunities to explore their

environments is important in children education because it provides children with opportunities to get to know themselves and their environment through their senses. It improves children's skills for sharing their knowledge, expressing their feelings and making their own decisions without asking for help, which make learning more permanent. Outdoor play also offers learning environments for experiments, discoveries and research. Children learn freely and have fun in a healthy environment, incorporating nature and stimulating all the senses. Using learning material without any teacher restrictions can increase creativity and understanding in preschool children. Children discover themselves and their abilities while playing freely. Linguistic abilities, cognitive skills including inference, planning, observation, recognition and decision making and motor skills including coordination, endurance and balance become better as a result of interactions with nature. In addition, antisocial behaviours decrease and cooperation, solidarity, agreement and conflict solving skills are enhanced (Burdette & Whitaker, 2005). Outdoor play should be made compulsory in the day-to-day learning activities for children. Teachers should de-emphasise the academic activities that keep children

indoor perpetually and make children more active through out-of-door-play activities.

CONCLUSION

This study revealed the importance of outdoor play to the overall development of human beings generally. Physical and mental development of children is very important and this study has shown that children can benefit immensely from outdoor activities.

RECOMMENDATIONS

Play is established as a viable and most important tool in the development of children holistically. Therefore, outdoor play must be made an integral part of education curriculum for young children. Emphasis must be placed on play method as part of the pre-service training course for intending teachers in all teacher-training higher education institutions. Safe and secured environment must be put in place in all early childhood education schools.

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DELIVERING CIVIC EDUCATION CURRICULUM: A PANACEA FOR CONTEMPORARY CHALLENGES IN NIGERIA

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ABSTRACT

Peace and national unity would be achieved when citizens understand societal problems and have the skills to resolve conflicts constructively, live by national standards for justice and equality and appreciate peoples' diversity in a heterogeneous country like Nigeria. Nigeria is confronted with several problems which various formal and informal citizenship advocacy programmes have been unable to resolve due to implementation gaps. These failures led to the severing of citizenship issues from social studies to form a new subject called civic education and applied as a core subject at all levels of secondary education in Nigeria. This paper employed a systematic documents analysis of existing data in discussing implementation of Civic Education Curriculum (CEC) for the attainment of peace and national unity in Nigeria. Specifically, the paper explores the concept of civic education, civic education as a school subject and the implementation of the CEC components in relation to peace and national unity. Similarly, the paper discusses the implementation strategies including resources and personnel as well as the pedagogical skills to teach the subject and the evident implementation lapses. Finally, in consideration of the urgent need for Peace and national unity in Nigeria, the paper proffered some suggestions and highlighted strategies that may be useful to the successful implementation of the CEC by all stake holders towards the attainment of sustainable peace and unity in Nigeria.

Keywords: Civic education, Curriculum, Peace, National unity, Nigeria

INTRODUCTION

Since independence Nigeria has been unable to achieve sustainable nation building and development. This is due to issues such as ethnic polarization, long years of military rule and low levels of civic dispositions among other factors

(Idowu, 2015). The state of peace and National unity in Nigeria remains a pre-occupying phenomenon to the rest of the world. Nigeria has gone through different forms of crises since independence in 1960 which signifies that the country has a long way to go in achieving peace. In the rural and

urban areas, the country has experienced intermittent conflicts arising, in the case of the former, out of the struggle over grazing lands amongst neighboring communities whose life is based on livestock rearing. In the latter case, urban violence has become a permanent feature in most of the major urban areas, notably Lagos, Kano, Enugu, Kaduna, Abia and many others between Nigerians of different ethnic groups, religion and regional affiliations. Nigeria at different times also experienced pre-election and Post-election violence that was responsible for the deaths of many active citizens. The effects of all this violence are enormous. Including many lost their lives; many other people were forced to flee from their homes. The affected persons also suffered from food shortage, displaced persons were traumatized and Schools were closed.

Nigeria faces various citizenship challenges involving youths' apathy towards civic activities like voting in elections; moral deficit due to anti-social behaviours and inadequate interest in political engagement which could result in the failure of democracy (Hébert & Sears 2001; Bennett 2008; Osler & Starkey 2003). The Nigerian context revealed state concern for the youths who require serious transformation to become

effective citizens. This overwhelming citizenship trend required introducing a particular school subject by which learners could develop traits of effective citizenship.

Thus, Nigeria needs human societies to move from violent and destructive patterns towards developing the potential for creative, constructive and non-violent capacities to deal with her current social and political issues. This is achievable if the government can embrace the role of civic education as a strategy for achieving a desired peace and national unity in Nigeria. In Nigeria, education is seen as the pivot of any meaningful development, be it social, economic, technological and political (Ezekwesili, 2006). Evidently, it is perceived not only as an instrument for accelerated national development but also the basis for the "Integration of individuals into sound and effective citizens" (Federal Republic of Nigeria 2013: p7).

The role of education in promoting civic competence seems to have been adequately reflected in relevant literature. It has been argued that any school subject in the educational system is capable of educating for citizenship depending on how it is taught (Odoh, 2000). However, other schools of thought believe that certain school subjects by virtue of their

philosophy, nature, contents and methodological insights or approaches are better strategically positioned to provide effective citizenship education (Osho, 2002, Obebe, 2005). Civic Education is one of such subjects. Therefore, this paper reviews some documents so as to discuss implementation of civic education for effective citizenship, peace and national unity in Nigeria.

Concept of Civic Education

Civic Education, initially known as 'civics' originated from 'civic' and 'civitas' meaning 'a citizen' and 'city-state'. It is an altruistic and moralistic term which initiates discussions of citizenship (socio-political) issues within the public (polis) domains of the state. From the classical Greek period it was a tool to inculcate socio-political culture by infusing loyalty to collective interests and participation in state matters as hallmarks of effective citizenship (Morris, 1997; Gleiber, 2003; Po, 2004). Traditionally, civic education is used to provide insights into political traditions, principles, institutions and engaging in the political system of the state. Also, it has been used to construct and impart knowledge and skills regarding rights and obligations in order to participate in the public life of the society (Branson, 1998; Lewis, 2007; Aroge, 2012). It is an organised body of

knowledge involving individuals and group membership's rights and duties, linked with citizenship of a state (Shah, et al, 2002; Gold cited in Meron, 2006; Gelaneh, 2012). Overall, civic education depicts the link which young learners should have with the current political system of the state.

Civic Education as a School Subject in Nigeria

As portrayed in the civic curriculum objectives, Nigerian government indented using the subject as a tool to develop knowledge and skills regarding voting, governmental roles, citizens' rights, duties, values, ecological activism, community services and social networking for future citizenship engagement. Yet, the lack of extracurricular programmes could hinder the required experiential learning while in school (NERDC, 2013; Miles, 2006; Falade, 2007; Lopez et al., 2006; Ogunyemi, 2005, 2011). Currently, the objectives of Civic Education in Nigeria include:

- a) Acquiring and learning to use the skill, dispositions, knowledge and values which prepare learners to be competent and responsible citizens throughout their lives;
- b) Attaining the Millennium Development Goals and the need to implement the critical element

- of National Economic Empowerment and Development Strategies;
- c) Creating awareness on the provisions of the Nigerian constitution and the need for democracy;
 - d) Creating adequate and functional political literates among Nigerians;
 - e) Sensitizing Nigerians on the functions and obligations of government;
 - f) Inculcating in the child the spirit of self-discipline, hard work, cooperation and respect for authority;
 - g) Promoting the understanding of the inter-relationship between man/woman, the government and the society;
 - h) Highlighting the structure of government, its functions and the responsibilities of government to the people and vice-versa;
 - i) Enhancing the teaching and learning of emerging issues;
 - j) Inculcating in students their duties and obligations to society (NERDC, 2013).

Civic Education Curriculum Content

The civic education curriculum content contains issues germane to developing effective citizenship as indicated in the National curriculum for Junior and Senior Secondary

School. The content covers ten themes involving: (i) Values; (ii) Citizenship; (iii) National consciousness and national unity; (iv) Human rights and rule of law; (v) Representative democracy; (vi) Duties and obligations of citizens; (vii) Nigerian constitution; (viii) Social issues; (ix) Peace and conflict resolutions; and (x) National economic life (NERDC, 2013).

The above content is a multi and inter disciplinary, learner-centred, interactive, activity/issues-based curriculum. Young learners are to be exposed to total learning experiences which reflect depth, appropriateness, and inter-relatedness of knowledge. Citizenship issues are presented in logical and sequential order of themes which ensures continuity of citizenship issues. Moreover, the curriculum shows flexibility by enabling the civic teacher to introduce creativity and adaptability into the civic education content.

Effective Citizenship

Effective citizenship is the degree of knowledge, dispositions and skills developed by learners to engage in diverse citizenship activities at local, national and global levels. It involves learning and demonstrating diverse citizenship traits through actual participation in ecological activism, community service and showing

interest in state activities (Andrews et al, 2008; Okeahialam, 2013). A broader view of effective citizenship involves mediating learners' knowledge, ability and dispositions to participate constructively within a multicultural milieu in order to confront personal and collective problems inter alia, in that setting (Reimers, 2006). Effective citizenship can be seen as learners' conceptions of how to improve quality of life, through involvement in formal and informal activities with the overall goal of contributing to Nigeria's citizenship growth.

Civic Education Curriculum (CEC) Implementation in Nigeria

Nigerian studies agreed that civic education curriculum (CEC) programme implementation, as in other developing democracies, is a major issue. Most curricula implementation has been mere declamatory without actual impact on the school, young learners and society. This is due to the lacuna between policy intents/objectives and actual classroom implementations due to bureaucratic barriers affecting our overall development (Obanya 2007; Ejere, 2011; Bolaji, 2014).

Implementing civic curriculum documents within the school context involve classroom interactive activities. The civic teacher (as

facilitator) translates formally approved contents (a syllabus) into schemes of work and lessons notes to guide learners to construct knowledge and develop skills and dispositions (Chikumbi & Makamure 2000; Obanya, 2004; Garba, 2004; Onyeachu, 2008). The implementation process involves turning CEC objectives and content into practice through a process starting from the civic teacher designing the civic scheme of work, instructional materials, pedagogical methods and conducive classroom interactive setting and ending with learners acquiring and constructing (via the intended curriculum) concepts, skills, and dispositions aimed at effective participation in society. This makes civic learners the basic stakeholders in the civic curriculum implementation process. However, effective implementation of CEC should shift from the intended to learned curriculum when civic learners reflect traits of effective citizenship (Okebukola, 2004; Ivowi, 2004; Obanya, 2007).

Finally, the general policy implementation issues *pari-pasu* (side by side) with the classroom implementation process discussed above justified exploring the translation of civic curriculum as a school subject into classroom/school actualisation.

The Need of Civic Education for Peace and National Unity in Nigeria

The aims of teaching civic in schools among other things are to develop and transform Nigerian youths into effective and responsible citizens. Citizens who are law abiding and knowledgeable in institutions of governance and democratic processes (Centre for civic education, 1991). It is also envisaged that civic education will help young people to develop a sense of loyalty, honesty, discipline, courage, patriotism which are the essential requirements for effective and functional citizenship in a democratic setting (NCSS, 1994). These aforementioned goals, vividly reflect the essential components of civic education namely civic knowledge, civic skills and civic disposition (Centre for civic education, 1994).

Civic knowledge is concerned with the subject matter of what citizens ought to know about civil life, politics and by implication the roles of citizens in a democracy. Civic skills include intellectual and participatory skills of critical thinking and other related ones involving identifying, describing, analysing and evaluating which are essential for an informed responsible citizen. Civic dispositions on the other hand, are traits which are developed overtime as a result of

learning and experiences at home, schools, community, organizations and civil society. These promote certain democratic values such as moral responsibility, self-discipline, respect for human dignity, civility and rule of law (Centre for Civic Education, 1994).

Nigeria also needs Civic Education to correct her societal ills. Events of the recent past have shown that Nigeria is on the brink of losing its much cherished sense of nationhood, cultural identity and indeed, hospitable spirit. The prevalent trend of corruption, indiscipline, disrespect for both elders and the rule of law, non-commitment to duty are some of the manifestations of negative values in the Nigerian Society. These call for urgent value reorientation because of their far reaching impact on national development.

Furthermore, the need for Civic Education in Nigeria is fundamental because it teaches the right attitudes to students and pupils. Laziness, truancy, keeping bad company, drug abuse, bribery, and so forth, should be discouraged, while hard work, truth, integrity, loyalty should be encouraged. Citizens should do away with bad behaviours such as: indecent dressing, cheating in examinations, stealing, bullying others, and the likes (Oyelami et al., 2011).

In addition, and more importantly, Civic Education has the objective of exposing students and the general public to various ways of achieving community and national development, such as right values, religious tolerance, rights and duties of citizens, among other things. All these will enhance the capacity of an individual to contribute to community, national and global development (Olayemi et al., 2011).

CONCLUSION

Civic Education is geared towards helping Nigeria as a state to live in unity and harmony as one “indivisible, indissoluble, democratic and sovereign nation founded on the principles of justice, freedom and equality”. Thus, civic education if effectively taught can encourage the development of the individual into a sound and effective citizen as well as promote peace and National Unity in Nigeria. Suggested CEC and implementation strategies if fully implemented would pave way for the production of effective citizens capable of contributing to the attainment of peace and National unity in Nigeria.

RECOMMENDATIONS

To successfully translate civic education curriculum objectives into classroom implementation for the attainment of required peace and

National Unity in Nigeria, relevant stakeholders should ensure compliance to the following policy statements:

- a) The government should promote the training of Teachers and Administrators towards civic education and democratic interactions as the leading agenda of Teacher education programs.
- b) Policy-makers in the education sector should make sure that the problem of paucity of materials for teaching and learning of Civic Education is done away with. This will facilitate easy comprehension and speedy inculcation of Civic Knowledge in Nigerian citizens.
- c) The government should enhance the quality of education by expanding access to education, enrolment, and reduction in education wastage.
- d) The role of civic Education must be activated by the government, awareness strategies to be adopted and proper strategies for coordinating and collaborating all the initiators of civic education to be enhanced
- e) In-house courses, seminars and workshops should be organized from time to time by the Ministries of Education (Federal and States) for all teachers of Civic Education in order to give

- them quality training for the development of Civic Education.
- f) Voluntary organizations, religious and professional bodies should be encouraged to plan and organize leadership and Civic Education courses for youths, especially when they are on school vocation.
 - g) Parents should be encouraged to enable their children participate in Civic Education programmes even during holidays like the Boys Scout, Girls Brigade to mention only a few., this will go a long way in facilitating national development in the country.
 - h) Teaching and learning of Civic Education in the country should be extended to post-secondary levels and to cover people in all walks of life in order to achieve national development. Owing to this, we recommend that the National Orientation Agency (NOA) should handle the task of giving Civic Education to non-students.

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REFLECTIVE TEACHING STYLE AND EFFECTIVE CLASSROOM PRACTICES AMONG HISTORY TEACHERS IN PUBLIC AND PRIVATE SENIOR SECONDARY SCHOOLS IN LAGOS STATE, NIGERIA

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ABSTRACT

History teaching and learning required the application of right teaching style in order to stimulate students' interest in the subject, as well as allowing full participation of students during classroom encounter. The study assessed History teachers' reflective teaching style in relation to their effective classroom practices in Senior Secondary Schools in Lagos State. The study adopted descriptive research design using quantitative method of analysis. The sample comprised three hundred and eighty-four participants in private and public schools in the six education districts in Lagos State. The research instrument used in the study was questionnaire. The data generated were analysed using frequency counts, simple percentage, mean and standard deviation to answer research questions while Pearson Product Moment Correlation statistical method was used to test research hypothesis. The findings revealed that reflective teaching can help history teachers improve their teaching style and classroom practices. Majority of the history teachers do not understand the essence and meaning of reflective teaching. History teachers do not expose students to the importance of history to the society which makes the students to find learning of history not interesting. Also, there was a significant relationship between teachers' knowledge, teaching style and classroom practices. The study concluded that reflective teaching style improved students' interest and performance in History. It was recommended that History teachers should improve their teaching style by using reflective teaching style to improve students' interest and performance in History.

Keywords: Reflective Teaching Style, History teachers, Classroom practices, and Education Districts

INTRODUCTION

In recent years, History teaching in Senior Secondary schools across Nigeria has been a great concern to the various stakeholders in education. Most schools today do not have

History as a subject on their school Time-table. There has been public outcry for the resuscitation and inclusion of history in secondary school curriculum for all students. It seems teachers of history and the few

history teachers available in schools today seem not to be bothered by the subject's low enrollment. The need for effective delivery requires sufficient amount of practical training to enable teachers function properly (Igwe et al., 2011). Reflective teaching is a self-assessment of teaching, wherein instructors examine their pedagogy, articulate reasons and strengths

for the strategies, and identify areas for revision or improvement. Reflective teaching involves examining both of one's underlying beliefs about teaching and learning and their alignment with actual classroom practice throughout a course and afterwards. Reflective teaching operates as an umbrella term denoting various techniques, including teaching inventories and observation protocols, self-assessments, and consideration of student evaluations. When teaching reflectively, teachers think critically about their teaching and problem-solving to address recurring issues, rather than relying on unchanging, established personal norms (Pollard, et al., 2014). This critical analysis can draw on a variety of sources as Brookfield (2017) lays out four crucial sources, including "students' eyes, colleagues' perceptions, personal experience, and theory and research." Instructors can use various

tools and approaches to learn from these sources and reflect upon their teaching, ranging from low-key to formal and personal to inter-collegial. A genuinely reflective teacher becomes sensitive and responsive to the needs, issues, and concerns that are important in shaping a quality education.

The worth and potentialities of a country get evaluated in and through the work of the teacher. The performance of a student in any examination either external or internal was a function of many factors: school, home, teacher, learners, government etc., and it is the totality of everybody's contribution. Teachers are often the apparent scapegoat when a learner is underperforming because they are the visible faces of education. Teachers need to be determined to seek better ways of educating the learners in schools despite all other impediments (OECD, 2009). There should be ways the teachers can improve the educational process and thereby enhancing the students' learning experience. Instructional time is one of the most challenging constraints teachers face in trying to achieve curricular goals. Quality teachers need to know how to use class time effectively. Use of time can be optimised in the classroom by careful planning. There is a relationship

between the amount of time students are actively engaged in learning activities and their achievement (Mastropieri & Scruggs, 2000).

The ability of teachers to organise, manage, and spend quality portions of the allocated time for instruction may therefore affect the achievement of the students. Most teachers schedule and assign the appropriate amount of time for learning. Still, few teachers ensure that their students are engaged and actively occupied with activities geared towards the teaching of the subject during the allocated time.

History is a subject that students have expressed little or no interest in studying. It seems teachers also are losing interest in the teaching, coupled with poor performance in the school examinations and low enrolment for the subject in secondary schools. History has featured prominently in the school curriculum since the introduction of Western Education to Nigeria. The issue is indispensable in the Nigerian school curriculum due to its role in Africa and International Relation Studies. With the study of Africa and International Relation, history allows us to learn about events and activities that had taken place in the past centuries. It will enable us to compare the past with the present and for us to predict the future (Onwuka, 2007).

History teaching, by its nature, requires the teacher who is knowledgeable in the content area of the discipline and can facilitate learning to the student during classroom encounter. Today, the subject is not offered by all schools in Nigeria. Since only a few schools provide History in Nigeria, teachers who have degrees in history prefer to teach other subjects such as Government, Social Studies, and Civic Education. The shortage of history teachers who read history in the universities and colleges of education sometimes prefer to teach subjects outside their discipline (Onwuka, 2007). With the 1987 education reform introduction, history was incorporated into Social Studies at the primary school level and offered as an elective for General Art's students at the Senior Secondary School level (Cobbold & Oppong, 2010b). Students loose interests in the learning of history due to the teaching method which the teacher employs in teaching the subject and also as a result of the poor performance in the school examinations. The students are used to the traditional way of teaching in which the teacher come to the class, do the talking alone and write note on the chalkboard for the students to copy. Lot of times, students is not allowed to be part of the teaching-learning process in which they can relate what they are

learning in the classroom to issues happening around them in the country. The few history teachers teaching history in schools today teach the subject without letting the students know the essence of learning various history topics. The teachers' teaching history teaches the subject just like telling a story; hence the reason why most students do not take the subject serious in schools today. In most schools today, only few students' takes the teaching of history serious. Most students do not show interest in the learning of history; to some of the student, history is boring, there is a lengthy note to read and telling of stories by the teacher.

Objectives of the study

The broad objective of this study is to investigate reflective teaching style among history teachers in relation to their effective classroom practices in both public and private Senior Secondary Schools in Lagos State, Nigeria. Specifically, the objectives of the study are to:

1. examine whether history teachers' knowledge of reflective teaching style relates to their effective classroom practices in senior secondary school;
2. investigate classroom practices that improve history teachers' reflective teaching style in schools.

Research Questions

The following research questions are raised to guide the study:

1. To what extent history teachers' knowledge of reflective teaching style relates to their effective classroom practices in senior secondary schools?
2. What are the classroom practices that would improve history teachers' reflective teaching style in senior secondary schools?

Research Hypothesis

1. There is no significant relationship between history teachers' reflective teaching style and their classroom practices.

METHODOLOGY

Research Design

The study adopted descriptive survey design. The descriptive survey is used to elicit information from History teachers on reflective teaching style and effective classroom practices among history teachers in Public and Private Senior Secondary Schools, Lagos State, Nigeria. The researcher adopted the research design to obtain information that provided answers to the research questions raised in the study and also collected data from larger population among the participants. Descriptive surveys investigate phenomena in their natural setting. Calderon (2006),

defined descriptive research as a purposive process of gathering, analyzing, classifying, and tabulating data about prevailing conditions, practices, processes, trends, and cause-effect relationships and then making adequate and accurate interpretation about such data with or without or sometimes minimal aid of statistical methods. According to Burns and Bush (2010), almost all research projects are different, but they have enough similarities to categorise them by the methods and procedures used to collect and analyse data.

Participants

The population of the study comprised all History Teachers teaching in selected Public and Private Senior Secondary Schools in the six Education District of Lagos State. The sample size is three hundred and eighty-four (384) History Teachers. The entire population was adopted as the sample size because it is a census study. There are 391 public and 202 private senior secondary schools in the six educational districts in Lagos States. Out of the entire senior secondary schools only 384 history teachers are available in the six education districts in Lagos state, since it is not all schools that offer history as a subject. The entire history teachers were

sampled in order to gather enough data from all the participants.

Instrument

The instrument used in the study was designed by the researcher. The instruments designed for this study was History Teachers` Questionnaire on Reflective Teaching Style and Classroom Practices (HTQRTSCP). HTQRTSCP was designed by the researcher to elicit certain information from the participants. The questionnaire was divided into sections A and B. Section A was for the bio-data, while section B was for the items with a four point-likert scale of Strongly Agree, Agree, Disagree and Strongly Disagree. Items 1 – 4 on the questionnaire provided answers to research questions one, while items 5 - 8 on the questionnaire provided answers to research question two.

Validity of the Instrument

The researcher validated the instruments by having them reviewed by specialists in measurement and evaluation in the Faculty of Education, University of Lagos. These specialists ensure the correctness, the appropriateness and the scope of the instruments to ensure their face and content validity.

Reliability of the Instrument

The instruments designed for the study were administered personally to

participants. The data collected was analyzed using the Pearson Product Moment Correlation (PPMC) Coefficient to determine the reliability of the instrument. A test retest method was used to obtain the reliability using Pearson Product Moment Correlation statistic that yielded a correlation coefficient of $r=0.65$ during the pilot study and this shows the instruments were reliable and useable for the study.

Procedure for Data collection

The questionnaire for teachers was administered personally by the

researcher and research assistants. The completed questionnaires were collected directly by the researcher and the research assistants.

Data Analysis

The data generated was analysed using frequency counts, simple percentages, mean and standard deviation. It was used to describe the data obtained from the respondents. Pearson Product Moment Correlation (PPMC) Coefficient was used to test the research hypothesis.

RESULTS

Table 1: Characteristics of the Respondents

S/N	Variables Percentages (%)	Levels	Frequency	
1	Age:	31-36years	116	30.2
		37-42years	163	42.4
		43 years and above	105	27.3
2	Gender:	Male	168	43.8
		Female	216	56.2
4	Academic Qualification	NCE	92	24.0
		B.Ed.	176	45.8
		B.Sc./B.A.	48	12.5
		M.Ed.	45	11.7
		M.A	23	6.0
5	Years of Experience	01-05years	45	11.7
		06-10years	96	35.2

Table 1 showed that 116(30.2%) of the teachers teaching History in

Senior Secondary Schools were within the age bracket of 31-36years; 163(42.4%) were between the age

brackets of 37-42years; and 105(27.3%) were 43years above. This implies that majority of the History teachers contacted in the study were between the age brackets of 37-42years. With regard to gender, the male teachers of the selected Senior Secondary Schools were lower in number, than the female teachers (Male: N= 168, %=43.8; Female: N=216, %=56.2). With regard to the academic qualification of the selected History teachers in the Senior Secondary Schools, NCE holders were (N=92, %=23.96), B.Ed. holders were (N=176, %=45.8), B.Sc./B.A. holders were (N=48, %=12.5); M.Ed. holders were (N=45, %=11.7), M.A holders were (N=23, %=6.0). This implies that

majority of the History teachers contacted in the study had first degree certificates. For years of experience, teachers between 01-05years of experience were (N=45, %=11.7); teachers between 06-10 years of experience were (N=96, %=25.0); teachers between 11-15years of experience were (N=108, %=28.1) and teachers with 16years and above of experience were (N=135, %=35.2). This implies that majority of the History teachers contacted in the study had 16years and above of teaching experience.

Research Question 1: To what extent history teachers` knowledge of reflective teaching style relates to their effective classroom practices in senior secondary schools?

Table 2: History Teachers` Knowledge of Reflective Teaching Style Effective Classroom

S/N	Items	SA	A	D	SD	Total	Mean	Standard Deviation	Remarks
1	Most history teachers do not have knowledge of reflective teaching style	74 19.3%	142 37.0%	98 25.5%	70 18.2%	384 100%	2.57	1.00	Agreed
2	History teachers finds it difficult utilizing reflective teaching style for effective classroom practices	64 16.7%	134 34.9%	104 27.1%	82 21.4%	384 100%	2.47	1.01	Agreed
3	Reflective teaching style helps stimulate students interest in learning of history	96 25.0%	148 38.5%	96 25.0%	44 11.5%	384 100%	2.77	0.95	Agreed
4	Reflective teaching style helps History teachers in improving their teaching skill	108 28.1%	156 40.6%	86 22.4%	34 8.9%	384 100%	2.88	0.92	Agreed
Total/Average		343 22.3%	580 37.8%	384 25.2%	230 15.0%	1536 100%	2.67	0.97	Agreed

Table 2 showed that 56.3% of the respondents indicated that most history teachers do not have knowledge of reflective teaching style, while 43.7% of them disagreed. Also, 51.6% of the respondents

agreed to the assertion that history teachers find it difficult utilizing reflective teaching style for effective classroom practices, while 48.4% of them disagreed. It was the opinions of 63.5% of the respondents that

reflective teaching style helps stimulate students' interest in learning of history, while 36.5% of them disagreed with this assertion. 68.7% of the respondents agreed that reflective teaching style helps History teachers in improving their teaching

skill while (31.3%) of them disagreed with this notion.

Research Question 2: What are the classroom practices that would improve history teachers' reflective teaching style in senior secondary schools?

Table 3: Classroom Practices Improvement in Relation to History Teachers' Reflective Teaching Style

S/N	Items	SA	A	D	SD	Total	Mean	S.D	Remarks
5	There should be teacher and students interaction while teaching history	104 27.1%	134 34.9%	88 22.9%	58 15.1%	384 100%	2.74	1.02	Agreed
6	Students should be allowed to share their own experience as the teacher is teaching them	94 24.5%	120 31.3%	104 27.1%	66 17.2%	384 100%	2.63	1.03	Agreed
7	History teachers should encourage students to behave well in class while teaching is going on	116 30.2%	178 46.4%	64 16.7%	26 6.8%	384 100%	3.00	0.86	Agreed
8	History teachers should encourage students active participation in the teaching and learning of history	112 29.2%	174 45.3%	66 17.2%	32 8.3%	384 100%	2.95	0.89	Agreed
Average							2.83	0.95	Agreed

The result in Table 3 revealed that 62.0% of the respondents agreed that there should be teacher and students' interaction while teaching history, while 38.0% of them disagreed. Also, 55.7% of the respondents indicated that students should be allowed to share their own experience as the teacher is teaching them, while 44.3% of them disagreed. On the issue of whether history teachers should encourage students to behave well in class while teaching is going on, 76.6% of the respondents agreed and 23.4% of them disagreed to the facts.

Equally, 74.5% of the respondents agreed that history teachers should encourage students' active participation in the teaching and learning of history, while (25.5%) of them disagreed.

Testing of Hypothesis

Hypothesis 1

There is no significant relationship between the history teacher's reflective teaching style and their classroom practices.

Table 4: Relationship between History Teacher's Reflective Teaching Style and Classroom Practices

Variable	History teacher's reflection	Classroom teaching
History teacher's reflection	Pearson Correlation	1.069**
	Significance	.092
N	384	384
Mean	2.87	2.07
Standard Deviation	0.75	0.10
Coefficient of Determination		0.005

****Not Significant at p>0.05**

Table 4 indicated a non-significant relationship between history teachers' reflective teaching style and their classroom practices (r=.069, N=384, p=.092). Thus, the null hypothesis which stated that there is no significant relationship between history teachers' reflective teaching style and their classroom practices was accepted; while the alternate hypothesis was rejected. Hence, there

was no significant relationship between history teacher's reflective teaching style and their classroom practices.

DISCUSSION

Findings of the study show that history teachers need adequate preparation for the students to perform better in the classroom teaching and school assessment.

Gbagi (2011) blamed teachers for poor performance of candidates in public examinations in the country, noting that teachers are not doing enough to educate their students. Ayedun (2011) in line with Gbagi asserted that learners' failures are essentially the teachers' fault. Olukoya (2011), however, argued that the learners' failures were not their teachers' fault. He added that the performance of a candidate in any examination was a function of many factors: school, home, teacher, learners, government etc., and it is the totality of everybody's contribution. Teachers are just often the obvious scapegoat in a situation where a learner is underperforming because they are the visible faces of education. Teachers then need to be determined to seek better ways of educating the learners in schools in spite of all other impediments.

Furthermore, findings from the study also reveal the importance of time management for effective quality lesson delivery. Instructional time is one of the most challenging constraints teachers face in trying to achieve curricular goals. Quality teachers need to know how to use class time effectively. Use of time can be optimized in the classroom by careful planning. There is a relationship between the amount of time students are actively engaged in

learning activities and their achievement (Mastropieri & Scruggs, 2000). The ability of teachers to organize, manage, and spend quality portions of the allocated time for instruction may therefore affect the achievement of the students. Most teachers schedule and allocate the appropriate amount of time for learning, but few teachers actually ensure that their students are engaged and actively occupied with activities geared towards the learning of the subject during the allocated time.

Findings from the studies also reveal further the importance reflective teaching style for effective classroom practices. Effective teachers display a wide range of skills and abilities that lead to creating a good learning environment. Knowledge of content must be balanced with a solid grounding in effective teaching strategies. Teachers should use a wide variety of instructional methods, experiences, assignments, and materials to ensure that learners are achieving all sorts of cognitive objectives (Okpala & Ellis, 2005). While researchers tend to agree that teachers' pedagogical skills are important determining factors in influencing learners' outcomes, there is little consensus about the relationship between specific teacher attributes and teachers' effective pedagogical skills.

CONCLUSION

Conclusion to was made base on the findings of the study which revealed that reflective teaching can help History teachers improve their teaching style and classroom practices. Majority of the History teachers do not understand the essence and meaning of reflective teaching. History teachers do not expose students to the importance of history to the society which makes the students to find learning of history not interesting. Also, there was a significant relationship between teachers' knowledge, teaching style and classroom practices. The study concluded that reflective teaching style improved students' interest and performance in History. Also, reflective teaching style is very important in the teaching of History subject in Senior Secondary Schools because it will help the teacher to know area of weakness of the students.

RECOMMENDATIONS

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

1. History teachers should improve their teaching style which will help students show interest in the subject.
2. Teachers should be encouraged to use reflective teaching style to

improve students' interest and performance in history.

3. History teachers should let the students know the importance of learning history and that history is not just about telling story about past events but learning of history will broaden their knowledge about past and current happenings around the world generally. Students should see the learning of history as acquisition of knowledge which helps improve their reasoning and making a valid judgement.
4. Given the importance of reflective teaching style, history teachers should try and reflect on their teaching during and after classroom teaching, so that they will know if the students are actively going along with the teachings in the classroom or their mind is somewhere else far away from school.

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IMPACT OF COVID-19 PANDEMIC AND THE NEXT STEPS: PEDAGOGY WORKSHOP EXPERIENCES OF NOVICE TEACHERS IN JIGAWA STATE, NIGERIA

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ABSTRACT

Qualitative method was used to explore the impact of Covid-19 pandemic on pedagogy training workshop organized by Jigawa State Ministry of Education for novice teachers and post training remediation strategies. There were five centers across the state, a participant and a resource person were purposefully selected from each center and consented to willingly volunteer and participate in the study. The participants were university graduates from teacher training departments while the resource persons were seasoned teacher educators with requisite experiences on pedagogy and related workshop trainings. The instrument for data collection was an interview schedule constructed by the researchers in line with the research questions that guided the study. The results of the study indicated that adherence to Covid-19 protocols, especially the social distancing, militated against the full realization of the expected workshop outcome. It further indicated the need for immediate mentoring of the novices in their respective schools to supplement the take home workshop skills deficit and continuing professional development as long term strategy. Based on the outcome of this study, it is glaring that Covid-19 impacted negatively on the conduct of the pedagogy workshop training of novice teachers. The integration of advanced technology and adequate support and training on remote teaching and learning was recommended in order to improve the readiness of our educational system to decisively and appropriately respond to such challenges.

Keywords: Covid-19, Novice teachers, Pedagogy, Mentoring

INTRODUCTION

The menace of Covid-19 pandemic to all spheres of human endeavor globally has been unassuming.

Specifically, the education industry has been inundated by myriad of challenges during the peak of the pandemic and beyond. Covid-19 has

created the largest disruption of education systems in human history during which 1.6 billion learners in more than 190 countries were affected by the virus across the world (UNESCO, 2020). Nigerian education system like in other nations has suffered series of challenges due to the pandemic (Ogunode, 2020). The thrust of the plaque intense with the closure of all schools in March 2020 following the directive of the Federal Ministry of Education with the order coming at a time when some institutions re-open in October of the same year while others were at different stages of their academic activities. The closure of all educational institutions as a preventive measure against the spread of the virus punctuate not only the stimulating and enriching environments, learning opportunities and social interactions of learners (UN, 2020) but also teachers' professional training; however, the ardent need for strategies to ensure learning and related issues continue (Ebohon et al., 2021).

The pandemic period coincided with the annual workshop training of senior secondary schools' novice teachers in Jigawa State on pedagogy and other aspects such as improvisation and classroom management. The workshop was designed to train novice teachers on

how to apply their respective undergraduate teacher preparation programs experiences through hands-on practices in real classroom and how to directly handle diverse learners (Ringim, 2020). However, the fact that the State Ministry of Education had to come up with the strategy to ensure the conduct of the workshop, it resorted to face to face interaction with strict compliance to Covid-19 protocols. This approach was preferred over the remote education for obvious reasons such as the lack of integration of advanced technology into the educational system (Ebohon et al., 2021; Okonkwo, 2021) and lack of adequate support and training on remote teaching and learning on both the novice teachers and the resource persons (Ebohon et al., 2021; British Council, 2020). Conversely, the workshop objective ideally requires full social interaction among participants, inter and intra groups and with resource persons on the nitty-gritty of the activity based pedagogies vis-à-vis the social distancing protocol. The scenario poses a daunting task on both the novices and the resource persons in accomplishing the set objectives of the workshop.

According to Gumel and Danladi (2017) and Ringim (2020), workshop on activity based approaches entails that the participants develop the

following must have skills: place the learner at the center of teaching and learning processes; plan instructions that mirror learners' existing knowledge, developmental needs, varied skills and abilities, derive to utilize, and understand and make sense of the world; create a rich learning environment from which students can learn from a number of sources/resources including the teacher and fellow students; and ability to generate varieties of learning activities using different materials for students to utilize knowledge and develop critical thinking abilities. It is glaring that inculcating the above traits in novices during the workshop training with strict compliance to Covid-19 protocols, especially the social distancing, would be questionable. Probably, the expertise of the resource persons and educational backgrounds of the participants as university graduates of teacher training departments might have mitigated the dire consequences of the Covid-19 protocols to the full realization of the workshop intents. The need to navigate the take home workshop experiences of the novice teachers with a view to further support them in addressing the imminent skills shortfalls become necessary more than ever before. The novice teachers' workshop training pitfalls could be immediately

mitigated through mentoring at their respective schools. This may involve assigning a more knowledgeable, experienced highly proficient teachers who works with and alongside the beginning teachers, quite closely until when the novices become more capable, confident and proficient (Department of Education and Training (DET), 2016). The mentor is not an instructor and the novice teacher is not a student but they should relate as colleagues. A review of recent researches attests to the efficacy of mentoring practices in enabling new teachers to assume full professional responsibilities. Atikens et al. (2013) further ascertain that mentoring practices work best with access to networks of support arrangements both within and beyond the school. Hudson (2012) identified the effectiveness of mentoring through the use of several peoples to support beginning teachers. This may involve someone that focused on assisting the beginning teachers to strengthen their pedagogical practices; others may support the novice to understand the local context and culture etc. Support for new teachers should be seen as a collective responsibility rather than the sole responsibility of a teacher mentor. This was further supported by Collin et al. (2012) that formal induction and training of new teachers should be combined with an expansive learning

environment with supportive colleagues. Additional support for novices may extend through Continuing Professional Development (CPD) opportunities. Such development will be most effective when ongoing and part of a deeper engagement with mentoring as it's seen to be central to the task of transforming the novices' teaching profession itself (Hargreaves & Fullan, 2000). The choice of the CPD as a long term strategy is to update novice teachers' skills, attitudes and approaches in light of the development of new teaching techniques and objectives, new circumstances and new educational researches (Maciejowska et al., 2015). This reflect and regulate the lifelong learning rooted from the onset of the teacher preparation through mentoring processes and extends throughout the novice teachers' professional life.

Objective of the Study

The objective of the study was to examine the impact of Covid-19 pandemic on pedagogy workshop training experiences of senior secondary school novice teachers and possible remediation strategies.

Research Questions

The following research questions guided the study;

1. What are the challenges posed by the Covid-19 pandemic on the pedagogy training workshop of novice teachers?
2. What are the possible remediation strategies that would mitigate the challenges posed by the pandemic on the pedagogy training workshop of the novice teachers?

METHODOLOGY

Research Design

The study is primarily exploratory in design; as such qualitative method of enquiry was employed. According to Babbie (2014), qualitative research is a scientific method of observation to gather non-numerical data that refer to meanings, concepts, definitions, characteristics, metaphors, symbols and description of things and not to their counts or measures. Its focus is on why and how a certain phenomenon may occur rather than how often it occurs. The study seeks to provide an insight of what transpired during the workshop training sponsored by Jigawa State Ministry of education for the newly recruited senior secondary school teachers on activity based pedagogies during the pandemic and identify possible mitigating strategies on the novices' training gaps.

Participants

The participants include five (5) novice teachers and five (5) resource

persons. As there were five centers across the state, a participant and a resource person were purposefully selected from each center and consented to willingly volunteer and participate in the study. The participants (novices) were university graduates from teacher training departments while the resource persons were seasoned teacher educators with requisite experiences on pedagogy and related workshop trainings.

Instrumentation

The instrument for data collection was an interview schedule which was constructed by the researchers in line with the research questions that guided the study. The instrument was validated by two experts in tests and measurement from the department of education, Sule Lamido University.

Data Analysis

Data analysis in qualitative research entails reducing large amount of data collected in order to enable the researcher(s) see patterns, identify themes, discover relationships, interpret and develop explanations. Data for this study were transcriptions of the interviews conducted with the novice teachers and the resource persons on their respective workshop training experiences amidst Covid-19 pandemic period and protocols regulations. After transcribing the

collected data, the researchers coded the data in a way that gives meaning, patterns and connections among the data with a view to provide an understanding of the research questions.

RESULTS

The result of the study is presented based on the formulated research questions as follows:

Research Question One: What are the challenges posed by the Covid-19 pandemic on the pedagogy training workshop of novice teachers? Expectations from the workshop training from both the novice teachers and the resource person were high. Attempts were initially made to shift the training to a later date with the expectations that the Covid-19 may not last long. Against the wishes of the all stakeholders, the unfolding realities necessitate the conduct of the training within the pandemic period. Following are the revelations from the novice teachers and resource persons:

Speaking on the aspect of the short comings of the workshop, a participant had this to say;

In fact, I was in a state of confusion on how the workshop will be conducted in this period of Covid-19 while observing the protocols (novice

from center 2). One of the resource persons from center 3 posits that; there was serious apprehension from stakeholders on the conduct of the pedagogy workshop and the realization of its intents amidst Covid-19 period.

Contributing further another participant state as thus: If there were proper training and skill on online education and with relevant and adequate equipment, I would have suggested that the workshop was conducted online (novice from center 1).

Corroborating further, resource person from center 1 submits as thus; the impact of the Covid-19 could have been alleviated if there were adequate remote teaching and learning arrangement infused in our educational system with requisite ICT training.

Alluding to earlier submission, a participant contributes as thus; workshop on learner centered pedagogies during this pandemic may not achieve the intended objective. With the strict compliance to Covid-19 protocols especially the social distancing, the interaction in groups and between groups and with resource persons were highly limited or nonexistent. Interaction is very

necessary but was hindered (participant from center 4).

Additionally, one of the novice teachers from center 5 reasoned that; we would have a wonderful experience from the workshop training if there were no Covid-19 protocols. We communicate with ourselves from distance and hence had to perform activities individually.

Another one from center 3 was categorical to state that; among all the Covid-19 protocols, social distance was centrally inimical to the full conduct of the workshop. Beside the workshop working materials provided, individual activities were not encouraging.

Research Question Two: What are the possible remediation strategies that will mitigate the challenges posed by the pandemic on the pedagogy training workshop of the novice teachers?

Considering the urgent need for the newly recruited teachers to swing into action vis-à-vis the impending challenges posed by the pandemic towards the full conduct of the pedagogy workshop, participants and resource persons stressed the need for immediate support through possible remediation strategies. Following are their respective submissions,

participant from center 3 succumb to the view as thus; it has become very necessary to complement the training workshop with a plan of support by experienced teachers in our respective schools. Administrators should take the responsibility of this support. This can help us improve on our workshop experiences.

Resource person from center 4 alluded further that support in form of follow up by the resource persons to their respective schools if feasible. In the alternative, the workshop attendees should be assigned to more knowledgeable and experienced teachers as mentors. This will help improve, strengthen and perfect the novice teachers' capacity on pedagogy and related issues.

One of the participants reasoned further that the inadequacies of the workshop can be supplemented through collaboration with administrators and subject specialist in our respective schools. In house trainings (at school level) can help and give additional support to improve on our experiences (center 2)

One of the resource persons contribute further efforts in ameliorating workshop skill deficit could involve mentoring, subjects' specialists' in house training and

networking with other external support specialists (center 1)

Another participant had the following position; beside the supports from our places of primary assignment, seminars, conferences and workshops be organized and sponsored by the ministry to keep us abreast on issues related to our professional development (center 1).

One of the resource persons from center 3 contribute as thus support for the newly recruited teachers may continue from their respective schools through mentoring process on short term basis, extends beyond the school and continue throughout their professional career.

DISCUSSION

Responses of both novice teachers and resource persons showed the level of uncertainty on the outcome of the pedagogy training workshop. The Covid-19 pandemic posed serious disruption on all facets of our lives including such trainings. It further exposes the weaknesses of our educational system the readiness to decisively and appropriately respond to such challenges. It was glaring that the face to face selected option with strict adherence to Covid-19 protocols as against remote learning, in conducting the exercise was a necessity.

This position agrees with the submission of Ebohon et.al (2021) and British Council (2020) that lack of integration of advanced technology into the educational system coupled with lack of adequate support and training on remote teaching and learning on both the novice teachers and the resource persons were detrimental to the full actualization of the intents of the workshop. This lamentation is reflected in the responses of both the novices and the resource persons that the impact of Covid-19 pandemic on the workshop could have been alleviated if there were adequate remote teaching and learning arrangement infused in our educational system with requisite ICT training. The participants and resource persons were categorical among the Covid-19 protocols; social distancing was the most inimical to the full utilization of the training. Reflecting on the submissions of Gumel and Danladi (2017), Ringim (2020) on the must have skills on exposure to activity based pedagogies training workshop, novices probably were constrained centrally by observing social distance protocol, to utilize the opportunities therein.

The scenario portends a gloomy picture of the workshop outcome. As such, both participants and the resource persons saw the impending pedagogy workshop skill gap and the

need for redress through possible remediation strategies. Both participants and resource persons were akin to the fact that the immediate support/remediation approach will be assigning the novice teachers to more experienced teachers in their respective schools. Their position concurs with DET (2016) which posits that assigning a more knowledgeable, experienced, highly proficient teachers who works with and alongside the beginning teachers, quite closely will scaffold the novices to become more capable, confident and proficient. Corroborating further, Atikens et al. (2013) assert that mentoring practices work best with access to networks of support arrangements both within and beyond the school. Hudson, (2012) further identified the effectiveness of mentoring through the use of several peoples to support beginning teachers. Support for new teachers should be seen as a collective responsibility rather than the sole responsibility of a teacher mentor. Furthermore, participants and resource personalities alike attest to the need for Continuing Professional Development (CPD) as one of the preferred strategy to continuously support novices as an extension of the school based mentoring. The choice of the CPD as a long term strategy is to update novice teachers' skills, attitudes and approaches in light of

the development of new teaching techniques and objectives, new circumstances and new educational researches (Maciejowska et al., 2015). This reflect and regulate the lifelong learning rooted from the onset of the teacher preparation through mentoring processes and extends throughout the novice teachers' professional life.

CONCLUSION

Based on the outcome of this study, it is glaring that Covid-19 impacted negatively on the conduct of the pedagogy workshop training of novice teachers. However, the identification of Mentoring and CPD as remediation strategies will mitigate the dare consequences of the Covid-19 protocols on the novices' skill deficit.

RECOMMENDATIONS

Following recommendations are hereby made:

1. The ministry of education should follow up the novice teachers to ensure that they are mentored appropriately
2. The novice teachers should be given special consideration above others, in workshops, seminars and conferences to be sponsored by the ministry of education.
3. The integration of advanced technology and adequate support and training on remote teaching

and learning in order to improve the readiness of our educational system to decisively and appropriately respond to such challenges.

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RELATIONSHIP BETWEEN STRESSFUL LIFE EVENTS AND ONSET OF BIPOLAR DISORDER AMONG SENIOR SECONDARY SCHOOLS STUDENTS IN JIGAWA STATE, NIGERIA

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ABSTRACT

The main focus of this study was to investigate the relationship between Stressful Life Events (SLEs) and Bipolar Disorder (BPD); and determined whether gender difference existed in SLEs and BPD amongst Senior Secondary School (SSS) students in Jigawa state. The population of the study consisted of 4,154 SSS Class Two students in Jigawa State at the time of the study. A systematic sampling technique was used to select 384 SSS students in the State. Two research instruments were used to collect data namely: "Kanjiga Stressful Life Events Inventory and an adapted version of American Psychiatric Association's Diagnostic and Statistical Manual 5's Level 1 Cross Cutting Symptom Measure". Data from the study were analyzed using Measures of Relative Standing, Pearson Product Moment Correlation Coefficient and Independent t-test statistics. The study revealed a 21% prevalence of BPD, a significant positive relationship between SLEs and BPD as well as a significant difference in BPD between male and female students. Among other things, need to for mental health training and advocacy for teachers, parents, students and the community was recommended.

Keywords: Stressful Life Events, Bipolar Disorder, Psychopathology

INTRODUCTION

From 1978 when the Nigeria famous health educator, lamented that

"Teachers as a group encounter all school children, but they are no better than parents and their school going

children in understanding mental health principles” now 44 years later the assertion is almost the same. While teaching remain one of the most complex and intriguing exercises, the fact that teaching is becoming more complex as the human mind and especially younger students is becoming more diversified and curriculum planners and policy makers becoming more uncertain on policy directions. Couple with disruptive technology and family distortions, more than two decades into the 21st century, homes and schools are becoming more increasingly source of stress and trauma to students that are wheedled into standardization and mass competition in academic intelligence in an era of free enterprises and abundance need of creativity. Regardless of the fact that information doubles or completely extinguished in a period of two years, teachers are taxed with necessity of becoming up to date and at the same times grapple with ever emerging psychopathological disorders among the students (Ahmed & Raju, 2009).

For a successful teaching-learning process, therefore, teachers nowadays have to monitor students’ emotional challenges and their health and academic consequences. They have to further deal with psychological and physiological challenges pose by

stressful life events which include on set and relapse into one form of psychopathology or the other, retarded intellectual development and psycho-social dwarfism. These additional roles of teachers are especially thorny and complex in a society where issues regarding mental illness are largely shrouded in metaphysical explanations of sorcery, hex, nemesis and other supernatural causes; genetic vulnerability and labeling as well as over concentration of healing on obnoxious traditional methods. While there are other forms of Psychopathologies or mental illnesses, bipolar disorder seems to be one of the most common forms of mental health issues encounter by teachers among mostly adolescents senior secondary school students (Ahmed & Raju, 2009). More disturbing is the submission that, among all the diseases in the world, unipolar major depression was found to be the costliest and furthermore a total of four mental illnesses (Depression, bipolar disorder, alcohol use and schizophrenia) are in the top ten costliest and highest diseases that can lead to disability (Andreasen & Black, 2001). And while in 2019, 1 in every 8 people, or 970 million people around the world were living with a mental disorder, with anxiety and depressive disorders the most common WHO (2021). There were 32.7 million (recorded) cases of

bipolar disorder globally in 1990 and 48.8 million in 2013; equivalent to a 49.1% increase in prevalent cases and that there were 5.5 million disability-adjusted life years (DALYs) recorded for female individuals and 4.4 million for male individuals (Ferrari et al 2016). World Health Organisation (WHO) (2002) as cited in Merikangas (2011) that BPD is responsible for the loss of more disability-adjusted life-years than all forms of cancer or major neurologic conditions such as epilepsy and Alzheimer disease, primarily because of its early on-set and chronicity across the lifespan. These persistent issues pose serious challenges to the teacher to the extent that Adamu (2015) lamented and insisted that “the teaching community has to face challenges thrown by science and technology; there has been an explosion not only on scientific and technological knowledge but also in the means and techniques of acquiring knowledge. The scientific researchers and developments related to theories of heredity, learning, mental health, neurology, attention, motivation and recently stem cell research, can no longer be treated alien to teacher education programmes.

The educator therefore, seems to be more interested in scientific but practical knowledge of associated factors of psychopathology that will

prepare him for prevention which is better than cure. This is a one problem area that though is essential to the teacher, is hitherto largely downgraded, consigned and reduced in importance. While the assumption that knowledge of causes of psychopathology remains essential but relegated part of teacher education and practice, it is generally stressed that the extent to which stress is related to some of our serious medical conditions was greatly underestimated until recent researches dramatically altered our perception of our own health, leading causes of death, disability and mental illness as well as immunity to infections are almost certainly linked to stressful life events (Lahey, 2011). Stressful life events (SLEs) are circumstances that occur in peoples’ life with an identifiable beginning and end that potentially can alter one’s current mental state or physical well-being (Goodyer, 2012). Since 1967, Holmes and Rahe enumerated 39 non-adults’ stressful life events capable of being associated with mental health challenges which include parental divorce, loss of job by parents and having visible deformity.

Acknowledging the fact that research has consistently demonstrated that the rate of psychopathology dramatically increases during secondary school years (Charbonneau, 2009).

Therefore, when addressing adolescent stressors and coping strategies, the social environment including the family and school is usually put in focus, as such deprivation of privileges, social isolation, rejection and punishment, poverty, bereavement, home congestion rowdy and noisy home or school environment, bullying, disruptive mothering are among major stressful life events in the life of adolescents some of which started in childhood (Raphael & Paul, 2014), Others include suppressed sexual desire, hunger and deprivation (Ahmed & Raju, 2009).

Bipolar and other related disorders are separated from the depressive disorders in DSM-5 (2013) and placed between the chapters on schizophrenia spectrum and other psychotic disorders and depressive disorders in recognition of their place as a bridge between the two diagnostic classes in terms of symptoms, family history, and genetics. The diagnoses included are bipolar I disorder, bipolar II disorder, cyclothymic disorder, substance/medication-induced bipolar and related disorder, bipolar and related disorder due to another medical condition, other specified bipolar and related disorder, and unspecified bipolar and related disorder.

Bipolar I Disorder

For a diagnosis of bipolar I disorder, it is necessary to meet the following criteria for a manic episode. The manic episode may have been preceded by and may be followed by hypomanic or major depressive episodes.

Manic Episode

a). A distinct period of abnormally and persistently elevated, expansive, or irritable mood and abnormally and persistently increased goal-directed activity or energy, lasting at least 1 week and present most of the day, nearly every day (or any duration if hospitalization is necessary).

b). During the period of mood disturbance and increased energy or activity, three (or more) of the following symptoms (four if the mood is only irritable) are present to a significant degree and represent a noticeable change from usual behaviour: (i) Inflated self-esteem or grandiosity; (ii) Decreased need for sleep (e.g., feels rested after only 3 hours of sleep); (iii) More talkative than usual or pressure to keep talking; (iv) Flight of ideas or subjective experience that thoughts are racing; (v) Distractibility (that is, attention too easily drawn to unimportant or irrelevant external stimuli), as reported or observed (vi) Increase in goal-directed activity (either socially,

at work or school, or sexually) or psychomotor agitation (that is, purposeless non-goal-directed activity); (vii) Excessive involvement in activities that have a high potential for painful consequences (e.g., engaging in unrestrained buying sprees, sexual indiscretions, or foolish business investments).

c). The mood disturbance is sufficiently severe to cause marked impairment in social or occupational functioning or to necessitate hospitalization to prevent harm to self or others, or there are psychotic features.

d). The episode is not attributable to the physiological effects of a substance (e.g., a drug of abuse, a medication, other treatment) or to another medical condition.

Criteria A-D constitutes a manic episode. At least one lifetime manic episode is required for the diagnosis of bipolar I disorder.

Bipolar I Disorder

1. Criteria have been met for at least one manic episode (Criteria A-D under "Manic Episode" above).
2. The occurrence of the manic and major depressive episode(s) is not better explained by schizoaffective disorder, schizophrenia, schizophreniform disorder,

delusional disorder, or other specified or unspecified schizophrenia spectrum and other psychotic disorder.

As for the triggers of general psychopathology and specifically the BPD; the etiological theory of psychopathology commonly known as diathesis-stress theory was pioneered by Meechl in 1962 (Carson, Butcher, Mineka & Hooley, 2009.) and substantiated by Ingram and Luxton (2005) propounded that having acknowledge the fact that vulnerability and stress can be reasonably considered to be conceptually distinct constructs; separately their power to describe key aspects of psychopathology is limited. Advocates of this model proposed that for a psychopathology to manifest its self on individual there should be certain vulnerability to the disorder that can only manifest under stressful life events. Thus, the term diathesis or vulnerability is typically conceptualized as predisposition factor or set of factors that make possible a disordered state.

A study by Amone-P'olak, et el (2000) assessed depression and stressful life events in 304 students at a university in Botswana ($M = 21.56$, standard deviation = 1.86) using the 21-item Beck's Depression Inventory (BDI) and the 26-Item Social

Readjustment Rating Scale. Depression is not only common but also significantly and increasingly associated with reporting more stressful life events. In another study, Raphael and Varghese (2014) found a significant gender difference on hassles, though the magnitude was small, males reported higher hassles than females. It was further established that the level of hassles reported on the total UHI was significantly related to the mental health measures, the higher the level of hassles, the more anxiety and depression. Abiodun (2012) examined 500 rural children age from 5–15 years and found the prevalence of psychiatric morbidity to be 15% with emotional and conduct disorders present in two-thirds of these subjects. Children from disruptive families were more likely to suffer from psychiatric morbidity. Further, Sam, Nisha and Varghese found that About 69.5% (89/128) of their sample subjects reported pre onset SLEs – among which 50 (56.2%) had mania and 39 (43.8%) had depression. Conflict with in-laws and financial problems were the commonly reported SLEs and that the mean duration between the SLEs and the relapse was 19.73 ± 4.8 days. Other studies also established linked between SLEs and BP, Horesh and Iancu (2010) for example, found

more SLEs before the first episode of BPD than before the relapse.

Statement of the Problem

Jigawa State comprise of 27 Local Government Areas (LGAs) with over 251 senior secondary schools and 501,948 students have for long period of time being hit by psychological disorders of different variations and categories, many people with psychopathology whose onset might have been minor psychological abnormalities and labeled as “mad” are helplessly roaming the streets. The erroneous superstitious beliefs on the causes of the predicaments of people with psychopathology, the tortuous healing process, the highly exploitative approach of exorcism centers and over exaggeration of genetic approach by medical psychiatrics all combined to make students much more vulnerable to mental illness. The teachers, most of them less endowed with knowledge of issues concerning psychopathology are rendered helpless in times of students’ onset, relapse and possible prognosis. Not only do the challenges above made teachers helpless, it has the capacity to interfere with data gathering, statistics, planning and management of psychopathology by even the most willing education authorities. This research is set to, among others; provide statistical data on the

prevalence of various psychopathological manifestations in the state.

Another area worthy of inquiry is the issue of over concentration of attention on some psychopathologies to the detriment of others. Bipolar Disorder and obsessive-compulsive disorders in the range of kleptomania, nymphomania and dipsomania that are putting disciplinary and socialisation pressures on teachers and also capable of negatively affecting students' academic performance are largely relegated in favor of Anxiety related disorders like phobia, conversion disorder and schizophrenia. In both cases over emphasis on diagnosis and treatment rather than relative associated trigger factors and etiologies like stressful life events and emotion dysregulation that are capable of equipping teachers and counselors with preventive measures are utterly missing in Nigeria based psychopathological researches or at least knowingly or unknowingly consigned. Now even where these issues are slightly acknowledged, differential exposure to mental illness due to gender and demography is hardly scientifically investigated. In a nutshell, the general problem that called for this study is the fact that as a critical area of interest, regardless of ancestral origin and or residency of a victim,

psychopathology is for a sometime being associated with largely noxious traditional beliefs, extreme religious dimension and somewhat modern but relatively dogmatic medical psychiatry. This loathing triangle of psychopathology has for long time succeeded in dominating the more promising psychological facet. The psychological dimension, unfortunately still remain alien and most ostracized. This research is set to bridge these gaps in knowledge by empirically looking at psychopathology from the more practical viewpoint of psychology.

Objectives of the Study

The specific objectives of the study are to:

1. Investigate the prevalence of bipolar disorder among senior secondary school students in Jigawa State.
2. Determine the relationship between stressful life events and psychopathology among senior secondary school students in Jigawa State
3. Examine gender difference in psychopathology among senior secondary school students in Jigawa State

Research Question

The research is set to answer this question:

1. What is the prevalence rate of bipolar disorder among senior

secondary school students in Jigawa State?

Research Hypotheses

The following null hypotheses were tested:

1. There is no significant relationship between stressful life events and bipolar disorder among senior secondary school students in Jigawa States
2. There is no significant difference in Stressful Life Events between male and female senior secondary school students in Jigawa State
3. There is no significant difference in bipolar disorder between male and female senior secondary school students in Jigawa State

METHODOLOGY

Research Design

The research is mainly correlational in nature. Correlational research involves collecting data or searching out records of a specified population and ascertaining the relationships among the variables of interest.

Participants

The population of the study consisted of 4154 Senior Secondary (SS) 2 students from 12 randomly selected Schools in Jigawa State. The population comprised of male and female, average age as 17. All the schools are boarding and included specialized schools such as Technical, Science schools, Comprehensive secondary schools and Arabic schools, as well as a Federal Government College.

Table 1: Population of the Study

SN	Male	Enrol	Female	Enrollment	Total
1	Gss Fantai Hadejia	563	GGSSS Taura	476	
2	GSS Basirka	532	GGASS Babura	397	
3	GSSS Lautai	361	GGSSS Roni	407	
4	GUSS Ringim	327	GGSS Mallam Maduri	297	
5	SAIS Hadejia	450	FGGC Kazaure	298	
6	GSTC Karkarna	343	GG SUS Gwaram	451	
	Total	2576 (52.54%)		2326 (47.5%)	4902

Source: Office of the Chief Examinations Officer of the Schools, 2022

The sample of the study consisted of 384 students consisting of 203

(52.54%) male and 181 (47.5%) female students. The sample size was

determined proportionately based on the gender percentage by which male and female students are represented in the population. The individual sample subjects were further selected using

systematic sampling procedure where Kth number was selected from the students’ register provided to the researchers by each school.

Table 2: Distribution of Sample by School and Gender

SN	Male	Sample	Female	Sample	Total
1	Gss Fantai Hadejia	35	GGSSS Taura	31	
2	GSS Basirka	35	GGASS Babura	30	
3	GSSS Lautai	33	GGSSS Roni	30	
4	GUSS Ringim	33	GGSS Mallam Maduri	30	
5	SAIS Hadejia	34	FGGC Kazaure	30	
6	GSTC Karkarna	33	GGSSUS Gwaram	30	
	Total	203 (52.54%)		181 (47.5%)	384

Source: Field Survey, 2022

Instrumentation

For the purpose of the study, 2 data collection instruments were used, descriptions and validation process of the instruments are discussed below:

Kanjiga Stressful Life Events Inventory (KSLEI): The data collection instrument of SLEs is Kanjiga Stressful life events inventory, it is combination of selected items from the Holmes & Rahe’s Schedule of Recent Experiences, Intensive Daily Life Events Sampling and Dohrenwend’s Adolescent Perceived Stress Scale were adapted. Consequently, the instrument is an admixture of some instruments that brought out a single instrument that as expected, to suit the research environment as pioneered by

Steele, Henderson and Duncan-Johns (1980). Accordingly, a 20-item stressful life event inventory was constructed adapting some items from previous inventories and named Kanjiga Stressful Life Events Inventory. It is dichotomous instrument with a “yes” or “no” answer. The sequence of scoring is adapted from Holmes and Rahe’s Schedule of Recent Experiences’ life change unit (LCU) where the higher the perceived magnitude of the SLE answered positively the higher the LCU score. In Holmes and Rahe, a total score of 300 suggests tendency of SLE. However, SLEs like death of parent(s), parental divorce and visible deformity attracts 100, 90 & 80 LCU scores, respectively. Accordingly, the

death of parent, divorce, domestic violence, a noisy residential environment and adjustment to school answered with “yes” attracts 15, 9, 9, 4 and 2 life change units (scores), respectively. Total LCU (scores) in the Kanjiga SLE inventory is 100 and, as such, the higher the scores, the higher the exposure to SLE. The differences in rating scores resulted from issues that have to do with item tax number, in other words, the magnitude of certain stressful life event taxes an individual much higher than another stressful life event eg parental divorce and dirty classroom, and this explains the idea behind the LCU. Convergent validity and re-test reliability indices were tested by Sara (2018) and the instrument was found to be highly reliable at $r=0.816$ and a convergent validity index of 0.79.

Bipolar Disorder Checklist (BDC) based on DSM 5 L1CCSM: Several test instruments were designed to assess psychopathology including projective techniques and personality inventories as well as draw a person test. For more than three decades however, Eysenk personality inventory was found to be the most popular, Aitken (1996) further emphasized that the 57 item Eysenk personality inventory is more parsimonious conception of personality than that of Guilford, Thurstone and Cattell. With advent of

DSM of APA however, more comprehensive measures of psychopathology begin to emerge for wider use of researchers and diagnostics purposes, the most recent is the Level 1 Cross Cutting Symptom Measure recommended and contain in DSM 5.

The DSM 5 Level 1 Cross Cutting Symptom Measure is personal or informant rated measure that assesses mental health domains that are important across psychopathological diagnoses. The measure consists of 23 questions that assess 13 psychopathological domains including depression, anxiety, somatic symptoms, suicidal ideation, psychoses, sleep problems, memory, repetitive thoughts and others, each item enquires about how much or how often the individual have been bothered by specific symptom during the last 2 weeks. The measure was found to be clinically useful and have good reliability in the DSM 5 field trials across the United States and Canada.

Reliability of the Instruments

For the purpose of this study, the data collection instrument is an adapted version of Bipolar Disorder Section of The DSM 5 Level 1 Cross Cutting Symptom Measure (L1CCSM) was used as data collection instrument for bipolar disorder. The DSM 5 reported

a Test-retest reliability coefficient of 0.93-0.96 domains and 0.98 overall as well as Cronbach’s α : 0.94-0.96 domains and 0.98 overall, it was further reported to have strong evidence of content validity (Sara, 2018). The adapted version of L1CCSM (Bipolar Domain) was then code named The Bipolar Disorder Checklist (BDC), the BDC therefore, consist of 20 Likert type statements eliciting various degrees of responses from the subjects. For the purpose of this study, face validation was used to determine content validity and Cronbach alpha reliability index of 0.751 was established after pilot testing of the instrument on 260 randomly selected respondents in

Gagarawa, Guri and Gwiwa, Local Government areas of Jigawa State.

Data Collection

Data was solely collected by the researchers through personal visit to the schools, gaining access was simplified by the introduction letter and consent provided by the Jigawa State Ministry of Education, Science and Technology. As for statistical analysis, measures of relative standing was used to determine prevalence of Bipolar disorder while PPMC was used in determination of the relationship between SLEs and BPD, test for independent sample was utilised in determination of differences in SLEs and BPD between male and female students.

Table 3: Prevalence of Bipolar Disorder among Senior Secondary School Students

SN	Bipolar Disorder Scores	Frequency	Percentage
1	High ≥ 60	83	21.61%
2	Low ≤ 59	301	78.39%
Total		384	100

RESULTS

The table above shows the frequency of Bipolar Disorder among senior

secondary school students in Jigawa state, Nigeria. It was revealed that the prevalence of Bipolar Disorder is low with only 21.61%.

Table 4 Relationship between SLE and BPD among senior secondary school students

Variables	N	Mean Scores	SD	Df.	r-cal.	p-value
Bipolar Disorder	25.33	2.18	384	382	0.792	0.00
Stressful Life Events	24.96	3.24				

At $r=0.292$, P. value 0.00, the correlation between stressful life events and bipolar disorder was established to be significant. This indicates strong positive correlation as it attests to the fact that the higher

the Stressful Life Events, the higher the possibility of relapse to bipolar disorder among senior secondary school schools. Similarly, the lower the SLE, the lower the BPD.

Table 5: Difference in SLE between Male and Female Students

Gender	N	Mean	<i>t</i>	df	p-value	LS
Male Students	203	68.63	9.23	382	0.09	0.05
Female Students	181	73.67				

In Ho2, we deduced the fact that *t*-calculated is 9.23, p-value 0.00 at degree of freedom, 382 and level of significance 0.05. P-value is therefore greater than level of significance. The null hypothesis is

hereby retained, meaning that there is no significant difference between male and female senior secondary school students in the measures of Stressful Life Events.

Table 6: Difference in BPD between Male and Female Students

Gender	N	Mean	<i>t</i>	df	p-value	LS
Male Students	203	38.63	-5.48	382	0.01	0.05
Female Students	181	55.67				

In Ho3, we deduced the fact that *t*-calculated is -5.48, p-value 0.01 at degree of freedom, 382 and level of significance 0.05. P-value is therefore less than level of significance. The null hypothesis is hereby rejected, meaning that there is

significant difference between male and female senior secondary school students in the measures of bipolar disorder.

DISCUSSION

Findings from the study the prevalence of bipolar disorder among

Senior secondary school students in Jigawa state is 21.61%. From the forgoing findings, it can be easily deduced that the prevalence of BPD is much high in Jigawa state as compared to the world average of less than 10%. It is to be noted however that Abiodun (2012) in another Nigerian study found the prevalence of psychiatric morbidity to be 15% with emotional and conduct disorders present in two-thirds of these subjects. The high prevalence of BPD as found in this study may not be unconnected with the fact that issues of general mental disorders are largely shrouded in mystery in this part of the world. There is paucity of train clinical psychologists and even psychiatrist to test and diagnose the disorder. People are also hiding under the deceptive guise of obnoxious traditional practices and cultural cum religious affiliations to cover for what is clearly psychological triggered by stressful life events. The fact that SLEs are highly correlated to BP in contradiction to our earlier hypotheses was found to be in tandem with many preceding research findings and other statistical and narrative evidences, research findings in agreement with the submission of this study include that of Amone-Polak et al. (2000), and Sam, Nisha and Varghese (2018) who found that about 69.5% (89/128) of their sample subjects reported pre

onset SLEs as well as Horesh and Iancu (2010) for example, found more SLEs before the first episode of BPD than before the relapse. On the other hand, studies by Bries et al., (2014) who found that BPD “has likely genetic and biological origins” and further established in the literature that stressful life events influence the course of the disease. It is also established that the family interactions are affected by the BPD. That stressful life events are positively correlated with bipolar disorder. There is a significant difference between male and female senior secondary school students in the measures of bipolar disorder with the mean average of female rating higher than that of male students. Arising from the challenges facing teachers in respect general psychopathologies and with specific reference to BDP, this correlational study found high prevalence of BPD, significant positive correlations between SLEs and BPD as well as significant gender difference in BPD.

CONCLUSION

The findings of this study are that:

1. The prevalence of Bipolar Disorder is low with only 21.61%.
2. There was a significant relationship between SLE and BPD amongst Senior Secondary School students.

3. There was no significant difference between male and female senior secondary school students in the measures of Stressful Life Events.
4. There was a significant difference between male and female Senior Secondary School students in the measures of Bipolar Disorder.

RECOMMENDATIONS

The following recommendations are made namely:

1. The National Universities Commission (NUC), National Commission for Colleges of Education (NCCE), Teachers Registration Council of Nigeria (TRCN) and Universities and colleges of Educations should facilitate the inclusion of Mental health issues and abnormal psychology as significant part of teacher training courses and requirement at all levels.
2. Teachers and counsellors should spearhead serious awareness campaigns and advocacy to parents and communities on the damning reality of strong positivity and additivity between SLEs and BPD
3. Teachers should avoid traumatic practices such as public shaming, corporal punishments etc to reduce the level of SLEs.
4. Parents, Guardian and Teachers should consider differential treatment/parenting strategies between male and female senior secondary school students.

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EMPATHY: A PROFESSIONAL COUNSELLOR'S INDISPENSABLE SKILL

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ABSTRACT

The paper presented a clinical view in the understanding of empathy as a skill in counselling relationships. Thus, the paper reviewed relevant literature on empathy, empathy strategies and skills as well as its importance and implications for counselling practice. Also, the paper emphasized that empathy is a skill that helps self-esteem in an individual, produces client's satisfaction, restores calmness, sound sleep, cheerfulness, hinders emotional exhaustion, anger, and saves troubled individuals from depression. The paper concluded that empathy enveloped other skills in counselling and suggested that empathy should be developed by counsellors and employed in day-to-day counselling practice.

Keywords: Empathy, Therapy, Counselling relationship, Self-esteem, Asset

INTRODUCTION

Empathy makes life most worth living. It focuses on both individual and societal well-being. In essence it aims to improve quality of life. Empathy is a child of positive psychology which occupies the counselling domain, and it technically envelops other skills that helps in a successful counsellor-client encounter. Positive emotions such (e.g. joy, gratitude, support, optimism, curiosity) are resultants of empathy. In the context of positive psychology, for its impact and interplay 'empathy' has earned it self-positivity (Conoley et al., 2015).

Empathy is an inspirational skill needed for psychotherapy.

Empathy is preconscious and temporary (Greenson, 1960). Empathy is the bedrock to patient care and it should frame the skills of the profession, it has always remained in the front line of counsellors essential tools for practice (Spiro, 2009). Empathy is a contested and complex concept to understand, experience, practice and teach (Williams & Stickley, 2010). Since the work of Rogers (1967) on core conditions for therapeutic relationships, empathy continue to face the reality of continuous input

and that of other interrelated concepts. In the counselling discipline, empathy is strongly regarded among the core conditions of counselling relationship. Empathy establishes mutual trust, sustain willingness and encourage adherence, it is therefore a fundamental quality in counselling relationships. Rogers (1967) viewed empathy as the ability of the counsellor to reacts to the clients feeling as his own. Counsellors should professionally avoid going beyond the boundary. This implies, there should be no losing sense to emotions that would castrate achieving desired result.

Types of Empathy

Morin (2020) has seen and reviewed empathy to be affective, somatic, and cognitive. These are the primary types of empathy that a person may experience. In the view of Morin, affective empathy is the ability to respond to other people's emotions appropriately. Somatic empathy is the ability to share and feel what another person is in to. Whereas cognitive empathy is the ability to understand someone's response in his situation without compromise and losing professional focus. From the summary definitions of empathy here, empathy is the ability to emotionally understand what other people feel, see things from their point of view and mirror yourself in their shoes. In

essence it is assuming yourself in to someone world and feel what they are in to. It is important to note that not all people are naturally empathic, so not everyone experiences empathy in every situation. This is where professional counsellors come in, Counsellors are trained for positive intervention.

The Nature and Signs of Empathy

According to Hanania et al. (2011), Empathy connotes; Feeling at least some level of discomfort, analogous to what the other appears to be feeling and which can give rise to "concern" known as empathic concern, and also is similar concern where a person remains focused on the other in distress and feels for him or her helpfully. Empathy response emerge if the listener mirror or shifts the focus of concern from the other person to the self. When these are bound to manifest in a counsellor or any person working towards assisting client is described and recognized as empathetic helper. It has been reviewed and found in several researches that human beings have a natural tendency (inborn) to acquire and exhibit empathy from others and to others respectively.

The distress of another individual should therefore not be a distraction and confusion with the helpers empathic and well-trained mindset to

address the problem seeking counselling intervention, hence empathetic individuals are those having professional guiding strategies and concern for another in psychological stress. Empathic feelings are thought to motivate clients, give hope to them, and comfort them. Compliance was found to be as a sign of empathy (Vreeke, 2003). It is regarded for the fact that it controls mind to comply with demands and reflects an empathic behavior. Vreeke, understanding and explanation about empathy has made it clear that compliance is an explanatory component of empathy. There is a conceptual relationship between compliance and empathy. Empathy enable helpers to comply with their minds and feelings and render assistance and other support service towards making clients out of psychological problem. Empathy has control mechanisms (systems), to comply with demands, is the ability to control behavior in conformity with the need. Therefore, an individual that is compliant obviously is in possession of empathic quality and ability. The stability of empathy relies on the counsellors' self-control, deduce from professional training. It also depends on the predisposing factors such as motivation and other catalysts, plus the situation of the event.

Quality of attachment was assessed to be a good indicator of empathy. A non-subjective attachment with a client soothes and heals psychological blockages. Clearly, it could be said that only empathic minds could establish bondage in relationships. Attachment establish trust and interest yield desired outcome.

Sympathy for Empathy

Obviously; students, teachers, researchers' battle with the use of empathy especially in their functional role. In the world of counselling and clinical psychology and among other professional helpers, there exist a constant refresher and writings of this nature to subdue the misuse, misplacement, and wrong application of empathy. This is particularly in order to completely suppress the conceptual and application difficulty encountered by practitioners in the area. Sympathy is associated with emotional fatigue (sufferings are shared), reciprocally empathy has a clear positive impact on the counsellor – client interactions. In this situation sufferings are imagined and disputed, (Stipien, 2006). Accurate empathy surpasses the helper to sense clients "private world" as his'. It also surpasses counsellor to know only about the gestures from a client (Truax, 1961). It is what comes with sensitivity to the current

situation, verbal communication mastery in a language the client understands and the feelings and reactions. This inform and clarify much in relation to empathy by amplifying that it is about both feeling and communications. In essence it is a positive transfer of feelings with the counsellors' reaction resolving the clients' complications. Vossen et al. (2016) reveals and hinted in two steps that: 1, treat empathy as a one-dimensional construct, constituting of both cognitive and affective components. In step 2, while on mission to measure empathy, several studies have measured sympathy instead. However, the investigations and results from Vossen's study reveals decrease in sympathy at the detriment of empathy. Therefore, empathy is controlled and adhered to in psychotherapy.

According to Svenaeus (2015), contemporarily, empathy is a virtue and essential skill, the relationship is a continuous process towards resolving psychological problem with empathy challenging the professionals in practice. Strategies leading to emotional arousal on the part of the counselling are the main feelings for the counselee and which risk becoming unprofessional (sympathy manifestation) and having the effect of so-called compassion

fatigue or burnout. Strategies to empathy in counselling attempt to solve problems by detaching empathy from sympathy, for usually mistaken. It was argued that some kind of sympathy, is seen as a professional concern, and could be an ingredient in counselling relationship. Feeling oneself into the experiences and situation of the patient cannot be pursued without caring for the patient in question and this is effective empathy. This is the juncture at which empathy is taken for granted for having some misunderstood similarity of thought with sympathy. Empathy is a particular form of feeling we feel for help towards resolving client's psychological blockages. Empathy process are typically infused by a sympathy for the person empathizing for, as an entity. Sympathy is like an unwanted weed in an environment that color itself very similar to the wanted weeds as in the case of counselling and its related professional process. But emphatic-feelings always display some form of motivating concern for the target client. Such an understanding of empathy is of particular importance for counsellors and other professions dealing with the suffering clients.

Describing empathy is one of major complex issues in counselling, especially in relation to sympathy

(Gibbons 2011). It is a skill that require so many implications for practice. It holds and play strong role in psychotherapy, and largely needed to master it for effective practice. The quality of empathic exhibition is known to emerge from the unique mix of attitude and social converge which suggest a changing construct that is utilizable as a proof for practice application. The key and essential role of the therapist's control is demonstrated with empathy. Eklund (2021) noted that most of the scholarly articles accept empathy as occurring within one single individual. Empathizing in counsellors is especially common in the many articles to cite. Contrary opinion is postulated in some of the psychotherapy and philosophy articles; here, empathy instead happens interactional *between* the two persons, who cooperate and communicate and form a shared world. This is a very objective explanation; sympathy is always one sided. However, in counselling, a professional duty; there is a sharing formula in the process of discussion. Eklund (2010) also maintained that, empathy is also viewed as practical only within the practicing person from a host of scholars, but for his case and understanding further maintained his opinion and understanding described empathy as the actions of the counsellor and the

client. Counsellor and client communicate about the problem and interventions, and this in turn make empathy an interpersonal relationship not one sided. Therefore, by far, Empathy is professionally incomparable with sympathy. Bases of comparison may only emanate from counselling apprentice and or unconstructive minds and intruders.

Conveyers of Empathy/Strategies/Skills

Here, an attempt is made to bring out the signs and symptoms of the prevalence's of empathy among professionals. According to Clarke et al. (2015), music considerably transformed the lives of the people living with it. Nowadays there have been more love, inclination, and interest in music communicative and affective capacities. Music is a strong agent of social connection and ties. Against this background the following skills were regarded as conveyers of empathy and notably helpers were observed in possession of empathic skills. The skills are: listening, attending behaviour, paraphrasing, and reflections (understanding of the client's world). Understanding of the client's world is a relational component of empathy as put forward by Petterson (1970) and Williams (1990) cited in Clarke et al. (2015). Further, Banja (2006) recommended body gestures, verbal

cues, understanding of the client world, follow-up, planned ending of conversation, attention and listening and paraphrasing as strategies and skills to empathy.

The Importance of Empathy

According to Bayne (2013), benefits of empathetic relationships as indicated from studies were the; adherence to treatment and relationship satisfaction. Relationship satisfaction is the ultimate desire and aim of any psychotherapy. By implication empathy alone could shoulder the absolute role of psychotherapy from one hand.

Enferm (2017) reviewed and from which this current study extracts the following as importance of empathy to human life: (i) From parental care, where empathy prevails, it promotes self-esteem of children. This determines healthy adulthood and beyond and enabling for empathy to be shared with others similar to what they experience joyfully from their parents; (ii) It installs satisfaction in the client; (iii) It restores calmness of mind, sound sleep and cheerfulness; (iv) It hinders people from emotional exhaustion, anger, and disregarding others; and (v) Saves people from going in to depression.

Barriers to Empathy

Empathy is a very crucial skill in counselling and ever demanding.

Couple with its importance, a number of stumbling blocks interfere in many situations against optimum use and benefits. Among therapists, there is a spread that empathy requires too much time, which has caused much pressure leading to non-empathic behaviors by the counsellors (Banja, 2006). Examples of these barriers include; counsellor eliciting little information from the client, standing, poor eye contact, constantly glancing at watch, speaking too fast, close-ended question, interrupting client abruptly, and inconsiderate of client's body language (The harried therapist). Psychological threat from a repulsive or emotionally threatening patient, is another barrier. Some therapists at some time mix their being with that of the client and have their feeling to everything exactly as the client does. This is a familiar but very wrong understanding of empathy; it switches it for sympathy. If this could be and hold true, the therapy session would terminate and the therapist would eventually be miserable, depressed, and deranged. Even though this has been discounted on any significant value which might have worn away the therapist's objectivity. But empathy could present a purely subjective threat to the therapist, and this is resistible and withstanding. An impaired self-esteem is another form of a barrier to empathy. Counselling provides

positives values to the client, as it is always aim at resolving and improving the mind and eliminating the negatives, unfortunately some therapists are carried and pulled away by this, converting self to workaholic professionals trying to impress every one for the love and attention they never received when they were children. This is at the expense of self-esteem boost, supposedly put in place.

The use of grounded theory approach to pinpoints patterns of coping responses by adults responding to the stress resulting from the threat of stuttering, it described that empathy, emotion-based avoidant coping responses empathy were important and used to protect both the speaker and the listener from experiencing discomfort associated with stuttering (Plexico et al., 2003). Cognitive-based approaches in some situations patterns that emphasize self-focused and problem-focused forms of coping strategies and encouragers. Plexico and colleagues further considers that speakers approach, goals, moral functioning, physical makeup, and level of socializations could be barriers to effective empathy if not positively utilized.

Cultivating Empathy during Counselling

Verducci (2000) suggests that, in counselling, method technique is a

key for raising empathy in life situations. This procedure is similar and synonymous to institutional, professional trainers and boosters for empathy. Method techniques may prove useful to educators. There exist moral parallels between the empathy in Caring and that employed in acting and suggests that the use of Method techniques be supplemented with moral content and by the exercise of moral reasoning. The family, home, the school, the mosque, the church are all places where empathy is directly, indirectly, consciously and subconsciously cultivated.

According to Bayne (2013), among counsellor skill and characteristics, motivation is recognizing to connect as a key revealer of empathy. It seems to support the concept of moral empathy in psychotherapy. There were also several behavioral elements that were seen as nurtures of empathy in the counselling to include; communication skills and demonstration of deeper understanding.

For Bibeau (2016) for many decades there is outgrow of psychotherapist that have investigated meditative practices as attention and emotion regulation strategies. Many studies have provided evidence that mindfulness meditation can have positive effects on psychotherapists'

skill, ability, and capacity to offer presence, acceptance, and empathy to their clients. Nowadays, loving-kindness meditation and compassion meditation have become the focus of counselling scrutiny as it has been thought that they could have even more impact on psychotherapists' empathy than mindfulness meditation. Hence, literature on compassion meditation and loving-kindness particularly on the impact of meditative practices on the development of psychotherapists' empathy have shown that loving-kindness and compassion meditation actually change the thought areas associated with positive emotions and empathy. Loving-kindness and compassion meditation training studies have shown positive impacts on a number of empathy-related variables such as altruism, positive regard, pro social behavior, interpersonal relationships, as well as affective empathy and empathic accuracy. Moreover, the duo characteristics actually reduce negative effects associated to empathy for pain, thus reducing the risk of psychotherapists' burnout and enhancing their self-care. In line, sympathy is a minus in counselling because it comes with complications in the healing process and risk the collapse and losing control of the therapy. It is concluded that loving-kindness and compassion meditation

constitute empathy, very important and useful in every counselling or psychotherapy.

Decline in Empathy

Hojat et al. (2004), reveals experiences that shows decline in empathy from the training school. The decline trend suggests that empathy could be amenable to change during professional training. There is needed to pinpoint factors that contribute to changes in empathy and to examine whether targeted educational programmes can help to sustain, retain, and cultivate empathy among medical students for improving clinical outcomes (Hojat et al 2004). Spiro (2009), cites: Hojat and colleagues reports a significant decline in empathy during the third year of medical school. In one stressful example; an aspirant to medical school, boasting of his research skills, explained that he had put a cat into a microwave oven to see what would happen.

Improving on Empathy at Counselling Session

According to Jackson et al. (2015), the role of empathy in counselling is central, and the fact that a number of developmental, and psychological disorders (e.g., traumatic brain injury, stress, anxiety) are marked by empathy deficits and has fueled a number of research initiatives aimed

at exploring potential avenues to improve empathic skills. Listening skills, paraphrasing words of clients during counselling session have shown promising results in this regard. Attending behavior seems a practical solution for improving empathy among counsellors to clients in a meaningful way. Counsellors and all associated helpers should be regularly undergoing trainings, refreshers, conferences and all forms of programs that keep a person up to date. Such measures and procedures would raise a significant number of adherence, interest, turn out, positive believe, attachment, compliance and lots more. Empathy therefore if improved counselling is easily achievable.

Summarily, while these efforts towards upgrading empathic skills are promising and will undoubtedly lead to improving client situation, regular supervision of the counsellors is expected and needed, because; augmenting certain skills could gradually increase the chance of the therapist being afflicted by compassion fatigue and other more chronic work and stress related conditions, such as depression. In this regard, by making any effort to facilitate healthy and successful counselling is invariably improving empathy. So professionals and other counselling practitioners should do

anything possible to support and promote good behaviors in the institutions identified as empathy builders and boosters.

Implications for Counselling

In the field of psychotherapy, Counsellors and other psychological helpers should: (i) See empathy as a frontline skill to achieve counselling service; (ii) Understand that empathy applies for both the counsellor and the client; (iii) Empathy is objective; (iv) Empathy shoulders other counselling skills. Once a counsellor is optimally expose to empathy, obviously all other counseling qualities are supplemented therein; (v) Sympathy can only come to thought if and only if counselling is unprofessional and informal, and this could only be a mirage in a formal setting. Counselling is professional and forever. Therefore, counsellors should always remember empathy, apply empathy, and act with empathy.

CONCLUSION

In practice, empathy remain the piloting gear, it envelopes the skills of the profession. On the training ground, evidences has shown and suggested that aspiring therapist should be more challenged to the positive understanding of empathy. It is also concluded that, empathy has attained the “strong hold” it threatens to take the position of

counselling as a whole for the role it plays in psychotherapy. By implication, Empathy, is a synonym to Counselling. Counsellors must have the time to optimally attend / listen to their clients. Listening gives adequate empathy and empathy heals!

Limitations to the Study

The current article, reviews literature and opinion from internet based publications content limited to empathy as a skill in counselling, and also limited to the following empathy sharing and relational terms. The nature and signs of empathy, sympathy for empathy, conveyers for empathy, strategies and skills towards effective empathy, the importance of empathy, improving empathy, decline in empathy, and the practice implications. The study is also limited to internet citations and only studies published from scholarly journals. Engine search was limited to Google scholar only.

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OVERHAULING NIGERIAN POLITICAL SYSTEM THROUGH EFFECTIVE DEFECTION MONITORING MECHANISM ACT

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ABSTRACT

This paper focused on overhauling Nigerian political system through effective monitoring mechanism Act. Over the years Nigeria democratic values, ideologies, principles and political ethics is completely missing in Nigeria political system. Desperate and hungry politicians usually resolved to defect from one political party to another. This however, affects good governance and framework that enhanced true democratic processes. In the present political dispensation, political rivalries, selfish interest, high-headiness, fractional political structures and god fatherism have caused tensions nearly in all political parties. The fundamental human rights that guaranteed party members to belong to any political party of their choice at any time worsened the political principles that guide democracy. This right usually creates an avenue for Nigeria politicians to defect from one party to another. Based on this, "Smart" politicians usually embark on court litigations and injunctions which is not good enough for electioneering system. The paper therefore called for overhauling of Nigeria political system via effective defection monitoring Act so as to checkmate Nigerian politicians from defecting from one party to another. Also, party rules and regulations should be respected by all party leaders and members and such rules and regulations should align with the electoral acts and Nigerian constitution.

Keywords: Overhauling, Political system, Defection, Monitoring, Mechanism

INTRODUCTION

Nigeria as a nation is yet to attain her greater height as expected due to her inability to get it right in the area of good governance. This, do not emanate over-night, the nation hardly enjoy democracy at early stage of her independence when the military oligarch hijacked power from the poor Nigeria civilians. Okunloye (2017) rightly observed that Nigeria democracy which is the government

of the people by the people have experienced comparatively shorter period of democratic rule than military, hence Nigeria has been governed by different democratically elected regimes for the past three decades. Findings equally revealed that since democracy has come to stay in Nigeria, democratic principles and norms have been violated due to long military rules she experienced over the years (Okunloye, 2019).

Additionally, political observers and other human right organizations simply characterized Nigeria political system as nascent democracy an experience or learning process. This is on account of observed deviation of the practice of democratic governance in Nigeria which is a variance from the norms and practices in some modern democracies in the world. In Nigeria for instance, high level of militarization of general election and monetization of electoral politics and intra-party and ethnic conflict have been frequently recorded during general election in Nigeria (Odisun, 2015; Ojo, 2011; Editorial Vanguard, 2018; Okunloye, 2017). With this development, each time the nation is embarking on change of government through electioneering processes, political tempo is usually high with fear and tension in the minds of electorates. While political leaders engage themselves with various accusations and counter-accusations in the media.

However, there is no system that is perfect all over the world and as such democracy across the globe is not free from stress and strains, strength and weaknesses: but malfunctionality of democracy in Nigeria is alarming and at such could not face the test of time. The election results after elections according to Okunloye (2019) are usually rejected by desperate

politicians and party leaders which usually resulted to various election tribunals and legal battles. In the previous elections conducted in Nigeria, election tribunals invalidated Anambra, Bayelsa, Edo, Ondo and Osun states gubernatorial election results. On account of this, the six affected states observed governorship election on different occasions which usually mar with high irregularities as many states who are not participating in such election usually join force and put more pressure in the electorates and even lavish voters with money and other items so as to secure power or win at all cost. Based on this, there are countless of election petition cases in Nigerian general elections which are still pending and as such affects the beauty and ethics of democracy which many Nigerians are yearning for.

Yahaya (2019) reported that there were 766 cases out of 379 federal elective positions and 36 State House of Assembly and 30 state governorship elective positions. Going by this report and figures recorded so far, there is clear indication that Nigerian democracy lack democratic culture of tolerance and acceptance of defeat in a free and fair election. Also, desire to win at all cost actually translate to crisis which is threatening Nigerian democracy. Additionally, the nature of democracy

practice in Nigeria which pave way for politicians to defect from one party to the other have been abused by Nigeria politicians. The defectors usually capitalize on the provision in Nigerian constitution, electoral acts and party-guidelines to manipulate election results from time to time. It is on account of these among others that this paper calls for total overhauling Nigeria political system through anti-defection act.

Politics of Inter-Party Defection: Nigeria Experience

The practice of defection from one party to the other is not new: it is a welcome idea in deed in the arena of politics. Political defection cut across political system in the entire world of politics. In an ideal situation, political defection which base on principle and ideology serve as an avenue for politicians to exercise their fundamental human rights of "Freedom of Association". On account of this, defection is not strange in Nigeria political system, only that Nigeria politicians have abused it in the way and manner they defect from party to party. Nigeria witnessed politics of defection in 1951 when countless members of the National Council of Nigeria and Cameroon (NCNC) decamped emass to the Action Group (AG) in order to stop Nnamdi Azikwe and his party (NCNC) the majority of the Western

Regional House of Assembly, which the party required to form the government in the Western Region(Adejumo,2013).

The greatest challenges militating against Nigeria's democracy right from the first republic is political instability cum party defections as Nigerian politicians attribute political defection as a norm and last resort in the Nigerian democratic culture and principle. Mbah (2011) in his finding reviewed that the desperation to hold public office as a means of accumulating wealth prompt Nigerian political office holders / politicians to cross carpet without justification. In agreement with Mbah, Edet (2017) averred that since 1960 of Nigeria's independence, Nigerian political parties have been established on baseless foundation which accounted for unnecessary defections of Nigerian politicians due to the fact that these political parties were regional and ethnic based and as such lack clear ideology and principle. For instance, in Anambra just concluded governorship election, one month before the governorship election in Anambra state, Onyebuchi Offor, "Honourable" member of the State House of Assembly, defected from his party, the People's Democratic Party (PDP) to join the All Progressive Party (APC). After losing out in the governorship election, 12

days after, the same Honorable Onyebuchi Offor returned to PDP, the party he left 43 days. Though, it is the constitutional right of an individual to defect from one political party to another, but the aftermath effect usually results to crisis within the party he/she defected to. For instance, in Ondo state, Dr. Olusegun Mimiko defected from Labour Party to his old party, PDP which he abandoned years ago and still reclaimed the structure of the party, being the governor of the state then. Those who remained in the party when things were not palatable for the party were neglected. This among other factors paved way for political crisis in Nigeria, the gap Nigerian constitution should bridge.

The trend of inter party defections undermines Nigerian political culture, orientation and ridiculed the nations democratic process and development (Colomer, 2005, Ali & Muhammed, 2018). Additionally, inter-party defection, cross-carpeting, flock-crossing, party-hopping, party-jumping, canoe-jumping, decamping and among others become popular in Nigeria politics as a result of poor observation of internal democratic principles within most political party, formation of political parties along ethnic and religious affiliation cum loopholes in the Nations constitution create avenue for political selfish interest over and above the poor

masses they claim they represent or serve. In the first and second republic, political party that emerge were ethnic motivated. Olowo et al. (2018) revealed that the Action Group (AG) was Yoruba speaking-party formed by Obafemi Awolowo a renowned Yoruba politician, while the Northern People's Congress (NPC) was dominated by the Hausa-Fulani ethnic groups. In the old Eastern Region the National Council of Nigeria and Cameroon (NCNC) was purely Igbo based political party. This equally repeated itself in the second republic. Based on this, Nigerian political culture is marked by political intimidation, ethnic orientation of political parties, conspiracy of security operatives, ineptitude of electoral umpires, ballot stuffing, ballot snatching, thurgery, money politics and assassination (Falade, 2007; Ojudun, 2007; Human rights watch, 2007).

Political defection in Nigeria serves as a political tool use for recycle by the political class from one intra-party and one political party to the other. On account of this, defection has become fashion trend politicians use to recycle themselves and cleverly manipulate themselves into power at the detriment of the electorates (Ali and Mohammed, 2018). In Ondo State for instance, Olusegun Mimiko, the former Executive Governor of

Ondo State, defected from party to party. He started his political journey from letter 'A' that Alliance for Democracy and ended up in letter 'Z' that is Zenith Labour Party. He decamped from Alliance for Democracy to People's Democratic Party (PDP) due to his inability to clinch the governorship ticket from (AD) and joined force with late Olusegun Agagu in PDP. He then crossed carpet and formed a new party, Labour Party (LP) where he achieved his political dream as the executive Governor of Ondo State for eight years and before the completion of his second term, the first of its kind in Ondo State, jumped back to PDP. Currently, he and his political associates regrouped again and formed Zenith Labour Party (ZLP) which he equally abandoned and rejoined PDP. Regrouping under different but same shades, is what Ali and Mohammed (2018) referred to as the "old wine in new bottles". The current trend of inter-party defections is not only against the electorates' interest, but a threat to Nigerian political culture and orientation. Political defections equally affect Nigeria's legal framework or system due to the lacuna in the constitutional provisions and interpretations. Nigerian politicians take advantage of these contradictions, confusion and manipulation as political exercises for party defections.

Nigerian Constitutional Framework and Political Defections

Defection from one party to another is the onus of democracy; so far it is based on principles, ideology and the public interest. This, however, has been abused by Nigerian politicians as inter-party defections has rendered the polity as a mere jamboree which provides avenue for political parties and politicians to make cheap popularity and access to milk the nation's resources tagged "National cake" (Ali and Mohammed, 2018). Nigerian law however makes provisions in the constitution in checkmating the rate of defections in section 68 and 109 of the 1999 Nigerian constitution (as amended) the gaps and deficiencies in the law have negated the purpose and achievement of these provisional laws. The lacuna in this legal framework serve as escape route for the smart and hungry politicians in Nigeria. Section 68(1g) for instance states categorically that:

A member of the Senate or the House of Representatives shall vacate his seat in the House of Which he is a member if being a person whose election to the House was sponsored by a political party, he becomes a member of another political party before the expiration of the period for which that House was elected. Provided that his membership of the latter political

party is not as a result of division in the political party of which he was previously a member or of a merger to two or more political parties of fractions by one of which he was previously sponsored (Constitution of Federal Republic of Nigeria, 1999, p.34).

The above provision of the law paves way and encourages “Political Prostitution” in the executive arm of government under the 1999 constitution. For instance, the provisions of section 68(1g) is ambiguous as it only affects the legislature and to some extent. Additionally, other political offices were not mentioned in the above provisions and as such generate heat in the law court while interpreting this aspect of legal framework. Also, the issue of division or fractions within a political party is relative and as such can be interpreted in different ways in the eyes of the law. Section 68 and 109 of the 1999 constitution (as amended) failed to empower any agency to determine when a political party is fractionalized or divided and this has weakened and render these constitutional provisions to a mere toll and fallacy which Nigeria politician benefitted from at the expense of the electorates. Since the practice of defection from one party to the other is not limited and new in the political system of Nigeria

alone, but cut across the political system in the entire world of politics. This paper advocates for an ideal situation, in which political defection base on principle and ideology that gives Nigerian politicians as avenue to enjoy and exercise their fundamental human right of “freedom of association.

Political Defection and Political Violence in Nigeria

In recent times, Nigeria political system has been faced with various challenges of defections from one party to other, political violence, thuggery and among others. These problems are not limited to a particular state or ethnic group in Nigeria but cut across all the thirty-six state of the nation. Based on this, right from inception of the Nigeria Fourth Republic 1999, the political system has experienced a great surge of political decampment and proliferation of political parties’ saga which could be traced to the personality clash and disagreement on parties’ issues. Nigeria, on account of this, has recorded a lot of political crises. In agreement with the above assertion, Dike (2003) reports that Nigeria has celebrated over one hundred decampment of members arising from parties’ lack of internal democracy, and selfish desires of members.

In Nigerian polity, most politicians seem to defect or decamp on the basis of egoistic hedonism and primordial interest (Badejo and Akpowoghana 2015). Decampment in our political system in Nigeria is unhealthy because nearly all the political parties lack ideology and have similar or the same democratic process. Hence, departure of member(s) from political party to join another different political party add no value to the electoral system in any form. Nigerian politicians are the same, section 109 in 1999 constitution as an easy escape route to cross carpet from party to party without reasonable or genuine reasons. Additionally, ambiguity and loophole in the constitution encourages party defection as witnessed in Nigerian democratic governance over the years (Aleyomi, 2013).

Malthora, 2015, Aziken (2009), Mbah, (2011), Aleyomi, (2013).and Eme and Ogbochie (2014) in their different reviews gives reasons for political defection and cross-carpeting of Nigerian politicians. According to these writers, the trend results from personality clash, power tussles, contradictory views on the operations of a political party's philosophy, crisis or divisions within a given political party, disagreement on party's position on issues, realization of one's personal political

ambition and party leaders reneging on agreed issues of the political party probably on power sharing formula. In the just concluded governorship elections in Ondo and Edo States, a lot of decampment was recorded among the political actors.

In Ondo state for instance, the rift and political tussle between Arakunrin, Rotimi Akeredolu (Senior Advocate of Nigeria and the Executive Governor of the state) and his deputy Alfred Agboola Ajayi nearly put the party, All Progressive Congress (APC) apart. The incumbent governor intends to retain his political seat at the State House Alagbaka, while his deputy, Agboola Ajayi was working assiduously to remove him at all cost. This prompted Ajayi to dumped (APC) and decamped to people's Democratic Party (PDP) where he belonged before. Having failed to realize his political ambition to run for governorship election in his new party PDP, Alfred Agoola Ajayi cross-carpet to Zenith Labour Party (ZLP). All these departures from party to party happened within three months and as such attracted the attention of the whole world.

The same issue affected the political atmosphere of the Edo State. This time around between Adams Oshomole the then National Chairman of All Progressive

Congress (APC) and his political son and associate, the Executive Governor of Edo State; Godwin Obaseki took another dimension in the political history of Nigeria. The (APC) as a party disqualified Governor Obaseki who was seeking for the reelection in the party on account of differences in the documents forwarded to the party. This, however forced Obaseki to decamp to (PDP) where he got political asylum to seek for his reelection as a governor of Edo state. The decampment of Obaseki, his deputy cost Adams Oshomole to loss his political seat as the National chairman of APC as a leading party in Nigeria. Going by this, Nigerian political scene is usually beclouded with thuggery, character assassination, political violence among others each time a strong politician moves from one party to the other regardless of his/her integrity and capability. Thus, they cannot bring about the political transformation or development the Nigerians are yearning for in the present dispensation of ours because Nigerian political actors are matured by money and power nothing else. (Egwu & Ibrahim, 2014; Ikelegbe, 2014).

CONCLUSION

Since defection is known in our political system, there is need for

effective monitoring in such a way that it does not abuse our political ethics and principles. Additionally, Nigerian political parties should henceforth emerge on principles, ideologies, programmes and policies that will enable party members to work as a team rather than defecting to another party. More so, lapses in the 1999 constitution that gives room for politicians to decamp at will, should be addressed by members of the National Assembly regardless of their political affinity. The legal framework that permits defection should be re-directed. The 1999 constitution that remain silent on certain aspect of law/constitution should come out in clear terms when there is division or disagreement in a political party that may warrant defection as claimed by smart politicians. Mere rifts and disagreements among party members should not result to defection. Hence, tangible reason(s) for defection should be well stated with facts and figures.

RECOMMENDATIONS

On the basis of the discussion in the paper, the following recommendations are raised for consideration:

1. The ambiguity of section 68 of the 1999 constitution calls for redress. Amendments provision for whosoever holding a political office

should relinquish power or resign from office as part of prerequisite for decamping to another party. This will go a long way in guiding against political prostitution being practiced by Nigerian hungry and desperate politicians.

2. Effective defection monitoring mechanism Act should be enacted so as to curtail political disagreement vis-a-vis political violence. Such act should disallow politicians defecting from one party to another to contest for any political office on political platform of his/her new party for at least three to four years which is the period of election year in Nigerian political system. These four years will enable the defector(s) to understudy the values principles ethics and ideologies of the new party they rush to.

3. There should be time limit for the defectors under the law. On no account should political actor(s) who defect to more than one party within a period of four election years i.e sixteen years in Nigeria. The implication of this is that if a political actor/member defects from party "A" to party "B", he or she will not be opportuned to decamp again until after sixteen years. This will bring sanity and stability to our political system and reduce political tension and conflicts in Nigeria.

4. Sections 7(4), 65(2) (b), 106(d), 131 and 177(c) of the constitution of Nigeria which prohibits independent candidacy in election should be amended as well as this gives room for political fatherism which promotes corruption, favourism and nepotism among political actors and parties. The legal loopholes which political parties capitalize on due to its weakness in Nigeria legal framework for elections should be closed and amended. For instance, the 2010 Electoral Act which pave way for substitution of primary winners with a party's preferred or anointed candidates which does not enforce sufficient penalties for party defectors, and other pending amendments to the 2010 Electoral Act which attempt to address some of those shortcomings should be passed into Nigerian legal system without any fear or favour.

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ITEM PARAMETERS' ANALYSIS OF SENIOR SECONDARY CERTIFICATE QUALIFYING EXAMINATION ECONOMICS TEST: IMPLICATIONS FOR COMPUTER ADAPTIVE TESTING

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ABSTRACT

The study investigated item parameters of Senior Secondary Certificate Qualifying Examination (SSQCE) of 2015 Economics items by applying Item Response Theory (IRT). An ex-post-facto research design was employed. The population comprised 5,481 who sat for SSCQE in year 2015. A sample size of one thousand students was selected using multi-stage cluster sampling techniques. The data collected were coded using IRT PRO Package to determine the item parameters of economic test. Findings revealed that 65% of the 2015 SSCQE Economics test possessed the ability to discriminate between low and high achievers and 87.25 % of the 2015 SSCQE Economics items are within the limit difficulty indexes. It was concluded that the mass failure in Kano State Certificate Qualifying Examinations over the years was not caused by the quality of the SSCQE items but by other variables which are not related to psychometric properties of the test items. The study recommended that as a matter of relevance and advance in testing process, Kano State Educational Resource Department (KERD) should do everything possible to employ computer adaptive testing, since the basic principle behind computer adaptive testing is to avoid asking questions that are too much difficult or too much easy for the test-taker, the application of item response theory frame work will help to customize test with each student's ability level.

Keywords: Item parameter, Qualifying examination, KERD, Computer Adoptive Test

INTRODUCTION

In Kano state, the body responsible for planning, organizing and administering a standardized examination is Kano state Educational Resource Department (KERD). It is one of the seven departments in the Ministry of Education Headquarters. The basic role of the department is ensuring quality delivery of educational curriculum offered in secondary school in the state, both public and private. It is also responsible for organizing and administration of Senior School Certificate Qualifying Examinations (SSCQE). The objective was to prepare students who are in their fifth year secondary (SS II) towards their final Senior Secondary Certificate Examination (SSCE) and motivate candidates for higher performance by sponsoring them in terms of their SSCE registration fees.

The qualifying examination (SSCQE) was based on the assumptions that subjects and the quality of the test items are similar to those of SSCE and students with high scores in qualifying examination may perform well in the final SSCE and subsequently secure admission in the university and other higher institutions of learning. In recent years there is an increasing complaint from the public on the student's mass

failure of the Kano State Senior Secondary Qualifying Examination (SSCQE) as it was reported in the national daily. For instance, Ibrahim (2016) reported that: "Over 80, 000 students of senior secondary school (SS II) sat for the annual qualify examination in Kano state this year but only 18,000 passed the exam while the rest failed, a source at the Kano State Educational Resource Department (KERD) hinted Kano Chronicle. Another source close to the state ministry of education, who preferred for anonymity, told Kano Chronicle that only 12 per cent of the total students got the required 5 credits including Mathematics and English" (p.5).

This reports and many other reports of the mass failure is generating outcries among parents, teachers and even the students in the state which made experts in Tests and Measurement and educational psychology to make some suggestions, among others is using CAT

Computerized Adaptive Testings (CATs) are a sophisticated method of test delivery based on item response theory (IRT). They operate by adapting both the difficulty and quantity of items seen by each examinee. Adaptive testing focus on how item difficulty is matched to

examinee ability. High ability examinees receive more difficult items, while low ability examinees receive easier items. An adaptive test begins by delivering an item of medium difficulty; if you get it correct, you get a tougher item, and if you get it incorrect, you get an easier item. This basic algorithm continues until the test is finished. Some examinees finish very quickly with few items, so that adaptive tests are typically about half as many questions as a regular test, with at least as much accuracy (Kanjanawasee, 2012). CAT can be said to be of great importance in the instructional process, especially in student-centered learning. This type of tests saves time and effort, also takes into account the individual differences of students, increase the motivation they have, completely reverse the traditional tests, which only encourage memorization and indoctrination.

One-parameter model is popularly known as *the Rasch model*, which was developed by Danish mathematician, Georg Rasch. In 1960 Rasch devised a truly new approach to psychometric problems. He made use of none of the classical psychometrics, but rather applied algebra a new to a probabilistic model. Rasch approached the analysis of test data from a probability theory

point of view. Although he started from a very different frame of reference, the resultant item characteristic curve model was a logistic model. Under this model, there is no discriminatory parameter, only the difficulty parameter can take on values. Because of this, the Rasch model is often referred to as the one-parameter logistic model.

$$P(\theta) = \frac{1}{1 + e^{-1(\theta - b)}}$$

where:

b = is the item difficulty parameter

a = is the item discrimination parameter

θ = is the ability level

The model assumes that each examinee responding to a test item possesses some amount of the underlying ability. Thus, one can consider each examinee to have a numerical value, a score, which places him or her somewhere on the ability scale. This ability score is denoted by the Greek letter theta, θ . At each ability level, there is a certain probability that an examinee with that ability will give a correct answer to the item. This probability will be denoted by $P(\theta)$. In the case of a typical test item, this probability will be small for examinees of low ability and large for examinees of high ability.

In the Rasch model, all the items are assumed to differ only in their

difficulty and have the same ICC shape. In practice, however, this assumption might not be reasonable. Items differ not only in how hard they are to answer, they also differ in how well they assess the latent trait. To avoid this assumption, another parameter called the discrimination (slope) parameter was introduced. This led to the addition of a discrimination parameter, a , which has the effect of magnifying the importance of the difference between the subject's ability and the item difficulty. The resulting model is called the two-parameter model. In the two-parameter model, the probability of a correct response is given by:

$$P(\theta) = \frac{1}{1 + e^{-a(\theta - b)}}$$

where:

e = is constant
 b = is the item difficulty parameter
 a = is the item discrimination parameter
 θ = is the ability level

One of the facts of life in testing is that examinees will get items correct by guessing. Thus, the probability of correct response includes a small component that is due to guessing. Neither of the two previous item characteristic curve models took the guessing phenomenon into consideration. Birnbaum (1968)

modified the two-parameter logistic model to include a parameter that represents the contribution of guessing to the probability of correct response. Unfortunately, in so doing, some of the nice mathematical properties of the logistic function were lost. Nevertheless, the resulting model has become known as the three-parameter logistic model, even though it technically is no longer a logistic model (Baker, 2001). The equation for the three-parameter model is:

$$P(\theta) = c + (1 - c) \frac{1}{1 + e^{-a(\theta - b)}}$$

where:

e = is constant
 b = is the difficulty parameter
 a = is the discrimination parameter
 c = is the guessing parameter and
 θ = is the ability level

The basic principle behind adaptive testing is to avoid asking questions that are much too difficult or much too easy for the student being tested. Because we are sure (but not certain!) that able students will answer easy items correctly and that struggling students will stumble on hard questions, relatively little is learned from such responses. Much more is learned by administering questions that challenge. Properly identifying and then presenting these questions is the goal of every adaptive test

(Davey, 2011). These tests are built around complex algorithms to adapt and produce optimum tests for each student (FastTest, 2013).

In Computer Adaptive testing: Items are selected according to the ability of each examinee. Testing starts with moderate difficult item. If an examinee answers an item correctly, next item that is administered to the examinee will be more difficult, if not, easier item is administered. Testing will continue until meet the stopping criterion, and then the testing will stop (Kanjawasee, 2012).

Based on this background this study examined item the parameters of the 2015 SSCQE Economics test based on Item Response Theory (IRT). Meanwhile, the public needs to be convinced that the examinations conducted by both KERD are of relatively equal standards and that whoever passes the qualifier will equally pass other national examinations. The results of this study would help in improving the practice of test construction by re-establishing the quality of the examinations conducted by KERD. The establishment of the items parameters using the IRT technique of the examination will go a long way to indicate the overall quality of the

examinations conducted in Economics by KERD.

Objectives of the Study

The objectives of this study are to:

1. Estimate the item discrimination (a) of 2015 SSCQE Economics test.
2. Estimate the item difficulty (b) of 2015 SSCQE Economics test.

Research Questions

1. What are the item discrimination (a) indexes of 2015 SSCQ Economics?
2. What are the item difficulty indexes (b) 2015 SSCQE Economics test

METHODOLOGY

Research Design

The study employed ex-post-facto research design. An ex post facto research design is a method of testing out possible antecedents of events that have happened and cannot, therefore be controlled, engineered, or manipulated by the investigator (Cooper and Schindler, 2001). As such the researcher can report only what has happened or what is happening, by trying to hold factors constantly by careful attention to the sample. Ex post facto research design was carefully selected due to the fact that the independent variable or

variables have already occurred and in which researcher will start with observation of the dependent variable or variables.

Participants

The population of the study consists of the fifteen thousand four hundred and eighty-one (15,481) students who sat for the 2015 economics SSCQE in Kano State owned senior secondary schools. It consisted of ten thousand nine hundred and fifty (10,950) male students and four thousand and thirty-one (4,531) female students. The population was also naturally divided into clusters of zones, local governments and schools. This made it necessary for the researcher to employ the multistage sampling technique in selecting the sample size. A sample size of 1000 students was selected using multistage sampling technique. Adequate sample size is a major factor in obtaining stable parameters for Rasch and IRT models and it is especially critical for the IRT 2-3 parameter models and suggested choosing a sample size sufficient to make the standard error small enough for the researcher's purpose (Samejima as cited in Yumota 2004). Mccowan & Mccowan (1999) stated that "Two and three-parameter models require samples of 1,000 subjects". Stone and Yumota (2004) reported that reliability indices differ with sample

size. The finding argued that Standard Error Measurement (SEM) decreases as sample size increases. The discrimination parameter starts converging with a sample size of 500, and stabilizes at a sample size of 1000. The study therefore in the first instance randomly selected one local government from each zone. From each local government area, one school was also randomly selected. However, from each school the proportionate sample size in respect of each zone's population was selected using systematic sampling technique.

Data Collection Procedure

The study did not use any data collection instrument, because the research deals with item analysis of existing, constructed and administered items by Kano State Educational Resource Department. The researcher collected the person-by-item matrix data from KERD in a softcopy via a compact disk. The items indexes of Kano state 2015 SCQE economics multiple test items were estimated by analyzing the person-by-item matrix collected from KERD using IRTPRO package. Curriculum for the three levels of education (Primary, lower and upper secondary education) in Nigeria is developed by the Nigerian Educational Research and development Council (NERDC) as a

national curriculum. This curriculum is expected to be implemented by both the public and the private schools. The Nigerian Educational Research and development Council (NERDC) set the standard in the curriculum and it is based on this standard all examining bodies set their examination items. The Kano state Educational Resource Department (KERD) also complies with these standard provided by the curriculum. The data of this study therefore was obtained from the KERD office. Formal letter was written to the KERD director (exams) soliciting his pleasure for release of item-by-person matrix of the students' responses of the economics examination 2015 SSCQE.

Procedure for Data Analysis

The content of the 2015 SSQCE economics items was aligned by the table of specification developed by the researcher. The difficulty and discrimination indices of Kano state 2015 SCQE economics multiple test items was estimated by analyzing the person-by-item matrix collected from KERD using IRTPRO package. Specifically, the criteria used in estimating the difficulty and discrimination are as follows as put forward by Baker (2001):

- (i) Item discrimination parameter (*a*) was based on the interpretation indicated in the table below:

Table 4: Interpretation of Item Discrimination Parameter Value

Range value	Interpretation
0.00	None
0.01 - 0.34	Easy
0.035 - 0.64	Low
0.65 - 1.34	Moderate
01.35 - 1.69	High
> 1.70	Very High
+∞	Perfect

- (i) Item Difficulty parameter (*b*): Ranges from -3 to +3.

The discrimination indexes (*a*) was estimated by running the person-by-item 2015 SSCQE data in to IRTPRO package. The output was extracted and presented in the table 2.

Research Question One: What are the item discrimination indexes (b) 2015 SSCQE Economics tests?

Table 2: Item Discrimination Indexes (*a*) Values of the 2015 SSCQE Economics Test Items

Item	Parameter	Item	Parameter
Q1	1.77	Q21	3.76
Q2	1.51	Q22	1.00
Q3	0.44	Q23	0.94
Q4	-0.04	Q24	2.24
Q5	0.46	Q25	1.76
Q6	1.34	Q26	0.71
Q7	-0.33	Q27	1.51
Q8	1.69	Q28	0.56
Q9	0.34	Q29	1.17
Q10	1.29	Q30	1.08
Q11	-1.47	Q31	1.71
Q12	0.65	Q32	0.2
Q13	0.52	Q33	0.2
Q14	0.5	Q34	1.03
Q15	0.7	Q35	0.14
Q16	1.23	Q36	-0.64
Q17	1.63	Q37	1.09
Q18	1.47	Q38	-0.18
Q19	0.8	Q39	0.75
Q20	0.9	Q40	1.2

Table 2 revealed that (5 items comprising 12.5% of the items) which are 4, 7, 11, 36 and 38 are manifest the value range of -1.47 - 0.00 indicating no discrimination. Four (4) items (10%) that is item 9, 32, 33, and 35 are in range of $.01$ – 0.34 showing they are easy items. Five (5) (12.5%) 2015 SSQCE economics items are within the parameter value range of 0.35 - 0.64 . The items are 3, 5, 13, 14 and 28 indicating low discrimination. Items 6, 10, 12, 15, 16, 19, 20, 22, 23, 26,

29, 30, 34, 37, 39, and 40 which accounted for 40% on the other hand are in range of 0.65 – 1.34 indicating moderate discrimination. It could also be seen that the remaining ten items from 2015 SSCQE Economics tests based on two-parameter logistic (2PL) model are within the range of either high or very high parameter *a* values. Those for high are items 2, 8, 17, 18, and 27. While those for very high are items 1, 21, 24, 25, and 31 respectively

Research Question Two: What are the item difficulty indexes (b) 2015 SSCQE Economics tests?

The 2nd research question was answered by table 3. The parameter *b* was estimated by running the person-

by-item 2015 SSCQE data in to IRTPRO package. The output was extracted and presented in the table. However, the decision is all values within the range of -3 to +3 is acceptable.

Table 2: Item Difficulty Indices (*b* Indices) of the 2015 SSCQE Economics Tests Items Based on Two-Parameter Logistic (2PL) Model

Item	Parameter	Item	Parameter
Q1	-0.87	Q21	0.55
Q2	0.58	Q22	1.66
Q3	0.35	Q23	-0.49
Q4	-43.38	Q24	-0.05
Q5	-0.26	Q25	0.37
Q6	-1.39	Q26	2.7
Q7	-5.04	Q27	0.06
Q8	-0.13	Q28	0.89
Q9	0.65	Q29	1
Q10	1.13	Q30	0.4
Q11	-1.42	Q31	0.51
Q12	-1.15	Q32	1.19
Q13	-1.26	Q33	9.02
Q14	2.09	Q34	0.65
Q15	0.19	Q35	3.81
Q16	-0.14	Q36	-2.94
Q17	0.15	Q37	0.36
Q18	-0.81	Q38	-7.35
Q19	-1.1	Q39	0.85
Q20	-0.14	Q40	-0.25

Table 3 showed that fifteen (15) items representing 37.50% of the total items which are items 1, 5, 6, 8, 11, 12, 13, 16, 18, 19, 20, 23, 24, 36 and 40 exhibit the b-value range of -3 to +3 had negative difficult estimates while twenty (20) items (50%) that is items 2, 3, 9, 10, 14, 15, 17, 21, 22, 25, 26, 27, 28, 29, 30, 31, 32, 34, 37, and 39 within the b-value range of -3 to +3 had positive difficulty estimates. The negative estimates imply that 15 items are easy while 20 items are difficult. Based on this information, five (05) items (12.50%) were found so difficult to the students. These items are items 4, 7, 33, 35, and 38 and were eventually rejected and are advised to be revisited by the board

DISCUSSION

Research Questions one answered in Table 2 revealed that fourteen 14 items (35%) did not discriminate between the students. This suggested that both the low and high achievers has pass the items. Sixteen 16 (40%) items indicate moderate discrimination. It could also be seen that the remaining ten (10) (25%) items from the 2015 SSCQE Economics tests based on the two-parameter logistic (2PL) model are within the range of either high or very high parameter a values respectively. This suggest that the 65% of the 2015 SSCQE Economics test possesses the

ability to discriminate between low and high achievers.

Research Question two was the item parameter b (item difficulty) estimate of the Kano state 2015 SSCQE Economics tests. Table 3 shows that fifteen (15) (37.50%) items within the b-value range of -3 to +3 had negative difficult estimates while twenty (20) (50%) items within the b-value range of -3 to +3 have positive difficulty estimates. The negative estimates imply that 15 items are easy while 20 are difficult. Based on this information, thirty five 35 (87,25%) items were found exhibiting the required difficulty which indicated that they good items. On the other hand the two-parameter logistic (2PL) model estimated only 5 (12.50%) of the 2015 SSCQE items were found to be not within the accepted difficulty levels as they exhibit high difficulty indexes. This suggested 87.25 % of the students who sat for the examination have failed in the items which implies that the 87.25 % of the 2015 SSCQE Economics items are within the right difficulty indices. Thus, the finding is similar to that of Olatunji & Owolabi (2009)

CONCLUSION

The study concluded that the alleged public complaints on the massive failure on Kano State Certificate

Qualifying Examinations over the years were not on the quality of the SSCQE items, but rather other variables, which are not related with the psychometric properties of the tests items. It also be concluded that the adoption of Computer Adaptive Test will go in line with enhancing the quality of the KERD test items in all its test components at various levels and standardized the items to the global level of relevance and competitiveness.

RECOMMENDATIONS

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

- i. KERD should as a matter of relevance advance its testing process using computer adaptive testing, Since the basic principle behind computer adaptive testing is to avoid asking questions that are too much difficult or too much easy for the test-taker, the application of item response theory frame work will help to customize test with each student's ability level.
- ii. CAT provides a more accurate measure of a student's knowledge and skills than a traditional testing procedure, for this reason, KERD should shift from traditional testing procedure to a more recent and modern adaptive testing.
- iii. The use of IRT framework could enable KERD to place candidates on the correct level of ability due to the fact that the IRT analysis describe each and every test item and so also candidate abilities.

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MEETING THE CHALLENGES OF QUALITY BASIC SCIENCE AND TECHNOLOGY TEACHER PRODUCTION THROUGH THE NEW NATIONAL COMMISSION FOR COLLEGES OF EDUCATION CURRICULUM

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ABSTRACT

Basic Education as the foundation of all forms of education has been inundated with myriad of challenges which militate against the realization of national goals. Central among the challenges stem from a glaring mismatch between the types of teachers trained in Colleges of Education (COE) and the work they do at Basic Education level resulting in the quality of teachers and the quality of their instructional delivery in teaching and learning processes. This paper therefore, mirrored the interplay of the reform efforts at the Basic Education level with the probable improved quality of Basic Science and Technology Teachers in particular and other curricular offerings as a function of quality education in general. The paper concluded that there is a high level of optimism in the restoration of quality teacher standards as sound basis for the production of quality basic science education teachers. It was recommended that requisite implementation parameters must be in place to provide a successful, gradual and systematic transition from the old curriculum to the new one.

Keywords: National Commission for Colleges of Education (NCCE) Curriculum, Basic Education, Basic Science and Technology Teachers

INTRODUCTION

Science and technology have been regarded as the two major forces propelling the modern socioeconomic development. Education, which has remained to be a social process in capacity building and sustaining

humanity, is indeed the vehicle for acquiring the requisite national development. However, the Basic Education sector has historically suffered from years of neglect, mismanagement and inadequacy of resources commensurate with

national needs, population growth and demand, consequently, Education as a strategic priority of the Government has not been well-positioned as a transformational tool and a formidable instrument for national development (Egwu, 2009). Specifically, the Basic Education sector has been inundated with myriad of challenges which militates against the realization of national goals at large. Major among the challenges is *the problem of quality teacher production for the Universal Basic Education (UBE) in general, which stems from deficiencies inherent in the teacher preparation programmes especially in the Colleges of Education (Junaid, 2014; Shuaibu, 2014). This is characterized by lack of synchronization between the content and pedagogical knowledge at the training level, which affects their service delivery at the basic education level (Danladi, 2020). The result has been the public outcry on the quality of the products being academically bankrupt reflecting the quality of teachers and the quality of their instructional delivery in teaching and learning processes. The ripple effect extends beyond the basic education level to other educational levels affecting the nation's quality of education generally (Ijaiya et al., 2011). The National Commission for Colleges of Education (NCCE) (2012) guided by*

its vision of producing well motivated teachers with high personal and professional discipline, integrity and competence responded to these hues and cries (Shuaibu, 2014). The commission radically overhauls the faulted Nigeria Certificate in Education (NCE) curriculum to a service focused new NCE curriculum. Salient features in this regard include; differently packaged areas in which NCE students are expected to specialize, paradigm shift from teaching to learning in which pre-service teachers will be provided with opportunities to acquire skills and attitudes of an effective teacher and the provision of adequate opportunities to practice teaching. This paper therefore, examined the interplay of the reform efforts at the Basic Education level in order to determine whether the efforts have any improvement on the quality of Basic Science Education Teachers in particular. By so doing, the paper unveils the optimism that the new curriculum embodies requisite qualities in the production of quality Basic Science Education Teachers

Concept of Basic Education

The crucial role of education has recently been re-fashioned by the forces of globalization. The introduction of the Universal Basic Education (UBE) is a manifestation of Nigeria's' attempt to conform to

the global standards (Danladi, 2010). The UBE law according to Shuaibu (2014) defined Basic Education to include the education given to children up to and including junior secondary school. Lately, the Federal Government of Nigeria adopted the education of children before primary school age as a key component of formal education in Nigeria (Okeke-Oti & Adaka, 2012).

Thus, Basic Education which shall be free, compulsory, universal and qualitative in Nigeria comprises:

- 1-year of Pre-Primary
- 6 years of Primary
- 3years of Junior Secondary Education (Okeke-Oti & Adaka, 2012).

The level being the first stage of the formal education system is regarded as the foundation upon which all other levels of education are built. It is the key to the success or failure of other levels (Federal Republic of Nigeria (FRN), 2014). With the advent of this renewed hope, the modus operandi of the former education programme (Universal Primary Education) was radically refocused and reviewed by Nigeria Educational and Research Development Council (NERDC). This complete and optimistic overhaul was geared towards

attaining the following broad objectives of the UBE viz:

- Developing in the entire citizenry a strong consciousness for education and a strong commitment to its vigorous promotion;
- The provision of free, Universal Basic Education for every Nigerian Child of School-going age; reducing drastically the incidence of drop-out from the formal school system (through improved relevance, quality and efficiency); and
- Ensuring the acquisition of appropriate levels of literacy, numeracy, manipulative, communicative and life skills, as well as ethical, moral and civic values needed for laying a solid foundation for life-long learning (UBE, 2014).

Careful analyses of these objectives will provide indicators of renewed hope in the aspect of quality basic education for a better national development base. However, the expected outcome of the basic education program has not been satisfactory because bulk of basic education teachers are untrained and incompetent and by implication, such caliber of teachers cannot provide quality instructions to achieve the Education for All (EFA) and the

Millennium Development Goals (MDGs) (National Teachers' Institute, 2009).

Challenges of Basic Science and Technology Teacher Production

The role of teacher in ensuring successful implementation of the school curriculum is so significant that experience and common sense support the logic that the quality of education available in any given society cannot be better than the quality of its teachers. This implies that no matter how well planned out a curriculum is, its success or effectiveness depends on how prepared the teachers are in both ability and willingness to have students experience all the activities enshrined in the curriculum. The Basic Science and Technology is a well-conceived curriculum package whose fruition is at stake. This is related to the weaknesses inherent in the production pipeline of the present crop of Basic Science and Technology Teachers. Olayiwola and Adedibu (2007) identified the following weaknesses common to the products of the system, as precipitates of the faulted teacher training programs:

- Lack of practical skills as a result of inadequate exposure to teaching practice
- Poor classroom control and management

- Lack of in-depth subject matter knowledge
- Inability to communicate effectively in English language
- Lack of self-reliant and entrepreneurial skills
- Lack of professionalism
- Poor attitude to work
- Poor computer skills (Olayiwola & Adedibu, 2007)

It is therefore not surprising that there has been recognition of the mismatch between the type of teachers trained in our NCE awarding institutions and the work they do in Basic Education (Shuaibu, 2014). The NCCE within its mandate rise up to these challenges and made a giant stride towards re-focusing the teacher training program by overhauling the faulted curriculum to a service focused one.

Indices of Quality Teacher Production in the new NCCE Curriculum

Quality is an indicator of a high degree in character or nature attributed to a person, thing, process or event. Quality in this regard, could be referred to as a process whereby teaching and learning are continuously improved and maintained with a view to bringing about desirable educational goals in the school system (Ogunmade, 2005). It is fundamental for effective teaching and learning and for meeting

educational goals. The extent to which a curriculum is implemented therefore depends on the degree of its quality in both the behavior and the performance of the learners. Unlike the old dispensation in which learners (basic education teachers) did not show appreciable signs of its quality, learners in the revised and updated NCCE curriculum probably would be different. The striking factor between the two, which is the yard stick of the optimism, is the production of well-sorted out implementation framework in the latter (NCCE, 2012).

The framework sets standards for curriculum practice, gives practical guidelines as to what is expected to be done by the administrator, teachers and students in the process of implementing the new curriculum (Rufa'i, 2013). The following are the salient features of the framework:

Educational Approach

There are two main characteristics of the education approach underlying the new teacher education programs. The first character is the “shift from teaching to learning” through which lecturer/teacher educators will dispense their lectures not through a relatively simple “teaching program” but rather through a comprehensive “learning program” to ensure and measure that the required content knowledge, skills and attitudes are

developed by each Student Teacher (ST). The second uniqueness underlying the reform is “not only content is learnt but also skills and attitudes” through which learning of content (professional knowledge) relates to and supports the development of professional skills and professional engagement or attitudes (Curriculum Implementation Framework for NCE, 2012).

Teacher Standards

The Teacher Standards (TSs) which represent a measurable and public statement of the quality and professionalism regarding the requisite knowledge, skills and attitudes of teachers has been accorded due consideration in the renewed hope (Curriculum Implementation Framework for NCE, 2012). This will hopefully raise the level education quality as precursor for national productivity. The Commission outlined the following as the TSs:

Professional Knowledge

- a) Teachers know how learners learn and facilitate learning effectively
- b) Teachers know and understand the content of the curriculum
- c) Teachers should know their students (NCCE, 2012)

Professional Practice

- a) Teachers plan and assess for effective learning
- b) Teachers create and maintain safe and challenging learning environments
- c) Teachers use a range of learning techniques and resources to engage learners ineffectively learning (NCCE, 2012)
- d) Professional Engagement
- e) Teachers reflect on, evaluate and improve their professional knowledge and practice
- f) Teachers assume active membership of their profession (NCCE, 2012).

Learning Opportunities

Learning opportunities in the implementation document refer to all those environmental characteristics (classroom, group and individual activities, resources, assessment processes) that purposefully enhance learning. In recognition of the shift in emphasis from teaching to learning, the NCCE mandated the COEs to create effective learning environments with a view to ensuring appropriate *teaching input* and *quality learning output* into the 3-year NCE programs (Curriculum Implementation Framework for NCE, 2012). As a condition during accreditation and monitoring, the NCCE will verify institution's compliance with the outlined learning

opportunities to ensure adequate development of professional skills in student teachers (Curriculum Implementation Framework for NCE, 2012).

Assessment

Assessment measures how well learners attained the learning outcome. In the new curriculum, the learning outcomes considered pivotal are the teacher standards. In line with the new approach, assessment should not only measure whether student teachers have acquired the necessary content knowledge but also provide evidence of the necessary professional skills and attitudes. Thus, activities of the NCCE as a regulatory body will be geared toward evaluating the extent to which assessment is used in enhancing the quality of the prospective teachers exemplified by the teacher standards (Curriculum Implementation Framework for NCE, 2012). To this effect, the COEs must have an internal quality assurance unit to monitor the assessment practices. The assessment practices should be reliable, valid, credible, relevant and consistent with teacher standards (Curriculum Implementation Framework for NCE, 2012).

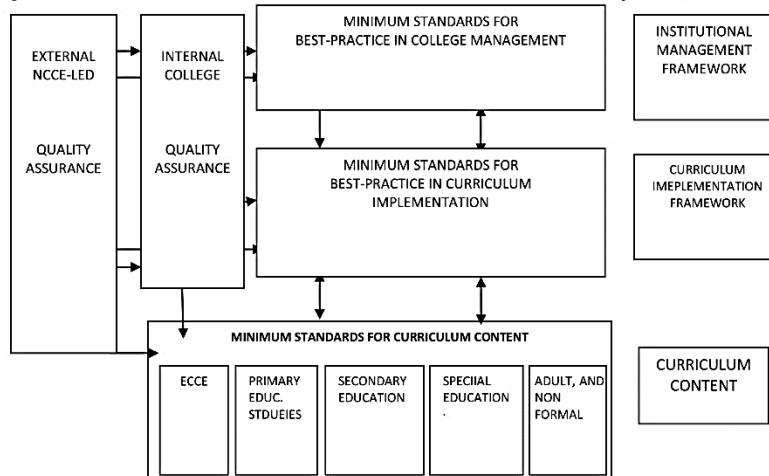
Quality Assurance

The Quality Assurance (QA) is a careful monitoring of the new

curriculum implementation processes to ensure effectiveness in the fruition of the desired results, i.e. the professional teachers. The reform efforts require that a formal QA system leads to continuous quality improvement when it is internally owned and controlled and the external QA system plays a supportive and facilitative role to the internal practices (Valista, 2014). This led to the production of the new Accreditation or QA Toolkit consisting of four booklets. Each of the booklets contains information required for the smooth conduct of (the two essential components of accreditation) the internal – for the COEs and external quality assurance processes, procedures and practices – under the NCCE. The assessment in

the toolkit is based on key areas of quality in COEs covering leadership, management, organization, curriculum organization and its implementation, infrastructure, learning resources, assessment, evaluation, students support and progression (Curriculum Implementation Framework for NCE, 2012). However, in the former QA practice, the accreditation approach was fraught with several problems. It is done once in every five years; it is quantitative in nature and not qualitative and do not address issues related to actual student learning experience adequately. The interaction between the new NCCE curriculum and elements of the QA system in COEs is summarized in the figure below.

Figure1: Interaction between the New NCCE Curriculum and QA System in COEs



Curriculum Implementation Framework for NCE, 2012.

Teaching Practice

The Teaching Practice (TP) is very crucial and provides student teachers with the opportunity of acquiring the necessary professional skills through practical experience. The new NCCE according to Abdulkarim (2014) curriculum stipulates that TP should be done in the first semester of the third year for a period of three months. Lecturers should be assigned to student teachers for mentoring before the micro-teaching for continuous support. While on the field, supervisors should be assigned to student teachers based on specialization to allow for a focused and well-informed assessment (Curriculum Implementation Framework for NCE, 2012). The COEs must ensure that lecturers design and coordinate a comprehensive TP program for the student teachers to allow for gradual build-up of TP preparation assignments. In these assignments, student teachers are required to design lesson plans, learning materials and assessment tasks which they can use in a school during TP (Curriculum Implementation Framework for NCE, 2012). The COEs should further design school-based teachers' professional development programs to enhance their profession and become reflective mentors. Moreover, a TP toolkit which is a collection of tools

to which teacher educators will refer to, where certain challenges occur in the process of teaching practice supervision has been produced (Abdulkareem, 2014). The Commission will carry out regular quality assurance exercise to ensure compliance with the TP guidelines.

The uniqueness of the framework is informed by the mutual reciprocity of the quality indicators. They are interwoven in a complementary way such that none stands alone and all subsumed into establishing quality in teacher standards. Although NCE as a qualification is common to all, each subject has its own unique features and demands properly articulated in the general requirements and course credit unit system (Abdulkarim, 2014).

CONCLUSION

There has been glaring dislocation of the teacher preparation programmes in COEs from the needs of the Basic Education level precipitating teachers that are irrelevant to the sector. The NCCE responded within its constitutional mandate and holistically revised and updated the faulted curriculum to align with current basic education sector needs. The Commission however supported the renewed hope with a finely grained, sorted out implementation framework that will guide the COEs

in mounting effectively the teacher education programs. The level of optimism which characterized the commission's efforts to re-direct the system on the right track projects the restoration of quality teacher standards as sound basis for quality education necessary for sustainable national development.

RECOMMENDATIONS

Based on the submissions above, the following recommendations were proffered,

1. Requisite implementation parameters and guidelines must be in place and followed to provide a successful, gradual and systematic transition from the old curriculum to the new one.
2. Government and other major stakeholders such as the NCCE, COEs should entrench sustainability in the reform package
3. Ensure adequate funding on all aspects of the reform to ensure successful implementation of the new curriculum

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SOCIAL MEDIA: PARENTAL ROLE AND ADOLESCENTS' ACADEMIC ATTAINMENTS

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ABSTRACT

This paper discussed the influence of social media on adolescents' academic attainment and the role of parents in guiding them. The paper was introduced by reporting the poor academic attainment of adolescent students. It further explained in details the concept of social media, time spend by adolescent students using social media and the influence of social media on student's academic attainment. The paper revealed that social media usage has influence on students' academic attainment; adolescent students were found to spend more times on social media than on academic activities. It also showed that social media affect students' academic attainment either positively or negatively, depending on how it is used. It was recommended that parents should take time to scan through their wards exercise books and visit their rooms from time to time as children are likely to be preoccupied with their phones rather than studying.

Keywords: Social media, Social media sites, Academic attainment, parental role, adolescents

INTRODUCTION

There is a public outcry as regard the consistent record of failure in public examinations. The downward trend in the academic achievement of senior secondary school students in Nigeria in the recent past has been a source of concern to all stakeholders. It is a common knowledge to all that school leavers in Nigeria have poor results in both external and internal examinations. Dlamini (2019) stated

that decline in educational attainment by graduands in our secondary schools in both internal and external examinations will naturally affect the quality of university graduates. In an effort to dig out if there are any causal factors, Bolaji, (2019) reported that there are many factors that could probably be responsible for the decline in academic attainment. According to the author, some are but

not limited to social media dying culture of reading amongst

students, poor location of schools, incessant changes in government policies, lack of adequate preparedness by students, shortage of qualified teachers, inadequate teaching materials, lack of good school environment, decay/inadequate infrastructural facilities, inadequate school resources and teacher quality.

There is a recent factor that is a fast growing phenomenon as causal factor affecting adolescents today. The world today is celebrating the improvement in communication technology which has broadened the scope of Information and Communication Technology (ICT). The ICTs include internet, satellite, cable data transmission and computer assisted equipment (Dennis, 2019). Information and communication technology (ICT) in the 21st century have been characterized by the use of computer networking which makes it easier, faster and more effective for communication and interactions among individuals globally; with both its positive and negative effects depending on how it's been used by users. Social media is one of the attributes of ICT that is majorly dominated by students at both secondary and tertiary institutions,

where they interact with one another but sometimes spend much time on the internet than their academic activities, and these academic activities is their primary goal during school session.

Since the evolution of Social media sites, parents and educators have shown great interests on its effects on students' performance. The social media or networking sites are networking sites used by most people to interact with their old or new friends. The relationship between students' performance and the use of social media has shown that student's performance is not impressive as they spend most of their time online chatting on non-academic issues which lead to massive failure in examinations like WAEC, NECO, JAMB and other organized examinations. Social network as a social structure is made up of individual or organizations' called "nodes" which are connected together by one or more specific types of interdependency such as friendship, kinship, common interest, financial exchange, dislike, sexual relationships or of beliefs, knowledge or prestige (Hanssen, 2017). Social networking sites includes: Yahoo Messenger, Google talk, Google Messenger, Blackberry, iPhone, Androids, etc.

The expansion of technology has also affected internet software, thus leading to chatting sites known by the name social media with social networking sites, one can send and receive messages almost immediately. However, lack of regulations of the internet has led to its excessive use. It is believed that internet has penetrated more houses (Hanssen, 2017). It is a common sight to see youth chatting in sensitive or highly organized places like church, mosque and lecture venues. Some are so carried away that even as they are walking along the high way, they keep chatting. The manufacturing and distribution of equally sophisticated cellular phone has complicated the situation, as youths no longer need to visit a cybercafé before they send and receive messages. Attention is being shifted from visible to invisible friends, while important venture as study and writing are affected in the process. This phenomenon has become a source of worry as it could hamper students; mostly adolescents' concentration in learning. The emergence of social media as a result of advancement in technology and expansion in internet software has raised eye brows among academics on social media impacts on studies. Students at all levels of learning now have divided attention to studies, as a result of available opportunities to be harnessed from social media. Dennis

(2019) revealed that social media more especially the Facebook has negative impact on students' academic performance. According to the findings, the more students use Facebook, the more it affects their academic performance. The researcher also reported that only about 26% of students use social networking sites for academic purpose, most of the younger students use social networking sites mainly for socializing activities rather than for academic purposes.

It is against this background that this study will examine the influence of social media on adolescent students' academic attainment and the role parents could play in guiding them.

The Concept of Social Media

It is beginning to be believable as though social media sites are gradually becoming the most dominant and most visited internet site globally. According to Dollarhide (2019), Social media is computer-based technology that facilitates the sharing of ideas, thoughts, and information through the building of virtual networks and communities. It therefore features user generated content and personalized profiles. Hudson (2019) defines Social media as referring to websites and applications that are designed to allow people to share content quickly,

efficiently, and in real-time. Similarly, Social media refers to the means of interactions among people in which they create, share, and/or exchange information and ideas in virtual communities and networks (Tufts, 2019).

Social media may comprise of many technologies enhanced activities such as photo sharing, blogging, social gaming, social networks, video sharing, business networks and virtual worlds, among others reviews and much more (Dollarhide, 2019). Even governments and politicians utilize social media to engage with constituents and voters. Wikipedia (2021) defined Social media as interactive computer-mediated technologies that facilitate the creation and sharing of information, ideas, career interests and other forms of expression via virtual communities and networks. Social media is one of the best ways of connecting people the world over as it is used to keep in touch with friends and family. It is also used for networking career opportunities, find people across the globe with like interests, and share their thought, feelings, insight, and emotions (Dollarhide, 2019). Rouse and Wigmore (2016) identified some of the prominent examples of social media to include: Facebook, Twitter, Google +, Wikipedia, LinkedIn,

Reddit, Pinterest, Bloggs, Flikrs, Instagram, and Snapchat.

Facebook is a popular free social networking website that allows registered users to create profiles, upload photos and video, send messages and keep in touch with friends, family and colleagues. Twitter is a free microblogging service that allows registered members to broadcast short posts called tweets. Twitter members can broadcast tweets and follow other users' tweets by using multiple platforms and devices. Google+ (pronounced *Google plus*) was Google's social networking project, designed to replicate the way people interact offline more closely than is the case in other social networking services. This website is no longer offered to new users and plans to shut down remaining accounts in 2019, hence it is no longer in use now. Wikipedia is a free, open content online encyclopedia created through the collaborative effort of a community of users known as Wikipedants. Anyone registered on the site can create an article for publication; however, registration is not required to edit articles. Wikipedia was founded in January of 2001.

LinkedIn is a social networking site designed specifically for the business

community. The goal of the site is to allow registered members to establish and document networks of people they know and trust professionally. Reddit is a social news website and forum where stories are socially created and promoted by site members. The site is composed of hundreds of sub-communities, known as "subreddits." Each subreddit has a specific topic such as technology, politics or music. Reddit site members, also known as, "redditors," submit content which is then voted upon by other members. The goal is to send well-regarded stories to the top of the site's main thread page. Pinterest is another social curation website for sharing and categorizing images found online. Pinterest requires brief descriptions but the main focus of the site is visual. Clicking on an image will take you to the original source. For example, clicking on a picture of a pair of shoes might redirect users to a purchasing site and an image of blueberry pancakes might redirect one to the recipe.

In a similar vein, Tufts (2019) identified some Popular Social Media Tools and Platforms as follows: Instagram is a free photo and video sharing app that allows users to apply digital filters, frames and special effects to their photos and then share them on a variety of social

networking sites. Snapchat is another mobile app that lets users send photos and videos to friends or to their "story." Snaps disappear after viewing or after 24 hours. Blogs is also a platform for casual dialogue and discussions on a specific topic or opinion. Flickr is an image and video hosting website and an online community. Photos can be shared on Facebook and Twitter and other social networking sites.

Time Spent by Students on Social Media

The world is living in ultra-connected times where students have access to a lot of technology. It has become habitual to see adolescents chatting even in a more reserved, sensitive, and highly controlled places like church, mosque and classes. Some chats even as they are walking along the road or as they drive on highways. The proliferation of sophisticated android cellular phones has intricated the situation, as youths no longer need to visit a cybercafé before they send and receive messages (Asemah, et al., 2013). Attention has been shifted from visible to invisible friends, while important ventures like study and writing are affected in the process. This phenomenon has become a source of worry to many who believe in knowledge and skill acquisition.

A research carried out Wiley and Sisson (2006), has proved the heavy presence of social media usage among students. Their finding argued that previous studies have found that more than 90% percent of adolescent school students use social networks. It also found out that, students use Social Networking Sites (SNSs) approximately thirty (30) minutes throughout the day as part of their daily routine life (Gross, 2004). This shows the level at which students are patronizing these sites and this may bring along both positive and negative effects on students as far as their academic performance is concerned. According to the author, when asked, students said they devote more time on social media, streaming video, gaming, or other online activities compared to time spent on studying. They added further that while the typical student may spend about as much time online doing homework or research as on other online activities, almost half (40%) of students reported spending between 3 and 4 hours a day working online.

Bolaji (2019) reported that women college students spend an average of 10 hours a day on their cell phones, while men students spend nearly eight hours. That approximately 60 percent of college students admit they may be addicted to their cell phone, and some indicated they get agitated when it is

not in sight. According to Gross (2004), internet users are now spending an average of 2 hours and 22 minutes per day on social networking and messaging platforms. Trended data is also suggesting that there may be saturation in social media consumption. It is observed that many countries that were previously showing growing signs of social media utilization are now plateauing as 11 out of 31 countries analyzed, the time spent online has either stayed the same or decreased from the previous analysis (Wiley & Sisson, 2006). They further claim that the limited use of

Influence of Social Media Usage on Students' Academic Attainment

It is very noticeable today that students spend most of their free time on social media websites. Sometimes, teachers get frustrated as a result for they believe that the habit affects the way these students are learning. Although social media can be disturbing to students as it takes over most of the students' useful time, it can be a useful tool to use for educational purposes and it is therefore time to start seeing things differently. Efforts were made by individuals and groups toward integrating social media into teaching and learning so as to develop, promote and enhance positive transfer of learning for improved

academic performance. Wiley & Sisson (2006) confirmed that Social media such as Facebook, Twitter, Google Plus, and Flickr, as well as open social practices such as blogging, are being used in learning for the purpose of convenient communication with other students and potentially with others outside the class such as students of the same topic and subject experts.

Social media is linked with users having a better understanding of 'screen time' as well as the drawbacks of being too active on social media. According to Dennis (2019), social media empowers everyone including parents, teachers and students. It is an effective way to share information and build a community. According to Dlamini (2019), it was observed that education institutions are adapting social media into their systems and relying on group resources and mechanisms to improve the students' lives. This is mostly because the use of social media in education provides students with the ability to get more useful information, to connect with learning groups and other educational systems that make education convenient. In line with what is considered as way of improving academic performance, Dlamini (2019) also was of the opinion that Social network tools afford students

and institutions with multiple opportunities to improve learning methods. Through these networks, one can incorporate social media plugins that enable sharing and interaction. Students can benefit from online tutorials and resources that are shared through social networks.

According to Ashford University (2018), Social media promotes self-directed learning, which prepares students to search for answers and make decisions independently. When reinforced in a classroom setting, these social media skills can be guided and refined to produce better learning outcomes and critical awareness. Social media also allows students more freedom to connect and collaborate beyond the physical classroom, which means students anywhere can start to experience the globally connected world long before they enter the workforce. There is valuable knowledge to be gained through social media such as analytics and insights on various topics or issues for study purposes. Social media is also a medium where students can establish beneficial connections for their careers. As an educational institution, it is crucial to be active in many social platforms possible; this helps create better student training strategies and shapes student culture. Another way through which social media influences

academic performance is that through the use of social media, students soon learn who the experts are in particular fields and subjects. When one starts following these experts he/she learns more and gains useful content from them, this empowers one to produce great results (Dlamini, 2019). Social media has the ability to broaden one's perspective on various subjects and gives illuminating, instant content that is new. One has the opportunity of engaging experts to get answers on topics that the person may need help in.

One other way through which social media can have influence over academic performance is the fact that Learning colleges have the ability to connect with students through social media networks such as Facebook, Google Plus groups, and YouTube. These channels according to Dlamini (2019) can be used to communicate campus news, make announcements and provide students with useful information. This builds engagement between the College and students which help tackle many student issues through the group interactions. In a similar vein, institutions can share supportive and positive posts that reach all students that are connected to the networks and pages. One can initiate hashtags on social media to engage students and online discussions that are helpful. Video is

a prominent tool in social media trends that are effective and one can use it to share useful videos that inspire students and help them in their course subjects. Although it is advisable to be selective about which social platforms to use for the best practice, through social media such as YouTube, Facebook or Instagram, live video the engagements between students and the institution can be sustained.

Social media offers audience and subject monitoring tools that are useful and it is one of the best platforms to extract data. One can find out how the majority of people feel about a particular topic or how experts perceive and advice on specific issues. This can help students compile and produce useful content for research. Whether students are working on an assignment, working on a project or trying to gain more insight on a subject, some of the best information and results can be extracted from social media. From another perspective, Asemah, et al., (2013) underlined the fact that social media usage had a negative influence on the academic performance of students. It concluded that students who spent more time on social media were more likely to perform poorly in their academics than those who did not.

Role of Parents in Guiding Adolescents' Use of Social Media

Parents have significant roles to play in guiding adolescents attain their education at the fullest. Parents are expected to be fully involved in the academic pursuits of their children. Many studies have documented a strong link between children's academic performance and parental involvement in their schooling. Parental participation is significantly associated with higher grades and greater academic motivation (Dennis, 2019). The author pointed out that when parents become fully involved in adolescents' academic activities, they go as far as guiding them in the process; this could include engaging in activities at home or supporting extracurricular activities. According to the author, it is when parents are involved, that they see the *need* to offset limitations of what can affect the child's academic progress such as obsessive use of social media. Another significant merit of parents' involvement in their children's academic attainment is that, they can provide proper guidance on learning strategies, which may help the adolescent cope up with social media usage and studies, enhancing a non-conflicting environment (Hill & Tyson, 2009). The authors further stressed on the importance of parenting styles in guiding adolescents' usage of the social

media. The authors emphasized that parents' firm, yet warm and authoritative parenting style proves to be the most successful in creating positive performance and achievements in adolescents. Parents who create reasonable rules and take active roles in an adolescent's life will find the student having higher grades and greater performances in school. Such parents are likely to be listened to by the adolescents regarding how social media should be properly harnessed.

It is also on record that when parents get involved in their children's academic activity, they utilize various strategies to monitor and supervise their children's media use, and such strategies can "mediate" the way children are affected by social media (Shin, 2014). Such strategies are termed "parental mediation." Parental mediation theory is rooted in media effects and young adolescents' Risk Taking in Social Networking Sites. The theory attempts to create healthy interpersonal communication and interactions between parents and children on how to mitigate negative media influences on children's academic attainment. According to the theory, there are three identified common strategies of parental mediation: Restrictive mediation (controlling children's usage of and exposure to media by either tasking

them to do certain activities that may take some of the times they use on social media), active mediation (talking to children about media and helping children properly consume media content by giving them proper awareness on the side effects of incessant use of social media), and co-use (using media together without purposeful discussions).

CONCLUSION

Since research efforts have identified some of the causal factors affecting academic attainment among adolescents, one of which is the social media, efforts should be made to stem the menace from the bud. As parents, we have a gigantic task ahead in tackling that. An interesting aspect of social media is that it is not limited to desktop or laptops computers but accessible through mobile applications and smart phones making it very accessible and easy to use. Most of the access routes to social media networking are available with our children. Some legal and others are acquired illegally. No matter the source of obtaining one, parents have hardly had time to monitor the usage by adolescents.

A large number of them in Nigeria spend time online either using smart phones or their computers and other handheld gadgets such as iPads and tablets browsing the social

networking sites; its excessive use of social media will lead to poor academic performance. Some people hold the view that social media has positive impact on students if used responsibly for assignments, discussions, getting updates on class schedules and addressing concern that are related to their coursework.

RECOMMENDATIONS

1. Parents who have social media facilities at home or offices should introduce password security to control access to the gadget at home or schools. This should also be done for TV.
2. School administrators should ensure that students' use of networking sites should be used for problems in education and no student should be allowed to make use of phone in class or in library.
3. Parents should closely monitor their wards on the usage and time spent on social networking sites, know what they are doing online, whom they are chatting with and ensure that the sites are used responsibly.
4. All education stakeholders should regularly communicate the negative influences of these sites to students. This will enable them to be watchful of their activities and improve in their academic endeavours by their ability to

- regulate, eliminate or reduce the time spent or wasted on the use of social networking sites.
5. Educators should ensure that students poor use of grammar and inappropriate way of writing in their academic work is not ignored, marks should also be deducted for the use of slangs, wrong spelling and abbreviations.
 6. Parents should take time to scan through their wards exercise books and visit their rooms from time to time as children are likely to exhibit some illegal items in their rooms.

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TEACHERS' PERCEPTION OF FACTORS MILITATING AGAINST GIRL-CHILD EDUCATION IN PRIMARY SCHOOLS IN WASE LOCAL GOVERNMENT AREA OF PLATEAU STATE, NIGERIA

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ABSTRACT

This study examined major factors militating against the progress of girl-child education as perceived by public primary school teachers in Wase Local Government Area (LGA) of Plateau state. A survey research design was adopted for the study. The target population comprised all primary school teachers in Wase LGA regardless of their gender. A sample of 150 teachers were selected through stratified sampling method. A closed ended was used to elicit information from the respondents. Data collected were analyzed using simple percentage and mean. The results indicated that the main factors militating against girl-child education in Wase LGA include family attitude towards girl-child education, poverty, and illiteracy among parents. It was concluded that counselling intervention could be used to take care of the major factors revealed in this study by counsellors and significant others who are concerned about the status of girl-child education in Wase LGA of Plateau state, Nigeria. It was recommended that government should assist counsellors and other professionals to organize orientation for stakeholders on the issue of girl-child education in Nigeria.

Keywords: Teacher's perception, Major factors, Girl-Child Education, public primary school teachers

INTRODUCTION

Education at the Basic and Secondary school levels is a fundamental right of every child as it unveils great potentials, promotes individual freedom, empowers and yields important development benefits. Researchers such as Mohammed (2022) believe that education inculcates in the individual knowledge, skills, character and

desirable values that will foster national development and self-actualization. Education equips one with marketable skills thereby lifting the possessor up from the poverty arena. It helps the individual learns good health habits, principles and practices which promote healthy living and longevity as well as acquire marketable skills that confer

economic power on the educated person.

Education could either be traditional (informal) or Western (formal) with the traditional involving non-structured, but organized system of imparting knowledge. Traditional education usually starting from the household level to the community, and its existence is as old as the human societies. development has progressed to accommodate the formal mode at the expense of the informal. Basically, education is a part of culture because it is a life-long learning process that enables a person, irrespective of age understands the relationship between the environment and his or her peculiar circumstances. It helps people towards the development of a complete balanced and rational personality. Lack of education has negative effects on the individual, family and society at large.

Globally, education is considered as a veritable tool used by people in achieving freedom from poverty and participate fully as good citizens. Many countries of the world give priority to education in their agenda based on the fact that no nation would grow beyond the extent of her educational achievement. In some African countries, particularly Nigeria, have persistent issues in girl-

child education. Girl-child in this study refers to a female between the ages of 6-18 years. The girl-child faces the challenges of full participation and to have access to the benefits of formal education as that given to the men. The fact remains that the girl-child can contribute maximally to the socio-economic development of their community and Nigeria at large. Despite this, people believe that there is still gender inequality in terms of accessibility to education in many parts of Nigeria, particularly the Northern States.

In his recent study, Mohammed (2022) reported that many girls in northern Nigeria are not sent to school and among those sent to school, many drop out early. What then are the major causes or factors responsible for this ugly situation of girl-child education in the area under study? In some parts of Nigeria, parents or guardians feel that the input (income by way of hawking food items) of the girl child into the family income is so high that it becomes economically unwise to allow such a child to go to school. The girl child also helps to relieve parents who are gainfully employed by looking after the younger ones. Mohammed (2022) reported that poverty compels many parents to marry off their daughters to wealthy men instead of sending them to

school. That many parents believe that when girls are educated, the benefits go to their family of procreation instead of the family of orientation.

Girl-child with the acquisition of skills in adulthood contributes a lot to the societal development. A woman's education affords her the opportunity to take advantage of family planning facilities which results in fewer births of children and less social and economic burdens on families and society in general. With education, the girl child could easily gain employment in the formal labour force, and therefore, contribute not only to her family income but the nation at large. In other words, higher education enables girls to provide financial support to their families especially now that the economic recession has made it impossible for a man to provide adequately for his family with his meager income. Thus, an educated woman with a good earning power can help reduce the financial problems of the family and thus avert frustration and other financial problems. Literacy assists people to acquire skills and knowledge that help to facilitate better use of natural resources and other agricultural inputs and thereby increasing their productivity. Thus, girl-child being active participants in all stages of the productive chain, i.e.

hoeing, weeding, fertilizing, harvesting and threshing of grains, storage and distribution of goods need to be educated to increase productivity and their incomes.

Politically, the girl-child is relegated to the background in the society. Women are in most cases under-represented in the decision making process because of the notion that, a woman's place is in the kitchen. In Nigeria, particularly the area under study, the problem is also compounded by the girl-child's deficiency in educational qualification. Therefore, should more girls be educated, they would be empowered in adulthood to participate in politics not only as voters but as contestants which would give them the opportunity to partake in vital decisions that affect their lives in the society. Nigerians should note that education is one of the fundamental rights of individuals as contain in Article 26 of the Universal Declaration of Human Rights, which was adopted by the United Nations General Assembly in December, 1949. According to Tahir (2005) and Guttman (2009), the document stipulated that (i) Everyone has the right to education. This shall be free at least in the elementary/primary stages; (ii) Elementary education shall be compulsory while technical and professional education shall be

made generally available; (iii) Higher education shall be equally accessible to all on the basis of merit; and (iv) Parents have a prior right to choose the kind of education that shall be given to their children.

Similarly, Mohammed (2022) reported that Females encounter a series of problems that hinder them from educational development, for example; early marriage, rape, gender discrimination and so on. Most African women received some sort of informal education, but formal education, has been reserved for men who occupy more important roles in government and society. The researcher argued that education of the girl-child can contribute immensely to the development of the family, the societies and the nation at large. Generally, Girl-child girl education c contributes to the various aspects of their lives such as increased productivity, family health and nutrition, reduced fertility rates and related child mortality rates. It is believed that girl-child education empowers the girl child to become self-sufficient adult capable of taking decision and controlling her life.

In Nigeria, experience has shown that females are victims of various traditional and cultural practices. Many of them suffered degradation, poverty, and in some cases, their

faces are only to be seen but their voices are not to be heard. In some traditional communities, they are seen as being sub-servient to their male counterparts. In-fact, they are considered as the inferior sex, and their place is in the kitchen. Generally, Girl child access to formal education has continued to be low. UNICEF (2007) also reported that only 20 per cent of women in the North West and North East of the country are literate and have attended school. Girl-child education has suffered a setback and continues to be littered with some factors that prevent its development.

Globally, education has been accepted and recognized as right from the 1948 adoption of the Universal Declaration on Human Rights. According to section 18 of the Nigerian Constitution, the Universal Basic Education (UBE) Act 2004, the kid Rights Act 2003, and Article 17 of the African Charter guarantee the proper of each Nigerian child to education. In line with this, therefore, the UBE Act and the Child Rights Act further made provision at no cost, and compulsory basic education up to junior secondary level for each child. Despite of these laudable efforts made by government and none-governmental organizations (NGOs) the girl-child education attainment in Nigeria is still low.

Teachers are seen as architects of any future generation in our community. They are expected to be competent, morally upright and knowledgeable, and their job is teaching especially in schools or colleges. A teacher in any given society is a leader who always believes in a change and the capacity to prepare future leaders and develop in them the skills that they may need to succeed in the future, both males and females. According to Dungum (2019), a teacher who leads understands the human aspect of living; not just someone who is all about academic standards or just following the national curriculum. Generally, a teacher is the real agent that helps in the development of various skills and competencies, thereby enhancing self-employment and self-sufficiency. In other words, a teacher imparts on his pupils or students (both males and females) some basic vocational skills so that they can work on their own when they finally leave schools.

In most cases, teachers perceived problems facing girl-children which are directly or indirectly limiting their education opportunities and potentials. These peculiar problems which amongst others include: family abuse and domestic violence, rejection and neglect, genital mutilation, sexual abuse, forced and early marriage, inducement to

prostitution, child labour, victims of suspicion of witchcraft, and girl-child homicide among others. Similarly, Mohammed (2022) has identified some barriers to girl-child education in Nigeria to include: poverty and economic issues, early marriage and teenage pregnancy, inadequate school infrastructure, cultural and religious misinterpretation are the main issues that prevent girls from going to school.

Religious and cultural misinterpretation are some of the most prevailing factors retarding or militating against the progress of girl-child education. According to Mohammed (2022), majority of parents considered girl-child education less important because no matter what level of education girl child attains the future hope of parents is to see the girl-child get married. That what is most important to parents in traditional Islamic society is the Islamic religious education. Parents consider boy-child more attached and committed to the family responsibilities such as farming, fishing, carving and so on, than girl-child, as such she needs no much attention with regard to career training and development. The problem of this study, therefore, is to determine the major factors that militating against the progress of girl-child education in Wase local

government area of Plateau State for necessary action.

Purpose of the Study

The purpose of this study is to ascertain the factors that are militating against the progress of girl-child education in Wase LGA of Plateau State.

Research Question

The study is guided by a research question as follows:

1. What are the major factors militating against the progress of girl-child education in Wase LGA of Plateau State?’

METHODOLOGY

Research Design

Generally, a research design is a plan that guides the researcher in making the collection, analysis and interpretation of data. A survey research design was employed for this study. This is a type of research that provides information on facts,

opinions, attitude and perceptions of individuals on events, problems or situations Ugodulunwa (2016). In a survey research, a representative sample is used for the purpose of generalizing the findings to the population from where the sample is drawn. This research design is relevant because the researcher intended to find out the respondents’ opinions on the major factors militating against the progress of girl-child education in Wase LGA.

Participants

The Target population of this study comprised of all teachers from all public Primary schools in Wase Local Government Area. There were a total of 173 primary school teachers in Wase LGA (Ministry of Education, 2022). However, the accessible population for this study comprised 209 teachers randomly selected from six public primary school teachers in Wase LGA.

Table 1: Distribution of the Population of Public Primary Schools in Wase LGA

S/N	NAMES OF SCHOOL	NO. OF TEACHERS		TOTAL
		Male	Female	
1.	LEA Primary School Kumbur, Wase	27	10	37
2.	LEA Primary School Unwan Kuyambana, Wase	38	13	51
3.	LEA Primary School Ugwan Galadima, Wase	31	12	43
4.	LEA Primary School Ugwan Malam Adama, Wase	23	11	34
5.	Wase	19	07	26
6.	LEA Primary School Ugwan Sayawa, Wase	12	06	18
	LEA Primary School Jigawa Audu, Wase	150	59	209
	TOTAL			

Source: Field Study, 2022

Furthermore, the sample size of this study consisted of one hundred and fifty (150) teachers drawn from six selected public primary schools in

Wase LGA using stratified sampling technique and gender as stratum to select the sample for the study.

Table 2: Distribution of Sample by Gender and Public Primary Schools in Wase LGA

S/N	NAMES OF SCHOOL	NO. OF STUDENT		
		Male	Female	TOTAL
1.	LEA Primary School Kumbur, Wase	19	08	27
2.	LEA Primary School Unwan Kuyambana, Wase	27	10	37
3.	LEA Primary School Ugwan Galadima, Wase	22	09	31
4.	LEA Primary School Ugwan Malam Adama, Wase	17	06	23
5.	Wase	14	05	19
6.	LEA Primary School Ugwan Sayawa, Wase	09	04	13
	LEA Primary School Jigawa Audu, Wase	108	42	150
	TOTAL			

Source: Field Study, 2022

Instrumentation

The instrument was a questionnaire titled: Teachers Perceived Factors Militating Against Girl-Child Education Questionnaire (TPFMAGCE). It was a self-developed questionnaire by the researcher. The instrument was divided into two parts. Part A obtained personal information about the respondents such as Sex, Age, and higher educational qualification. Part B comprised of 8 items designed on the four-point Likert type of scale format which is classified into Strongly Agreed (SA), Agreed (A), Disagreed (D) and Strongly Disagreed (SD). Here, the researcher wanted to determine the teachers'

perceived major factors militating against the progress of girl-child education in Wase LGA of Plateau state, through the responses of the research respondents.

Validity and Reliability of the Instrument

The research instrument was validated by using the comments of two lecturers in Guidance and Counselling unit, one from Educational Psychology, and one from Tests, Measurement and Evaluation units in the Faculty of Education, University of Kashere, Gombe state, Nigeria. The reliability (internal consistency) of the instrument was determined using

Cronbach Alpha method, and it yielded an alpha value of 0.80. This indicates that the instrument was reliable.

Procedure for Data Collection

Data were collected with the assistance of six non-academic staff (called research assistants) from Wase local government education authority. Each research assistant was signed to a primary school with the number of questionnaires needed to be filled in that school. 150 questionnaires were administered, all returned and correctly filled by the teachers (respondents). 100% was ensured because all the respondents were learned persons (teachers).

Data Analysis

Percentile and means were used to analyze the collected data. All items that have mean scores of 2.5 and above are accepted as major factors militating against the progress of girl-child education in the area under study. On the other hand, all items that have mean scores less than 2.5 are rejected as major factors militating against the progress of girl-child education.

RESULTS

Research Question: What are the major factors militating against the progress of girl-child education in Wase local government area of Plateau State?

Table 3: Respondents’ Responses on Factors Militating against Girl-Child Education in Wase Local Government Area of Plateau State (N =150)

S/N	Variables	Responses						
		SA	A	D	SD	Total	Mean (\bar{x})	Decision
1	Preference of boy-child to girl-child	25	55	50	20	365	2.57	Accepted
2	Rejection of girl-children	15	15	65	55	290	1.93	Rejected
3	Family attitude towards girl-child education.	56	60	20	14	458	3.05	Accepted
4	Poverty	60	58	22	10	468	3.12	Accepted
5	Parent illiteracy hinder girl-child education	50	72	17	11	460	3.07	Accepted
6	Western education is useless for women in some religions	45	28	72	15	423	2.82	Accepted
7	Misconception of girl-child Western education by some religious believers	12	23	68	47	290	1.93	Rejected
8	Education exposes girl-child to immorality	53	49	15	37	414	2.76	Accepted

Table 3 shows the research respondent responses means in relation to girl-child education in Wase local government area. The analysis shows that items 3, 4, and 5 have the highest mean scores of 3.12, 3.07 and 3.05. This explains that the family attitude towards girl-child education, poverty and parent illiteracy are major factors militating against girl-child education in Wase local government area of Plateau state. The results also showed that items 1, 6 and 8 have received the mean scores of 2.57, 2.82 and 2.76 respectively above 2.5, and are accepted as major factors hindering the progress of girl-child education. This implies that Preference of boy-children to girl-children, Western education is useless for women in some religions and Education exposes girl-child to immorality are major factors that militating against the progress of girl-child education in Wase L.G.A. The table also showed that items 2 and 7 have received each a mean score of less than 2.5 and are rejected. This explains that the Rejection of girl-children and the Prohibition of western education in some religions are not major factors militating against the progress of girl-child education in Wase L.G.A. of Plateau state.

DISCUSSION

This study examined the ascertain the major factors that are militating against the progress of girl-child education in Wase LGA of Plateau State. The investigation has revealed that the major factors that militating against the progress of girl-child education in Wase local government area include: Family attitude towards girl-child education, Poverty, and Illiteracy among parents. These findings agreed with Mohammed (2022) who reported that poverty compels many parents to marry off their daughters to wealthy men instead of sending them to school. That many parents believe that when girls are educated, the benefits go to their family of procreation instead of the family of orientation.

The findings showed that Preference of boy-children to girl-children, Western education is useless for women in some religions and Education exposes girl-child to immorality are also major factors that militating against the progress of girl-child education in Wase local government area. The girl-child is relegated to the background in the society. That women are in most cases under-represented in the decision making process because of the notion that, a woman's place is in the kitchen. In Nigeria, particularly the area under study, the problem is

also compounded by the girl-child's deficiency in educational qualification.

CONCLUSION

The findings of this study revealed that the major factors militating against the progress of girl-child education in Wase Local Government Area of Plateau State are: Family attitude towards girl-child education, Poverty, Illiteracy among parents, Preference of boy-children to girl-children, Western education is useless for women in some religions and Education exposes girl-child to immorality. However, the counselling intervention could be used to take care of the major factors revealed in this study by counsellors and significant others who are concerned about the status of girl-child education in Wase local government area of Plateau state, Nigeria.

RECOMMENDATIONS

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

- (i) Counsellors should provide counselling services to parents relating to girl-children education at all levels of education. This can be done through public enlightenment, seminars, workshops, PTA meetings, and so on.
- (ii) Government should assist counsellors and other professionals to organize orientation for stakeholders (Parents, religious/traditional leaders, teachers, welfare workers, agents of different organizations, etc) on the issue of girl-child education in Nigeria.
- (iii) Female-children should be encouraged to demand for their rights educationally, and socially.
- (iv) Government should always make education Free and compulsory for all girl-children at all levels of education in Nigeria
- (v) Government should encourage researchers to conduct more researches on the factors that hinder the development or progress of girl-child education in Wase local government area.

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ETHICS AND LIMITATIONS IN EDUCATIONAL RESEARCH

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ABSTRACT

The purpose of this study was to provide insight and understanding of ethics and limitation in educational research. It also discussed the concept of research in general and educational research in particular, the domains of ethical consideration within educational research, approaches to ethical thinking, ethical principles, and ethical rules were discussed, ethics and integrity in educational research also discussed. It is believed that if the research was done truthfully and findings were reported objectively under an acceptable guideline within a chosen research paradigm that research was considered ethical. A research that opposes these criteria was said to be un ethical and can warrant legal action. It therefore recommended that researcher should choose a research topic that has an understandable concept, method and procedures. Hence the paper concluded that when the limitations of the study are neglected by the researcher it will make the research unsuitable and not acceptable to a wider readership base, But when a study solidly elaborates on its limitations, it is likely to be cited and may also act as a benchmark for future research endeavour.

Keywords: Ethics, Limitation, Research, Educational research

INTRODUCTION

The word “research” originated from the old French word “researcher” meaning to search and search again. Mobile revised dictionary (2021) there is no acceptable definition of research, Various scholars defined the term based on their own opinion.

Salawu and Kamar (2017) defined research as the most important tools for advancing knowledge, for promoting progress and for enabling man to relate more effectively to his environment to accomplish a purpose and to resolve his conflicts. Also, Okoro (2005) defined research as a

systematic approach to finding answers to questions raised in one's design to examine relationship among different variables. This indicated that researches are conducted to answer preplanned questions. However, Trumann (2003) referred to research as an investigation and interpretation of facts, revision of accepted theories or law in the light of new facts or practical explanation of such new reserved theories or laws. Eboh (2009) reported educational research as the systematic application of scientific method for solving educational problems. Educational research is an activity of develop applying systematic and scientific behavior in educational situations to achieve educational goals effectively, therefore, this paper saw educational research as the systematic application of scientific methods for solving educational problems (Olaofe, 2010).

Concept of Research Ethics

The concept "ethics" is derived from the theoretical study of human values and conduct. Crystal (1991) identified two main branches of ethics, namely; normative and Meta ethics. Normative ethics addresses issues about the type of people and their way of life in the same community they live and the things that constitute their core values as the basis for morality. Meta ethics attempts to investigate the justification embedded on

normative judgment. From this conception, ethic is allied to social responsibility or moral principles which could be established by legal processes. Hence, there is need for an ethical foundation on every organization; the ethical foundation has to do with standard rules and regulations governing both internal and external relation of all the stake holders, involved in an activity or the products of an activity which in our case is educational research.

Black and miller (2009) defined ethics as moral principle that governed a person's behavior or the conduct of an activity; it is therefore a branch of knowledge that deals with moral principles. This definition sees ethics as a moral principle governing research activities. Ethics are associated with more and involve embracing moral issues in the center of working with humans (Truman, 2003). In co-operating a respect for and conversation of the environment. It is also located within the human right and democratic discourses; society has become sensitive to the idea that the rights of people should be protected particularly those who are vulnerable. Therefore, ethics in educational research should focus on creating awareness among researchers about how their daily decisions could potentially harm human being and the environment.

All educational research should be conducted within an ethics of respect for the person, knowledge, democratic values, the quality of educational research and academic freedom for both the research and researchers.

Domain of Ethical Consideration within Research Projects

According to Hitesh and Bhasin (2020), domain of ethical consideration within the research project is a collection of principles and values that should be followed while doing human affairs. The ethical considerations make sure that no one acts in such a way that is harmful to society or individual. It refrained people and organizations from indulging in various conduct. Black and Millers (2009) observed that there are various domains within the research process that require ethical consideration and that are subject to ethic clearance within an ethical clearance certificate number before commencement of the research process. Bearing in mind that research institutions are mandated to provide ethical clearance for the most research Conducted by researchers affiliated to the research institution, the requirements for obtaining such clearance may be different across institutions.

The general process is that the research proposal is developed and

accepted for scientific merit before ethical clearance is applied for. The approval of a research proposal is generally done by a faculty research board, a college research board or a university research committee and is peer-driven, meaning that peers who are experts in the research area will review the proposal for scientific rigor. Black and Miller (2009). In designing a research agenda, the researcher must keep in mind the ethical issues that would need to be addressed and what processes would need to be followed in obtaining ethical clearance (Truman, 2003). This clearance certifies the consent of the research regulatory body before the commencement of the research. It is important because it will guide you on the “dos” and “don’ts” in the study.

Approaches to Ethical Thinking

According to Sambo (2005), ethical thinking in research is guided by certain considerations. In this regard, even if the result of the research is good for society and in the process of achieving the results he has to lie or deceive the participants, then the research is unethical.

It is also possible for a researcher to think that every individual has a right to take his own decision in such a case the participant concord has a right to refuse to participate in a research

project even if the value of the project is of immense benefit to society. Based on these approaches to ethical thinking, ethical principle and rules are derived, Sambo (2005).

Ethical Principles

According to Joshua (2017), an ethical principle is based on philosophical stance which directly or indirectly leads to an ethical standard. The term principle simply means “a fundamental truth or proposition to serve as the foundation for a systematic belief or behavior for a chain of reasoning” while ethics refers to the human behavior that is considered good or proper within the context of group, Therefore the ethical principles includes the following:

Autonomy: This is a principle that says that the individual has the right to take part or refuse to take part in any research study. It is not just sufficient for a researcher to explain the purpose of a study to prospective participants. The researcher is duty bound to inform them of the implications of participation. When the participants fully understand, they can give an informed-consent.

Any form of deception or coercion is unethical practice. To convince children’s to participate in a study on the ground that their parents would be happy with them for helping other

people would constitute deception. Given poor people large sum of money to introduce them in to participation is coercion, to place undeclared substance in vaccines meant for controlling certain diseases is not only unethical, it is criminal, Sani (2016).

Non- Maleficence: Non-maleficance is a principle that demands a researcher to not inflict evil or harm to others on the basis of this principle, a researcher must make sure that no evil or harm comes to participants in his research project. In a situation where by the target population for the study is made up of people who are incapable of giving informed-consent because of ignorance, the ethical burden is on the researcher to ensure that no harm comes to them. Sani (2016).

Beneficence: Beneficence is a principle which requires that the researcher takes positive steps to further the legitimate interest of others (Yogesh, 2006).

Justice: Justice is a principle which requires that if the researcher participation is beneficial to individual who participated, then the researcher should not discriminate between those who are allowed to participate. If the researcher involves the use of children who are too young

to make decision for themselves, proxy decision should be made on their behalf by their nearest of kin, proxy decisions by relatives of children should never be allowed to override the child's refusal to participate (Yoghesh, 2006).

Ethical Rules

On the basis of the above principles, the following ethical rules for conducting research are derived:

Veracity: Researchers must tell participants in a research project the absolute truth about what is going on, under no circumstances, should the researcher lie to the subject of study or those whose decisions are crucial to the conduct and success of the research project (Kauru, 2015).

Privacy: People who agree to participate in a study have by implication agreed to make themselves accessible to the researchers. But this access is not unlimited. Kauru (2015).

The researcher cannot start probing into issues which are of sensitive in nature about the affairs of respondents. Issues dealing with religious beliefs, family relations, and sexual habit are very private and should not be impinged upon (Kauru, 2015).

Confidentiality: In many studies the researcher usually informs the

respondent's participants that any information they provide will be treated in strictest confidence. Respondents may divulge information to researcher if they believe the researcher will keep the information confidential. Research ethics demands that the researcher keep the information confidential. Before using any confidential information, the researcher must code it in such a way that the identity of the respondents will not be divulged (Kauru, 2015).

Fidelity: This rule requires that all promises made by the researcher to the participants in a research project must be kept. If a researcher promises to send to participants copies of the result of the study, they must do so unfailingly. A researcher may feel that he may not have need of some participants ever. He therefore defaults on a promise. His conduct will reflect on subsequent researches. Kauru (2015).

Perspectives of Research Ethics

According to Dahl (2020) perspectives of research ethics is concerned with ethical issues that can arise while conducting research there are three different perspectives of research ethics. These are listed and briefly explain below.

Ethics as a Disposition: This perspective is derived from

Aristotle's notion of virtues that a person possesses such as justice. Dahl (2020).

ii. Ethics as Duty: This perspective focuses on the duty of human (as rational beings) have to act in ways that show respect to other human beings. This involves respect for respondent's views, opinions, secrets and so on. o make their confidence is not betrayed in the research report and identity not revealed. Dahl (2020).

iii. Ethics as Utilitarian: This perspective relates to guiding principles for ethical conduct that should benefit a majority of people. All three of these perspectives are important and should be seen as mutually exclusive. Educational researchers should be aware of these as they are sensitive to research report and protect the subject integrity in order to secure the research from humiliation. Dahl (2020).

Ethical Guidelines for Educational Research

Christiana (2007) discussed educational research ethical guideline and itemized some. These are relevant to the underlining principles for researchers to apply them in order to protect their integrity in the research activities so that their action can be seen ethical, justifiable and

sound. These four principles of ethical behavior that are widely accepted by educational researchers are as follows: (i) Research sponsorship; (ii) Research relation; (iii) Informed consent; and (iv) Data dissemination.

Research Sponsorship: A sponsor of research is any person or body that funds research or allows researchers access to data. Sponsors could be government, national foundation bodies such as the National Research Foundation (NRF), the corporate sector, private organization or private individuals. Research sponsorship relate to the invention of sponsors in research activities. It concerns the extent to which sponsors influence different aspects of the research process. Such as the research questions posed as well as the finding of research. Founders could play a gate keeping role whereby they will only found a research project if it meets their own requirements. They could also claim ownership of data and prevent the publication of findings. Christiana (2007).

Research Relations: Educational researchers should operate within an ethics of respect for any person including themselves those involved in the research, they are undertaking individuals should be treated fairly, sensitively, with dignity and freedom

from prejudice, in recognitions of both their rights and of differences arising from age, gender, ethnicity class, nationality, cultural identity, partnership, status, faith, disability, political belief, health status and soon. Christiana (2007).

Pimple (2008) states that research relation concern questions of access, power, harm, deception, secretly and confidentiality and that of all this should be consider and revolved by the researcher, it is therefore important that researchers take care not to exploit vulnerable groups that they are researching and that they remain conscious of the effects that their position as researchers might have on the researched, researcher should familiarize themselves with the protocols of commutation such as religions and indigenous communities.

Informed Consent: The British Educational Research Association (BERA) (2018) pointed out the first step in obtaining consent is for researchers to ensure that the participants understand the process that they are engaging in, while their participation is required. Who will use the research findings and how it will be reported. In case where cultures adopt a collective approach to consent is done in public schools, then permission must be obtained

from Principal Department of Education (PDE) and in the case of minors, the consent of parent or guardians is required. Universities ensure that the principle of informed consent is respected through, including this as a criterion for granting ethical clearance. Ultimately, the researchers have the responsibility to apply these principles, oyetunde (2002).

Data Dissemination: Data dissemination is also one of the key areas where ethical consideration is involved. These instill respondent's confidentiality, the confidentiality and anonymous treatment of participants, data is considered very important norm in the research process. Researchers here, should recognize the entitlement of both institutions and individual participants to privacy, and should accord them their right to confidentiality anonymity. This can be done by assigning "fictitious" names reporting the findings, and while using such approaches researchers should fully explain how and why they have done so. However, in some circumstances individual participants, or their guardians or responsible others, may want to specifically and willingly waive their right to confidentiality and anonymity, American psychological association (2001).

In this case researchers should recognized participants right to be identify in any publication of their original works or other inputs if they so wish the extent to which data can be reported back and the extent to which researcher reports can be used by policy makers and in educational practice can essentially be authenticate by its ethical responsibilities on the other, hand, researchers who judge that the arrangement they have made with participants about confidentiality and anonymity will allow the continuation of illegal behavior which has come to light in the course of the research should carefully consider making disclosure to the appropriate authorities. If behavior reported by participants is likely to be harm to the participants or to others, the researchers must also consider disclosure, in some cases, such as revelations of abuse or proposed acts of error, researchers may be under statutory duty to disclose confidential information with the appropriate authority (BERA, 2018).

Ethics and Integrity in Educational Research

All educational researchers should aim to protect the integrity and reputation of educational research by ensuring that they conduct their research to the highest standard. Researchers should contribute to the

community spirit of critical analysis and constructive criticism that generates improvement in practice and enhancement of knowledge (BERA, 2012).

Pimple (2008) suggested that educational researchers should not criticize their peers in a defamatory or unprofessional manners, in any medium, it is also always important to adhere educational ethics to balance research aspirations, societal concerns, institution expectations and individual rights. Where researchers, participants or other stakeholders become aware of example of malpractice or plagiarism by a researcher they are advised to contact the appropriate individual organization or authority and raised their concern following an established complaints procedure with due consideration of the important principle of the public right to know they should avoid bringing the community in to dispute through public accusation or allegations. For example, in the case of potential social media trolling as it relates to commenting on research.

It is important here to consider integrity of the research process, it is fundamental that research ensure the integrity of the entire research process, through the following: (i) That they ensure their research is trust

worthy (valid reliable); (ii) The findings are based on evidence; and (iii) That their arguments can be justified. They follow acceptable guidelines for conducting research within chosen research paradigm COPE (2008). They are advised to contact the appropriate individual's organization or authority and raise their concern, following an established complaints procedure with due consideration of the important principle of the public's right to know, they should avoid bringing the community into disrepute through public accusations or allegations. For example, in the case of potential social media trolling as it relates to commenting on research. In any instance in which a stake holders or members of the Public raises this concern or makes a complaint, researchers have a duty to consider how to respond with appropriate action. The 2008 Committee On Publication Ethics (COPE).

Plagiarism: is the unattributed use of text or data, presented as if they were by the plagiarist. The 2008 committee on publication ethics (COPE) stipulates that all sources should be disclosed, and if large amount of other peoples (or the researchers own) written or illustrative material are to be used, permission must be sought and acknowledgement made, in clear

cases of plagiarism. The author should be contacted in writing, ideally enclosing documentary evidence. Attribution should include explicitly recognizing authors of digital content, in all case in which an author or creator can be identified as well as text. This includes images, diagrams, presentations, multimedia content and other forms of content COPE (2008).

Limitations of Educational Research

Limitations are the shortcomings, condition or influence that cannot be controlled by the researcher that place restrictions on researcher's methodology and conclusion. Bernard and Oliver (2014) defined limitation in a research as those characteristics of design or methodology that impacted or influenced the interpretation of the findings from a research. The limitations in educational research its shortcomings which could be the result of unavailability of resources, small sample size, methodology, to mention only a few. According to hug (2013), limitations of any particular study concern with potential weakness that are usually out of the researcher's control and are closely associated with the chosen research design, statistical model constraints, funding constraints or other factors. In this respect, a limitation is an

imposed restriction which is therefore essentially out of the researchers' control and it may affect the study design, results and ultimately, conclusion for example when exploring participant's responses to a survey, the researcher may be limited to access only a small geographical area which would not provide an overall scope of responses.

Importance of Limitation to Educational Research

David and Robert (2013) identified three importance of limitation to educational research as follows:

1. Always acknowledge a study's limitations: it is better that a researcher identifies and acknowledges the study limitations than to appear to have ignored them. One of the most important reasons to identify and document research limitations is that it permits future researchers to learn from these limitations and adjust their research accordingly.
2. It is important to acknowledge a study limitation because it provides an opportunity to make suggestion for further research and if a researcher connects his study's limitations to suggestions for further research and sure to explain the ways in which these unanswered questions may become more focused because of his study.

3. Acknowledgement of study limitations provides you with an opportunity to demonstrate that you have thought critically about the research problems, understood the relevant literature published about it and correctly assessed the method chooses for studying the problem (David & Robert, 2013).

Common Research Limitations

Keith & Morrison (2009) outlined some common research limitations. According to them there are numerous limitations that can impact research ability to complete quality research, which includes:

Sample Size: This number of the units of analysis you use in your study is dictated by the type of research problem you are investigating. Note that, if your sample size is too small, it will be difficult to fixed significant relationship from the data, as statistical test normally requires a larger sample size to ensure a representative distribution of the population and to be considered representative group of people to whom results will be generalized or transferred (Keith & Morrison, 2009).

Lack of Availability and Reliability

Data: A lack of available and reliable data will likely require you to limit the scope of the analysis and to limit the size of your sample or it can be a

significant obstacle in finding a trend and a meaningful relationship you need not to only describe these limitations but provide concrete reasons why you believe data is missing or is unreliable (Keith & Morrison, (2009).

Lack of Prior Research Studies on the Topic: Citing prior research studies forms the basis of your literature review and helps lay a foundation for understanding.

The research problem you are investigating a limitation can serve as an important opportunity to identify new gaps in the literature and to describe the need for future research (Keith & Morrison, 2009).

Formulation of Research Aims and Objectives: You might have formulated research aim and objectives too broadly. In this case try and specify effective methods or ways to narrow your formulation of objectives and aims to increase the level of your study focus (Keith & Morrison, 2009).

Financial Resources: Money is always a problem for most researchers. Money is needed to purchase the necessary equipment for a study, to hire people for data collection, financial resources are scarce, and all of these possibilities

are compromised. Consequently, such limitation might be reflected in the result of the study (Keith & Morrison, 2009).

CONCLUSION

In conclusion, this paper discussed ethical and limitation issues in educational research and has accordingly highlighted the fact that ethics is not something to deem at the commencement of a research project or fieldwork, but rather throughout the entire research process. Furthermore, the ethical elements such as informed consent and confidentiality in a research were highlighted. In addition, the ethics and research integrity were highlighted. Finally, common research limitations were explained and it concluded that when the limitation of the study are neglected by the researcher it will make the research unsuitable and not acceptable to a wider readership base, But when a study solidly elaborates on its limitations, it is likely to be cited and may also act as a benchmark for future research endeavors.

RECOMMENDATIONS

Based on what had been discussed earlier, the paper made the following recommendations:

- i. Researcher should choose a research topic that has an

- understandable concept, methods and procedures.
- ii. The educational researchers should be mindful of research ethics personally and professionally.
 - iii. Educational researchers should consist appropriate regulatory research body before the conduct of educational research

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THE ROLE OF LOCAL COMMUNITIES IN SUSTAINABLE TOURISM DEVELOPMENT IN NIGERIA

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ABSTRACT

Tourism is a people-oriented industry and its major functions depend on human resources, a major source of employment and it has all the capabilities in contributing towards the livelihood of the local community by providing employment and involving them in all kinds of tourism activities. Tourism exists in communities in which the roles of the community is preservation of the local culture the preservation of the environment natural resources or social and economic equity. The major objective of this paper is to find out how local communities are involved in various activities and practices adopted by various tourism stakeholders for the development of the local community. In conclusion, tourism relies on visiting places and people and cannot exist outside the community and without communities, there is no tourism, and this is why it is critical for communities to be engaged, involved and included in the design and development of tourism. The paper recommends that both tourism and the communities must be viewed simultaneously and any change to one will affect the other. Tourism is one of the most significant community development tools that can be used particularly in marginal or peripheral communities such as indigenous, remote and rural communities.

Keywords: Role, Local communities, Sustainability, Tourism, Development

INTRODUCTION

Local communities benefit from sustainable tourism through economic development, job creation, infrastructural development and revenues from tourism which brings economic growth and prosperity to attractive tourist destinations and raises the standard of living in destination communities (United Nation World Tourism Organization, 2010). Sustainable tourism operators commit themselves to creating jobs

for local community members, this bring about an increase in tourism revenue to an area and act as a driver for the development of increased infrastructure (Gunawijaya et al., 2016). As tourist demands increase in a destination, a more robust infrastructure is needed to support the needs of both the tourism industry and the local community (United Nation World Tourism Organization, 2014). A study conducted in 2009 of rural operators throughout the

province of British Columbia, Canada found "an overall strong 'pro-sustainability' attitude among respondents and the dominant barriers identified were lack of available money to invest, lack of incentive programs, other business priorities and limited access to suppliers of sustainable products, with the most common recommendation being the need for incentive programs to encourage businesses to become more sustainable (Chifamba, 2013).

To understand community role in sustainable tourism development, is through bringing together perspectives from the grassroots (UNWTO, 2016). Local community are very enthusiastic to sustainable tourism development, and they are willing to participate in the planning process, implementation and they also have a high interest to invest in the development process. (Agrawal & Gibson, 1999). Despite their interest to develop their area as tourist destination, tourism development must not damage natural environment nor cause moral degradation and could preserve the local culture, while adequate knowledge and training to participate in the conservation and preservation should be taken into account (Ashley & Roe, 1998).

Tosun (2006) stated that the most common form of local community

participation in most developing countries is only endorsement of decisions regarding tourism development issues made for them rather than by them. According to Chandra, (2006) communities may participate in the implementation of small-scale tourism enterprises or device mechanisms with investors in the decision-making process (Brohman, 1996). Active participation of local community in tourism development is very important to achieve the goals of sustainability and to improve the welfare of the local community (Ertuna & Kirbas, 2012).

Concept of Sustainable Tourism Development

Sustainable development is defined as the development that meets the needs of the present without compromising the ability of the future generations (Mowforth & Munt, 2009). It is the harmonious interrelation of how people connect to the world around us within the three pillars which involves: economic viability, environmental protection and social equity. The concept was globally introduced at the United Nations Conference on Environment and Development also known as the "Earth Summit" held in Rio de Janeiro, Brazil from June 3 to 14, 1992, with the goal of producing a new blueprint for global action on the

environment,. The summit concluded that "integrating and balancing economic, social, and environmental concerns in meeting our needs is vital for sustaining human life on the planet (World Commission on Environment and Development, 1987). This then led to the creation of the Commission on Sustainable Development, a functional committee under the United Nations Economic and Social Council tasked to review progress towards sustainable development at regular intervals, promote a continuing dialogue with civil society and recommend integrated approaches to and assess, global strategies for sustainable development. Sustainable development is the idea that human societies must live and meet their needs without compromising the ability of future generations. The "official" definition of sustainable development was developed for the first time in the Brundtland Report in 1987, that sustainable development is a way of organizing society so that it can exist in the long term taking into account both the imperatives present and those of the future, such as the preservation of the environment and natural resources or social and economic equity (World Commission on Environment and Development, 1987).

Mensah (2019) in the Brundtland report, also known as our Common Future, gave the most recognized and widely accepted definition of the term sustainable development and following this report that the human ability to ensure that the current development meets the needs of the present without compromising the ability of future generations to meet their own needs was the first widely accepted definition of sustainable development. The World Commission on the Environment and Development (1987) also stood out that sustainable development needed to consider that development has limitations as the present state of technology and the social organization on environmental resources, together with the limited ability of the biosphere to absorb the effects of human activities impose limitations on sustainable development. UNWTO (2015) stated that humanity has the ability to make development sustainable. The concept of sustainable development is considered as one of the basic concepts, which aims to reduce the tension, imbalance and environmental degradation that can result from the interaction and overlap between tourism industry and tourists on one hand and between the environment and local communities on the other hand (Hall, 2000).

The World Tourism Organization (2016) defined sustainable tourism development as tourism that meets the needs of present tourists and host regions while protecting and enhancing opportunities for the future. It is a perception that leads to management of all resources in a way that could meet the economic, social and aesthetic needs with the preservation of cultural integration and life support systems (WCED, 1987).

According to UNWTO (2015), the goals of sustainable tourism includes:

- Conservation of the environment, natural resources and the heritage of the community
- Providing the basic requirements of the local community and raise the standards of living.
- Applying the principle of justice at the level of a present generation, as well as the coming generations in order to use the environmental resources and distribute the income.
- Providing standards of environmental accounting and control over environmental tourism.
- The basic environment and the development of services in local communities.
- Creating a climate for investment to provide income and work for the local community.

- Developing the environmental awareness among tourists, workers and local communities.
- Providing new markets for local products.

UNWTO (2018) identified and listed the elements of sustainable development as:

1. Achieve compatibility between the needs of tourists and trends of citizens in order to achieve all the requirements of tourists. In turn, the local community in the community of tourism development has goals seeking to achieve the preservation the customs, traditions and heritage
2. Maintain the ownership of the land which are suitable for tourism development of the citizens by adapting long-term deeds of assignment and lease agreements between 20-25 years old.
3. Planning to invest in tourism development while taking into account the investment interests of foreign investors and the local population.
4. Rely heavily on the national workforce
5. Development of the various elements and local values by maintaining the social traditions, architectural style of the local character, local values, heritage and the local national art for tourists.

The Role of Communities in Sustainable Tourism Development

Considering the involvement of local community in tourism, it is essential that there are communities that actively engage in tourism activities. Eeogi (2003), identify communities that are beneficiaries and partners of any sustainable development process and are also destinations for tourism and sustainable economic development which include urban and rural communities.

The role of communities according to Adamson and Bromiley (2008) are not only beneficiaries and destinations for tourism, but the heart, soul and essence of any experience that is provided, supplied or delivered to a guest or customer and that without the involvement of communities, Nigeria cannot guarantee sustainable economic development. Indeed, when one speaks of inclusive development, it is expected that communities will be included in development. Communities are a crucial element of the tourism product as hosts in a destination in which they have a role within the development and the delivery of the tourism product. However, much of what happens at community level is ad-hoc and informal. Fiertag (1999) identified the development of tourism for any community, regardless of size, should

not be the sole responsibility of convention bureaus, chambers of commerce or city councils. All members of the business community need to participate, especially hotels. All members of the community are affected by the positive and negative impacts of tourism as an intrinsic part of the local culture and the offer of hospitality. Community tourism products and services generally comprised of small enterprises which survive alone, but which together create a destination. These small businesses are the essence of the community tourism experience as they give numerous communities the opportunity to be involved in the industry and also enable the benefits of tourism to be distributed throughout the community" (Chambers, 2004; Hayle, 2005).

The roles of local communities in sustainable tourism development are:

1. Communities are the keys to sustainable development in which they listen to communities involve them and allow them to benefit from the sustainable use of their resources. However, without communities, there is no tourism while many tourism sites and attractions are located within or near a community.
2. Community members are the ones to deliver exceptional experiences to visitors (artisans, musicians,

dancers, artists, masseurs, housekeepers, cooks, tour guides, front desk, waiters, taxi drivers, etc.).

Local community can be involved in various ways such as employment in tourism sector, local entrepreneurship, leasing out land for tourism, making partnership agreement with tourism operators and participation in planning and decision making related to tourism, wildlife, parks and land uses (Adamson & Bromiley 2008). Community participation in tourism helps to uphold the local culture, tradition and indigenous knowledge of the local people. It also helps in conservation of the environment and culture of the local community. Community has to actively participate and involve in working making meaningful decision and representation in structured communities. Communities and customers/travellers have the same needs as they all want a safe, comfortable and pristine environment that can be enjoyed by all.

Often, communities do not understand the value of the resources in their own backyards (e.g., birds, bees and trees, lakes, mountains and culture). So, as a first step, it is critical for communities to understand and appreciate the value of their own cultural and natural resources. They

also need to understand that their own needs and wants are the same as travellers' needs and wants. There are different actors involved in tourism development, including private sector, government, donor agencies, civil societies and local people themselves. Local communities are regarded as important asset in tourism development as it is within their premises that these activities take place and that the local communities are also regarded as legitimate and moral stakeholders in tourism development (Aref et al., 2010).

Mayers (2005), divides stakeholders into two categories; the first are the stakeholders who affect decisions and the second category are those stakeholders who are affected by decisions. The degree of involvement of local communities in various decision-making and policy issues is determined by the extent to which they affect or are affected by these decisions and policies.

At the same time, Pongporant (2011) noted that "local tourism development requires people who are affected by tourism to be involved in both the planning process and the implementation of policies and action plans. Sustainable Tourism development can be linked and explained better using two concepts; sustainable tourism and sustainable

development (UNWTO, 2018). Sharpley and Telfer (2002) defined sustainable tourism as tourism which leads to management of all resources in such a way that economic, social and aesthetic needs can be filled while maintaining cultural integrity, essential ecological processes, biological diversity and life supporting systems). The role of community participation in planning and development is a partnership built on collaboration among various stakeholders through which the opinion of local people is considered and appreciated deliberately (Chandra, 2006). In the context of rural tourism, community participation is seen as an active involvement of local communities to solve problems and to control over rural tourism development initiatives, decisions and resources which affect their quality of lives or the lives of others (Scherl & Edwards, 2007).

Benefit of Local Communities

According to Reid (2003), communities are a group of people with a common interest and while organization is important they need to move towards a business mindset; they need to turn their common interest into common income and also for communities to truly benefit from sustainable tourism development and any kind of economic development, they need to be organized. This is

essential, especially as resources are often communally owned and by uniting their mission and vision with a community organization, community members are able to move forward economically (Mowforth & Munt, 2009). Furthermore, community tourism sensitization training is needed to help community members understand the value of their community assets as well as their own roles and responsibilities in tourism and community development (Reid, 2003). Organized communities are better able to achieve community goals and visions and are in a better position to receive funding from donor agencies and government and also government are better equipped to be engaged, involved and to benefit from tourism and economic development.

Community Tourism as Business Venture

The concept of 'communities by McIntyre-Pike (2021), as businesses established by the community through their villages as business programmes model successfully practiced in Jamaica, where the programmes encourage communities to unite and organize themselves through Steering Committees to manage community assets and businesses. Meaningful engagement and true empowerment

can only be achieved through education and training where there is a direct positive correlation between training and community involvement in tourism (McIntyre-Pike, 2021). This is why the country style community tourism network in partnership with the all stakeholders is established to help communities identify their assets, develop potential projects and launch community-based businesses.

Micheal et al. (2013) identified community projects as an investment database for funding from Diaspora and visitors seeking to experience the community lifestyle. As such, they Pick a Project while on vacation and adoptvillage programmes. Once this is done, a business plan is developed for the communities to share with others including government representatives and funding agencies that could foster marketing and promotional opportunities for the community lifestyle as experiences to be included as a special package with the accommodation sector for visitors (Micheal et al., 2013). For, example communities have to develop their experiences as businesses were the private sector plays key roles as visitors, buyers and suppliers of goods and services. Nigeria can successfully implement the villages as businesses programme. The

objective and purpose of the villages as businesses programme resides in the fundamental vision of country style, which is to empower and develop communities on a sustainable basis by helping them to realize their natural culture, talents, passions, and potential (Haukeland, 2011). Another important element is to support them to dynamically package, market and expose themselves to the world as a unique destination product within their general region. For example, Nigeria can adopt the model of some of the many successful villages in Jamaica that have adopted this model such as the Orange Bay Village, Hanover (near Negril). They were able to create a three-year contract with the largest tour operator in the world, TUI, to promote their village experiences.

Another successful village model is Resource Village, Manchester, which offers cultural heritage and lifestyle experiences. The key Lessons in this programme as identified by Kamarudin (2013) are:

- Communities need to become more aware of the value of their lifestyle and community assets without having to create attractions for visitors.
- Communities need to value and conserve their natural environments.

- To be successful, training is important, such as personal development; identifying existing community assets, businesses and projects; business development; environmental responsibility and security; COVID protocols.
- The benefits of uniting as a community and being accountable for investments and donations is important.
- Communities need to recognize that Home stays (staycations) are in demand, including their family events and community gatherings.
- The value of networking, collaboration, and partnerships between the communities and others needs to be understood and implemented, e.g. the value of Community Tourism Entrepreneurship Hospitality Training.
- Communities need to work with established community tourism organizations rather than reinventing the wheel.

It is key that tourism destinations identify communities and train them to develop as businesses, and to market and promote their unique experiences. In 1987, the World Commission on Environment and Development (WCED) published a report titled *Our Common Future 1*, where it was argued that the environment cannot be considered

disconnected from the needs, wants, and actions of humans. In fact, almost every action we do or plan to do on this planet will create ripple effects of consequence on society, the economy and our environment. This relationship between the society, economy and environment has created what some like to refer to as the pillars of sustainable development (SD), where each pillar plays a vital role in supporting and stabilizing sustainable development (UNWTO, 2016). These three spheres of pillars influence both each other and sustainable development as a conceptual sphere indicates interconnected fundamentals of SD; social sustainability, economic sustainability, and environmental sustainability (UNWTO, 2016).

The interconnectedness of spheres indicates how important it is to always consider social, economic and environmental dimensions if we want to contribute to community resilience and well-being (World Tourism Organization, 2016). Intersectional work and trans-disciplinary collaborations therefore play a vital role in shaping the world around us more sustainably as the interconnectedness of spheres indicates how important it is to always consider social, economic and environmental dimensions if we want to contribute to community resilience

and well-being of intersectional work and trans-disciplinary collaborations which plays a vital role in shaping the world around us more sustainably (UNWTO, 2016).

Social Sustainability: Incorporates the idea that people are significant by highlighting the importance of accessibility, participation, empowerment, cultural identity, and equity (Evaqi, 2003). It implies a system of social organization that eliminates poverty and its influence, but in such a way that it does not lead to unstable economies or environmental harm.

Environmental

Sustainability: Emphasizes the boundaries of the natural environment, and how Earth's systems have a balance that needs to be maintained, as this sphere relates to the carrying capacity of the environment that is the maximum size a population can be and still be sustained by the environment (Aref et al., 2010). Natural capital has to be used in such a way that resources have time to re-grow faster than they are consumed. Just as important is the way we handle waste; waste should be discarded no faster than it can be digested by the environment.

Economic Sustainability: Suggests the process of production that allows

consumption to be satisfied without jeopardizing future needs (Olsder & Van der Donk, 2006). However, it was previously assumed that nature's resources were endless and that the economy would grow hand in hand with technology which could replace the resources exhausted by production, of course, that was not the case, as we have put a massive strain on what the environment can provide. There is an endless range of activities that people from all walks of life can do to help maintain the stability between the spheres of sustainable development. Whether it starts at work, becoming active in your community, or just making lifestyle changes in your home where everyone can get involved to create a more balanced world in which we live (Olsder & Van der Donk, 2006).

The Three Pillars of Sustainability, their Strengths and Weakness

According to UNWTO (2016) for a sustainable future, the challenge is that we need all three despite knowing that they all involve tradeoffs and potentially pull in different directions. Economic, Social, and Environmental spheres can be 'optimized' or prioritized in different ways. Similarly, it is only when all three pillars of sustainability are achieved that human civilization can be said to be genuinely sustainable. Making these principles

fit and work symbiotically is the essence of sustainable development.

UNWTO (2015) sustainable development is the assurance that the integrity of the present needs can be met without compromising resources in the future; also sustainable development is “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (p.8).

A pillar cannot stand alone, in a sense, that ‘sustainability’ is precisely the best measure of the success of the others. For example, if economic needs are given too much focus over the environment, it can cause a collapse of the environment, with the cascading collapse of that part of the economy, such as overfishing or deforestation (Jamal & Stronza, 2009). The over-use of the environment’s natural resources directly impacts humanity’s well-being. If the environment is pursued to the exclusion of the economic or social, such as protection of big game in Africa in the 1980s, it can lead to a backlash of activity, as desperate and starving Africans legally excluded from land use in the region took to newly lucrative poaching in order to ensure their basic human right to survive, and it undermined the environment that the rules had been

designed to protect. Of the three pillars of sustainability, the environment and the depletion of natural resources for future generations pose a giant threat (Jamal & Stronza, 2009). The environmental pillar includes environmental protection and securing the ecological needs of our green systems of the world.

If the social is pursued to the detriment of the others, similar consequences follow and a high standard of living, strong community life, and thriving economy that is built on exploiting other countries’ natural resources far away will lead to environmental degradation, pollution, and migration that eventually undermines the social and economic fabric of even the richest countries (Gunawijaya et al., 2016). The concept of the three pillars helps us identify where they all overlap, and therefore which priorities to balance in which it is only when all three are honored, with all the detailed implications we can then approach sustainability (UNWTO, 2016). The three pillars can work together if one looks at the short-term and the long-term framework which can help clarify what is genuinely sustainable durable and stable as a system or practice works, that are efficient for 5 or 10 or even 30 years increasing the risks of breaking down leading to

declines in economic performance. While economically might lead towards efficiency and inequality, as natural 'hockey sticks' and monopoly are trends that damage the social system (Gunawijaya et al., 2016).

CONCLUSION

The major principle of sustainable tourism is involvement of local people and local community in tourism activities and to develop tourism, local community participation is very essential. Conclusively:

1. Tourism relies on visiting places and people, it cannot exist outside the community and without communities, there is no tourism, and this is why it is critical for communities to be engaged, involved and included in the design and development of tourism.
2. Local food, local culture and festivals are add-on products to tourism and it also provides authentic experiences to the tourists.
3. Indigenous knowledge of the local community helps in the conservation of environment and local culture.
4. Wildlife resorts have to take initiatives for the overall development of the local community by involving them, both in internal and external

activities of the resorts since they are also stakeholders of the environment in which the resort is located

5. Sustainable tourism development is a necessary condition for the future survival of humans and wildlife on the planet, without communities, there is no tourism, this is why it is critical for communities to be engaged, involved and included in the design and development of tourism.

RECOMMENDATIONS

The three pillars of sustainability, economic, social and environmental are all interconnected and overlap in different ways depending on the situation, based on that the following recommendations are made that:

- Both tourism and the communities must be viewed simultaneously any change to one will affect the other and tourism is one of the most significant community development tools that can be used particularly in marginal or peripheral communities such as indigenous, remote and rural communities
- Collaboration and co operation is vital of both intersectional work and trans-disciplinary collaborations therefore play a vital role in shaping the world around us more sustainably.

- Optimizing for a sustainable future means ensuring that these pillars work together in sustainable development meant to create a better environment for everyone.

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UNDERSCORING THE RELEVANCE OF WORKLOAD IN ACADEMIC STAFF JOB PERFORMANCE: EMPIRICAL EVIDENCES

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ABSTRACT

Job performance has to do with the behaviour that an individual deliver in order to leverage the value of an organisation over period of time. This study therefore theoretically focused on scoring the relevance of workload in academic staff job performance. The study was based on empirical evidence from other related studies and this forms the basis of the research. Measures of job performance of academic staff as well as concepts of workload and job performance were all discussed extensively. This study also supported and adopted Job Demand-Resources Model (JD-R Model). The Job Demand-Resources Model (JD-R) was proposed by some authors as a model that explores employee well-being. The paper also examined some previous empirical studies that investigated the relationship between the two constructs as basis for underscoring the relevance of workload in job performance. Findings from the reviewed empirical studies generally underscored the seminal role workload plays in the determination of job performance. It was therefore concluded that workload needs to be taken into consideration in the determination of academic staff job performance. The paper therefore recommended that more qualified academic staff should be employed in the system, effective stress management techniques and habit of regular medical checkups should be formed by academic staff.

Keywords: Workload, Job performance, Academic staff

INTRODUCTION

Job performance of academic staff is very germane to the realization of goals and objectives of colleges of education. It determines how effective the colleges are and to a large extent the continuity of the system (Kazimoto, 2016; Razak et al.,

2018; Tentama et al., 2020). Job performance of academic staff (lecturers) is the extent to which they accomplish their designated tasks such as quality teaching, research work and community service with reference to standards set by their college of education. The above

definition shows that there are three ways to measure the job performance of academic staff. They are - quality teaching, research work and community service. (López-Cabarcos et al., 2022).

Employee job performance is the ability and level of results shown by an employee while performing his/her duties or responsibilities at the workplace (Razak et al., 2018). Job performance is a multi-dimensional concept that consists of two aspects: the behavioural (process) aspect and the outcome (result) aspects (Armstrong & Taylor, 2014). The behavioural aspect refers to "what people do at work", while the outcome aspect refers to the "results of the individual's behaviour." (Alromaihi et al., 2017) It was emphasized that job performance is the ability to combine skillfully the right behaviour towards the achievement of organisational goals and objectives. (Onaolapo et al., 2019). Job performance is regarded as a behaviour that an individual deliver in order to leverage the value of an organisation over period of time (Al-Jedaiaa & Mehre, 2020). Individual job performance is defined as "things that individuals actually do, actions they take, that contribute to the organisation's goals" (Campbell & Wiernik, 2016, p. 4). A scholar defined job performance as the actual

accomplishment of assigned task. It is the actual work done against the expected standard of achievement (Maclean, 2018). It is also viewed as the aggregated financial or non-financial added value by the staff in contribution to the fulfillment both directly and indirectly to the targeted organisational goals (Dajani, 2015)

Job performance is the duties performed by teachers in the school which aimed at achieving both education and school objectives. A scholar defined lecturers' job performance using the outcome dimension, thereby describing it as the extent to which academic staff members achieve educational outcomes expected of them. While this definition is valid, it was not applied in this study because of the difficulties associated with measuring educational outcomes (Onoyase, 2017). It was stated that lecturer performance is the ability of lecturer to perform the assignment in order to complete the job. Performance, in other words, is work presentation, work implementation, work achievement, or work result (Hadiantini et al., 2017). Taking the process dimension adopted in this present study, researchers described academic staff job performance as the degree to which they complete their teaching responsibilities, which include lecture planning, research,

and community service. Although these researchers' approach is used in this present study, they related the process dimensions of lecturers' job performance to motivation but not instructional leadership (Victor & Babatunde, 2014). A similar approach was applied by other researchers but they also related this performance to motivation (Hadiantini et al., 2017).

According to a scholar, lecture planning focuses on using the content outline of the assigned course unit(s) and the learning objectives it seeks to achieve to search for and select relevant subject matter for a particular lecture, segmenting this subject matter into specific content sections and subsections, and determining which subject matter to cover within the allocated time. This scholar continued to show that lesson planning involves determining relevant teaching/learning materials and a pedagogical method to use in order to effectively deliver the subject matter in a manner that cultivates and maintains student attention, interest, and participation necessary to realizing set learning objectives. The scholar was however, descriptive as he did not go beyond explaining what lesson planning involves (McCarthy, 2015)

Lecturers' job performance includes delivering lectures to students as

scheduled by the timetable, and evaluating the students by giving and marking coursework, setting tests and examinations, invigilating and marking them, and submitting their results/marks for final assessment, grading and accrediting (Igbojekwe et al., 2015). This performance further involves supervising research students by creating adequate time for guiding them through their research proposals, projects and dissertations (Ddungu L. 2017). The performance further involves conducting research and publishing findings in reputable academic journals, or using the findings to write textbooks, textbook chapters and articles in media outlets and documentaries (Kakulu, 2016) It further involves lecturers participating in community service by carrying out activities such as public scholarship, participatory research, community partnership, public information networks, and civil literacy scholarship (Ddungu, 2018a)

Despite the crucial role of academic staff performance, the researcher has observed that their job performance in quality teaching, research work and community service in colleges of education, Southwest Nigeria is very poor. Other researchers have also confirmed low job performance amongst academic staff of colleges of education (Tentama et al., 2020; Oguntimehin et al., 2018). This

decline in job performance has therefore made educational stakeholders and researchers to ponder on what could be the factors militating against academic staff job performance in colleges of education as the problem seems to be on the rise.

One very important and critical factor capable of affecting the job performance of academic staff is workload. Workload is the amount of professional and non-professional duties carried out by lecturers in the course of their activities at a particular time (Maclean, 2018). Workload can at times be heavy (overload), normal or light (under load) (Dajani, 2015). Researchers found that work overload will happen when academic staff receive workload beyond their capabilities because of the increase of productivity and performance demand (Malkanathi et al., 2016). Work overload could lead to stress as it places academic staff under time pressure. Stress can produce anxiety that may impair a lecturer's ability to perform a task.

Work under load occurs when lecturers have too little work to do or too little variety in their work. It could result in passivity, low self-esteem, increased frequency of nervous symptoms and complaint, lack of interest in social activity and work

performance output amongst academic staff (Darma & Supriyanto, 2017). Lecturers' burnout, effectiveness and performance could therefore be influenced by having too much or less to do or even having to tackle too difficult work (Hirlak et al., 2018).

Measures of Job Performance of Academic Staff

There are several ways to measure the job performance of academic staff. Academic staff job performance is described as the degree to which they complete their teaching responsibilities (which include lecture planning), research, and community service (Victor & Babatunde, 2014). It therefore means that lecturers' job performance can be measured in terms of lecture planning, research and community service. According to an author, the job performance of academic staff in colleges of education is revealed in their quality teaching, research work and community service (Taiwo, 2014). This is supported by the framework for measuring the lecturers' performance which states that a lecturer's job performance is measured based on his/her research output, quality of teaching, community services among others (Agbionu et al., 2018). Measuring academic staff's performance in institutions of higher learning

implicates an evaluation of teaching and learning, including supervision, research, publication, and community services based on the duties and responsibilities together with other qualities (Muda, 2017).

Concept of Workload

Workload is the number of activities that require expertise and must be done in a certain time in physical and psychological form (Lilin, 2018). Meanwhile, according to authors, workload is the average frequency of each job within a certain period. Furthermore, it is the amount of work that must be borne by an office/organizational unit and is the product of work volume and time norms (Abboh et al., 2019). Definition of workload is a group or a number of activities that must be completed by an organizational unit or position holder within a certain period (Chong et al., 2020). Workload measurement is defined as a technique for obtaining information about the efficiency and effectiveness of the work of an organizational unit, or position holders carried out systematically using job analysis techniques, workload analysis techniques or other management techniques (Chong et al., 2020; Dadich & Olson, 2017).

Based on the several definitions stated above, it can be stated that

workload is the extent to which an individual employee's capacity is needed in completing the tasks assigned to him, which can be indicated from the amount of work that must be done, the time/time constraints owned by the worker in completing his task and views of the individual regarding the work assigned to him (Gunu & Oladepo, 2017). In the school environment, workload is the amount of professional and non-professional duties carried out by the lecturers in the course of their activities at a particular time (Zainal et al., 2015). It is the sum of all activities that take the time of a lecturer. It is also the number of lessons a teacher teaches in a week as per the allocations in the time-table. Workload can be normal, heavy (overload) or light (under load) (Dabara et al., 2020).

Workload is said to be normal if there is a regular balance in the time used to carry out numerous organizational goals and duties in such a way that the mental and physical state of the person doing the work is not affected. When calculating normal workload, three important variables should be considered. These are Task, Time and Frequency of labour. Task refers to the job to be done. Tasks can be broken down into daily, detail and project. Daily tasks are those routine jobs that need to be carried out on a

daily basis, an example of such tasks for a lecturer is teaching. Detail tasks can be performed on a set-schedule basis and is more involved than daily work. Examples of detail tasks are supervision of student projects, marking and grading of scripts and research and publications. Project tasks are performed less frequently: anywhere from weekly to annually. Examples of these are community service and attending meetings that are school related. Time is the amount of hours allocated for each tasks. Time here can be divided into teaching contact hours, attributed hours for teaching preparation, attributed hours for evaluation and attributed hours for functions. Teaching contact hours represents hours spent in the classroom instructing students. This is a scheduled teaching hour assigned to the teacher by the university. Attributed hours of preparation represent the number of hours spent preparing for classroom activities. This is based on how a lecturer prepares his lecture notes, how many levels the lecturer is teaching at once and how many times the lecturer has taught the course in the past because the more experienced a lecturer is at delivering a specific course, the fewer hours he will spend on preparation. Attributed hours of evaluation have to do with the number of hours spent evaluating and grading student's

assignments, projects, teaching practice, examinations etcetera. Attributed hours for complimentary functions represent the number of hours assigned for routine out of class assistance to students, community service, research and publication and normal administrative duties (Amini-Philips & Okonmah, 2020).

Workload is heavy when lecturers feel they are being asked to do more than time or ability permits (Dabara et al., 2020). Roles overload are the inability of staff to complete their tasks because of too high yield standards, and completion of tasks with inadequate provision of time (Sajjad, 2016). Researchers found that work overload will happen when staff receive workload beyond their capabilities because of the increase of productivity and performance demand (Uoro & Etuk, 2016). Role overload also occurs when an employee has many tasks to be completed under limited time and pressure so that it does not match the ability of the employee to complete the task. When the work becomes too much, it would cause physical and mental fatigue, even saturation and stress and burnout (Sajjad, 2016). Work under load occurs when lecturers have too little work to do or too little variety in their work (Osaat & Ekechukwu, 2017).

Concept of Job Performance

Employee job performance is the ability and level of results shown by an employee while performing his/her duties or responsibilities at the workplace (Razak et al., 2018). Job performance is a multi-dimensional concept that consists of two aspects: the behavioural (process) aspect and the outcome (result) aspects (Armstrong & Taylor, 2014). The behavioural aspect refers to "what people do at work", while the outcome aspect refers to the "results of the individual's behaviour" (Alromaihi et al., 2017). It was emphasized that job performance is the ability to combine skillfully the right behaviour towards the achievement of organisational goals and objectives (Onaolapo et al., 2019).

It was also rightly put that performance can be regarded as any behaviour directed toward the task or goal accomplishment (Oguntimehin et al., 2018). Job performance generally refers to whether a person performs the job well. It is the output record of a specific job function or activity at a particular time. It is the result of specific functions or activities of workers in a given period of time¹³. Performance in a job is strictly a behaviour and a separate entity from the outcomes of a particular job which relate to success

and productivity (Alsuwailem & Elnaga, 2016). It is the extent to which each personnel executes the expected roles with reference to identified standards set by the organisation (Oguntimehin et al., 2018).

Job performance is regarded as a behaviour that an individual deliver in order to leverage the value of an organisation over period of time (Al-Jedaiaa Y. & Mehrez A. 2020). Individual job performance is defined as "things that individuals actually do, actions they take, that contribute to the organisation's goals" (Campbell & Wiernik, 2016). A scholar defined job performance as the actual accomplishment of assigned task. It is the actual work done against the expected standard of achievement (Maclean I. F. 2018). It is also viewed as the aggregated financial or non-financial added value by the staff in contribution to the fulfillment both directly and indirectly to the targeted organisational goals (Dajani, 2015).

Theoretical Framework

This study is supported by the following Job Demand-Resources Model (JD-R Model). The Job Demand-Resources Model (JD-R) proposed by some authors is a model that explores employee well-being. It is used by managers to predict employee engagement and employee

burnout (Salim, 2020) The model categorises working conditions into two groups which are: work indices (demand) and job resources/positives. The model essentially states that when work indices (demand) are high and job resources are low, then factors such as stress and burnout are increased. Alternatively, when work indices are high and job resources are high, then factors such as work engagement and performance levels are improved (Khudhair, 2020). According to the model, job characteristics of different occupations such as the teaching profession may be classified either as work indices (demand) or job resources.

On one hand, work indices are those aspects of a work (physical, psychological, social, and organizational) that require sustained physical and/or psychological (cognitive and emotional) effort from the employee and are therefore associated with certain psychological and/or physiological costs. Examples include: workload, role conflict and role ambiguity. On the other hand, job resources are those aspects of a job (physical, psychological, social, and organizational) that are functional in achieving work goals, reducing work indices and the associated costs (psychological and/or physiological), or promoting personal growth,

learning, and development. Examples include: management support, quality relationships and adequate facilities (Salim, 2020, Khudhair et al., 2020).

In line with this JD-R model, high work indices may reduce wellbeing and performance due to the depletion of personal resources (such as time, physical and emotional energy) (Salim, 2020). If an individual (lecturer) has few resources available at the end of the day due to energy depletion at work, he or she will be less likely to be involved with his work, which may give rise to reduced performance. Furthermore, the buffer hypothesis of the model claims that high job resources (such as job aids, management support) may offset the harmful impact of work indices on job performance (Salim, 2020; Khudhair et al., 2020). Accordingly, specific job designs in which lecturers are burdened with high work indices, but lack adequate levels of job resources, are particularly likely to decrease job performance (Salim, 2020).

Workload and Job Performance: Some Empirical Evidences

There have been some empirical evidences that underscore the importance of workload in the determination of job performance. For instance, some researchers investigated academic staff workload

and job performance in higher institutions in Delta State. Six research questions were answered and six corresponding null hypotheses were tested at 0.05 level of allowance. The research adopted the correlational research design. The population of the research comprised 164 Heads of Department (HODs) in six public and private higher institutions in Delta State. A sample of 115 HODs were drawn through stratified random sampling technique and employed for the research. Two instruments titled “Academic staff Workload Scale” and ‘Academic Staff Job Performance Scale” were employed for data collection. Face and content validity of the instruments were ensured by experts. The reliability coefficients of the instruments were determined using Cronbach’s Alpha reliability estimate and the reliability coefficient of the questionnaires were .989 and .873 respectively. Pearson Product Moment Correlation was employed to answer research questions. The finding shows that there is significant high negative relationship between academic staff teaching workload and their job performance. As the scores of academic staff teaching workload was increasing, the scores of job performance was decreasing.

This result is not surprising, the implication is that, much involvement

of academic staff in instructional delivery affects their daily performance negatively and as such there is need for allocation of assistant academic staff to academic staff in teaching in order to reduce their workload and enhance instructional delivery. The results of the research also showed that, there is significant high negative relationship between academic staff supervision of students’ project workload and their productivity. This implies that, as the scores of academic staff supervision of students’ project workload was increasing the scores of productivity were decreasing. The result of this research is not surprising. It implies that, academic staff supervision of students’ project decreases their performance in their daily service. This means that, as the scores of academic staff research workload was increasing, the scores of productivity was decreasing. The finding also implies that, when academic staff engage in much research, it affects their job performance negatively. The difference could be the sample size and areas the studies were carried out. The finding of the research also showed that, there is a significant high negative relationship between academic staff participation in community service workload and their productivity in higher institutions in Delta State.

A scholar revealed that too much workload on teaching and duties was not conducive for academic staff teaching performance (Saridakis et al., 2018). Scholars also found that workload related stress significantly influence the job effectiveness of academic staff in terms of publications, community service and teaching effectiveness (Velmurugan, 2016). Academic staff burnout and performance could therefore be influenced by having too much or less to do or even having to tackle too difficult work. A scholar agree that staff are usually conditioned to work long hours in a very competitive environment like a higher institution setting with little or no rest or sleep which may likely cause high rate of stress and affect the quality of work performance.

Researchers noted that in this era of downsizing which has left organizations including colleges of education with relatively small workforce (academic staff) compared to the volume of available work in the organizations, a significant proportion of staff have difficulty performing their primary assignment at work and family or social obligations due to work Indices usually results in stressful situations. In many occasions, work that would normally be for three or more people is left for one person to do because

educational institution heads do not want to carry heavy wage bill. The consequences are usually work overload and long hours at work by staff. The scholars showed that long hours inherent in job stress do not allow staff in Nigerian tertiary institutions to perform at their optimal level of productivity and efficiency. Long hours of work when it is not moderated causes severe stress that breaks academic staff down and lower their performance. If it is allowed to persist in an organizational climate may become hazardous to staff, affect their health and performance. Long hours of work affect worker performance negatively. The government and policy makers should strive to create a working environment where there is stress-free climate by reducing the long hours of work and other stress causing agents (Atah, 2019).

A similar research was done on the influence of workload toward work performance. The research was conducted using a survey method with a path analysis testing hypothesis. 90 principals in Police Women Educational institution-Polri were chosen as samples which were selected using simple random sampling technique. The results of the research revealed a direct negative influence of workload toward work performance of principals (Etor,

2014). A research work sought to identify the effects of heavy workload on performance of academic staff of different ranks at tertiary education level. A cross-sectional research was conducted with the help of a questionnaire in three public sector Higher institutions of District, Jamshoro. A sample of 300 participants of male and female academic staff were selected for the research as the teaching profession ranks on the top of stressful jobs. Results revealed that conflict, heavy workload, lack of information about job description, lack of job independence and lack of motivation are unenthusiastically associated with all job satisfaction aspects. The teaching staff who have high level of workload stress possess low level job satisfaction and performance (El Rahman, 2017).

A research examined the perceived influence of work overload on academic staff job performance in higher institutions in Rivers State. The research was guided by three research objectives from which three research questions were posed and three hypotheses formulated. The research adopted a descriptive survey research design with a population of 337 academic staff (189 males and 148 females) from the Faculties of Education in the three public higher institutions in Rivers State (Higher

institution of Port Harcourt, Rivers State Higher institution and Ignatius Ajuru Higher institution of Education). The entire population was employed for the research; hence the census sampling technique was adopted. The instrument for data collection was a structured questionnaire titled "Influence of Work Overload on Academic Staff Job Performance Questionnaire". The instrument was validated by experts in the Departments of Educational Management and Measurement and Evaluation. Reliability values were .893 and .879 for both questionnaires respectively. The research questions were answered using mean and standard deviation while the hypotheses were tested using z-test statistics at 0.05 level of allowance. Results revealed among others that teaching of many courses in a semester, supervision of large number of undergraduate projects and post-graduate theses/dissertations negatively influence job performance of academic staff in higher institutions in Rivers State to a high extent. Based on the findings, it was recommended among others that the Federal and State Governments should employ more academic staff either as contract, adjunct, sabbatical or permanent staff so as to reduce the workload of the academic staff and improve on their performance (Conant, 2017).

CONCLUSION

The conclusion that can be drawn from the review of some previous empirical studies in the paper is that workload needs to be taken into consideration in the determination of academic staff job performance. In other words, we need to ensure that for a better performance of academic staff, their workloads should be moderate.

RECOMMENDATIONS

Based on the above conclusion, it is therefore recommended that:

1. More qualified academic staff should be employed in the system with a view to reducing the workloads of the staff. This is to ensure improved job performance among the academic staff.
2. Effective stress management techniques should always be adopted by academic staff for them to keep healthy and perform optimally.
3. Habit of regular medical check ups should also be formed by the academic staff. This will enable them to know their health status.

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QUALITATIVE EVALUATION OF SENIOR SECONDARY SCHOOL CIVIC EDUCATION IN NIGERIA FOR EMERGING NEW WORLD AGENDA

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ABSTRACT

The curriculum goals of Civic Education programme dictated what students are to do to attain desired knowledge and skills to function effectively in the society. However, a closed observation of behaviours among teenage students raised concerns about young persons' readiness to lead a peaceful life in the society. This study examined Civic Education contents-knowledge and social skills for promotion of the New World agenda. This qualitative study adopted exploratory, case study design for its search. The methodology involved a hybrid approach that combined deductive and inductive methods to discover the extent of topics coverage and processes of developing required attitudes and skills to successfully engage in the New World. Content analysis was carried out on the curriculum for senior secondary school with interviews conducted for Civic teachers selected through a non-probability sampling technique. The results revealed high content-knowledge coverage of topics relating to the New World agenda in Civics curriculum with direct instruction on values to promote peace and dignity of people. However, suggested students' activities did not provide adequate and consistent opportunities for students to develop social skills required. The study concluded that the curriculum revealed competency and fluency deficits in social skill of problem-solving and conflict resolution. Recommendations were made for students' activities to be reviewed and workshops to be organised for teachers to promoting active learning strategies for the benefit of the students.

Keywords: Qualitative evaluation, Civic education, Sustainable new world, Curriculum, Social skills

INTRODUCTION

There is a growing violent behaviour both within and outside the school

environment among teenagers to the point of escalating public concerns. Violent behaviours such as bullying,

fighting, possession of dangerous weapons, abuse of substances (drug, alcohol) to mention only a few do manifest among students. These behaviours lead to anxiety, poor relationships with adults and peers; including mental and physical stress (Blues, 2017; Cunningham, 2022). All these affect students' academic performances and other areas of life negatively, if not addressed. A fresh reminder is a case reported in the National Dailies of late Sylvester Omoroni, an eleven-year-old student of a Privately-

owned College in Lagos allegedly beaten by other senior students leading to his sudden demise (Irekamba & Ojo, 2021). Memory such as this fuels panic about social competencies of students' to maintain good relationships and a peaceful society especially in the cities.

McCracken (2010) described Civic Education as an approach to generally equip and empower citizens for effective participation in democratic processes by giving information and learning experiences. The classroom-based Civic Education is the regular curriculum teachings of Civics across primary and secondary schools worldwide. Smith, Fountain and McLean (2002) stated that there is no single best approach to organizing Civic Education. Each country

designed the subject to address its national needs. For instance, In England, CE's goal is targeted at reducing political violence to develop a peaceful process towards democratic politics. In America, CE curriculum emphasis is on democracy, the constitution, and citizens' rights with involvement in service learning. In the Republic of Serbia, CE is an optional subject for aged 14-15 students. The review of the Serbian CE programme resulted in recommendations for the inclusion of action projects and children's rights content.

The Nigerian Educational Research and Development Council (NERDC) (2012) harmonized three-unit themes (Social Studies, Civic Education and Security Education) as National Values Education subject for primary and junior secondary school levels. This is similar to Hungary, where the National Core Curriculum on CE is a combination of three-unit teaching of Social Studies, Civics and Economics (Smith, et al., 2002). However, NERDC (2009) designed CE as a separate, stand alone subject at the senior secondary school level for students aged 15-17 in a three-year programme. Generally, CE three components include: civic knowledge, civic disposition and civic skills. The skills are social abilities to perform actions required

to respond to situations. Smith et al. (2002) agreed that CE as a lifelong process develops attitudes and skills which may not be quantitatively measured. To have a high-quality education, the Special Education Resources (SER) (2022) stated that school programmes must be established on standard-based curriculum with quality content knowledge and delivered by qualified teachers. Citing Skinner, SER (2022) also that teachers be trained on effective teaching that reinforce positive behaviours rather than using punishment.

According to Gresham et al. (2001), social skill is a wide range of learned behaviours, a student is taught to promote interaction with others in a positive manner. This improves a student's communication, acceptability, self-esteem, decision-making and adjustment to life issues. Therefore, it will be wrong for teachers to assume all students know how to behave (John et al. 2005). Logue (2007) suggested for creation of social contexts to learn the required skills for students' benefits. Although, Social skills reportedly correlate with academic performance the absence of the skills will make it difficult for teachers to engage students in learning effectively resulting in life-long challenges (Blues, 2017; Cunningham, 2022).

Gresham et al. (2001), National Association of School Psychologists (NASP) (2002), Blues (2017) and Special Education Resources (SER, 2022) all identified many social skills students can learn. NASP (2002) streamlined the skills into four critical categories. These include survival skill (listening, talking nicely, following directions, etc.), interpersonal skill (asking permission, sharing, taking turns, etc.), problem-solving skill (asking bits of helps, apologizing, accepting consequences of actions and making decision) and conflict resolution skill (dealing with peer pressure, accusations, and so on). Effective social skill programme can be carried out through teaching process (i.e. incidental learning using events that naturally happen to teach the appropriate behaviours) and applying facilitating steps to the new behaviour (using group projects, cooperative learning, coaching, modelling and role-playing). Whichever element is applied, the goal is to promote desirable behaviour (NASP, 2002; SER, 2022). However, the reasons for deficiency in social skills among students spread across lack of awareness (knowledge deficit), lack of opportunities to practice the skills (competency deficit), inadequate or inconsistent practicing of the skills (fluency deficit) and behavioural deficit which is absence of motivation

or feedback on performance (NASP, 2002; Blues, 2017; SER, 2022).

The term “New World” was first used for the Americas as an earthly paradise, over 500 decades ago (Digital History, 2021). It was in connection with Christopher Columbus’s successful voyage across the Atlantic Ocean, the discovery and opening up of American continents marking the beginning of modern age in 1492. The discovery transformed the old world’s (Africa, Europe and Asia) natural environment, culture, diets and expands the world geography. However, the “New World” concept once perceived as a human society free of injustice and all social evils with guarantee for people’s progress and freedom, soon gave rise to troubles such as slavery, new diseases, mass deaths, exploitation, colonization, racial discrimination and wars (Davidson, 1997; Digital History, 2021).

In 2015, the United Nations (UN) began the pursuit of another “New World” agenda, ongoing from 2016 till 2030 which revolves around the 17 Sustainable Development Goals (SDGs). The UN recognizes respect of human rights, peace and development matters as crucial to the attainment of the agenda generally. The UN (2018) reported Annan stating that “there can be no

development without peace, and no peace and development without human rights”. The goal is to achieve a desirable human society with peace and prosperity for the people and the planet also. The UN (2022) overview report on the SDGs however, identified poor quality education among other crises affecting the New World agenda to the point of reversing previous years’ progress made.

Therefore, this study examined the extent to which Civic Education contents create awareness on the New World agenda and empowers the students with social skills required for maintenance of peace across societies being advocated for by the UN.

Objectives of the Study

- i. To assess the curriculum of Civic Education on contents-knowledge with emphasis for the New World
- ii. To examine how effective, the social skills suggested in CE curriculum are for students’ interactions with others
- iii. To determine teachers’ perception of involvement in active learning practices

Research Questions

- i) To what extent does Civic Education curriculum emphasize content-knowledge desirable for the New World order?

- ii) Are social skills suggested in Civic Education curriculum adequate to empower students for effective interactions?
- iii) How do the teachers perceive their roles in active learning processes?

METHODOLOGY

Research Design

This study adopted an exploratory, case study design for an in-depth understanding of possible contribution of Civic Education towards the pursuit of the New World agenda and its sustenance. The researchers employed qualitative method with a hybrid approach (deductive and inductive methods) in mining data (Grad Coach, 2020).

Participants

Teachers were engaged in interview centred on practices used to enhance students' active learning as triangulation to curriculum-suggested activities. The interviewees were selected through non-probability sampling technique (adoption of five Civic Education teachers in the school).

Instrumentation

The data mining followed content analysis of NERDC (2009) CE curriculum document for SSS 1-3) and teacher interview guide that was self-developed.

Validity and Reliability of the Research Instruments

The curriculum document used as instrument for content analysis had content validity. The study's reliability was enhanced through the systematic coding procedures and analysis which allowed for verification and reproducibility of the study.

Procedure for Data Collection

The curriculum (content knowledge, values and skill activities suggested for students) was analysed. Evidences were sought out from topics and students' activities relating to the New World Agenda. Teacher's interview was separately done with an open-ended question guide.

Data Analysis

The data analysis followed two stages: initial process coding concluded with line-by-line coding (Grad Coach, 2020). Data outcome was presentation through rich descriptive tables and narrative reports.

RESULTS

Question One: To what extent does the CE curriculum emphasize content-knowledge desirable for the New World order?

Table 1: Extent of Civics Education Content-Knowledge for the New World Order

Civics Themes/Topics	SDGs Targets Covered
1. Our Values & Relationships *Justice, *Selflessness, Honesty, *Integrity, *Orderliness*Community service, Interpersonal & *Inter-communal Relationships	Focus: Peace, Human Dignity and Development, *Gender Equality, *Reduced inequality*Partnership to achieve goals
2. Emerging Issues *HIV/AIDS, *Youth Empowerment, *Cultism, *Drug Use & Drug Abuse, Human Trafficking.	*Good Health, *No Poverty,*No Hunger, Decent work & economic growth, *Reduce inequality, *Responsible Consumption
3. Citizenship & National Development *Goals of citizenship Education, *Structure& Functions of government, *Nationalism & Nationalistic roles of individuals and groups, *Major Local & World Civic Problems, *Duties and Obligations of Citizens, *Popular Participations, Responsible Parenthood *Civil Society.	*Peace, Justice and Strong Institutions, *Partnership to achieve goals, Gender Equality, Reduced Inequality, *Clean water and sanitation *Responsible Consumption and Production
4. Representative Democracy *Democracy & Characteristics of *Representative Democracy,*Pillars of Democracy, *The Constitution, *Political Parties, *The Rule of Law, Federalism, *Political Apathy, *Strong Institution of government, *Capitalist Democracy (Employment &Poverty Alleviation), *Public Service in a Democracy	*Partnership to achieve goals, *Peace, Justice and Strong institutions *Promotion of SDGs Focus: Peace, Human Rights and Development
5. Human Rights *Historical Background of & 7Core Freedoms of Universal Declaration on Human Rights (UDHR), *Roles of government, Groups & Individuals in UDHR, Human Rights and *Limitations, Categories of Human Rights, *Ways of Protecting Human Rights.	*Gender Equality, *Reduced Inequality, *Peace and Justice, Partnership to achieve goals
6. Law and Order *Orderliness in the society, *Respect for Constituted Authority, *Traffic Regulations, *Constitutional Democracy & Rules of Law, *Drug Law Enforcement & Administration	*Peace, Justice, and Strong Institution *Partnership to achieve goals
6 Themes covered *Child rights and Child Rights Abuse not covered	11 targets covered = 65% 6 targets are not inclusive

Table 1 above listed the six major themes contained in the CE curriculum document for SS1-3 with related topics. There are eleven SDGs covered explicitly by the topics listed with some overlapping occurring among the topic areas. Six of the targets SDGs were not explicitly covered in the curriculum. The areas not directly covered include Climate action, Life below water, Life on land (partially through Environment Rights, Community Service topics),

Affordable and clean energy, Quality education (partially), Industry, innovation and infrastructure; and Sustainable cities and communities. Generally, the Civic Education curriculum has 65% coverage of the New World agenda through its content-knowledge domain.

Question Two: Are social skills suggested in Civic Education curriculum adequate to empower students for effective interactions?

Table 2: Skill Indicators and Suggested Students’ Activities in Civic Education Curriculum

Skill Indicators	Frequency	Incidental Opportunities	Frequency
Listening	17	Participate in Community service	1
Asking Questions	15	Act/ Dramatize	8
Write Notes/Report	10	Observe real-life cases	1
Explain/Define/	24	Demonstrate abilities specific skill	I 3
Analyze/Describe/Examine	12	Locate/ Visit a site	3
Categorize/Identify			
Discuss/Debate	16		
Enumerate/List/Mention/	26		16
State/			
Suggest/Gather Information	2		
	122		

Figure 1: Field Result of Social Skills Suggested in Civic Education Curriculum

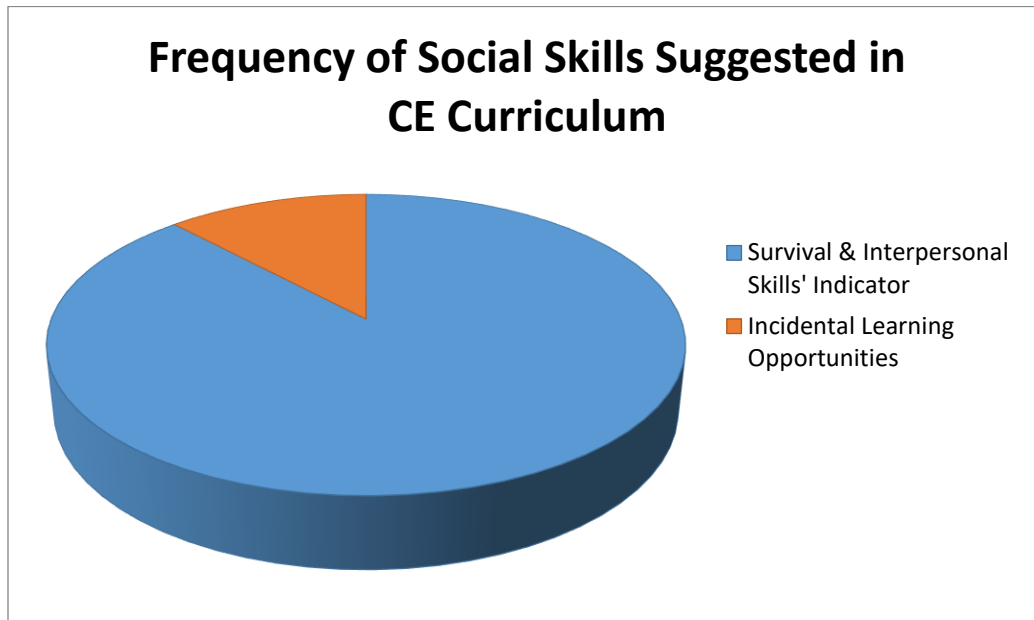


Table 2 showed sixteen (16) incidental learning opportunities in the curriculum with one hundred and twenty-two (122) facilitating activities through skill indicators. The result indicated learning activities covering two out of four crucial social skill areas for the students. Among these activities, mentioning of facts and giving an explanation, occur more frequently than others. There was limited (12%) incidental learning opportunities from recommended activities across the three-year programme compared with the 88% attention to other skill indicator areas.

Question Three: How do the teachers perceive their roles of involving in active learning processes?

Interview Report

Five teachers from junior (3) and senior (2) schools were interviewed (3 females & 2 males) through WhatsApp phone call sessions lasting an average of 15 minutes each. The interviewees were asked three direct, open-ended questions. Below are the responses.

Question A: Are you able to access the following CE teaching materials? Curriculum, syllabus, scheme of

work, Teacher's Manual and student instructional textbook. All five teachers admitted that they had never sighted the Teacher's Manual for guidance in teaching CE. Two teacher-interviewees agreed to have the curriculum document, while three others did not. All the five teachers have access to the syllabus, scheme of work and instructional textbook for the students. One said, *"I made a copy of the curriculum by myself when Civics was newly introduced and the Vice Principal Academics brought it to us"* (Teacher A, Male). *"There is no need for it since the syllabus given to me corresponds with the students' textbook that I'm using"* (Teacher C, Female)

Question B: What roles do you play in a turning student's negative behaviour to a positive one?

All the five interviewees admitted teaching the student through direct instruction to correct inappropriate behaviours. Four interviewees claimed using punishment to stop students' hostile actions. However, one of the interviewees was opposed to using punishment. She stated, *"I don't beat my students' anymore, having a better understanding of how to deal with their challenges. Of a truth, I prefer to engage such student in a deep conversation to find out why...also get the student closer to me. This has helped a lot than usual*

punishment and I monitor the student for improvement with time" (Teacher B, Female). All teachers agreed to issuing stern warnings initially and withdraw privileges from misbehaving students. One of the teachers mentioned using rewards for positive actions such as praises to encourage other students. She said, *"At times, when I noticed a student doing right things, I quickly comment and praise that step so that others especially the bad ones can take note, to learn from the good students"* (Teacher B, Female).

Question C: Do you engage students often with practical group tasks within and outside the classroom?

The five interviewees generally lamented not having enough time to engage the students consistently especially outside the classroom. One stated, *"The time allocated to Civics on the school timetable cannot be exceeded, students will have to move on for another subject session"* (Teacher C, Female). However, Teacher D (a female) said, *"it is not that the time is so short actually, we have Civics for four periods of forty minutes each, in a week, but to give students practical group activities outside their normal class periods is a bit challenging in public school"*. Another interview said, *"Teacher has to be careful in giving group project to students specially to avoid delaying*

them after school hour and not to involve in money issue with the students, these are not allowed by the government rules” (Teacher E, Male).

DISCUSSION

The findings revealed issues of peace and human rights which were two crucial focus areas of the New World emphasized by UN (2018) were explicitly supported by the topics in CE. The curriculum has 65% topic coverage relating to the New World agenda generally. The topic coverage indicates that CE in Nigeria meets the needs of its immediate society in line with Smith, et al (2002) and McCracken (2010) in provision of required information. However, the contents fail to explicitly address issues of child rights and child protection as observed also in Serbia (Smith, et al., 2002). This indicated the curriculum did not fulfill the UN (2022) advocate of paying attention to the vulnerable groups (e.g., children) not to leave anyone behind in awareness and empowerment of their rights.

Among the four social skill areas listed by NASP (2002), and recognised by John, et al. (2005) and Cunningham (2022), the CE curriculum covered two areas clearly. The suggested activities clustered around survival and interpersonal

skills at 88% frequency rate. In contrast, only 12% of the activities provide opportunities in problem-solving and conflict resolution skill areas. That is, the curriculum employed teaching process to develop social skills through its values topics but with poor opportunities for incidental learning. The inadequate incidental opportunities led into competency and fluency deficits as discussed by NASP (2002). Basically, the curriculum failed to provide appropriate and consistent opportunities to practice social skills. The implication according to Logue (2007), is that the academic instructions may not benefit the students well. Therefore, SER (2022) suggested a review of such curriculum.

Teachers’ perception of their roles in active learning yielded background information. There was poor access to crucial material that would aid understanding and better implementation of CE curriculum. For instance, none of the five teachers has ever seen the Teacher Manual, while only two teachers have copies of the curriculum. Although all the five interviewees have access to the syllabus, scheme of work and students’ textbooks but these materials are prone to human errors in the course of writing and transfer of

information. Teachers' interaction with students was limited; it is more of instructional roles and using punishment as discipline. There were few instances of coaching or modeling right social skills. This probably is due to wrong perception of students' knowledge on how to behave observed by John, et al (2005). Teachers' poor perception therefore corresponds to Blues (2017) and Cunningham (2022) statement that failures in social skills will result in lifelong challenges across all areas of human endeavour.

CONCLUSION

Civic Education curriculum raises substantial awareness for the 2030 "New World" agenda. However, issues of child rights were not directly addressed in the content knowledge. The curriculum explicitly offers topics on values that promote peaceful attitudes as required for the New World experiences. Despite provision of social skills in the CE curriculum, the suggested activities however, clustered around survival and interpersonal skill areas. The inadequacy gives room to competency and fluency deficits. That is, opportunities to acquire skills in areas of problem-solving and conflict resolution are inadequate and inconsistent. Teachers' interviewed demonstrate poor perceptions about their required roles in promoting

active learning among the students. This is partly due to poor access to vital information on the Civic Education, thus limiting their strategies and commitment to engaging students with innovative activities.

RECOMMENDATIONS

A review of the curriculum is essential to include issues of child rights and adequate provision for incidental learning activities for students to enhance skills in problem-solving and conflict resolution areas. The curriculum is due for upgrade to reflect current SDGs because the current curriculum designed in 2008 targeted Millennium Development Goals (MDGs) which ended in 2015. Furthermore, copies of the CE curriculum should be kept in schools mandatorily as a statutory record with teachers encouraged to keep personal copies. The academic association (SOSAN) for CE, through its state chapters, can make an impact by organizing workshops in conjunction with the Ministry of Education to improve teachers' strategies and perspectives about the subject.

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**THE EFFECT OF RELAXATION AND SELF-CONTROL
COUNSELLING TECHNIQUES ON ANGER AMONG PUBLIC SENIOR
SECONDARY SCHOOL STUDENTS IN BAURE EDUCATIONAL ZONE,
KATSINA STATE, NIGERIA**

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ABSTRACT

This study investigated the effect of cognitive dimension of anger among secondary school students in Baure Educational Zone, Katsina State. Quasi-experimental design that involved pre-test, post-test non-equivalent design was adopted for the study. The population of the study comprised of 219 students identified with anger behaviour. Purposive sampling technique was used to select thirty (30) students for the treatment groups. Adolescents' Anger Scale (AAS) and Anger Identification Scale (AIS) were used for collecting data for the study. Data were analyzed using mean, standard deviation and t- test statistics. The findings of the study revealed that both Relaxation and Self Control Counselling Techniques have effect on all the three components of anger that were examined (that is; emotional, cognitive and behavioural components of anger) among secondary school students. It was concluded that both the Relaxation Counselling Technique (RCT) and Self-Control Counselling Technique (SCCT) were effective in the reduction of anger among secondary school students in Baure Educational Zone, Katsina State. Based on the findings of this study, it was recommended that school counsellors, psychologists, social workers and other relevant professionals should adopt both the relaxation and self-control counselling techniques to treat cases of anger among secondary school students.

Keywords: Anger, Counselling, Relaxation technique, Self-Control Technique

INTRODUCTION

Anger is an intense emotional response to undesired events, actions or reactions against someone's wishes and interests. It is an emotion that involves a strong uncomfortable and emotional response to a perceived provocation, hurt or threat. Anger is one of the behavioural problems which seriously affect adolescents'

interpersonal and social interactions with other people, especially family members, parents, teachers, peers, and so on. Anger may be caused by internal factors, such as irrational thinking, anticipation, and beliefs, frustrations, ill-fitting expectations and feelings of failure and the likes (Sharp & Herrick, 2013).

Anger can have many physical and mental consequences. Anger has also been proposed to co-occur with type A behaviour as well as aggressive and risky behaviours (Tafrate, Kassinove & Dundin, 2014). The external expression of anger can be found in facial expressions, body language, physiological responses and at times public acts of aggression. If not properly controlled or managed, anger can lead to negative self-concept, low self-esteem, aggression, hostility, violence or even more serious behaviour disorders such as anxiety, depression and oppositional defiant disorder which may tantamount to great dangers to personal, social, academic, cultural and occupational life (Ellis & Tafrate 2013 & Hains, 2014 & Wilde, 2014). Adolescents' anger problems are so prevalent in schools so much that every day one hears cases of fighting, destruction of school properties, attacks on fellow students, teachers and supporting staff and so on either in the schools or outside the schools (Sharp & Herrick, 2013). This has made stake holders such as school authorities, teachers, parents and counsellors to be much concerned as it can adversely affect learning and academic growth and as such have been making numerous efforts to curb this problem. School authorities have been using different ways such as appointments of students into

positions or roles, punishments, denial of privileges, suspension and expulsion to tackle the problem but in vein. Teachers have been trying their best in reducing anger control problems among their students through the use of different means like disciplinary actions, praises, rewards and encouragement but all have not seemed effective. Counsellors as professional helpers have attempted to intervene using several counselling techniques and strategies such as modeling, reinforcement, cognitive restructuring, time-out, premack counselling and the likes in order to put a stop to frequent and severe anger manifestations among adolescents but up to now it seems they are yet to achieve much desired results. Despite all the efforts being made by teachers, parents, principals, counsellors, psychologists, government at different levels, non-governmental organizations as well as concerned individuals, it can be observed that the problem still exists (Elliot & Witt, 2016; Smith et al., 2014).

For the above reasons and the need to have violence - free secondary school environments and the desire to produce emotionally, physically and mentally healthy students, the researcher felt motivated to use relaxation and self-control

counselling techniques to treat and assist adolescents with anger in public senior secondary schools in Katsina State, Nigeria.

Relaxation counseling Technique is a well-known technique that is used by many researchers in the fields of psychiatry, psychology, social work, counselling and psychotherapy, medicine and so on and so forth and is recorded as efficient and evidence based strategy for treating behaviour disorders like aggression, depression, anxiety, anger, attention deficit disorder and the likes. Relaxation technique is the use of some physical skills like Deep Breathing, Mindfulness Meditation and others to achieve a calm and relaxed state of mind and body to reduce angry feelings. Research by Feindler (2015) provided evidence that high self-control is highly correlated with higher grade point average, higher self-esteem, anger and temper control, less alcohol abuse and overeating, better interpersonal skills, secure attachment and emotion regulation (Rivers et al., 2015)).

Self-control technique is another technique which involves the use of an individual's capacity to consciously (intentionally) override and inhibit socially undesirable and unacceptable impulses and to alter and regulate one's behaviours, thoughts and emotions. Self-control

technique gets its roots from Bandura's (1991) Social Cognitive Theory of Self –Regulation which holds that human behaviour is extensively motivated and regulated by the ongoing exercise of self-influence (Finkenauer et al., 2001).

Objectives of the Study

The specific objectives of this study are to:

1. Determine the effect of relaxation technique on emotional dimension of anger among secondary school students in Baure Education Zone, Katsina State.
2. Investigate the effect of relaxation technique on cognitive dimension of anger among secondary school students in Baure Education Zone, Katsina State.
3. Examine the effect of relaxation technique on behavioural dimension of anger among secondary school students in Baure Education Zone, Katsina State.
4. Determine the effect of self-control technique on emotional dimension of anger among secondary school students in Baure Education Zone, Katsina State.
5. Investigate the effect of self-control technique on cognitive dimension of anger among secondary school students in

- Baure Education Zone, Katsina State.
- Investigate the effect of self-control Self-control technique on behavioural dimension of anger among secondary school students in Baure Education Zone, Katsina State.

Hypotheses

The following null hypotheses were tested in this study at 0.005 level of significance:

- There is no significant effect of relaxation technique on emotional dimension of anger among secondary school students in Baure Education Zone, Katsina State.
- There is no significant effect of relaxation technique on cognitive dimension of anger among secondary school students in Baure Education Zone, Katsina State.
- There is no significant effect of relaxation technique on behavioural dimension of anger among secondary school students in Baure Education Zone, Katsina State.
- There is no significant effect of self-control technique on emotional dimension of anger among secondary school students

- in Baure Education Zone, Katsina State.
- There is no significant effect of self-control technique on cognitive dimension of anger among secondary school students in Baure Education Zone, Katsina State.
 - There is no significant effect of self-control technique behavioural dimension of anger among secondary school students in Baure Education Zone, Katsina State.

METHODOLOGY

Research Design

The research design for this study is quasi-experimental involving pre-test and post-test designs. This design is chosen because it can involve manipulation of one or more independent variables and there is no random assignment of subjects to conditions. Quasi-experimental designs identify a comparison group that is as similar as possible to the treatment group in terms of baseline (pre-intervention) characteristics (White & Sabarwal, 2014).

The design can be illustrated as follow:

Group	Pre-test	Treatment	Post-test
Relaxation Experimental Group 1 (RCT),	O_1	X_1	O_2
Self-Control Experimental Group 2 (SCCT),	O_3	X_2	O_4

Research Design Illustration

Key to Illustration:

O_1 = Pre-test for group 1 (RCT)

X_1 = Treatment for experimental group 1 (RCT)

O_2 = Post-test for experimental group 1(RCT) after treatment

O_3 = Pre-test for experimental group 2 (SCCT)

X_2 = Treatment for experimental group 2 (SCC)

O_4 = Post-test for experimental group 2 (SCCT) after treatment. From the above explanation, it is clear that the design involves two groups. Pre-test was given to the entire group before treatment and post-test after treatment.

Participants

The population of the study comprised of all senior secondary school students that have anger ranges from mild to moderate type of anger in Baure Education Zone, Katsina State. The Educational Zone consists of three Local Government Areas: that is; Baure, Sandamu and Zango Local Government Areas, out of the thirty-four (34) local Government areas in the state. There are twenty-three (23) senior secondary schools in the zone with a total number of senior secondary class two (SS2) students of three thousand one hundred and forty-six (3,146) students, out of this number, one thousand seven hundred and seventy (1,770) students are males, while one thousand three hundred and seventy-six (1,376) students are

female (Baure Zonal Education Quality Assurance Directorate, 2018).

Instrumentation

Two research instruments were used in this study namely; Adolescents' Anger Scale (AAS) and Anger Identification Scale (AIS) which were adopted through extraction from the contents of Adolescents' Anger Scale (AAS) developed by Snell, Gum, Shuck, Mosley and Hite (2013). Anger Identification Scale (AIS) was used for identifying subjects with anger management problems, while in both pre-test and post-test of the study, the researcher used Adolescents' Anger Scale (AAS).

Twenty-one sets (21) of statements were contained on the scale which

were originally prepared by its authors and adopted for the present study. Each cluster of statements was scored on a 4-point Likert scale, with A = 0, B = 1, C = 2 and D = 3. Subjects' responses on the AAS were summed so that higher scores correspond to greater measure of anger (21 items; range 0 - 63). Adolescent' Anger Scale scores were accomplished through the following interpretive ranges:

- 0-13- minimal anger
- 14-19 - mild anger
- 20-28 - moderate anger
- 29-63 - severe anger.

Validity of the instruments

The instruments were validated by six lecturers in the Department of Educational Psychology and Counselling, Ahmadu Bello University, Zaria, to confirm its face and content validity. The researcher's supervisors and other lecturers' comments, corrections and suggestions were effected to obtain full validation of the instrument.

Reliability of the instruments

The internal consistency of the 21 items on the Adolescents Anger Scale was analyzed by the authors (Snell, Gum, Shuck, Mosley & Hite, 2013) using Cronbach alpha, and yielded reliability coefficients of .94. The reliability of the instrument (AAS) was also determined through the

result obtained after pilot testing conducted by the researcher in 2018. The result of PPMC for the pilot study was $r=.846$, approximately, $r=.85$ which indicates good reliability.

Procedure for Data Collection

The researcher purposively selected two secondary schools in the zone due to their higher numbers of students identified with anger management problems. The researcher sought the help of some staff to participate as research assistants. The two (2) selected schools were considered as separate study groups, that is, two experimental groups. The instrument (AAS) was administered to the subjects in each selected school before and after the treatment sessions (for pre- test and post test). Each school's assembly halls (well furnished) were used for the activity to avoid distractions. Copies of the instrument filled by the respondents were retrieved successfully. The scores obtained from the respondents in pre-test and post-test were collected and recorded separately.

Method of Data Analysis

The data collected in this study were analyzed using descriptive statistics which involved simple percentages, means and standard deviation to answer the research questions and the demographic data of the respondents.

The study also employed paired sample t-test using Statistical Package for Social Sciences (SPSS version 20) for comparison to find out whether there are significant effects of the two treatments.

RESULTS

In order to test the six null hypotheses stated for the study, the Paired

Sample t-test was employed and the results are presented as follows:

H₀₁: There is no significant effect of relaxation counselling technique on emotional dimension of anger among public senior secondary school students in Baure Educational Zone, Katsina State.

Table 1: Relaxation Technique on Emotional Dimension of Anger among Public Senior Secondary School Students

Variables	Tests	N	Mean	SD	Df	t-cal.	t-crit.	p
Emotional Anger	Pre-test	15	7.8667	1.72654	14	8.355	1.96	0.001
Emotional Anger	Post-test	15	3.6667	.89974				

Significant at 0.05

Table 1 presented the calculated t-value of 8.355 is greater than the t – critical value of 1.96, while the calculated pre-test mean score of 7.8667 is higher than the post-test mean score of 3.6667 before and after exposure to the technique of relaxation. The table showed that the p value of 0.001 is lower than the 0.05

alpha level of significance. Hence, the null hypothesis which states that there is no significant effect of relaxation counselling technique on emotional dimension of anger among public senior secondary school students in Baure Educational Zone, Katsina State is rejected.

Table 2: Relaxation Technique on Cognitive Dimension of Anger among Public Senior Secondary School Students

Variable	Tests	N	Mean	SD	df	t-cal.	t-crit.	p
Cognitive Anger	Pretest	15	8.2667	1.79151	14	8.789	1.96	0.000
Cognitive Anger	Posttest	15	3.7333	.88372				

Significant at 0.05

Table 2 above presented the calculated t- value of 8.789 is greater than the t – critical value of 1.96, while the calculated pre-test mean score of 8.2667 is greater than the post-test mean score of 3.7333 before and after exposure to the technique of relaxation. The table showed that the p value of 0.000 is lower than the 0.05

alpha level of significance. Hence, the null hypothesis which states that there is no significant effect of relaxation counselling technique on cognitive dimension of anger among public senior secondary school students in Baure Educational Zone, Katsina State is rejected.

Table 3: Relaxation Technique on Behavioural Dimension of Anger among Public Senior Secondary School Students

Variables	Tests	N	Mean	SD	df	t-cal.	t-crit.	p
Behavioural Anger	Pretest	15	7.7333	1.62422	14	8.725	1.96	0.011
Behavioural Anger	Posttest	15	3.5333	.91548				

Significant at 0.05

Table 3 presented the calculated t value of 8.725 is greater than the 1.96 t critical value at df 14. Their descriptive statistics showed that their computed mean at pre-test and post-test levels were 7.7333 and 3.5333 respectively with a reduced mean difference of 4.2000 at the post-test level after exposure to the relaxation technique. The table showed that the

calculated p value of 0.011 is lower than the 0.05 alpha level of significance. Therefore, the null hypothesis which states that there is no significant effect of relaxation technique on behavioural dimension of anger among public senior secondary school students in Baure Educational Zone, Katsina State is rejected.

Table 4: Effect of Self-Control Counselling Technique on Emotional Dimension of Anger among Public Senior Secondary School Students

Variables	Tests	N	Mean	SD	Df	t-cal.	t-crit.	p
Emotional Anger	Pre-test	15	7.9333	1.53375	14	9.090	1.96	0.000
Emotional Anger	Post-test	15	3.6667	.97590				

Significant at 0.05

Table 4 presented the calculated t-value of 9.090 is greater than the 1.96 t critical value at df 14. Their descriptive statistics showed that their computed means at pre-test and post-test levels were 7.9333 and 3.6667 respectively with a reduced mean difference of 4.260 at the post-test level after exposure to the Self-Control Technique. The table showed

that the calculated p value of 0.000 is lower than the 0.05 alpha level of significance. Therefore, the null hypothesis which states that there is no significant effect of self-control technique on emotional dimension of anger among public senior secondary school students in Baure Educational Zone, Katsina State is rejected.

Table 5: Effect of Self-Control Counselling Technique on Cognitive Dimension of Anger among Public Senior Secondary School Students

Variable	Tests	N	Mean	SD	Df	t-cal.	t-crit.	p
Cognitive Anger	Pre-test	15	7.4000	1.54919	14	8.050	1.96	0.000
	Post-test	15	3.8000	.77460				

Significant at 0.05

Table 5 presents that the calculated t value of 8.050 is greater than the 1.96 t critical value at df 14. Their descriptive statistics showed that their computed means at pre-test and post-test levels were 7.4000 and 3.8000 respectively with a reduced mean difference of 3.6000 at the post-test level after exposure to self-control technique. The table showed that the

calculated p value of 0.000 is lower than the 0.05 alpha level of significance. Therefore, the null hypothesis which states that there is no significant effect of self-control technique on cognitive dimension of anger among public senior secondary school students in Baure Educational Zone, Katsina State is rejected.

Table 6: Effect of Self-Control Counselling Technique on Behavioural Dimension of Anger among Public Senior Secondary School Students

Variable	Tests	N	Mean	SD	Df	t-cal.	t-crit.	p
Behavioural Anger	Pre-test	15	7.4000	1.40408	14	8.994	1.96	0.000
	Post-test	15	3.3333	1.04654				

Significant at 0.05

Table 6 presents that the calculated t value of 8.994 is greater than the 1.96 t critical value at df 14. Their descriptive statistics showed that their computed means at pre- test and post-test levels were 7.4000 and 3.3333 respectively with a reduced mean difference of 4.0666 at the pos-test level after exposure to self-control counselling technique. The able showed that the calculated p value of 0.000 is lower than the 0.05 alpha level of significance. Therefore, the null hypothesis which states that there is no significant effect of self-control technique on behavioural dimension of anger among public senior secondary school students in Baure Educational Zone, Katsina State is rejected.

CONCLUSION

Based on the findings of this study, it was concluded that the two counselling techniques (Relaxation & Self-control counselling techniques) were effective in the treatment of

anger among public senior secondary school students in Baure Educational Zone, Katsina State. The two techniques had effects on all the three dimensions of anger. According to the findings of the study, the two techniques can be used to assist secondary school students with anger control problems especially in the school setting.

RECOMMENDATIONS

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

1. Counsellors and psychologists should employ relaxation counselling technique in order to help students with anger problems so that they can adjust effectively to their educational and social environments; thereby, having positive human relations with others.
2. School counsellors and psychologists should make use of self-control counselling technique to help alleviate anger among

- secondary school students, so that they can be able to integrate such knowledge into their daily interactions; thereby, developing a positive interpersonal relationship with others.
3. Counsellors, psychologists and school authorities should create a conducive environment for the teachers (who are ready to support the school guidance & counselling programmes) for them to be trained on how to employ the relaxation and self-control counselling techniques in order to help students with anger problems before such cases are referred to the school Management.
 4. School counsellors, with the support of the school administrators should design a programme in which students with anger problems can be identified and organize appropriate counselling sessions where such students can be helped to overcome their anger problem. This will go a long way in reducing the level of disruptive behaviours among students and enhance their interpersonal relationship skills.

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USE OF ENGLISH SECOND LANGUAGE TEXTBOOKS AND STUDENTS' ENGLISH-SPEAKING PERFORMANCE IN PUBLIC SENIOR SECONDARY SCHOOLS IN JIGAWA STATE

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ABSTRACT

This study investigated the effectiveness of an intermediate textbook titled "Senior English Project 3", which was prepared from the perspectives of the teachers and students for Senior Secondary Schools' use. The research adopted a survey research design. The sample comprised of 240 students who were interviewed in this study. The results revealed that both students and teachers felt positive about the integration of writing, listening and speaking activities of the textbook. Also, while students felt unsure about organization of tasks as moving from simple to complex, teachers highlighted that the tasks and activities were not sequenced properly. It was recommended that authors should consider the appropriateness of the textbook to the level of the students in order to avoid any negative attitudes towards the school subject as a result of using a textbook.

Keywords: Textbook, English Second Language (ESL), Speaking performance, Listening

INTRODUCTION

Most curriculum reforms over the years have sought to make a careful re-examination of the aims, goals, objectives, methods, and materials involved in the effective implementation of the English curriculum. One school of curriculum theory, in fact, states that the achieved curriculum is the effective one. However, before this achievement in curriculum is realised, there are two other perspectives from which curriculum could be looked at: prescription (intended curriculum)

and practice (implemented curriculum).

According to Obanya (2002), "in ideal situations there would be a perfect match between what is prescribed, what is practiced, and consequently what achieved (outcome) is" (p.5). One would expect English as a Second Language (ESL) learners in the Nigerian context after nine or twelve years of learning English and using it for instruction at the primary and secondary levels to be academically, linguistically and communicatively proficient in social

contexts beyond the school system, which is the ultimate goal of the prescribed English Language curriculum at the secondary school level. The socio-linguistic realities, according to Obanya (2002), are however, different in that English is really a restricted code language in the Nigerian setting, even in school premises. Therefore, the challenge posed in this situation has become one of the greatest areas of concern in our educational system in recent times, particularly in secondary schools, which witness remarkable decline in both communicative and linguistic competence of the learners of English. The situation at the secondary school level is that in which the motivation is to pass English and not to master it. However, in the real sense of communicative situation, the ability to understand a language and to produce it in actual communication is not the same as meeting a descriptive standard which examination-oriented English curriculum emphasizes. This is because actual language use involves many varieties of knowledge, which no one has ever attempted to squeeze into textbooks or grammars. Obanya (2002) stated that interaction, which should be in form of multi-way and multi-media exchanges (verbal and non-verbal) in the conduct of classroom teaching and learning activities, is significantly

absent. English language teaching and learning process, according to research and circumstantial evidence, is frontal teaching characterized by:

- a heavy reliance on the textbook as the exclusive teaching learning materials;
- reading aloud by the teacher followed by recitation and imitation reading round the class by pupils (learners);
- very little respect accorded to the primacy of oracy in language teaching and learning;
- an undue rush to finish the textbooks, a sign of also “covering the syllabus”; and
- devotion of a considerable amount of time to practicing exam-type skill (Obanya, 2002)

The situation that arises from the problems above is contrary to the perceived or intended curriculum outcome of ESL in Nigerian secondary schools and even beyond the academic purpose in the larger society. Curriculum materials have to be perceived for what they really are, not just textbooks because communicative skills are not acquired through textbooks but in “a natural (special) activity and it is better taught and learned in that context” (Obanya, 2002).

The challenges of this thesis therefore are in agreement with some views of Obanya (2002):

- Building up English language skills and acquisition of communicative competence in secondary schools;
- enriching ESL learners' performance through some activities;
- Turning the textbook into genuine curriculum materials and not as a sacred text to be used for English language curriculum;
- Creating an enabling environment within the school premises for the promotion of language learning: the provision of libraries and promotion of activities in and outside the school in order to reinforce the normal efforts of teachers;
- Taking a more holistic view of a language as an audio-oral–syntactico-lexical complex and so paying greater attention to the teaching and examination of English language in use as opposed to the restricted code English language extracted from the larger corpus for examination purposes only (Obanya, 2002)

The challenges above are identified in order to help achieve the general aims of secondary school education in Nigeria as provided in Section 14:17(1,2) of the National Policy on Education (2014), which are:

- to prepare the students for useful living in the society; and

- To prepare them for higher education.

In order to meet the requirements above, the following goals, according to Adegbite (2005), must be put in focus:

- Learners should be able to understand as well as converse effectively in spoken English in order to have successfully undergone the course; and
- Learners should be able to effectively read, comprehend critically as well as engage efficiently in expressive and creative writing (Adegbite 2005)

Objectives of the Study

The research has the following as the major objectives:

1. To examine the effectiveness of the textbook according to the selection and organization of content in the textbook.
2. To weigh the textbook relevancy according to the level of the learners.
3. To measure the attraction of the textbook according to the physical appearance.
4. To suggest some activities that may aid speaking performance.

Research Questions

The following research questions were addressed in this study:

1. To what extent is the textbook effective according to the selection

and organization of content in the textbook?

2. To what extent is the textbook effective according to the level of the learners?
3. To what extent is the textbook effective according to the physical appearance?
4. What special activities can be used to enhance student's performance?

METHODOLOGY

Research Design

The researcher designed and adopted a survey type of research where the sampled students numbering up to 240, in the survey and interview techniques used in this study. This is because it is the one in which a group of people or items is studied by collecting and analysing the data from only a few people or items considered to be representative of the entire group (Akuezilo, 1993 cited in Abdullahi, 2002). It is also a technique where the desired characteristics is systematically examined.

Participants

The area of this study is Jigawa State which comprises twenty-seven local governments. The population in this research work comprises all the SS 3 students in all senior secondary schools in the state. The research encompassed both the students and

the teachers of English as a second language. Due to overcrowding the number of students per class is averagely sixty-seven (67). As such five (5) classes from five different schools were used making the total number of students to be (335). According to Morgan and Krecie (1971 cited in Haruna 2010:45) "for population that runs in hundreds, a 50% sample is recommended but if it runs in thousands, a 5% to 20% sample may be drawn." Since the total number of the population is 335 students, the sample size of this study consisted of two hundred and forty (240) students. Simple random technique was chosen as the technique employed in this research, considering that each member of the population had equal chance of being selected. On the process of selecting the sample, the students were merged in one theatre. The researcher provided three hundred (335) pieces of paper in which "sample" were wrote on two hundred and forty (240) papers. The remaining ninety-six (96) pieces were left blank. The students who picked the papers that contained "sample" on it were the sample size of this research.

Instrumentation

Students were presented with a self-administered questionnaire in which they were asked to answer questions related to characteristics of textbook

they studied. They students were also tested with some activities that will help improve their speaking ability. The questionnaire was developed by the researcher. Questions used in the survey instrument were selected from the related literature and validated by a group of experts in the field. The following instruments were used to collect data in this study, structured questionnaire (for both the students and teachers) and structured oral interview (for both the teachers.) In this study both quantitative and qualitative data were obtained through student questionnaires and teacher interviews for the macro level evaluation of the textbook.

Reliability of the Instrument

A pilot study was conducted to assess the clarity of the questionnaire items. Survey data were analyzed using descriptive statistical techniques. Interviews were conducted with teachers to collect information regarding their opinions about the textbook they used.

Data Collection

Prior to the implementation of the instruments, the course teachers were

informed about the textbook evaluation study and data collection procedures by means of the questionnaires. They were given the necessary information about the administration procedures and administration dates were planned according to the teachers' weekly lesson program. The questionnaires were administered to students either by their teachers of English or by the researcher during the class time. This study produced both qualitative and quantitative data through questionnaires and interviews. Frequencies, percentages, means and standard deviations were calculated for each item to describe the overall picture of how the students rated the textbook.

RESULTS

Selection and Organization of Content in the Textbook

The first research question, 'what is the relevance of the current (Senior English Project 3) ESL textbooks in the learning of English language. This was measured through three items in the students' questionnaire and the responses are presented in Table 1.

Table 1: Means, Standard deviations and Percentages of Items on the Selection and Organization of Content in Textbook

S/NO	ITEM	MEAN	SD	1%	2%	3%	4%	5%
1	The task and activities are organized from simple to complex.	3.00	1.17	14.88	14.29	36.31	25.00	9.5
2	I can follow the units in the textbook easily.	2.88	1.14	16.07	17.26	35.12	25.30	6.25
3	The reading passages in the units and listening, writing and speaking activities coming afterwards are presented in an integrated way.	3.04	1.30	18.20	15.20	22.90	31.50	12.20

As table 1 indicated, more than one third of the students (34.5 % agree or strongly agree with the related item) stated that task and activities were organized as moving from simple to complex. More than one third of the students (36.3 %) stated that they somewhat agreed with the statement. However, the additional comments the students made in relation to the selection and organization of content in the textbook revealed that 42 students out of 240 stated that the tasks and activities were not organized as moving from simple to complex. One third of the students (31.5 % agreeing or strongly agreeing with the related item) stated that they could still follow the units in the textbook easily and more than one third of the students (35.1 %) somewhat agreed with the statement. As for the integration of the activities nearly half of the students (43.7 %

agreeing or strongly agreeing with the related item) believed that the reading passages in the units and listening, writing and speaking activities coming afterwards were presented in an integrated way. The interview results with the teachers revealed that 6 teachers out of 8 agreed with students expressing that the reading passages in the units and listening, writing and speaking activities coming afterwards were presented in an integrated way in the textbook. However, all the teachers stated that the task and activities were not organized as moving from simple to complex. They mentioned that the difficulty level of the task and activities in the first units were not much more different from the ones in the last units. In summary, the results revealed that both students and teachers felt positive about the integration of writing, listening and

speaking activities coming after the reading passages. On the other hand, while students felt unsure about organization of tasks as moving from simple to complex, teachers highlighted that the tasks and activities were not sequenced properly.

The Level of the Textbook

The second research question, 'To what extent is the textbook effective in terms of Level?' was measured through five items in the students' questionnaire and the responses are presented in Table 2.

Table 2: Means, Standard Deviations and Percentages of Items on the Level of the Textbook

S/N	Item	Mean	SD	1%	2%	3%	4%	5%
4	The textbook is above the level of ninth grades students.	3.10	1.38	19.00	18.20	16.70	25.60	20.50
5	The reading passages in the textbook are difficult for the ninth grades students.	2.74	1.29	11.30	18.50	24.10	25.00	21.10
6	The writing activities in the textbook are difficult for the ninth grades students.	2.61	1.23	22.90	23.30	28.60	14.30	8.90
7	The listening activities in the Textbook are difficult for the ninth grades students.	2.29	1.30	14.60	14.90	14.60	40.50	16.10
8	The speaking activities in the textbook are difficult for the ninth grades students.	2.35	1.16	25.60	58.40	18.50	11.00	6.50

As table 2 indicated, nearly half of the students (46.1 % agree or strong agreeing with the related item) stated that the textbook was above their level. Less than one quarter of the students (16.7 %) somewhat agreed with the statement. The additional

comment the students made in the questionnaire in relation to the level of the textbook revealed that 52 students out of 240 stated the textbook as being above their level. Almost half of the students (46.1 % agreeing or strongly agreeing with the

related item) believed that the reading passages in the textbook were difficult for the ninth grades students. Their comments also supported these findings in that 82 students out of 240 highlighted that the reading passages were difficult for them. As for the writing activities, 48.2 % of the respondents disagreed or strongly disagreed with the next item “the writing activities in the textbook are difficult for the ninth grades students.” Less than one quarter of the students (23.4%) found writing activities difficult. On the other hand, more than half of the students (56.6% agreeing or strongly agreeing) stated that the listening activities were difficult for the ninth grades students. However, for the last item “the speaking activities are difficult for the ninth grades students”, 64 % of the respondents disagreed or strongly disagreed with the related item.

The interview results with the teachers indicated that 7 teachers out of 8 believed that the textbook was above the level of their students. Sharing the same views with the students, those teachers mentioned that reading passages were difficult

for the ninth grade students in terms of vocabulary and sentence structures. Similar to the opinions of the students, the teachers felt positive concerning the level of writing and speaking activities. As for the listening, most teachers stated that due to the CDs being not understandable in terms of sound clarity, they had to skip listening activities. In summary, results suggested that while students were not much negative about the difficulty level of the textbook, teachers reported that the textbook is well above the level of the SS 3 students. On the other hand, both groups believed that the reading passages in the textbook were difficult for the SS 3 students. Both students and teachers perceived writing and speaking activities as being appropriate to the level of the students.

Physical Appearance of the Textbook

The third research question, to what extent is the textbook effective in terms of physical appearance? was measured through ten items in the students' questionnaire and the responses are presented in Table 3.

Table 3: Means, Standard Deviations and Percentages of Items on Physical Appearance in Textbook

S/N	Item	Mean	SD	1%	2%	3%	4%	5%
9	The cover of the textbook is attractive	1.75	1.15	62.20	16.70	9.50	7.40	4.20
10	The layout of a page is quite attractive	2.56	1.33	31.50	16.10	26.80	16.40	9.20
11	I can follow the layout of a page easily.	2.99	1.23	36.70	31.30	8.00	17.50	9.50
12	The layout in the textbook encourages The students to do the activities.	2.35	1.24	33.00	25.00	23.30	13.40	6.30
13	The textbook is durable in terms of use.	2.34	1.38	16.70	10.10	19.30	30.10	23.80
14	The artwork (pictures, illustrations, graphs, tables etc.) in the textbook is up-to-date.	3.39	1.24	11.60	10.50	24.70	34.20	19.00
15	The artwork (pictures, illustrations, graphs, tables etc.) in the textbook is helpful to me to understand the lesson	3.39	1.21	9.80	10.70	30.70	28.00	20.80
16	The font type in the textbook helps me to follow the units easily.	2.97	1.16	30.40	18.80	34.50	24.10	9.20
17	The font size in the textbook helps me to follow the units easily.	3.12	1.21	13.40	16.00	28.00	30.70	11.90
18	The colours in the textbook look attractive.	3.07	1.37	20.50	12.80	22.60	27.70	16.40

As table 3 indicated, the majority of the students (78.9% disagree or strongly disagree) did not think that the cover of the textbook is attractive. Only 11.6 % of the students had positive attitudes towards the cover of the textbook and 9.5% somewhat agreed with the item. Almost half of the students (47.6% disagreeing or

strongly disagreeing) perceived the layout unattractive. While 25.6 % thought that the layout of a page was quite attractive, slightly more than one quarter of the respondents (26.8%) somewhat agreed with the related item.

Furthermore, more than half of the students (68% disagreeing or strongly

disagreeing) did not believe that they could follow the layout of a page easily. Moreover, more than half of the students (58%) did not think that the layout in the textbook encouraged students to do the tasks and activities. The additional comments that students made seemed to support the above findings. 73 students out of 240 highlighted the unattractiveness of the layout and complained that the pages of the textbook seemed very crowded. Over 50 students suggested that the textbook include more pictures, illustrations, and authentic photographs so that they could get interested in the lesson. The above findings revealed the negative attitudes of the respondents to the physical appearance of the textbook. However, there are some other aspects of the textbook concerning physical appearance that the respondents felt positive about. To begin with, more than half of the students (53.9% agreeing or strongly agreeing) reported that the textbook was durable in terms of use. Similarly, more than half of the students (53.2% agreeing or strongly agreeing) believed the artwork (pictures, illustrations, graphs, tables etc.) were up-to-date. Nearly half of the students (48.8% agreeing or strongly agreeing) stated that the artwork was helpful to the students to understand the lesson. It should be noted that 30.7% of the students

somewhat agreed with the statement above. Slightly more than one third of the students (33% agree or strongly agree) pointed out that the font type in the textbook helped them to follow the units easily. More than one thirds of the students 34.5% somewhat agreed with the item, while 32.2% of the students did not think that the font type helped them to follow the content easily. It can be noted here that the respondents seemed not very sure whether the font type was helpful to them or not in following the content easily. On the other hand, nearly half of the students (42.6% agreeing or strongly agreeing) believed that the font size in the textbook helped them to follow the content easily and 28% of the students somewhat agreed with the item. Almost half of the students (44.1% agreeing or strongly agreeing) thought that the use of colour in the textbook looked attractive and 27.7% of the students somewhat agreed with the related item.

Interviews with eight teachers also verified the findings of the questionnaire. The teachers were asked, "What do you think about the Physical Appearance of the textbook (cover, layout artwork etc)?" All the teachers stated that not only the cover of the textbook but also the layout of a page was unattractive. In fact one of the teachers stated that she even got

bored when she opened the pages of the textbook. They all expressed that the pictures drawn under the reading passages had no aim but served only as a cosmetic function. The teachers overwhelmingly stated that such pictures drawn under the reading passages made it difficult for the students to read and comprehend the text. They concluded that the layout in the textbook did not encourage their students to do the tasks and activities. On the other hand, all of the teachers seemed to be positive about the font size, font type, and artwork. However, they still suggested the physical appearance of the textbook be made more interesting by including more pictures that could both enhance learning and motivation of the students.

In summary the quantitative and the qualitative data revealed that both the students and the teachers' perceptions about the physical appearance of the textbook with regard to font type, font size, artwork and colors used were positive. On the other hand, neither the students nor the teachers agreed that the cover of the textbook and the layout of a page were appealing to student's interest. This might be due to the fact that reading passages and pictures looked overlapping in many units in the textbook, which made it difficult for the students to follow the layout easily.

Speaking Activities and Their Evaluations

In this section the researcher will focus on communicative activities that to be practiced with the students. The aim of the researcher is to describe the activities and evaluate their advantages, disadvantages and this way help the majority of teachers that are desperate in searching for any communicative activities to encourage speaking and conversation in the class.

Interaction:

Type of Activity: Information search role play (pair work)

Objective: To encourage fluent speaking - giving advice and opinions
First, the researcher asks the students to imagine they all work in the same place. It is a break time and they are all bringing various bits of gossip. Students are asked to offer opinions to each other on what people should or should not do about their problems. Then the researcher seats the students in pairs and gives them a questionnaire to fill in together. They are supposed to discuss the problems, find solutions and make predictions about what will probably happen. When they have finished, each student is given the appropriate opportunity to go round commenting on what people should have done. The aim of this activity is to discover

how many of students' predictions were correct.

Evaluation: The researcher found this activity very effective because the objective was reached – the students were encouraged to communicate with each other and share information, opinions and advice. The topic could not have been chosen better since gossiping belongs to every day communication, especially in a working environment. The researcher engaged the students with speaking about different people's problems and their solutions seem to be quite a common issue nowadays. Although this activity is slightly demanding on students' understanding the instructions, the teacher's clear explanation would prevent possible misunderstanding. Giving clear instructions and demonstrating the task should never be neglected by teachers since these are essential for a successful communicative task. This activity is student-centered so the teacher's role in it is mainly observing the whole class having conversation. Even though the researcher heard many mistakes while circulating among students and managed not to interrupt their enthusiastic conversation. Instead of interruption, which would have discouraged their motivation, the researcher decided to take notes and wrote down the most common

mistakes. As already noticed in the class, immediate error correction while listening to students' conversation had no positive effect since the students were plunged in talking and did not pay attention to the teacher's comments. The error correction was different while the students were working in pairs. I was walking around listening to the pairs and tried to alert the students every time I heard a mistake and we made correction together. This time my role has changed, instead of constant observation without error correction; the researcher concentrated on making students aware of their own mistakes. Due to working in pairs, they paid attention to clarifying mistakes.

After finishing the communicative activity, the researcher wrote all the mistakes gathered from students on the board and we were discussing them as a whole class. All the students were taking notes about corrections very carefully and after that we were practising these in sentences. What is very important is reviewing the problematic structure again and again having in mind that practice makes perfect. For that reason, at the beginning of each lesson, if possible, the researcher focus on revision of the items done with students in previous communicative activities to prevent

recurrence of already explained mistakes. Researcher's aim in this activity was to motivate the students to identify with a person on a given card and lead conversation with other colleagues about people's problems. Students were explaining these problems, trying to find solutions and made predictions what was going to happen in a year time. This fluency communicative activity induced my students to practise fluent speaking and also helped develop their imagination while giving advice and making predictions.

**Debate on a Given Topic:
Objective:**

To get the students involved in a debate on given topic and practise exchanging the opinions and supporting arguments *for* and *against*. Students form to groups - the first group supports the idea and the second group gives reasons against it. Then the researcher introduces the topic which is the subject of a debate -. - and allows the students some time to think about it and make notes as a group preparing arguments to "beat" the second group. When they are ready to start, the researcher pretends to be a moderator of a TV show and welcomes both teams to a discussion on a given topic. When the debate is over, the moderator thanks all of the presenters for their interesting remarks. A very important rule is that

students are allowed to advocate only the opinion given to them by the teacher even if their real thoughts are completely different.

Evaluation: The beginning of this activity is slightly embarrassing for everyone in the class because the students do not dare to be the first to express their opinions and are shy. But once the activity has started and students manage to "fit in their roles", the debate is being developed into a lively discussion and instead of being shy, students compete to have a word in it. The researcher has a fantastic role in this activity, since he or she only observes a lively discussion and is entertained by the students' excitement about it. Teachers interested in this communicative activity are recommended to reorganise the classroom, if possible, and arrange it as a TV studio with chairs for guests participating in a debate. Error correction is utterly undesirable in this case due to the kind of communicative activity. The debate is a precise example of the activity where the teacher is not expected to correct mistakes while the activity is in progress. His role is either to observe the show or to participate in it (as a moderator or one of the guests.). To fulfill the task does not mean for the students to speak correctly all the time but to lead a fluent, understandable and reasonable

discussion about a particular matter. On one hand, no one is forced to speak, which may sound “safe” for shy students, but on the other hand any member of one group can be challenged by the other group to express his or her opinion. In this case, the student cannot remain silent but has to reveal his or her ideas. Therefore, the students are induced to be alert and listen to what is going on in a debate.

CONCLUSION

On the whole, the main conclusion that can be drawn from the results of this study is that both students’ and teachers’ perceptions about the particular textbook are negative in general. The results reveal that teachers’ overall responses to the interviews verified the quantitative results.

DISCUSSION

The results revealed that both teachers and students felt negative about the textbook in the terms of ‘content’. First of all, a great majority of students as well as teachers perceived the topics of the units in New ‘Senior English Project 3’ uninteresting. Although the students perceived the topics as up-to-date related to their daily lives, they thought that the textbook did not appeal to their interest. However, it is generally assumed that the topics

which are up to date and related to the learner’s daily lives are generally assumed to be interesting for the learners. This might be due to the fact that the reading texts included too many unknown words and complex sentence structures as the results revealed. For example, Cunningsworth (1995) statee that the textbooks must include subject-matter and topics of the area of interest as part of real life. They should include topics that will draw their attraction and inform learners at the same time. He concludes that course materials that fail to cover relevant and interesting topics are in danger of losing the attention of its users. Breen and Candlin (1987) highlighted that the learners will automatically be interested in certain themes and topics and the materials developers or textbook writers can anticipate what is relevant, interesting and motivating from the subject matter. Similar to the students, the teachers do not perceive the topics in the particular textbook interesting. However, teachers mentioned that even though the titles of the reading passages seemed to be interesting and up to date, the lengthy passages filled with a great load of unknown vocabulary and complex sentence structures did not appeal to the students’ interest. One conclusion that can be drawn from this is that regardless of the titles being

interesting or not, when the reading texts in the units are lengthy and involve many unknown words and confusing sentence structures, it results with a failure for the students to cope with the reading sections.

The findings also indicated that the topics did not facilitate the improvement of speaking skills in the classroom. The students believed that the topics of the units do not encourage them to communicate in the target language with each other. However, as Cunningsworth (1995) stated a really communicative textbook promotes meaningful communication among its users through relevant and interesting topics. Tomlinson (1998) also pointed out that learners should be given opportunities to use the target language to fulfill communicative purposes. The above finding verifies the results about the sufficiency of coverage of four skills, namely reading, speaking, writing, and listening in the particular textbook. Teachers especially thought that the mentioned textbook does not provide sufficient number and variety of tasks and activities to improve all four skills which are essential in language learning and emphasized thoroughly in the literature. McDonough and Shaw (1993) indicated that skill development is important and material developers should provide

the students with sufficient opportunity to develop those skills through adequate practice. The conclusion that can be drawn from this result would be that material developers and textbook writers need to make sure that textbooks provide the particular group of learners with sufficient coverage of four skills namely, reading, writing, speaking and listening through adequate practice.

The results also revealed that Fun Corner sections in the “Senior English Project 3” were perceived neither instructive nor enjoyable. Each unit in the particular textbook consists of “fun corner” parts in which there are funny jokes. Both teachers and students expressed a great desire for more fun in their textbook. Moreover, both parties but especially students pointed out that the particular textbook should involve some popular songs, multiple choice tests, biographies of famous people, topics such as health, sport, habits etc, which would provide them with some knowledge. They believed that these would facilitate learning English. It can be drawn these results that students and teachers are in search of some additional materials that could appeal to their needs and interests.

RECOMMENDATIONS

It is of crucial importance to consider the level of the textbook according to

the level of the students. Meantime the textbook should follow a logical sequence from simple to complex regarding the tasks and activities. With regard to the particular aspect of the textbook, the results of the study revealed that the level of “Senior English Project 3” was high for the intermediate level of students. The students were reported to become unwilling to do the tasks, exercises and activities. This has also affected adversely the overall motivation and interests of the students towards the course. This implies that textbook writers should consider the appropriateness of the textbook to the level of the students in order to avoid any negative attitudes towards the course as a result of using a textbook above their level.

1. Recycling of vocabulary and presentation of grammar seems to be inadequate according to the results of the study. This further implies that textbook writers should provide students with sufficient number of exercises and activities to revise the new language in the subsequent lessons. It is of vital importance to enable the students to use the language as much as possible so that they can acquire the necessary knowledge and the skills of the language.

2. It is of vital importance to provide learners with reading materials that

are relevant to the particular age group, appropriate for their needs and interests and that are appropriate for their language level as well. With regard to the particular aspect of the textbook, the results revealed that the reading passages in “Senior English Project 3” were lengthy for the intermediate level of students and they involved too many unknown words and complex sentence structures as well. Thus the study revealed that the students did not have any ‘desire’ to read the texts and do the related activities afterwards. Buckmaster (2005) underlined that if the students are not interested in the topic and the text, they will not read it as closely as they can and will be able to do the related activities. This further implies that materials developers and designers should make sure that the reading passages in ESL textbooks appeal to the interest of the particular age group on the whole.

3. It is of vital importance to provide teachers with teachers’ books that give advice on including sufficient variety of activity in lessons, on using topics of real interest to the learners, on adapting or extending textbook exercises to match the level of the students. Teachers’ books can also offer regular tests which are useful materials to give students feedback on their progress and also to give

teachers information on which areas of language should be revised. With regard to the particular aspect of the textbook, the results of the study revealed that teachers expected teachers' books guide them in all the way around in the language teaching process. This further implies the need to take into consideration the teacher preferences about the teachers' books.

4. It is also of crucial importance to consider the preferences of visual, auditory and kinesthetic learners that will ensure that a variety of activities which also help the learners to develop all four skills are incorporated in the materials. This further implies that materials developers should consider different learning styles while designing textbooks.

5. It is also important to raise the awareness of the teachers and even the students as to the development of learner autonomy through learner training elements which aim to provide learners with the abilities, strategies and confidence to take responsibility for their own learning. This further implies that materials developers should draw their attention to the incorporation of learner training elements into the ESL textbooks. It is also crucial that the textbook designers consider the

Common European Framework criteria while developing ESL textbooks.

A further study could be constructed for the other textbooks that are designed for the other levels in the series in order to observe the cohesiveness.

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TECHNICAL AND VOCATIONAL SKILLS' SHORTAGE IN NIGERIAN CONSTRUCTION INDUSTRY: VOCATIONAL EDUCATION IS THE ANSWER

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ABSTRACT

Vocational and Technical skills shortage have become a global challenge facing construction and other related industries worldwide. The skilled work force is made up of engineers, technicians and the craftsmen from Nigerian universities, polytechnics and technical colleges. The benefits of having a skilled workforce cannot be overemphasized as it contributes greatly to social and development of the country as well as to the national gross profit. The aim of this study was to examine the issue of technical and vocational skills shortage within the Nigerian construction industry through a critique of literature relating to construction skills and education. The review revealed that the potential factors contributing to the technical and vocational skills shortages in the Nigerian construction industry include: labour wage challenges, training and experience, government policy and condition of working environment among others. Based on this, the study concluded that further investigation is needed to empirically diagnose the skills shortage in the construction industry.

Keywords: Nigerian Construction Industry, Skill Shortage, Technical and Vocational Education

INTRODUCTION

Skills shortage have posed a lot of challenges in the Nigerian construction industry and have become an important matter of discussion within the construction industry in the whole Sphere (Shah & Burke, 2005). For construction industry to succeed in the 21st century the need for skilled workforce is very important. Developed countries like Australia, United States of America, Canada, China, Germany and many more complained about issue of skills shortage among the workforce in the

construction industry as it affects the industry economically due to some factors like construction industry may suffer increased recruitment or operating costs, reduced productivity, constraints on business development, forced to hire ill-suited skilled workers among others. This has been observed to have adverse effect on the industry in the area of production and its workforce especially the craft men from vocational and technical training colleges. This affects mostly the craft men, who are the graduates of technical college in Nigeria (Awe

et al., 2014; Baqadir et al., 2011). Consequently, the society at large has the conviction that graduates of technical college do not have the ability and instruction in terms of skills acquisition as required for the demands of the construction industry.

Therefore, Oketch (2007); Jayaram and Engmann (2017) emphasised that employers have complained about the training and instruction acquired by the secondary school graduates. The duo noted, that such instructions and training are grossly insufficient to meet the demand of today's construction industry. Subsequently, Jayaram and Engmann (2017), highlighted the fact that neither the secondary education nor the vocational training schools is equipping the school leavers with the key instructions and abilities needed for work. Similarly, Olaitan et al. (2000), complained that senior secondary students (Technical) lack the required skill to work in industries.

The stakeholders and the general public at large in Nigeria have complained about the graduates of technical college who are the major skilled artisan manpower of the industry. The complaints centered on unsatisfactory performance and expertise requirement at the workplace (Ogwo & Oranu, 2006;

Awe et al., 2010). Hitherto, one of the problems and requirements of the construction industry in Nigeria, is that of skills shortage among its workforce (Ofori, 2004). Technical Vocational Education and Training (TVET) have been identified as an instrument that can help resolve the skill technicalities within the Nigerian construction industry. The Technical colleges in Nigeria are saddled with the responsibility for three-year training of skilled craftsmen in different disciplines. Students thereafter, graduate with a Federal Craft Training Certificate (FCTC) which qualifies its graduates for opportunities employment in their various construction workplaces.

In line with the aforementioned, Jayaram and Engmann (2017) reiterated; that skills could be learnt either in a formal or informal setting and the duo laid emphasis on TVET as an aspect of training institution that inculcates skills development, knowledge, and attitudes which cover the affective, psychomotor and cognitive domains; such that the students produced will be employable into the industry as a result of the training and skill acquired (Awe et al., 2010; Olaitan et al., 2000). Evidence from reviewed literature revealed that inadequacies in TVET are responsible for the skills shortage at the craft level (Oni, 2007). TVET

is thus, partially responsible for the mismatch which exist between the skills craft trained and the skills required for employment at the construction industry. This is what economist refers to as a variation between supply of and demand for human capital. Majority believed, that the problem of skills shortage will continue to escalate as the jobs available in the construction industry become more technical; and the rate at which this is changing is quite alarming. Consequently, it is required that employees acquire adequate skills training that will make them employable in the workplace (Smith, 2003; DeGrip & Van Loo, 2002; Awe, 2010).

Evidence suggests that, education and training has reduced in quality and cognitive skills have remained steady, while job training requirements have escalated exponentially (Olaitan, 1996). Employers expressed dissatisfaction with the efforts level and work attitudes of young technical graduates. Skilled artisans are the backbone of the construction industry both in the developed and developing countries of the world (Odusami et al., 2003; Oloyede et al., 2010; Olusegun & Micheal, 2011). The workforce is employed to carry out the skilled labour ranging from plumbing works, block laying, carpentry, electrical installation and

some other building related works. Recent studies highlight low levels of skills training among the skilled craft workforce in Nigeria and a decrease in construction training compared to other developed countries of the world (Awe, 2010; Olaitan et al., 2000; Oni, 2007) Training institutions are constantly employing innovative pedagogies to their skilled workforce for sustainable development of the construction industries and such is currently being embraced by major organizations (Ogwo & Oranu, 2006). A search for ways to ensure that graduates gain the appropriate skills to meet employers needs in the construction industry may not only improve workplace performance but can also lead to more responsive and sustainable technical education policies that can address individual and national needs. For instance, Ofori (2004) and Lewin (2006), among others highlighted that, improving quality and raising skills levels and standards for training may not only lead to higher wages and higher returns but may impact individuals, employers, and the entire nation.

Definition of Skill and Skills' Shortage

The concept skill has been defined differently by different authors. "Skill" is defined as "the ability to competently perform a particular task

assigned” (United Kingdom Commission Employer Skills Survey, 2010) or to perform “a specified task at a certain level of expertise” (Shah & Burke, 2003; Trendle, 2008). Similarly, a ‘skill ‘can be described as ‘ the capability to carry out job assigned to a level of competence and this can be built upon through learning” (OECD, 2011, p.5). Within the construction industry, skill therefore is an activity involving knowledge, judgement, accuracy and mastery, all of which are acquire as a result of long training and practice in a workplace (Odusami, 2002; Awe, 2010). The concept of skill has been defined differently by writers in different forms. Skills could also be looked into from another perspective as being expert in area of specialization (Wood, 1988), having competence (Boyatzis et al., 2002; Olaitan et al., 2000) dexterity and knowledge of the workforce (Awe, 2010; Mangham & Silver, 1986). In the same vein, due to some school of knowledge skill is a special ability to perform duties, majorly acquired through formal or informal training (Tether et al., 2005). Definition of skill according to some school of thought should entail the ability of the skilled artisan to work in various section of the industry or the workplace independently (Spenner, 1983; Olaitan et al., 2000). It could be

termed as capability to carry out jobs perfectly without supervision.

Overwhelmingly, a skill, and various types of skills within the literature are linked to an activity or a job (Clarke & Winch, 2006). As skill is linked with a particular task, a person who does not have skill is unlikely to be able to carry out a given job or will be less productive than somebody who possesses the skill. Skills are often linked and have some alliance with qualifications (Mawer & Jackson, 2005; Sattinger, 2012; Cappelli, 2014) and acquisition through formal education and training which is adequate in quality and quantity. Construction skills and training needs are continually changing. These alongside with the introduction of new business processes, organizing production and technical and vocational innovation which require the construction workforce to be more highly skilled in their various areas of expertise (Spenner, 1983; Mackenzie et al., 2000; Forde & MacKenzie, 2004).

Classification of a Skill

Skills could be classified into few different ways, though skill have many characteristics. In this study skills could be classified as been generic, technical skill or Non-technical skill and hard skill (Ofori, 2004). Other skill categories include

academic and cognitive and employability. Particular skills can be classified under a number of different skill types since these are overlapping categorization with varying relevance for specific job sector or roles.

Concept of Skills Shortage

Skills shortage is defined by the British Governments Training Agency as “existing when there are not enough people available with the skills needed to do the jobs which need to be done (Training Agency, 1999). A skills shortage is when employers cannot fill vacancies in an occupation or in a specialization of that occupation. It could also be defined as a skills gap, which is the difference between what is required and what is been achieved, it is equally a shortage of manpower.

Identification of Skills’ Shortages

Skills shortages are mainly identified using employer surveys and other economic data. Another means of identification is through using the ad hoc employers survey but, this gives an inconsistent result. Employers based surveys are commonly used to assess skills shortages, they rely on employer’s perceptions of skill imbalances, which often show a misunderstanding of the concept of skills shortages, other economic indicators could also be used to identify skills shortages, skills gap

analysis could also be carried out for better identification of the skills shortages (McCausland, 2008).

Causes of Skills’ Shortages

With the skills shortages being experienced by employers across Nigeria, the workforce has been found dwindling, a combination of factors can be credited for this among which are there are no enough staff to cover the demand, this is largely due to diminishing uptake of the profession, ageing staff, not enough training places for certain skilled occupations, changes in technology, a large increase in construction work in a region Okada riding, labour wage challenges, training and experience, government policy and condition of working environment among others (McCausland, 2008).

Possible Solutions to Skills’ Shortages

Ensuring that the Nigerian construction sector remain stable will require more than the causes. In order for the industry outlook to improve, employers will have to find the right balance between attracting new recruits and looking after current workers, training existing employees, partner with nearby educational institutions, the use of contingent workers to make up the skills shortages (Brown, 2005).

Attract New Talents

The biggest problem of the construction sector in Nigeria is the lack of young candidates entering the field, although it was found out that the number of people starting apprenticeship is reducing, the current rate of uptake still falls short of the necessary numbers to carry out government intentions (Dennis, 2007).

Train Existing Employees

In order to bridge the gap and to make up for a shortage in skilled workers construction industry have begun offering training to their existing employees in order to tailor them to fill current gaps (Ireland, 2007).

Partnership with Vocational Educational Institutions

In getting the education need for the skilled workers, the industry should partner with the vocational educational institutions to ensure that the employees are trained to industry standard quality (Leclair, 2004).

Impact of Vocational Education on Skills Shortage

The process of establishing technical and vocational education training institutions is to proffer solution and address skill shortage confronting the construction industry in Nigeria. Technical and Vocational Education and Training (TVET) is ‘used as a

comprehensive term referring to those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life’’ (UNESCO, 2012, p. 10).

Various authors have defined vocational technical education from different viewpoint and context, in its approach, educators could hardly make a distinction between vocational and technical education. In clear terms, vocational education is a skilled program that train students for work in a specific trade or craft, while technical education produces students to become a professional, knowing the theory and principles guiding his profession (Oranu, 2006).

Vocational education training programmes are on offer both at the private, public training institutions and government technical colleges in Nigeria. Nigerian Educational Research and Development (NERDC, 2008) defined VTE as a branch of education which encompass general education, applied sciences, and the acquisition practical and theoretical knowledge, understanding, attitudes and skills in connection with occupations in

various sections of economic, domestic and industrial settings. Technical colleges in Nigeria belong to the same grade with the senior secondary education in Nigeria. At the completion of junior secondary education, based on individual choice and certificate in hand, students proceed to senior secondary school or any technical college of your choice for three years. They pass out with City and Guilds of and the college certificate diploma (NPE, 2006).

Vocational and technical education (VTE) is regarded as been an essential part of national development planning, mainly because of its contributions in area of production and industrial growth. Notwithstanding of its input, the federal government and the society at large have not accorded an iota of recognition and respect for this type of education. These and some other factors of neglect coupled with lack of equipment and facilities have caused and contributed to the Nations underdevelopment and majorly in construction (Ogwo & Oranu, 2006). VTE has a significant part to exhibit in technological development of a nation. Education and training, acquisition of vocational, technical and most importantly employability skills and skills needed for employment by the workforce is essential for economic and national

growth and development (Awe, 2007).

The purpose of vocational technical education as highlighted in the National policy on education is that it is "education for work" It was created to instill skills acquisition in to students who have the flair for science and technology education so as to produce mass skilled manpower for employment and needs of the industry (NPE, 2007; Olaitan, 1996). Vocational technical education as defined by Okoro (1993) is the provision of skills, knowledge and an attitude needed for effective job in specialized occupations. In similar vein, Olaitan (1996) defined vocational technical education as the crucial arrangement that will empower one to meet his/her growth needs and ambition which, for many, will establish an immediate employment in the job market entry. Brennam and Little (1996) profess that, in as much as vocational education is an essential component of sustainable self-employment, rate of disseminating skills relevant to employment should be inspired by instructors, vocational educationist and other parastatal that provide training skills.

The emphasis here is that the vocational educator should lay much emphasis in disseminating and

teaching employability skills to students before graduating in their chosen vocation.

Technical colleges in Nigeria that produces the skilled craft men were created under the system of education called 6-3-3-4; they spend three years in training in the following programmes: plumbing, general welding, Bricklaying & Concreting, carpentry, wood work, electrical installation, screen printing, furniture craft, screen printing, accounting, secretarial studies, computer studies and host of other programmes, some of these programmes were under Engineering trades, some under Construction trades, some programmes are under Miscellaneous trades and Business trades as alternative to senior secondary school education. The technical colleges in Nigeria offer college diploma or Federal craft certificate in various disciplines. The external body in charge of the external examination is the City and Guilds of London Institute (CGLI) they issue certificates in various craft work. In December 1972, West African Examination Council (WAEC) took over the conduct of examinations in some technical and commercial subjects from RSA and CGLI. The body taking charge during 1985 reform was retrieved of their position due to reorganization and they were

replaced by the National Business and Technical Examination Board (NABTEB) and was introduced in 1995.

The National Board for Technical Education (NBTE) is a prominent agency of Federal Ministry of Education specially established to take care all form of TVE, University Education not inclusive. This board is equally saddled with the responsibility of structuring and providing curriculum for VTE. The board is also in-charge of supervision and issuing of certificates for all programmes run by all technical training institutions in federal republic of Nigeria. They are charged with the duties of technical training institutions to include technical colleges, polytechnics, colleges of technology and colleges of education technical in Nigeria (NPE, 2006).

The system of education in Nigeria proposed a number of opportunities for vocational and technical education at both the secondary and postsecondary school levels. There are three major technical training issues concerning craft levels, under Technical and Vocational Education in Nigeria, they are issues of, Technical colleges, Vocational Enterprises Institutions and National Vocational Qualifications Framework. Vocational education in

Nigeria provides a number of opportunities for the secondary and post-secondary schools students in order to learn a trade and to reduce the un-employment that has long been affecting them drastically. The Federal government of Nigeria have been trying to upgrade vocational training by introducing ‘‘Vocationalization’’ of secondary education thereby instilling skills, most especially employability skills, such that students can be employed after secondary education and equally upgrade the National Vocational Qualifications Framework by NBTE, very much similar to other frameworks in other countries like UK, Germany and France (Moja, 2000). This type of education has been recognized as education that can contribute to social and economic development of a nation. The Ministry of science and technology has raised an awareness stressing the importance of science, technical and vocational education to the public (NPE, 2006) Despite the best intentions of Nigerian government, VTE are still facing lots of challenges ranging from problems related to curricula, deficient monitoring and evaluation procedures and poor funding to mention a few (Awe, 2007).

Technical Colleges

Technical colleges are established in accordance with the stated rules and

regulations of National Policy on Education, under the control of NABTEB and NBTE. This institution run a variety of programmes at the craft level to include Brickwork, Carpentry, Hotel and Catering management, Electrical installation, Television and Radio maintenance etc. are taught, in producing skilled workers meant for the industries and society at large. The goals of vocational and technical education as stipulated in National Policy on Education (2014) focused on: The provision of trained manpower in the applied sciences, technology and business particularly at craft, advanced craft and technical levels. Availability of technical knowledge and vocational skills necessary for, commercial and economic development. Giving training and imparting the necessary skills to individual who shall be self-reliant economically’’

Trainees completing technical college programmes shall have three options: Secure employment either at the end of the whole course or after completing one or more modules of employable skill. Set up their own business and become self-employed and be thus able to employ others. Pursue further education in advanced craft/technical programme and in post-secondary technical institutions such as the colleges of education

(technical) and of course, the universities’’ (NPE, 2014).

The production of technical personnel at technical colleges does not meet the industrial need of industries (NPE, 2014). Technical education has been referred to as the education for the never do well students among the general populace (Ogwo & Oranu, 2014). Moreover, given the poor societal attitude, it is perceived as a form of education for the ungifted and the under-privilege. Although the employment rate of those who had only general education had been dwindling, most students who gained admission into technical education programmes are without adequate/requisite technical qualification (Okorie, 2000). Entering the technical college in Nigeria, students must possess a minimum of junior secondary school certificate (JSC). The limited education attainment represented by the junior school certificate has an adverse effect on the performance of these set of students as they cannot comprehend what they were taught both in practice and theory (Okorie, 2000). Students that perform averagely in technical courses and perform excellently in mathematics and science, demonstrating remarkably efficient in the artisan training centres shall also be given due consideration for admission.

Nwachukwu (1998) also disclosed that, due to the poor level of entry qualification, the trainees, graduate with either little or no relevant skill or employability skills, required for employment, thus giving rise to technical education graduate unemployment and hence poor perception of the stakeholders about technical education. Nwachukwu (1998) also disclosed that institutions of learning should endeavor to improve the state of facilities to enhance the standard of graduates of technical schools produced. Nwankwor (1983) investigating on the challenges of developing technical education in Nigeria and its significance for industrial development, identify, that the major challenge of developing technical education lies with the government, part of which are, provision of funds, personnel to anchor the programme, recognition of the programme among other things and that the public were not aware of the benefits of technical education to individual and nation at large. He concluded that the entry qualification into technical institutions is poor and hence they should review the curriculum and the entry qualification of the students. Little or no acceptance is bestowed on technical education by the government, and the public is responsible for low enrolment in technical education institutions in the

country today hence, the technical personnel need of the industry and society at large cannot be met. Salami and OluAina (2001) both pointed out individually that there are not enough qualified resource personnel in technical institutions. Technical personnel are made up of skilled men including artisans, technicians, technologists, vocational teachers, engineers and other categories of skilled persons possessing vocational and technical knowledge to undertake efficient production and administrative functions for industries and the entire society. Salami and Olu Aina (2001) both pointed out that the technical teachers training programme (TTP) had been scrapped due to finance, this programme is meant for the training of the unqualified technical teachers as most of them are from colleges of technology and polytechnic without requisite qualification for teaching.

In achieving the stated goals for this aspect of education, the main attributes of the curricula exercise for technical colleges is designed in foundation and course modules of each programme of study. Generally, the educational programme guiding each discipline consist of five parts namely, workshop practice, theory and related courses, industrial training/production work, general education and entrepreneurial

training which the instructors should adhered to strictly in educating the craft students in their various departments.

CONCLUSION

This study has explored the issue of skills shortages in the Nigerian Construction Industry and found out that a number of factors have contributed to the challenges. Nevertheless, it was found out that part of the National Policy on Education guiding vocational technical education is the provision of basic knowledge skills and prepare the artisans or the craft men for labor markets requirements, provision of employment and guiding against shortage of manpower which can hamper the production of the industry in terms of quantity and quality. The study therefore suggested possible solutions to overcome and improve on skills shortages in the industry, the collaboration of the industry and the vocational education institutions, so as to guide against skills shortages.

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AN OVERVIEW OF INFORMATION AND COMMUNICATION TECHNOLOGY IN THE TEACHING OF ENGLISH LANGUAGE METHODS FOR SUSTAINABLE GROWTH AND DEVELOPMENT IN NIGERIA

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ABSTRACT

Information and communication technology (ICT) played tremendous role in transforming the educational process through its inclusion in the daily school curriculum. English and ICT have become essential tools in the art of teaching and learning. This paper therefore, examined the impact of ICT in the teaching of English language for Nigeria's sustainable development. It also discussed the globalization of the teaching of English Language, the use of technology to make teaching of English language communicative and functional in the country. The study revealed that ICT usage in the art of teaching English language reduced illiteracy, poverty and improved the nation's technology quest. It was concluded that using ICT in English language teaching and learning could help in sustaining and developing Nigeria's economy. The paper recommended that English language teachers should be well trained in ICT in order to integrate ICT in the teaching and learning of English language, while the government should enhance the economic stimulus programme to enable more schools access ICT infrastructure as it is the major challenge among schools.

Keywords: English language, Teaching, ICT, Sustainability, Development

INTRODUCTION

Information and Communication Technology (ICT) is widely recognized as a vital resource in economic, social and political development of Nigeria. In the present world, the skills of ICT are more than ever demanded in all sectors including education (Akinbode, 2006). With the rapidly increasing popularity of the internet

in recent years, the diversity of learning programmes continues to bring changes according to the demands of the society. The importance of computers in life cannot be overemphasized as they deal with learning, employment, productivity and fun (Orodho, 2008). Electronic technology was in the past extra-ordinary and belonged to only the experts and specialists.

Nowadays, computer users are not computer professionals; rather, they are people who need information to do their jobs effectively. Teaching and learning opportunities can be expanded through appropriate application of technology (Aborisade, 2005). In the recent years, there has been transformation of learning through technology at all levels, removing inhibitions, obstacles and challenges that were thought impossible (Hartoyo, 2008). Since the development of communicative skills, language learning requires social interaction between the teacher and the students and among the students themselves, the use of computers has for a long time been regarded only as a support tool with regard to certain skill areas (Brandal, 2005).

In the teaching and learning of English as a second language in Nigeria, the teachers often employ the projector, webcam and other ICT tools in teaching the students. This always makes the teaching and learning processes to be interesting and result-oriented. The use of ICT packages like video-conferencing, teleconferencing, to mention only a few, makes the teaching and learning of English Language very effective. According to Adeleke (2009), ICT helps in presenting interactive instructional aids on specific subject

matter, assessment of student's progress and understanding of instructional material. Series of computer-based packages which are useful in the teaching of English as a second language prosper in recent times. These include: Computer-Aided Language Learning (CALL), Computer-Based Language Training (CBLT), Computer-Aided Language Assessment (CALA), to mention but a few. Moore (2005) summarized the positive impact of ICT on students' learning such as increased learners' motivation to stay on-task and drive them to remain productive and produce high quality work. Besides, through ICT, students learnt more independently and did more works at a fast speed. Since the importance of ICT and its contributions to all fields including education had been proved in previous studies, this study will review the impact of ICT in English language teaching on the perspective of Nigerians' sustainable development.

English Language a Lingua Franca

English language is considered key to affluence in the Nigerian society. It plays important roles in political, educational, official, socio-economic and other matters in Nigerian societal living (Onyukwu, 2001). To testify this, a credit in English, is a "must" in Senior Secondary School Certificate before going to any Nigerian tertiary

institution (Nigerian National policy on education, 2004). English remains a language of education, trade and commerce, as well as mass media etc. The Education Ordinances of 1916 and 1926 made English the Language of instruction and the most important subject in Nigerian school curriculum (Bamgbose, 1982). English Language remains the yardstick not only to measure the students' intelligence but equally a tool for the award of certificates in Nigerian schools (Bamgbose 1982; Akere, 2006).

Concept of Sustainable Development

“National development” is a concept which contains two different words “national” and “development”. The former implies “country that is governed by a leader while the later presupposes “growth” or “advancement”. For a nation to have “national development”, that nation has to have a growth in not only her production and capital but the income per head. In another vein, Mansur (2014), sees development as a positive changes for better from such conditions (economic, social, political, cultural and human) that are no longer considered good enough for the goals and aspirations of a society, to those that are most likely to meet the total need of a given society. The United Nation World Commission on

Environment and Development (WCED) in its 1987 report- ‘*our common future*’ as contained in encyclopedia Britannica (2002) defines sustainable development as the one that meets the needs of the present without compromising the ability of future generations to meet their own needs. The Federal Government of Nigeria also promulgated a policy in 2007- sustainable development agenda and defines it as decisions carry out to stimulate economic growth by tackling the deficits, maximizing the wellbeing of individuals and protecting the environment without limiting the chance of the generations to come and do the same.

Concept of ICT

This is a short term of Information and Communication Technology which can be seen or regarded as the use of computer-based communications technology that serves as a network to find information. This includes computer hardware and software that can be used for teaching and learning and information resources (Goay & Wong, 2003). ICT can also be defined as a broad-based technology including its methods, management and application that supports the creation, storage, manipulation, and communication of information (French, 1996). However, the

definition of French is more encompassing than that of Kubiatio (2010), which was limited to information processing and did not extend to communication of ICT. In a nut shell, ICT is similar to information technology, but focuses primarily on communication technology. This includes Internet, wireless networks, cell phones and other communication media.

ICT and Nigeria Education

The new millennium witnesses a great transformation of society through global competition via the power of ICT. In March 2001, the Nigerian National Policy for Information and Communication Technology (NPICT) was published. As a result, an agency called the National Information Technology Development agency (NITDA) was later established in April 2001. It is charged with the responsibilities of implementing this policy that seeks to make Nigeria ICT capable nation as well as to promote the healthy growth and development of the ICT Industry (Isoun, 2003). This development poses a lot of implications on Nigerian education system, school management and also the pedagogy of teaching of some of the most important subjects, like Mathematics, English language and other science related subjects.

According to Osman and Ahmed (2003), to achieve a comprehensive teaching by using ICT, teachers need to be convinced of the importance and benefit of ICT use in teaching and learning. Indeed, teachers should be given adequate training to use ICT tool effectively and efficiently. Findings showed that Nigerian teachers who have attended training on ICT apart from their areas of discipline were more efficient, capable at using computers and willing to implement the teaching especially in Science related subjects compared to those who have no training. (Saamad, 2003). Cook and Finlayson (1999) indicated that the increased use of ICT in the community provided opportunities for students to gain experience that will encourage them in learning. They added, if the use of ICT in learning and teaching produced favorable effects, such will encourage teachers become more confident on the educational system. Lim (2005) found that the use of ICT in teaching and learning allowed students to be active in finding information and build knowledge from information obtained by the chance to cross-link between knowledge of subjects without been restricted by time and distance. Becker (2001) suggested that teachers' expertise in ICT was an important factor in its successful use in lessons. Therefore, teachers were

encouraged to take advantages of ICT in teaching and learning in order to produce a big impact in educational field (Romai, 2003).

ICT and Teaching of English Language in Nigeria

The advent of computer-mediated communication (CMC) in the teaching and learning of English as a second language has been introduced to socio-cultural setting as a result of the global networking of the new culture called “digital literacy”. This digital culture has replaced the former ‘print literacy’ in the technological world. Different automated packages have been introduced into teaching and learning of language like English (Aremu, 2012). Series of computer-based packages which are useful in the teaching of English as a second language prosper in recent times. These include: Computer-Assisted Language Learning (CALL), Computer –Based Language Training (CBLT), Computer- Aided Language Assessment (CALA), to mention but a few. CBLT is a software which was developed to train a wide range of students on the acquisition of skills in a target language without the tutor being present. It is also a digital package and an interactive multimedia which can combine text, audio, graphic video, and animation and has a meaningful interaction with students. It facilitates the language

teaching and language learning (Aremu, 2011). CALA and CALL are an automated package used in assessing student’s understanding of language instructional skills. It is also a process in which a learner uses a computer and as a result improved his or her language and it covers the wide range of current practice in the educational field.

Broadly speaking, research into the use of ICT in English is fairly consistent in finding that ICT improves writing and reading skills, supports collaboration and develops speaking and listening skills (Harrison, 2002). In addition, the use of word processing accelerated and enhanced writing development. Writing was particularly enhanced where ICT use was combined with high-quality teacher guidance or was deployed in the context of writing for a real audience (Becta, 2003). The report indicates that the use of ICT in English language teaching and learning has a positive impact on pupils’ attitudes and attainment. The items use in this context include among others: Internet, E-books, Audio Books, Webinar, Interactive White Board, Mobile Apps, Overhead projectors, Tape-recorder, Television, Film projector, Language laboratory, Mobile phones, and a host of others.

The Internet: It is a medium through which learners explore English lessons by browsing the websites without the need of travelling to a distance places in search of the knowledge. The internet offers instant feedback to the learners which enhances their learning experience.

E-Books: is an electronic version of a traditional print book that can be read by using a personal or by using an eBook reader like iPods. EBooks strengthen students' note making skills, the knowledge of English grammar and application skills.

Audio Books: This is applicable for English language learners and young people who are yearning for learning English with stories. Audio books develop the four language systems; phonological, semantic, syntactic and pragmatic. Audio books are recordings on CD or digital file of a book which are read aloud (Baskin, 1995).

Webinar: This is the best example for online learning. It is an interactive seminar conducted via the World Wide Web. Usually a live presentation, lecture or work-shop that happens in real time as users participate through chatting, video-chatting, file-sharing or asking questions with a microphone.

Webinars are more helpful in learning grammar.

Mobile Apps: Mobile digital Apps are devices like laptops, tablets, smart phones that make English language learning easier. At present, there are so many apps available in the Play store markets. These apps furnish students with quizzes, games, dictionaries.

Tape-Recorder: This is a device used to play recorded information and is useful for teaching pronunciation, stress and intonation. Recorded information can be reproduced in the classroom. It gives a chance to the students to develop interest towards pronunciation. It helps the students to test their speaking skills.

Film Projector: Is a device use to show films on screen or walls. Knowledge acquired through films has a lasting effect. Educational films, dramas etc. can be projected and develop the listening and speaking skills of the students.

Language Laboratory: Is an isolated area well-equipped with language aids and it is the latest innovation in the language teaching. It involves sound equipment and projectors, computers etc. it also gives students the practice of listening and speaking.

Mobile phones: Is a device use to make and answer calls from a distant and has become very essential tool for learning a language. It is a mini computer in every one's pocket. Mobile phones function in many ways like the addition of texting, email, etc. It functions as computers do. In mobile phone assisted language learning we can find portability, social interactivity, community, individuality and immediacy.

ICT and Writing Skills in English

Writing is a language skill in which students communicate in written language. ICT has changed the nature of composing letters and symbols in the writing process. ICT enabled students to organize and present information in variety of forms and compose their work more easily and professionally. Word processing software allows them to access tools professional editor use and to manipulate text in ways that previously were difficult or unmanageable. ICT provides tools for composing and publishing a range of both conventional and multi-media tests so that students can read, compose and transform tests in novel and challenging ways (Egbe, 2009).

ICT and Speaking Skills in English

According to Ogunsiji (2005), numerous studies suggest that computerized media and a

multimedia environment can be helpful for learning speaking in English language and vocabulary. However, the materials in the studies have mainly been customized or teacher-produced. It has been asserted that on-line debate is an excellent medium for generating social construction of knowledge (Adegbiya, 1994). Shaw & Nigel (1999) believed that by integrating basic ICT skills in the language speaking classroom, we are developing language skills and equipping learners with technology skills. The applications of these technology skills go beyond the language learning.

ICT and Listening Skills in English

The use of well- designed ICT environments can help students grasp abstract concepts such as imagery, literary relations, and morphology (Interactive education, 2016). Teachers can use a range of teaching tools such as discussion boards, forums, and video as tools for delivery of class program. This opens a reciprocal dialogue between members of the larger community and may be attended by the school community through activities such as blogs (Kogan, 1971). To develop oral skills through the use of ICT, a wide variety of tools available through the Internet and other applications can be found to be used in different types of

learning environments, such as distance learning, blended learning, mobile learning and online learning environment (Chan, 2002).

ICT and Reading Skills in English

In reading skills, Chan (2002), states that learning should be focused on reading for comprehension. Language activities involved in reading include asking questions after reading a story, keeping a reading log on the kind of material read and how often they are read. Because of its interactive and dynamic nature of learning, ICT has the potential to meet the needs of students by providing opportunities to direct their learning and to pursue information or complete tasks, in ways that meet their own interests & needs computer-based technologies in English (KLA, 2012).

Deployment of ICT in English Language Teaching for Nigeria's Sustainability and Development

The aftermaths of this study, reveals that students' achievements increased when ICT is used in an English class. Becker (2001) suggested that using ICT in lessons may help students in mastering subject skills. ICT used in lessons especially in English language and other Science subjects produced higher quality output of students. Comber et al. (2002) suggested that ICT can be used

effectively in the Science subject to show video sequences of things that are hard to explain or visualise. Students would be able to construct knowledge easier with the support of ICT (Hull, 1995; Gayeski, 1993). ICT facilitates an open forum for discussion which allows for more opportunities and democratic participation and dialogue.

According to Cox (1999), the use of ICT on English Teaching also works to validate individual students and empower their ability to achieve a real-world success. It add-ons and enhances instruction and, in effect, works almost Trans seamlessly with context instruction. It also supplements and enhances traditional print, literature, media materials and provides additional resources and creates wider access to them. It expands students' means of expression and deepens their understanding of complex issues and enhances their global connections. It makes Learners become more innovative with the help of e-learning and provides the information to the students which will prepare them become more useful to compete with this competitive world (Hakkarainen et al., 2000).

CONCLUSION

This study has been used to examine and showcase how the employment of

digital gadgets can develop a nation's technology and economy. The development of science and technology of any nation can be easily facilitated through the use of ICT and automated gadgets. If the English Language teaching is facilitated through ICT, it will not only improve the communication and mutual understanding among people of diverse ethno-linguistic and cultural backgrounds, but it will also develop the nation's technology. Consequently, the development of the technical skills not only help the production and economic self-reliance, but it will also develop the nation's economy. If government can help develop the utilization of ICT in language pedagogy, Nigeria's technology and economy will be significantly developed.

RECOMMENDATIONS

However, series of problems are bedeviling the use of ICT in the teaching and learning of English Language in Nigeria. These problems, among others, include: epileptic power supply, employment of computer and ICT packages in engaging in nefarious acts and internet fraud, lack of computer and ICT facilities in schools, and inadequate personnel (Aremu, 2011). In order to encourage the use of I in the teaching and learning of English Language in schools despite the

challenges discussed above, the following recommendations with regards to the impact of ICT in teaching English on Nigeria's sustainable development were proffered:

1. English Language teachers should be encouraged to learn the use of ICT in language teaching.
2. Government and School administrators should be encouraged to purchase computer and other ICT equipment for the teaching and learning of English in our schools.
3. Parents should be encouraged to become computer literate in order to assist their kids at home.
4. The English language curriculum should be geared towards ICT in our Nigerian schools.
5. Assignment, test, exam & other assessment techniques in English language should be ICT based. Also, teachers & students should have regular access to the use of ICT gadgets in their schools.

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GUIDED INQUIRY INSTRUCTIONAL STRATEGY INFLUENCE ON PHYSICS STUDENTS' MATHEMATICAL THINKING ABILITY IN SENIOR SECONDARY SCHOOLS IN RANO EMIRATE, KANO STATE, NIGERIA

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ABSTRACT

This study was carried out to determine the effects of guided inquiry teaching strategy on Mathematical thinking ability of Physics students in Senior Secondary Schools in Rano Emirate Council. A quasi- experiment design was used. A total of 91 SS2 Physics students were selected using simple random sampling. Two instruments were used to collect data in the study namely: "Physics Achievement Test (PAT) and Mathematical Thinking Ability Achievement Tests (MTAAT)". The data collected were analysed using mean and standard deviation to answer the research questions and independent t-test, z-test and Pearson's Product Moment Correlation (PPMC) statistics were used to test hypotheses in the study. The findings showed that the mathematical thinking ability of Physics students improved when exposed to Guided Inquiry (GI) instructional strategy; while gender had effect on students' Physics academic achievement when they were exposed to GI. It was recommended that curriculum planners should plan the Physics curriculum to accommodate inquiry base concepts in order to improve the mathematical ability of students in Physics.

Keywords: Guided inquiry, Instructional strategy, Thinking ability, Rano Emirate

INTRODUCTION

Physics is the study of systematized knowledge produced by careful observation, measurement and experiment, which attempt to establish general laws or principles to describe the phenomenon under study (Demkov, 2009). Physics combine theory and practice, abstract and concrete concepts that are very interesting and essential because it

closely links the principles learned and the phenomenon observed in classroom (Ashiq et al., 2011). Physics is one of the sciences subjects taught at the senior secondary level of Nigeria Educational system, it is closely related to other sciences such as chemistry and biology but is perceived generally to be difficult, vast mathematical and experimental

(Torigoe 2008). Physics is one branch of sciences that was develop through the steps of observation, problem formulation, formulation of hypotheses and testing through experimentation, conclusion as well as the discovery of theories and concept.

Mathematical thinking is a cognitive strategy supported by verbal information, intellectual skills and good attitude toward the attainment of mathematical problem solving (Yeo & Chung, 2015). However, the abstract nature of physics concept requires us to attach the importance of mathematical thinking and grasp the mathematical process of innovation thinking by guided inquiry in the learning process (Bello & Ariyo, 2014). Mathematics serves as symbolic expression which allow learners to have better understanding of physics. Mathematical thinking requires higher thinking skills with a blend of mathematics to understand the ideas, to identify and prove the relationships between the differences in ideas and connect these differences together to solve existing problems in physics (Lim & Hwa, 2006).

The guided inquiry teaching method enables students to move from one step to another, from the identification of a problem, defining the problem, formulating hypothesis,

collection of data, verification of result and generalization to the drawing of conclusion (Massialas, 1991). Also, according to Harbor (2000), guided inquiry is technoscientifically oriented which places the learner's constructive mental ability first in all instructional process which make it learner centered. It has been recommended by Tessier and Paenniman (2006) that teachers should use active learning strategies such as problem-based learning, cooperative learning and inquiry-based learning which help students to develop their cognitive processes and help them to become lifelong learners. Since Physics is a mathematically oriented subject that gives negatives impression to students in the course of learning, it forms a strong foundation for the study of Physics in either simple operations or more advanced all requires some form of mathematics. (Awodun & Ojo, 2013). However, students must first be provided with opportunities encouragement and assistance to engage in thinking, reasoning and sense making practice in mathematical concepts in physics (Lampart, 2000). In view of this, the researcher intends to investigate the effect of guided inquiry teaching strategy on mathematical thinking ability of Physics students in Senior Secondary School, in Rano Emirate Kano Nigeria.

The achievement of candidate in Senior Secondary school Certificate Examination (SSCE) in the past had been low (Otuka, 2010) and this seems to remain the same till now. According to Onwioduokit and Efut (2010), the observed rate of failure is mostly attributed to lack of problem-solving ability, poor science background among others. Other problems include poor method of instruction (Kalijah, 2000), ineffective method of teaching Physics (Agommuoh & Nzewi, 2003). The abstract nature of physics concepts makes students to perceived it as difficult subject (Isola, 2010). Also, in comparison with other science courses, physic is the least favoured among students. According to Stella (2013), the shortage of physics teachers in secondary schools and the scarcity in the number of students' enrolment into physics programmes in the universities and colleges of education, could be attributed to the lack of interest shown by students in secondary school physics. Poor academic achievement in physics could be attributed to many factors, among which are teaching strategies (Agommuoh& Ifeanacho,2013). Students perform poorly in mathematical problem-solving task in physics (Tuminaro, 2004), this is due to inability of students to apply the mathematical skills they have to solve

physics problems. Many researchers have blamed this poor achievement in physics on the use of inappropriate teaching strategies which may lead to lack of interest and retention of mathematical concepts of physics (Harbor, 2000). However, many teachers of physics in secondary schools did not know how to provide skills of mathematical solving strategies in physics lesson (Toni & Yuma, 2008), which can enable students to handle problem effectively. In view of the afore mentioned problems and challenges encountered in teaching physics, the researcher deems it necessary to determine the effects of guided inquiry teaching strategy on mathematical thinking ability of physics students in senior secondary schools in Rano Emirate, Kano Nigeria

Objectives of the Study

This study intended to achieve the following objectives to:

1. Determine the effects of guided inquiry on mathematical thinking ability of Physics students in senior secondary school in Rano Emirate.
2. Investigate the relationship between mathematical thinking ability of students' and their achievement in Physics in senior secondary school in Rano Emirate.

3. Determine the gender difference (if any) in the achievement of students in Physics when exposed to guided inquiry.

Research Questions

The study answered the following research questions:

1. To what extent does guided inquiry affects the mathematical thinking ability of physics students in senior secondary schools in Rano emirate Council?
2. What is the relationship between the mathematical thinking ability of students and their achievement in physics in senior secondary schools in Rano emirate?
3. To what extent does the physics academic achievement of male and female differs when exposed to guided inquiry teaching strategy in physics?

Hypotheses

The following null hypotheses were tested at 0.05 level of significance.

H₀₁: There is no significant difference between the mathematical thinking ability of students when they are exposed to guided inquiry and their academic achievement in physics.

H₀₂: There is no significant relationship between the mathematical thinking ability

of student and their academic achievement in physics.

H₀₃: There is no significant difference in the physics academic achievement of males and females' students when exposed to guided inquiry.

METHODOLOGY

Research Design

A quasi-experimental research design was used for the study, specifically nonrandomized pre-test post-test design, the study consists of all the SS2 physics students in public secondary schools in Jos metropolis of Rano Emirate Council.

Participants

The schools have population of seven hundred and fifty-two (752) SS2 physics student, consisting of 405 males and 347 females. A simple random sampling was used to select two intact classes from two secondary schools with a total of 91 SS2 physics students which constitute the experimental and control group. The experimental group have (n=43) with 28 males and 15 females while the control group have (n=48), with 29 male and 19 females. The experimental group was subjected to guided inquiry teaching strategy while the control group was given the conventional method of teaching.

Instrumentations

Two instruments were used for the purpose of data collection the physics achievement test (PAT) and mathematical thinking ability achievement test (MTAAT).

Validity and Reliability of the Instruments

This study focuses of physics achievement test (PAT) and mathematics and thinking ability Test (MTAAT) and corresponding marking scheme were validated two or three teachers in science schools in the Rano Emirate Zone. To determine the reliability of the instrument using Split-half reliability method. The first test was given to the students of different schools were not part of the study. After two weeks interval the second test was administered in line with Tuckman (1975) recommendation of the use of two weeks interval for test rest test procedure. Pearson product moment

correlation coefficient statistical method was used to analyzed the reliability of the instrument at 0.05 level of significance. The reliability coefficient values obtained were 0.72 and for PAT and 0.74 for MTAAT.

Data Analysis

The data collected from the were used to test the hypotheses analyses using descriptive statistics of mean is standard deviation to answer the research questions and hypotheses were tested using t-test z test and PPMC.

RESULTS

Research Question One: To what extent does guided inquiry affects the mathematical thinking ability of physics students in senior secondary school? In order to answer this research question, a descriptive statistic of mean and standard deviation was used. The result is presented in details in Table 1.

Table 1 Result of difference in the mathematical thinking ability test for experimental and control group

Group	N	Mean(x)	Mean Diff.
Experimental Group	43	30.28	4.69
Control Group	48	21.04	2.36

In Table 1, the experimental group has a mean of 30.28 which is greater than the mean 21.04 for control group and a standard deviation of 4.69 for

the experimental group is greater than a standard deviation of 2.36 for the control group. This indicates that students mathematical thinking

ability in physics was improved when expose to guided inquiry method of teaching.

H₀₁: There is no significant difference between the mathematical thinking

ability of students when they are exposed to guided inquiry and their academic achievement in physics. The hypothesis was tested using t-test at 0.05 level of significance, the result is presented in Table 2

Table 2: Z-test for the post-test scores of students for both MTAAT and PAT for experimental group

	N	Mean	S. D	Df	Z-Cal	P-Value	Remarks
MTAAT	43	30.28	4.69	84	16.14	0.00	Significant
PAT	43	21.72	4.17				

The result presented in Table 2 indicate that the P-value is 0.00 which is less than the level of significance of 0.05 with degree of freedom 84, which reject the null hypothesis meaning that there is significance difference between the mathematical thinking ability of students in physics and their academic achievement when exposed to guided inquiry.

Research Question two (2): What is the relationship between the mathematical thinking ability of students and their achievement in physics. To answer this research, question the difference in the post-test mean score for the experimental and control group in both MTAAT and PAT was compared in Table 3.

Table 3: Comparison of post-test mean score of the experimental group for both MTAAT and PAT

	N	Mean pre test	Mean of post test	Mean difference
MTAAT	43	20.04	30.28	9.88
PAT	43	20.00	21.72	1.72

The result presented in Table 3 showed that the pre-test and post-test mean score for both MTAAT and PAT indicates improvement in achievement, the MTAAT have the mean difference of 9.88 with the posttest having greater mean of 30.28

and PAT also have a mean difference of 1.72, the post-test record a mean of 21.72. This indicates positive relationship between mathematical thinking ability and their academic achievement in physics.

H₀₂: There is no significant relationship between the mathematical thinking ability of students and their academic

achievement in physics. This hypothesis was tested using the Pearson product moment correlation coefficient (PPMCC) in Table 4.

Table 4: Relationship Between Mathematical Thinking Ability of Students and Their Physics Academic Achievement

Variables		PAT	MTAAT
PAT	Pearson Correlation	1	0.546
	Sig.(2-tail)		P=0.000
	N		43
MTAAT	Pearson Correlation	0.546	1
	Sig.(2-tail)	P=0.000	
	N	43	

The result presented in the Table 4 showed that the correlation coefficient of 0.546 and a P-value of 0.000 since $P(0.000) < 0.05$ we reject the null hypothesis which indicate strong correlation between the mathematical thinking ability of students and their academic achievement in physics

Research Question Three (3): What is the difference in the physics academic achievement of male and female when exposed to guided inquiry? To answer this research question, a descriptive statistic of mean and standard deviation was used and is presented in Table 5.

Table 5: Descriptive statistics (mean and standard deviation) of male and female score of PAT for experimental group

Variables	N	Mean	S. D	Mean Difference
Male	29	30.27	3.45	8.54
Female	15	21.73	5.99	

Table 5 showed the mean difference of the scores of male and female obtained from PAT which indicate that the males have mean of 30.27 and female have mean of 21.73 which

indicate that male performance improves greater than female.

H₀₃: There is no significant difference in physics academic achievement of

males and female when exposed to guided inquiry. This hypothesis was tested using t-test for the scores

obtained by male's females in Pat for experimental group. This result is presented in Table 6.

Table 6: Difference in Physics Academic Achievement of males and females Students in Experimental Group

Variable Remark	N	Mean	SD	df	t-cal.	p-value
Male	29	30.27	3.45	41	6.51	0.025
Female	15	21.73	5.99			

The result present in Table 6 showed that the p-value 0.025 is less than the alpha value 0.05 which means the null hypothesis is rejected. Hence there is a significance difference in the male and female academic achievement in physics, when exposed to guided inquiry method of teaching.

CONCLUSION

From the findings of this study the following conclusion were drawn:

- 1.Guided inquiry strategy facilitates meaningful learning which improved mathematical thinking in physics among students in secondary schools
- 2.Teaching method used by science teachers have significant effect on the academic achievement of students at senior secondary schools
- 3.When both males and females were taught using guided inquiry neither of them achieves better than the other in physics at senior secondary school

RECOMMENDATIONS

In view of the limitation of this study the researcher seen it to make recommendation in the following

1. Guided inquiry should be used in teaching of physics concepts. This would enable students to develop mathematical thinking which would improve academic achievement.
2. Curriculum planners should plan the physics curriculum to accommodate inquiry base concept
3. Other researchers should use other design like true experimental to determine if it would provide contrary result.

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DETERMINANTS OF SOCIAL LOAFING TENDENCIES AMONG TEAM-SPORTS PLAYERS OF TERTIARY INSTITUTIONS

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ABSTRACT

Successful outcome in team sports is contingent on the individual athlete's physical contributions in achieving the group goals. This study sought to find out if group size, diffusion of responsibility, motivation, dispensation of effort, aversion to the group and set goal values will be a determinant of loafing in training and competitions among team-sport players of tertiary institutions in Lagos state. A survey research design was used for this study. Three hundred (n=300) athletes who are participating in active sports competition for their institutions were selected for this study using the simple random sampling technique. The respondents were selected from six state and federal tertiary institutions domiciled in Lagos state. The research instrument that was used for this study was a self-developed questionnaire titled: "Social Loafing Tendency Questionnaire (SLTQ)". The data collected from the questionnaire were collated and coded for analysis. Frequency counts, percentages and bar charts were used to analyse the demographic information of the respondents while the Pearson Product Moment Correlation statistics was used to test hypotheses at 0.05 alpha level of significance. The results revealed that group size, diffusion of responsibility, motivation, dispensability of effort, aversion to the group, and set goal value significantly determined social loafing tendencies among team sport players of tertiary institutions in Lagos state. The study concluded that some of the variables that were put to check in determining social loafing tendencies among team sports players such as group size, diffusion of responsibility, motivation, dispensation of effort, aversion to the group and set goal values should be given adequate attention by the coach and other tactical/technical supports staffs if the ultimate goals of winning is to be attained in training and competitions.

Keywords: *Social loafing, Group size, Diffusion of responsibility, Motivation, Team sport*

INTRODUCTION

The primary goal of any athlete participating in competitive sport be it individual, dual or team sport is to achieve relative success. In every social system, sport inclusive, the

success of any group is contingent upon individual's contribution to the overall success of the group. However, successful team performance in sport is mediated by different factors among which are

tactical, technical, physiological, and psychological. Most students in tertiary institutions of learning participate in sports based on peer's influence they are most likely interested in team sports such as football, volleyball, basketball or handball. This is basically because they are regularly competed for in Nigeria University games, Nigeria Polytechnics Games and Nigeria College of

Education Games competitions. Every coach ensures that players in these team sports are well trained and prepared for competition, often times, at the end of most competitions the desired results are not achieved.

Most active sports activities take place in group settings with the contributory effort of every player in the team. In team sports competition, the task must be accomplished by a group of players who work together as a team in order to combine individual effort to create a single product for success invariably not all sports require the same degree of cooperation among athlete but team sports. Cox (2010) refers to interactive coactive continuum to explain the relationship of close team work that is required for success in team sports. In team sports competition maximizing performance strongly different from previous

outing is the main objective. Therefore, the coach needs to prepare the players physically, technically, tactically and mentally in order to achieve this optimal level of sport performance. Teamwork means that every player must contribute his/her efforts to the maximum capacity that can bring the desired result and so together everyone achieves more with a view to achieving the group goal.

Tertiary institution sports is always in a continuous process as played in a team sports graduates, others must fill the vacuum created and hence some blow is created in the cohesion of the group. Team cohesion is the glue that binds a team of players together. A cohesive group of players acts together and sees itself as unified are bound to succeed based on group effort. A non-cohesive group as it is being experienced in most tertiary institution sports pulls in different directions and they find themselves as a collection of individuals. In his book, Caron (2008) states that many factors can be responsible for good team cohesion such as group size, diffusion of responsibility, motivation, dispensation of effort, aversion to the group and set goal values. In group cohesion building group identity, providing an environment where players feel comfortable and willing to work with each other, and creating a spirit of

unity is all fundamental to sports success. The dynamics of the group of players, the energy and functioning of the members as one, is a clear aim for a successfully performing team in sports. The team players must focus on the task and social cohesion to ensure goal accomplishment in sports competition.

Social loafing as a phenomenon that has been reported to be affecting most teams' performance, the coaches have also reported to be disturbed at this continuous exhibiting tendency of players. Social loafing is a behaviour in which players exhibit a sizeable decrease in individual effort when performing in groups as compared to when they engage in individual sports. Sports psychologists (Adeyemo, 2019; Adeyemo & Adeyeye 2017; Ipinmoroti, 2013) claimed that social loafing occurs as the teams' group size increases, then members start to invest less effort into the group. This therefore means that the overall output of the team is less than the sum of its individual's part. Social loafing behaviour as noticed by coaches had been on among team sports players and this affects team cohesion vis-à-vis better team performance in national sports competition of tertiary institutions in Nigeria.

Perceived social loafing tendency as a dangerous predicament for teams has

been observed by the researchers to exist among team-sport players most especially in Lagos State. This can be psychologically destructive for team members who are putting in their best in ensuring that the group goal is achieved. Research has demonstrated that the difference between a group's potential and its actual productivity is, in part a function of individuals exerting less effort when working as a team. It has been observed by the researchers that many teams could have done well judging by individual skill and physical prowess within the team, but their individual attitudes which show social loafing have resulted in their poor performance. Most teams in Nigeria University Games and Nigeria College of Education Games competitions hardly make it beyond the group preliminary stages which may be due to poor group productivity, communication, coordination and interaction which are necessary ingredients for successful outcome. Looking into this phenomenon, some factors may be responsible for promoting this non cooperative attitude among team members. This study therefore seeks to investigate the determinants of social loafing tendency as it affects group cohesion among team sport players in Lagos State tertiary institutions.

Research Questions

1. To what extent will group size determine social loafing tendencies among team sport players of tertiary institutions in Lagos state?
2. Will diffusion of responsibility determine social loafing tendencies among team sport players of tertiary institutions in Lagos state?
3. Is there any relationship between dispensation of effort and social loafing tendencies among team sport players of tertiary institutions in Lagos state?

Research Hypotheses

1. There is no significant relationship between group size and social loafing tendencies among team sport players of tertiary institutions in Lagos state.
2. There is no significant relationship between diffusion of responsibility and social loafing tendencies among team sport players of tertiary institutions in Lagos state.
3. There is no significant relationship between dispensation of effort and social loafing tendencies among team sport players of tertiary institutions in Lagos state.

METHODOLOGY

Research Design

The survey research design was used for this study, data was obtained through the use of questionnaire, the data was collated, analyzed and interpreted for the purpose of giving full description on the independent and dependent variable of the study.

Participants

The population for the study comprised all team sports players of tertiary institutions in Lagos state. The sample for this study was three hundred (n=300) team sport athletes who are participating in active sports competition for their institutions. They were selected from six state and federal tertiary institutions in Lagos state. These institutions included University of Lagos, Akoka, Lagos State University Ojo, Yaba College of Technology, Lagos State Polytechnic, Adeniran Ogunsanya College of Education, Federal College of Education, Akoka. The simple random sampling technique was used to select the respondents.

Instrumentation

The research instrument that was used for this study is Social Loafing Tendency Questionnaire (SLTQ). This instrument was found most appropriate because of its usability in the area of social loafing and group

cohesion among sport and exercise psychologists globally. It consisted of two sections. Section A seeks information on the demographic data of the respondents while the other section seeks information on the stated hypotheses on a four-point likert scale of Strongly Agreed (SA), Agreed (A), Strongly Disagreed (SD) and Disagreed (D), respectively. The internal consistency of the instrument stood at 0.78.

Data Collection

The researcher administered the copies of the questionnaire through the assistance of four trained research assistants. The approval to administer the questionnaires was sought through the help of the director of sports and coaches who helped in talking to the athletes to gain their cooperation. The researcher ensured

that questionnaires were carefully administered and retrieved on the sports. The duration for administration and collection of data lasted for six weeks. The data collected from the questionnaire were collated and coded for analysis. The descriptive statistics of frequency counts, percentages and bar chart were used to analyse the demographic information of the respondents while the inferential statistics of chi-square was used to test all hypotheses at 0.05 alpha level.

Data Analysis

A total of three hundred (300) copies of the questionnaire were administered to selected subjects. Out of these, only 286 were found useable and coded for analysis. The following table showed the distribution and collection of the questionnaire.

Table 1: Distribution of Respondents by Gender

Sex	No	%
Male	212	74
Female	74	26
Total	286	100

Table 1 showed the sex of respondents indicating that 212(74%) were male while 74(26%) were female. This shows that most of the participants were male. This implies that team-sports men participated in

the study more than team-sports women. Further, the percentage distributions of respondents based on their gender indicated in Table 1 are presented in Figure 1 below:

Figure 1: Distribution of Respondents by Sex

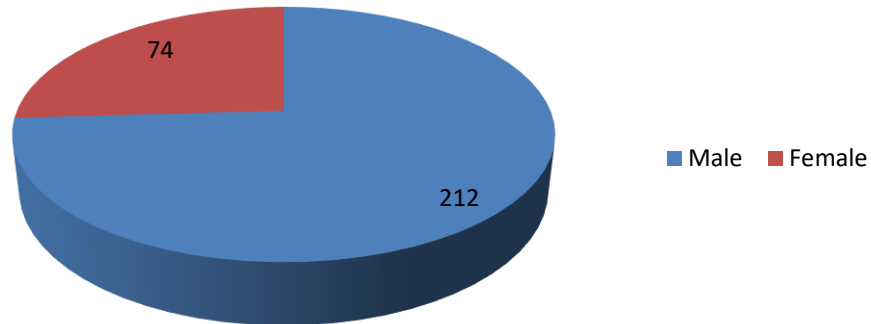


Figure 1 showed the gender distribution of respondents in the study. It showed that a vast majority (212) of the respondents are team-sports men, as against 74 of the respondents who were team-sports women. Therefore, this implies that

more team-sports men participated in the study than team-sports women without gender bias in the study. It also means that the researcher has more access to team –sports men than team-sports women in the study.

Table 2: Distribution of Respondents by Sports

Sports	No	%
Football	106	37
Volleyball	68	24
Handball	71	25
Basketball	41	14
Total	286	100

Figure 2: Distribution of Respondents by Sports

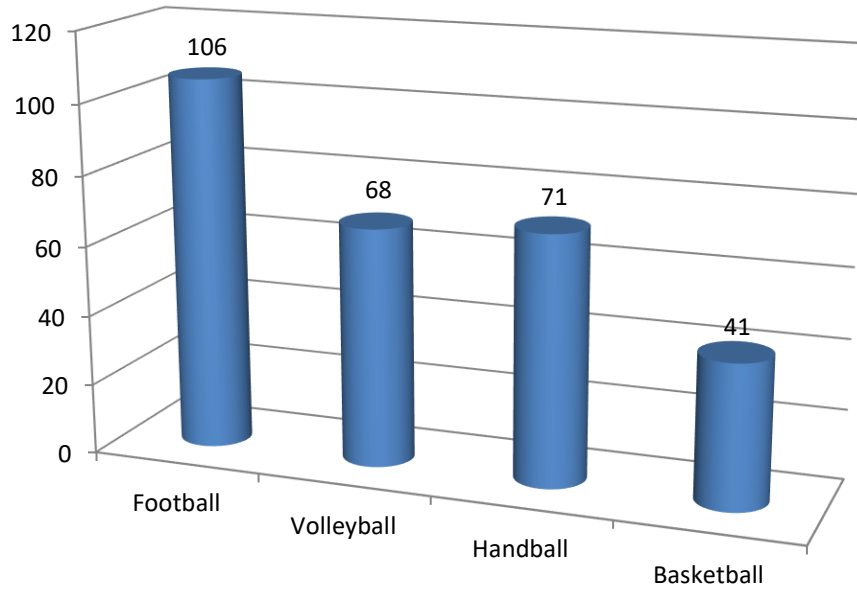


Table 2 figure 2 above shows that majority of the respondents are footballers (106, 37%), followed by

handball (71, 25%), volleyball (68, 24%) and basketball (41, 14%) respectively.

Table 3: Distribution of Respondents by Age

Age (Years)	No	%
19-25	155	54
26-30	123	43
31-40	8	3
Total	286	100

Figure 3: Distribution of Respondents by Teaching Experience

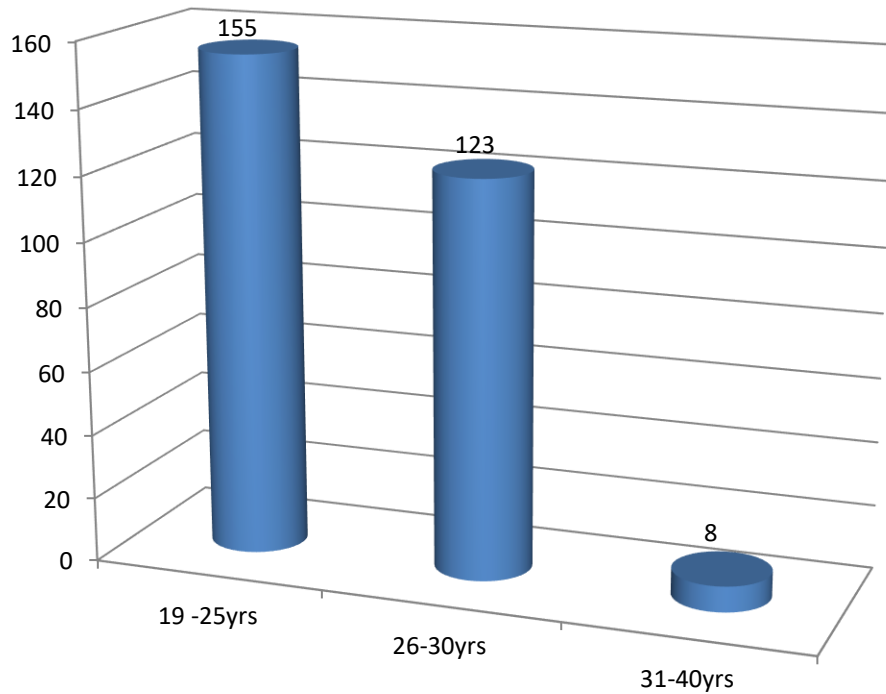


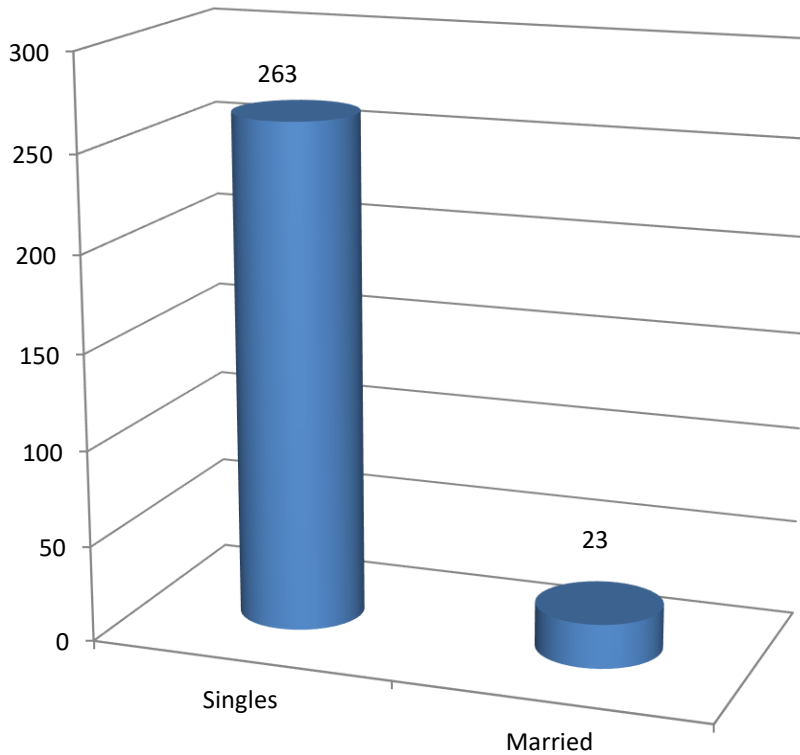
Table 3 Figure 3 shows the age of respondents indicating that 155(54%) were 19-25 years, 123(43%) were

with the ages of 26-30 while 8(3%) were within the ages of 31-40 respectively.

Table 4: Distribution of Respondents by Marital Status

Marital Status	No	%
Singles	263	92
Married	23	8
Total	286	100

Figure 3: Distribution of Respondents by Teaching Experience



Research Hypothesis 1: There is no significant relationship between group size and social loafing

tendencies among team sport players of tertiary institutions in Lagos state.

Table 5: Relationship between group size and social loafing tendencies among team sport players of tertiary institutions in Lagos state

Variables	\bar{X}	Sd	Df	N	r-cal	r-tab
Group size and	40.81	5.48				
Social loafing tendencies among athletes	39.34	6.42	284	286	0.601	0.195

* $P > 0.05$; $df = 284$.

The value of r-calculated (rcal=0.601) is significantly higher than the value of r-tabulated (r-tab=0.195) given 284 degrees of freedom at 0.05 alpha level. Therefore, there is significant relationship between group size and social loafing

tendencies among team sport players of tertiary institutions in Lagos state.
Research Hypothesis 2: There is no significant relationship between diffusion of responsibility and social loafing tendencies among team sport players of tertiary institutions in Lagos state.

Table 6: Relationship between Diffusion of Responsibility and Social Loafing Tendencies among Team Sports Players

Variables	\bar{X}	Sd	Df	No	r-cal	r-tab
Diffusion of responsibility	41.23	5.51	284	286	0.561	0.195
Social loafing tendencies among athletes.	39.34	6.42				

* P < 0.05; df = 284.

The value of r-calculated (rcal=0.561) is significantly higher than the value of r-tabulated (r-tab=0.195) given 284 degrees of freedom at 0.05 alpha level. Thus, the null hypothesis that states there is no significant relationship between diffusion of responsibility and social loafing tendencies among team sport players of tertiary institutions in Lagos state was rejected. This result

implies that there is significant relationship between diffusion of responsibility and social loafing tendencies among team sport players of tertiary institutions in Lagos state.

Research Hypothesis 3: There is no significant relationship between dispensation of effort and social loafing tendencies among team sport players of tertiary institutions in Lagos state.

Table 7: Relationship between Dispensability of Efforts and Social Loafing Tendencies among Team Sports Players

Variables	\bar{X}	Sd	Df	N	r-cal	r-tab
Dispensation of effort	39.73	4.59				
Social loafing tendencies among athletes.	39.34	6.42	284	286	0.416	0.132

* $P < 0.05$; $df = 498$.

The value of r-calculated ($r_{cal}=0.416$) is significantly higher than the value of r-tabulated ($r_{tab}=0.132$) given 284 degrees of freedom at 0.05 alpha level. Thus, the null hypothesis that states that there is no significant relationship between dispensation of effort and social loafing tendencies among team sport players of tertiary institutions in Lagos state was rejected. This result implies that diffusion of responsibility significantly determined social loafing among team sport players of tertiary institutions in Lagos state.

DISCUSSION

This study investigates the determinants of social loafing among team sport players in Lagos state tertiary institutions. The result revealed that the three hypotheses generated for the study were rejected, indicating that the six independent variables (group size, diffusion of responsibility, motivation, dispensability of effort, aversion to

the group, and set goal values) significantly determined social loafing tendencies among team sport players of tertiary institutions in Lagos state. The first hypothesis which states that group size will not significantly determine social loafing tendencies among team sport players of tertiary institutions in Lagos state was rejected, this shows that group size significantly determine social loafing among team sport players of tertiary institutions in Lagos state. That is how large or small the team is will determine the rate at which other members of the team hide under others efforts and claiming unmerited glory. This finding was corroborated by Cashmore (2002) who concluded in his study on social loafing that when the team is small there will be low loafers because individual's effort will be apparent for all to see as against when the team members are large. The hypothesis which states that diffusion of responsibility will not significantly determine social loafing among team sport players of

tertiary institutions in Lagos state was rejected, this shows that diffusion of responsibility significantly determine social loafing among team sport players of tertiary institutions in Lagos state. It is therefore established that when a member of the team already have the impression that he may not likely to be selected to be parts of the team he will loaf either in training or competition. This was supported by Hardy (2010) who maintained that players who feels they are less likely to perform or feel a sense of responsibility in the presence of their team mates are likely to loaf around the team during training or competitions. The last hypothesis which states that dispensability of efforts will not significantly determine social loafing among team sport players of tertiary institutions in Lagos state was rejected. This implies that dispensability of efforts significantly determine social loafing among team sport players in Lagos state. This revealed that when an athlete does not feel that his/her effort is justified in the context of the overall team; such athlete will be less willing to assert the effort. If the group size is large, members can feel that their contribution will not be worth much to the overall cause because so many other contributions can or should occur. This leads athletes to not contribute as much or at all in large

groups as they might have in smaller groups.

CONCLUSION

Based on the findings of the study, it is therefore concluded that;

1. There is a significant relationship between group size and social loafing tendencies among team sport players of tertiary institutions in Lagos state.
2. Diffusion of responsibility is significantly related to social loafing tendencies among team sport players of tertiary institutions in Lagos state.
3. Dispensability of effort significantly determine social loafing tendencies among team sport players of tertiary institutions in Lagos state.

RECOMMENDATION

Sports and exercise psychology consultants should be hired to be a member of the managerial team so as to proffer lasting solutions to social loafing among team sports players in Lagos state and the country at large.

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ASSESSMENT OF CONTENT VALIDITY OF 2019 AND 2020 BUSINESS STUDIES BASIC EDUCATION CERTIFICATE EXAMINATIONS IN KANO STATE, NIGERIA

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ABSTRACT

The study assessed the content validity of Business Studies 2019 and 2020 Basic Education Certificate Examinations (BECE) in Kano state Nigeria. The study design was Ex-Post Facto. A researcher-constructed instrument was used to collect data for the study. The mean and frequency were used to answer the research questions, while Chi-Square statistic was used to test the hypothesis. The results revealed that the two years' examinations have low content validity. Also, there was no significant difference in the curriculum representation of 2019 and 2020 BECE Business Studies questions. It was therefore recommended that Kano Educational Resources Department (KERD), which is responsible for conducting BECE, should employ the services of experts in Tests and Measurement during the items development process in order to produce valid and reliable questions.

Keywords: Content validity, Business Studies, Basic Education Certificate Examinations

INTRODUCTION

Business Studies is one the pre-vocational courses in Junior Secondary school. It is regarded as integrated and comprehensive in nature. It comprises five components namely: Commerce, Book keeping, Shorthand, and Typewriting and Office practice. These subjects are geared to offer products the

opportunity for gainful employment upon completion of their programme as well as providing them with the basic knowledge and skills of each component with the ultimate view to specializing in some or any of them in later years as it is expected to contribute to the general objective of education. The aim of Business Studies is to educate students in a

cluster of skills for numerous specific jobs, as recognized by Aina cited in Aliyu (2006), that any student is better equipped to find a job if he/she gets training in a cluster of skills rather than in a single specialized skill. The general objectives of Business Studies, as provided by the Business Studies Curriculum (BSC) (2007) therefore are to: (i) Provide the orientation and basic skills with which to start an occupation for those who may not have opportunity for further training; (ii) Provide basic business skills for personal use now and in the future; (iii) Prepare students for further training in Business Studies; and (iv) Relate the knowledge and skills to the national economy and develop basic skills in office occupation (BSC, 2007).

In order to transit from nine years of the Basic Education classes to the senior secondary, BECE is conducted for candidates in their third year of Junior Secondary school for appropriate placement into Senior Secondary Schools in which Business Studies is one of the core subjects written by students in this examination. Over the years, with the introduction of the 9-3-4 system, BECE has been conducted for students at the end of the three year in Junior Secondary Schools by Kano Educational Resources Department (KERD) in the study area. The

examination serves as a basis for their achievement and placement into Senior Secondary schools in the state. As observed by the researcher, that there is inconsistency in the design of Business Studies BECE items, as they do not always reflect the five major components of the Business Studies curriculum (Book-keeping, Shorthand, Office practice, Typewriting and Commerce). This is because the exams items at some years focus more on one component and in another year on another and vice-versa. This leads to a problem from part of the students placed by this examination into Senior Commercial Schools in handling such commercial subjects. This poses a question on the content validity of the test. In line with this, Adebule (2004) concluded that a test design to measure such characteristics traits as ability, skills, aptitude and achievement should focus attention on how much an individual has accomplished on a course of instruction or training on the above characteristics. It is the nature of the BECE Business Studies question papers coupled with the difficulties encountered by those students placed by this examination in to senior commercial schools that prompted the researcher to study the content coverage of Business Studies BECE Questions to determine the extent to which they sample the cognitive

objectives of Business Studies Curriculum.

Objectives of the Study

The objectives of the study were to:

3. Determine the extent to which BECE question for the Business Studies of 2019 represent the Business Studies curriculum.
4. Determine the extent to which BECE question for the Business Studies of 2020 represent the Business Studies curriculum.
5. Determine the difference in the extent to which BECE questions for Business Studies of 2019 and 2020 represent the Business Studies curriculum.

Research Questions

In order to achieve the objectives 1 and 2, of the study the following research questions were answered.

2. To what extent does BECE question for the Business studies of 2019 represent Business Studies curriculum?
3. To what extent does BECE question for the Business studies of 2020 represent Business Studies curriculum?

Null Hypothesis

In order to achieve objectives number 3 the following null hypothesis was posed and tested at the 0.05 level of significance.

Ho: There is no significant difference in the extent to which BECE questions for the Business studies of 2019 and 2020 represent Business Studies curriculum.

METHODOLOGY

Research Design

The research design of this study was Ex-post facto. This study involved the use BECE Business Studies question papers for two years (2019 & 2020) and subject curriculum.

Research Instrument

The instrument for data collection used for this study was a table of specification constructed by the researcher, which was prepared based on the five sub-level of cognitive objectives of Business Studies curriculum divided into: (E) expected which is the planned curriculum and (O) Observed, which is the objectives measured by Business Studies BECE questions paper for the year 2019 and 2020.

Data collection procedure

The content validity of the 2019 and 2020 BECE Business Studies questions was obtained by comparing the items on the question papers with an outlined table of specification constructed by the researcher.

Data Analysis

The content validity was analyzed using descriptive statistic (simple percentage) to answer Research Question One and Two. Chi-square was used to test the Null hypothesis at the 0.05 level of significant to

establish if there is significance difference between the curriculum representation of 2019 and 2020 BECE Business Studies questions, because it involves categorical data using (SPSS V.20).

RESULTS

Table 1: Curriculum Representation of 2019 and 2020 Business Studies BECE

Cognitive Objectives	Observed 2019		Observed 2020		Expected	
	N	%	N	%	N	%
Remembering	28	27	36	35	104	100
Understanding	15	31	09	18	49	100
Applying	08	38	09	18	29	100
Analyzing	17	40	15	36	42	100
Creating	02	33	00	00	06	100
Total	70	30.43	69	30	230	100

Table 1 presented the descriptive statistics of the curriculum representation of 2019 and 2020 BECE Business Studies questions. As shown by the Table in 2019 BECE Business Studies questions represented 28(27%) items at Remembering level, 15 (31%) at Understanding level, 8 (38%) at Applying level, 17 (40%) at Analyzing level and 2 (33%) at Creating level. While in 2020 it was observed that 36 (35%) of the items were set at Remembering level, 9 (18%) were at Understanding level, 9 (18%) items were at Applying level

and 15 (36%) items were at Analysing level. None of the items was set at creating level. From this Table it also revealed that the total expected curriculum objective is 230(100%), but in 2019 only 70 (30.43%) and 69 (30%) for 2020 were sampled by BECE Business Studies question papers. This indicated that BECE Business studies questions constructed in 2019 and 2020 did not proportionately sample the cognitive objectives of the Business Studies curriculum. Therefore, they have low content validity.

Table 2: Curriculum Representation of 2019 and 2020 BECE Questions of Business Studies

Objectives	2019		2020		Total
	Observed	Expected	Observed	Expected	
Remembering	28	32.2	36	31.8	64
Understanding	15	12.1	09	11.9	24
Applying	08	8.6	09	8.4	17
Analysing	17	16.1	15	15.9	32
Creating	02	1.0	0.0	1.0	02
Total	70	70.0	69	69.0	139

$X^2 = 4.67$ Asymp. Sig. (P. Value) = .322

Level of significance (α) 0.05

Table 2 showed the result of chi-square analysis of curriculum representation of 2019 and 2020 BECE Questions of Business Studies. The P. value (.322) is greater than the level of significance (.05). Therefore, the null hypothesis which stated that: There is no significant difference in the extent to which BECE Questions of 2019 and 2020 represent the Business Studies curriculum is hereby accepted.

DISCUSSION

The focus of this study is to assess the content validity of BECE Business Studies questions of 2019 and 2020. The analysis of content validity showed that BECE Business studies constructed in 2019 and 2020 covered 30.43% & 30% respectively of the cognitive objectives of Business Studies curriculum. This implies low content validity. This study is similar to that of Uguludunwa and Barko, (2015) who assessed the

psychometric properties of Business Studies of 2011 J.S.C.E in Plateau state and revealed low content validity. It is also in disagreement with that of Okwilagwe & Nwazota (2010), who analysed NECO J.S.C.E Question of Integrated Science and Social studies for 2001, 2002 and 2003 and revealed that they covered 50-60% of the syllabus. The finding of the study contradicted Moyinoluwa (2015) study on analysing the psychometric properties of WAEC, NECO, NABTEB and JAMB Mathematics in public examination in Nigeria at Nassarawa state". The finding on the content validity of the WAEC, NECO, NABTEB and JAMB was fairly good as both developed tests covering not less than 80% of their syllabus. The agreement of the finding of this study with the related study conducted on JSCE Question is an indication that, the examiners of BECE do not use table of

specification during the test construction stage as done by WAEC, NECO, NABTEB and JAMB in which the finding of Moyinoluwa (2015), contradicted with this study.

In order to know whether the two years (2019 and 2020) BECE Business Studies Questions differed in curriculum representation the result of the chi-square test analysis revealed that there is no significance difference in the curriculum representation of 2019 and 2020 BECE Business Studies questions. This result is consistent with that of the study conducted by Adewale (2015) at Oyo state titled, "Equating Two years BECE in Basic Science & Technology" in which the percentage difference coefficient of content validation was obtained to be 0.77, 0.74 for 2013 and 2014 respectively. It implies that there is no difference in curriculum representation of the two examinations.

CONCLUSION

The inability of the KERD to construct BECE question papers evaluated in this study to proportionately sample the cognitive objectives of the Business Studies curriculum is an indication that the curriculum objective could not be achieved and once the curriculum objective is defeated, national objectives are also defeated because

curriculum objectives were drawn from the National objectives. The difficulties faced by students placed by this examination into senior Commercial Schools may be attributed to the low content validity revealed by this study. Jandaghi (2010) pointed out that lack of content validity may result in the inability on the part of the learner to present the skills that are not included in the test.

The study also concluded that the two years examination questions do not proportionately sampled the cognitive objectives of the Business Studies curriculum. Therefore, they have low content validity. The low content validity found in this study require the involvement of expert in the field of test and measurement to correct this problem during the items development process for the result of BECE to be considered as a valid measure of students' knowledge and skills in Business Studies for placement into senior commercial schools.

RECOMMENDATIONS

i) The KERD, which is responsible for the preparing BECE, should employ the services of expert in test and measurement in constructing the items used in examining students in order to produce valid and reliable questions.

ii) The examiners of BECE should make use of a Table of Specifications in order to ensure items are set in proportion to each cognitive level to avoid the over- production of items at some cognitive levels.

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**THE IMPACT OF COMPUTER-AIDED INSTRUCTION AND
LABORATORY FACILITY ON SENIOR SECONDARY SCHOOL
STUDENTS' INTEREST IN PHYSICS
IN KADUNA STATE, NIGERIA**

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ABSTRACT

This study investigated whether Computer-Aided Instruction cum laboratory facility has impact on students' interest and academic performance in physics in Senior Secondary Schools in Kaduna state. It also determined if difference existed due to gender in the impact of Computer-Aided Instruction and laboratory facility on students' interest in physics in the state. The study adopted Triangulation which includes survey and quasi-experimental designs. The population comprised of 1520 Senior Secondary Class Two (SSII) physics students in public senior secondary schools in all the twelve Educational Zones of the state. 200 SSII physics students were sampled from three public senior secondary schools in three Educational Zones using simple random sampling technique. Two instruments were developed by the researcher namely: "Physics Performance Test (PPT) and Physics Interest Inventory Questionnaire (PIIQ)" to collect data in the study. Independent t-test and One-Way Analysis of Variance (ANOVA) statistics were used to analyse the data. The results showed that there was a significant impact of Computer-Aided Instruction and laboratory facility on students' interest in physics. It was concluded that students' interest can be impacted by teaching strategies like Computer-Aided Instruction and laboratory facilities. The study recommended the need for state government to incorporate Computer-Aided Instruction and laboratory facilities into physics curriculum at secondary level.

Keywords: Computer-Aided Instruction, Laboratory Facilities, Interest, Physics, Kaduna state

INTRODUCTION

This is an era of science and technology where science is the backbone for the prosperity of a nation. Educational technology plays an important role in the development of a nation. Our current teaching strategies appear unproductive to enhance problem - solving skills and logical thinking among student of

science. There is a need to move from traditional approaches to more innovative information and communication technologies enriched approaches for meaningful learning. The fast-paced, diverse and technologically advanced world has posed challenges for both teachers and learners. The use of computer-aided teaching (CAT) is a means of

instructional delivery usually used with the traditional method to teach (Rolf & Gray, 2011). Computer-aided instruction in education can be understood as the application of digital equipment to all aspect of teaching and learning (Adeyemo, 2012). Computer-aided instruction is synonymous with information communication instruction and encompasses computer and telecommunication which is concern with the instruction used in handling, acquiring, processing, storing and dissemination of information (Unongo, 2006; Adeyemo, 2010). It is a presentation consisting of words, sound and pictures that is designed for meaningful learning (Mayer, 2005a, 2005b, 2005c). The European decline in the attitude of students towards science and recommended that improvement in teaching science should be brought through new forms of pedagogies and approaches.

Laboratory has been conceptualized as a room or a building specially built for teaching by demonstration of theoretical phenomenon into practical items (Farombi, 1998). Laboratory is essential to the teaching of sciences and the success of any science course is much dependent on the laboratory provision made for it. It could be described as a place where theoretical work is put into practical. Whereas practical in any experience involves

students in activities such as observing, counting, measuring, experimenting, recording, Observation and carrying out field work. Laboratory helps to provide a forum wherein the learner is given the exercise to subjects, his belief, ideas, statement and theoretical proposition.

Physics is one of the physical science subjects taught in senior secondary and tertiary level of education in Nigeria. It is a branch of science which is concerned with fundamental ideals about nature and attempt to establish relationships between different quantities as precise as possible. The subject deals with the study of laws that determine the structure of the universe with reference to the matter and energy in the universe (Ike, 2002). According to Okpala (2001), physics is a physical science subject that is concerned mainly with matter as it relates to energy. Physics is the most utilized basic science subject in most instruction and instruction – related professions. It is based on this that (Federal government of Nigeria (FGN, 2014) placed the subject as one of the core subjects that each science student must be exposed to at senior secondary school level as stipulated in the National policy on Education.

Various studies related to Computer-Aided Instruction and laboratory

facilities were conducted previously addressing several factors. For instance, Josiah (2012) investigated the effects of Computer-Aided Instruction (CAI) on performance in physics of Nigerian rural and urban secondary school student of SSIII in Pankshin local government area of plateau state, Nigeria. The result revealed that there was no significant difference in the mean physics performance scores between urban and rural students taught physics with CAI. Udo (2012) observed that the application of Computer-Aided Instruction in the school subject is to make learner learn better and teacher to teach well. It is not a hindrance to teacher-student relationship. It rather ensures transactional instruction communication where the teacher manages the humans materials times and space to make sure that instructional event occur leading to desirable change in behavior of students.

Grace and Nkiru (2010) investigated the relationship between instructional television (ITV) programs and academic performance of senior secondary school students in Anambra State-Nigeria. Result revealed that there was a slight difference in academic performance of those who watched and those who did not watch ITV programs. The use of Computer-Aided Instruction in

teaching is a relevant and functional ways of providing education to learners that will assist in imbibing in them the required capacity to solve problems. Despite the abstract nature of physics, its teaching is to bring about scientific thinking in students; a mindset that requires students to test out through experimentation. However, through the use of computer-aided instruction, whether CD-ROM, PowerPoint, the teaching and learning of physics is interesting.

Owoeye and Yara (2011) investigated the provision of laboratory facilities as it relates to academic performance of students in agricultural science in Ekiti state of Nigeria between 1990 and 1997. The study was an ex-post factor design using result of the West African Certificate Examination (WAEC) conducted between 1990 and 1997 in 50 secondary schools in both rural and urban area of the state. The result shows that there were no significant differences in the performance of students between rural and urban secondary schools in terms of availability of laboratory facilities. Facilities constitute a strategic factor in organizational functioning. This is so because they determine to a very large extent the smooth functioning of any social organization or system including education. Facilities availability,

adequacy and relevance impact efficiency and high productivity.

The work of Owoeye and Yara was in agreement with that of Adeyemo (2012) on the study of impact of teachers' supply and provision of laboratory facilities on student's performance in physics. The finding from the study indicated that adequate provision of laboratory facilities play a significant role of boosting student performance in physics. The main and interaction effect of the provision of laboratory facilities impact students' performance in physics. Yara and Otieno (2010), where Laboratory Facilities have been observed as a potent factor to quantitative education. Laboratory work stimulates learners' interest as they are made to personally engage in useful scientific activities and experimentation, affords learners the basic skills and scientific method of problem solving. Knowledge obtain through laboratory promotes long term memory. John and Nja, (2014) evaluated the extent of adequacy of laboratory facilities on students academic performance in Calabar. A total number of three hundred and fifty (350) copies of questionnaire were administered to chemistry student in order to assess to facilities impact on the student academic performance. The results obtained from the data collected and analyzed

shows that laboratory facilities in secondary schools are not adequately enough for teaching chemistry. No course in science and mathematics can be considered as complete without including some practical work. The practical work either ought to be carried out by individual either in science laboratories or in classes. At school level, practical work is even more important because of the fact that we learn by doing. Scientific practices and application are thus rendered more meaningful. It is an established truth that an object handled impresses itself more firmly on the mind than the object merely seen from a distance or in an illustration. Thus practical work forms an important feature in any science and mathematics course (UNESCO, 2008).

The use of Computer-Aided instruction is a means of instructional delivery usually used to solve problems in the 21st century. It is a functional way of providing education to learners that will assist in imbibing in them the required capacity for the world to work with. Computer-Aided Instruction and Laboratory Facilities impact on both declarative and procedural knowledge. With the use of Computer-Aided Instruction and Laboratory Facilities, students can develop analytical and interpretative

skills. The classroom can be transformed into learning community thereby making it possible for many more people to be part of learning process in an open dialogue. It is interesting to know that students' academic performance can be impacted by influencing teaching strategies like Computer-Aided Instruction and Laboratory Facilities.

Objectives of the Study

1. To determine the impact of Computer-Aided Instruction and Laboratory Facilities on senior secondary school students' interest in physics.
2. To assess the impact of Computer-Aided Instruction and Laboratory Facilities on academic performance on senior secondary school students' interest in physics.
3. To find out the impact of Computer-Aided Instruction on interest between male and female students' interest in physics.

Research Hypotheses

HO₁: There is no significant impact of Computer-Aided Instruction and Laboratory Facilities on senior secondary school students' interest in physics.

HO₂: There is no significant impact of Computer-Aided Instruction and Laboratory Facilities on academic

performance on senior secondary school students' interest in physics.

HO₃: There is no significant difference in the impact of Computer-Aided Instruction on interest between male and female physics students on students' interest in physics.

METHODOLOGY

Research Design

The research design for this study is quasi-experimental design, the researcher makes use of both experimental and control groups seeking to determine the impact of Computer-Aided Instruction and Laboratory Facilities on secondary school students' interest in physics. In quasi-experimental design both the experimental and control groups were pre-tested (O₁) before treatment. The treatment (X₁) is teaching using Computer-Aided Instruction for (Experimental Group1 EG1) and laboratory facilities for (Experimental Group 2, EGII). Control group (X₀). This is followed by post-test (O₂) to determine students interest in the content taught.

Participants

The population of this study consist of 1,520 SS2 students drawn from 12 Education Zones of Kaduna State. The population cut across gender and were students offering physics. The

sample was 200 students drawn from three public senior secondary schools from the population using simple random sampling technique.

Instrumentations

The instruments used to obtain data were tagged Physics Interest Inventory Questionnaire (PIIQ) and Physics Performance Test Questionnaire (PPTQ). Physics Interest Inventory Questionnaire (PIIQ) is a twenty (20) item interest inventory questionnaire developed to determine the interest of physics students using the Likert's 5-point rating scale. These are; strongly Agreed (S.A); Agreed (A); Undecided (U); Disagreed (D); strongly disagreed (S.D). Weight is assigned to each option from five to one.

Validity of the Instruments

Content validity of the instrument was attained through presenting it to experts in Measurement and Evaluation. This helped to eliminate

ambiguities in the items. In ensuring that the instrument used to measure the reliability of the instrument is reliable. The instruments were subjected to pilot testing to a group of twenty (20) students in one Secondary School within the population but outside the sample and administered once to a group of testees after which split half method was used and analyzed using spearman Brown formula.

Data Analysis

Data collected were analysed using Independent t-test and One-Way Analysis of Variance (ANOVA) statistics, which were employed to test hypotheses at 0.05 level of significance.

RESULTS

Hor: There is no significant impact of Computer-Aided Instruction and Laboratory Facilities on secondary school students' interest in physics.

Table 1: Difference in Impact of Computer-Aided Instruction and Laboratory Facilities on Students' Interest in Physics

Sources of variation	Sum of squares	Degree of Freedom	Variance estimate	F-ratio	P	Remark
Between-Group	675.20	2	337.6			
Within-Group	272.90	197	48.0	7.03	0.01	Significant
Total	948.1	199				

From the result in table 1, sum of squares between groups was found to be 675.20 and sum of squares within group was 272.9. An F-ratio of 7.03 was calculated and the value of F-tab was found to be 4.61(∞) at 0.01 level of significant. Therefore, since the given F-tab value of 4.61(∞) was less than the obtained F-ratio of 7.03, the null hypothesis was rejected and the alternative hypothesis that there is

significant impact of Computer-Aided Instruction and Laboratory Facilities on Secondary School Students interest in physics was accepted.

H02: There is no significant impact of Computer-Aided Instruction and Laboratory Facilities on academic performance on senior secondary school students' interest in physics.

Table 2: Difference in the Impact of Computer-Aided Instruction and Laboratory Facilities on Physics Academic Performance of students

Sources of variation	Sum of squares	Degree of Freedom	Variance estimate	F-ratio	P	Remark
Between-Group	476.6	2	238.30	8.32	0.05	Significant
Within-Group	183.6	197	28.63			
Total	660.2	199				

The result in table 2 shows the change of interest of students in experimental and control groups. From the result, sum of squares between groups was found to be 476.6 and sum of squares within group was 183.6. An F-ratio of 8.32 was calculated and the value of F-tab was found to be 3.00(∞) at 0.05 level of significance. Therefore, since the given F-tab value of 3.00(∞) was less than the value of F-ratio of 8.32, the null hypothesis was rejected and the alternative hypothesis that there is

a significant impact of Computer-Aided Instruction and Laboratory Facilities on physics academic performance of senior secondary school students was accepted.

H03: There is no significant difference in the impact of Computer-Aided Instruction on interest between male and female physics students in Senior Secondary Schools. Two-tailed t-test was used and the result was presented on table 3.

Table 3: Difference in impact of Computer-Aided Instruction and Laboratory Facilities on Male and Female Students' Interest in Physics

Group	N	Mean	Variance estimate	Degree of freedom	t-cal	P	Remark
Male	30	31.22	4.50	66	1.98	0.01	Not significant
Female	38	30.59	4.20				

From the result presented in table 3, t-cal value observed was 1.98, while the value of t-crit was 2.68 at 0.01 level of significance. Since the value of t-crit of 4.96 was more than the value of t-cal of 2.68, we then accept the null hypothesis that there is no significant difference in the impact of Computer-Aided Instruction on interest between male and female Physics students in senior secondary schools.

DISCUSSION

Computer-Aided Instruction and Laboratory Facilities are not only found to have significant impact in the current study, it was also upheld by Udo (2010), that the application of Computer-Aided Instruction in school subjects is to make learners learn better and teachers to teach well. This implies that students take active role in learning process and much more attentive to programs where animations and narratives are used. Computer-Aided Instructions has the ability to capture attention of learners because it addresses a variety of learning styles. The findings of this

current study is in line with the study carried out by Yara and Otieno (2010), where Laboratory Facilities have been observed as a potent factor to quantitative education. Laboratory work stimulates learners' interest as they are made to personally engage in useful scientific activities and experimentation, affords learners the basic skills and scientific method of problem solving. Knowledge obtain through laboratory promotes long term memory.

The current study also found out that there is a significant impact of Computer-Aided Instruction and Laboratory facilities on interest in physics. The findings of this current study is supported by Obeka (2009), who views interest as the course of certain actions which acts as drive that propel students to acts in a certain way. The findings is also corroborated by the work of Obeka (2010), which revealed that there is a significant impact in the interest of students in learning science subjects when the learning is done through

Laboratory and also assisted by Computer instructed materials.

The findings of the current study also revealed that there is no significant difference in the impact of Computer-Aided Instruction on interest between male and female Physics students in senior secondary schools. The findings supported by previous study carried out by Obeka (2010) on gender and interest which revealed no significant difference in the interest ability of male and female students in environmental education concepts due to demonstration and inquiry methods. This implies that the use of innovative strategies such as Computer-Aided Instruction etc. in teaching and learning engender students' interest. In view of the above, innovative teaching strategies with integrated resource materials enhance students' interest irrespective of gender.

CONCLUSION

On the basis of the results of this research and the analysis of the findings, the researcher concludes that Computer-Aided Instruction and Laboratory Facilities have significant impact in physics. Means of communicating science to learners by teachers must be adequately pursued so as to achieve the desirable goal through an effective methodology for any concept such as the use of

Computer-Aided Instruction and Laboratory Facilities. There is a significant impact of Computer-Aided Instruction and Laboratory Facilities on Interest in physics among senior secondary school students. Since Computer-Aided Instruction and Laboratory Facilities can engender interest in learners, there is need to move from traditional approaches to more innovative information and communication technologies enriched approaches for meaningful learning. The fast-paced, diverse and technological advanced world has posed challenges to both teachers and learners. The use of Computer-Aided instruction is a means of instructional delivery usually used to solve problems in the 21st century. There is no significant difference in the impact of Computer-Aided Instruction on interest between male and female Physics students in senior secondary schools. Hence, schools should encourage the use of Computer-Aided Instruction since it is gender friendly.

The use of Computer-Aided Instruction and Laboratory Facilities is a functional way of providing education to learners that will assist in imbuing in them the required capacity for the world to work with. Computer-Aided Instruction and Laboratory Facilities impact on both declarative and procedural

knowledge. With the use of Computer-Aided Instruction and Laboratory Facilities, students can develop analytical and interpretative skills. The classroom can be transformed into learning community thereby making it possible for many more people to be part of learning process in an open dialogue. It is interesting to know that students' interest can be impacted by influencing teaching strategies like Computer-Aided Instruction and Laboratory Facilities.

RECOMMENDATIONS

The following recommendations are made based on the findings of this study namely:

1. The Federal and state Ministry of Education, Policy Makers, STAN, NAERDC, Researchers and Physics Teachers should ensure that Computer-Aided Instruction and Laboratory Facilities as a matter of urgency and necessity be appropriately incorporated into physics curriculum in all secondary schools to enhance effective learning among students'.
2. The Federal and state Ministry of Education, Policy Makers, STAN, NAERDC, Researchers and Physics Teachers should emphasize the use of Computer-Aided Instruction and Laboratory Facilities to engender interest in physics among senior secondary school students.
3. The Federal and state Ministry of Education, Policy Makers, STAN, NAERDC, Researchers and Physics Teachers should encourage the use of Laboratory Facilities irrespective of male or female students.

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INFLUENCE OF LECTURERS' GENDER ON AWARENESS, READINESS AND PERCEIVED CHALLENGES TO THE USE OF OPEN EDUCATIONAL RESOURCES FOR EFFECTIVE TEACHING

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ABSTRACT

The study investigated the influence of lecturers' gender on awareness, readiness and perceived challenges to the use of open educational resources (OERs) for effective teaching. The study adopted the descriptive survey design. A multi-stage sampling technique was employed to choose two (2) universities (both federal and state-owned) that offer open and distance learning programmes in each of the federation's six (6) geographical zones, as well as one thousand four hundred and eighty-five (1,485) lecturers. The instrument used was a questionnaire titled: "Influence of Lecturers' Gender on Awareness, Readiness and Challenges of Using Open Education Resources for Education Questionnaire (IL_{ARC}OEQ)". The gathered data were analyzed using mean, standard deviation, and One-Way Analysis of Variance (ANOVA). The findings showed that lecturers were mindful of the correct use of OERs for instructional purposes and were prepared to implement OERs in teaching. Also, there were statistically significant gender differences in the level of lecturers' readiness towards the use of OERs for teaching and lecturers' perceived challenges towards the use of OERs for teaching. It was concluded that if male and female lecturers receive the appropriate orientation, opportunities, and training, gender will no longer be a factor in determining whether or not OERs should be used for teaching. The study recommended that university authorities should support period workshops and seminars to provide practitioners with the necessary information and/or skills for OERs.

Keywords: Lecturer, Gender, OERs, Awareness, Readiness

INTRODUCTION

Open educational resources (OERs) are freely available and publicly licensed teaching and learning materials. They are stored in repositories, which are platforms. As an outlet for open education practices, repositories hold and promote access to the housed materials as resources for teaching and learning in nearly all types of education. Full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials, or procedures used to enable access to information are examples of open educational resources. Open courseware, learning objects, textbooks, and periodicals are also considered open education resources. Open educational resources (OERs) are crucial instructional assets that have the potential to expand learning globally. It is therefore unnecessary to be cautious when referring to OER resources as being limited to a certain paradigm or that there is a learning style in which OER is ineffective. Furthermore, OER proponents in various theoretical "camps" of learning, such as constructivist, connectivist, or behaviorist, might design their OER to either support their theories specifically or to be more generalizable in a broader range of learning environments. Panke and Seufert (2012) also noted that there is

"no one-size-fits-all theory" that allows us to comprehend all elements of learners' use of OERs. It is appropriate for all purposes, and users of various backgrounds can benefit from it. Because the usage of OERs is not limited to e-learning or distance education, it is more of a digital concern in relation to open and distance institutions whose operations are based on ICT rather than traditional university environmental affairs, and it is open to anyone. Although such advancements and discoveries are usually delayed in reaching underdeveloped countries, the onus is on the people of the developing world to capitalize on them and reap the benefits they portend for their environments. This particular educational innovation and development is a path that allows for open access to educational content and effective pedagogical techniques.

Few research have been conducted on the subject, according to the literature and previous studies dealing with awareness, readiness, and use of open educational resources in the teaching-learning process in Nigerian universities. Humphrey and Kolawole's study (2021) assessed OER knowledge and use among LIS students at Nigeria's Ignatius Ajuru University of Education. The descriptive approach was used to

meet the study's aims, and the study population consisted of 248 undergraduate and graduate students, with data collected through a questionnaire. According to the findings, students have a high level of awareness of the concept of OER as well as a high level of use of various types of OER. The findings also revealed that there are various issues affecting the learning process, including a lack of information literacy skills, a lack of electricity, a poor internet connection, a lack of library awareness, and a lack of help from lecturers on educational resources. In the same vein, Al-Hwaiti's (2020) study highlights the reality and barriers to faculty members' use of open education materials in the Kingdom of Saudi Arabia. The descriptive survey method was utilized to fulfill the study's aims. For the 2018-2019 school year, a questionnaire was delivered to a study sample of (369) teachers at Tabuk's schools. The findings revealed that the overall instrument's mean score is 2.59 out of 5, with a high level in the following areas: Public education teachers' use of open educational resources (Shams Platform) in their teaching practices received a mean rating of 2.65 out of 4, and education teachers' obstacles to using open sources received a mean rating of 2.53 out of 4. The study also revealed statistically significant

differences at the level of 0.05 between the sample responses regarding the reality of open learning teachers in public education. In another review, Nkwenti and Abeywardena (2019) look at the difficulties confronting the execution of OERs in Cameroon and investigate the potential outcomes of mainstreaming OERs under the oversight of the Services of Fundamental and Auxiliary Training. The descriptive method was used to accomplish the study's goals. The review test incorporates 393 employees, and a survey instrument was ready. The findings demonstrated that open educational resources can be utilized in Cameroonian schools. However, the study identifies the weak infrastructure and technical obstacles to the utilization of open educational resources as the most significant obstacles.

A common observation of Nigeria's university system would reveal that many lecturers are unfamiliar with OERs. According to Ojo, Salawu, & Adedapo (2002), many of these lecturers appear to lack the critical awareness that could facilitate an efficient teaching-learning process in universities. Gender differences in internet use were found in studies on OER usage by Mohammad & Alkaraki (2008), Gambari, Yusuf, and Chukwuemeka (2016). Studies

on the influence of lecturers' gender on awareness, readiness, and perceived obstacles to the use of open educational resources in teaching are uncommon, according to the preceding literature. As a result, the gender of lecturers was the focus of this study, which looked into how gender affects awareness, readiness, and perceived obstacles to the use of open educational resources in effective teaching.

Objectives of the Study

This study determined how lecturers' gender affects their awareness of, readiness for, and perceptions of challenges related to the use of OERs in teaching-learning process in Nigerian universities. The study's specific objectives include to:

- i. examine if there exist gender differences in the level of awareness of lecturers' use of OERs for teaching.
- ii. ascertain if there exist gender differences in the level of lecturers' readiness towards the utilisation of OERs in teaching.
- iii. examine if there exist gender differences in the challenges of lecturers towards the utilisation of OERs for teaching.

Hypotheses

The following hypotheses were tested at 0.05 level of significance:

There is no significant gender difference in the:

- (i) extent of lecturers' awareness of open educational resources for effective teaching.
- (ii) level of lecturers' readiness towards the utilisation of OERs for effective teaching.
- (iii) lecturers' perceived challenges towards the utilisation of OERs for effective teaching.

METHODOLOGY

Research Design

A descriptive survey research design was employed in the study. The institutions included in the study covered all lecturers of federal and state universities in Nigeria.

Participants

The sample size was derived from the total population. In this study, the participants comprised one thousand four hundred and eight-five (1,485) lecturers using multi-stage sampling techniques of random and purposive sampling with the inclusion of only institutions that are operating as

single and dual modes in each of the six geo-political zones in Nigeria.

Instrumentation

A questionnaire tagged: Influence of Lecturers' Gender on Awareness, Readiness and Challenges of Using Open Education Resources for Education Questionnaire (IL_{ARC}OEQ; $r=0.78$) was used to gather data from the participants. The IL_{ARC}OEQ contained items that requested the participants to respond to statements that depicted issues of interest in order to achieve the terms of the objectives of the study. The questionnaire was a four-point modified Likert type scale that ranged from Strongly Agree (4) to Strongly Disagree (1). The reliability and validity of the questionnaire was established through an adequate method of standardisation.

Data Collection

The IL_{ARC}OEQ was administered to the academic staff of the chosen Nigeria universities during the time Conference Marking Exercise of the National Open University of Nigeria was taking place at the designated making zones across all the six (6) geographical zones of the federation.

Data Analysis

The collected data were analysed using descriptive statistics of mean and standard deviation and inferential statistical tools of t-test and ANOVA.

RESULTS

The results of data analysis were presented in the order of stated hypotheses.

Table 1: Lecturers' Distribution by Gender

		Freq	%
Gender	Male	966	65.1
	Female	519	34.9
	Total	1485	100

Table 1 shows the socio-demographic attributes of the lecturers that participated in the study. Nine hundred and sixty-six (966) were males while 519 (34.90%) were females.

Hypotheses Testing

Table 2: Mean and Standard Deviation on Lecturers’ Awareness, Readiness towards Utilization and Challenges towards Utilisation of OER for Teaching based on Gender

		Gender			Std. Error Mean
		N	Mean	Std. Deviation	
Lecturers’ Awareness of OER for Teaching	Male	966	31.3820	4.83468	.15555
	Female	519	29.9672	4.04951	.17775
Lecturers’ readiness towards utilisation of OER for Teaching	Male	966	13.5839	3.41722	.10995
	Female	519	13.3102	2.52212	.11071
Lecturers’ Challenges towards Utilisation of OER for Teaching	Male	966	13.4534	2.69049	.08657
	Female	519	13.1272	3.01143	.13219

Table 3: Difference in Lecturers’ Awareness, Readiness towards Utilization and Challenges of OER for Teaching based on Gender

		F	Sig.	T	df	Mean Diff.	Std. Error Difference
Lecturers’ Awareness of OER for Teaching	Equal variances assumed	3.531	.060	5.681	1483	1.41474	.24903
	Equal variances not assumed			5.989	1228.445	1.41474	.23621
Lecturers’ readiness towards	Equal variances assumed	51.913	.000	1.604	1483	.27364	.17055

utilisation of OER for Teaching	Equal variances not assumed			1.754	1342.616	.27364	.15603
Lecturers' Challenges towards Utilisation of OER for Education	Equal variances assumed	4.846	.028	2.136	1483	.32625	.15276
	Equal variances not assumed			2.065	962.534	.32625	.15801

Results in Tables 2 and 3 showed that there was no statistically significant gender difference in the extent of lecturers' awareness of open educational resources for teaching ($t_{(1,1483)} = 5.68$; $p = 0.06 > 0.05$). The mean and standard deviation values also showed no statistically significant differences in the extent of lecturers' awareness of open educational resources for teaching based on gender. Therefore, we accept the null hypotheses that say that there is no significant gender difference in the extent of lecturers' awareness of open educational resources for teaching. However, there were statistically significant gender differences in the level of lecturers' readiness towards the utilisation of OERs for teaching ($t_{(1,1483)} = 1.60$; $p = 0.00 < 0.05$) and lecturers' perceived challenges towards the utilisation of OERs for teaching ($t_{(1,1483)} = 2.14$; $p = 0.03 <$

0.05). The mean and standard deviation values also showed statistically significant differences in the level of lecturers' readiness towards the utilisation of OERs for teaching and lecturers' perceived challenges towards the utilisation of OERs for teaching based on gender. Therefore, we do not accept the null hypotheses that say that there is no significant gender difference in level of lecturers' readiness towards the utilisation of OERs for teaching and there is no significant gender difference in lecturers' perceived challenges towards the utilisation of OER for Teaching.

Discussion

According to the findings regarding lecturers' awareness of OERs, both male and female lecturers were aware of the appropriate use of OERs in teaching. They acknowledged that their institutions had open

educational resources (OERs) as digital and non-digital resources that could be used to encourage class discussion, improve interaction between teachers and students, and boost academic performance. According to the findings regarding the level of lecturers' readiness to use OERs in education, both male and female lecturers were prepared to use OERs in education. The discoveries on perceived difficulties towards the use of OERs for teaching uncovered that both male and female lecturers' level of readiness in handling difficulties towards the usage of OERs for educating is appreciable. Gender shouldn't be a problem in general if male and female lecturers are given the right orientation, opportunities, and training. These results contradict that of Hassall and Lewis (2017), who found that while some academics showed a slight dispersion of OER usage with inherent incentive barriers to adoption, others reported using OERs with little awareness of the important factors preventing educators from forbidding OERs in their teaching.

Moreover, the discoveries showed that there were measurably critical in the level of lecturers' preparation towards the usage of OERs and lecturers' apparent difficulties towards the use of OERs for instructing. There was no statistically

significant gender difference in lecturers' awareness of open educational resources for teaching, nor was there a statistically significant gender difference in lecturers' readiness to use OERs for teaching or lecturers' perceptions of obstacles to using OERs for teaching. These results were inconsistent with these earlier findings of Falode, Ifutoye, Awoyemi, and Usman (2018), who found that lecturers' level of awareness of the existence of open educational resources is influenced by gender, with a mean of 79.52 for males and 79.09 for females and a p-value of 0.866 that is not significant at the 0.05 alpha level. The discoveries likewise concur with that of Akturk, Izci, Caliskan, and Sahin (2015) concentrate on who uncovered that preservice educators' demeanor towards open instructive assets are positive and simultaneously, the perspectives of male preservice instructors towards open instructive assets use are more certain than their female partners.

The findings were supported by the findings of Harishankar (2015); Hart, Yuraisha, and Elizabeth (2015) and according to them male and female lecturers are aware of open education resources and ready to embrace the open education resources. The findings agree with that of Gambari, Yusuf and Chukwuemeka (2016)

which reported that teachers' attitudes toward the use of the internet in teaching activities are unaffected by gender.

CONCLUSION

The study investigated the influence of lecturers' gender on awareness, readiness and perceived challenges to the use of open educational resources (OERs) for effective teaching in Nigerian universities. Specifically, the study examined how lecturers' gender affects their awareness of, readiness for, and perceptions of challenges related to the use of OERs in teaching-learning process in Nigerian universities. The findings indicated that both male and female lecturers were prepared to use OERs in education and their level of readiness in handling difficulties towards the usage of OERs for instruction is obvious. However, the tested hypotheses indicated that there were statistically significant gender differences in the level of lecturers' readiness towards the use of OERs for teaching and lecturers' perceived challenges towards the use of OERs for teaching. The implication of these findings suggest that gender will no longer be a factor in determining whether or not OERs should be used for teaching if both male and female lecturers receive the appropriate

orientation, opportunities, and training.

RECOMMENDATIONS

Based on past outcomes and discussion, it is suggested that university authorities should support period workshops and seminars, in order to provide practitioners with the necessary information and/or skills for OERs. Also, it is recommended that more further studies are conducted on issues related to the use of open educational resources in teaching.

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