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West Bengal, INDIA-731235

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Full Length Research

Information resources' accessibility and perceived academic performation of public secondary school students in Lagos state, Nigeria

Anyanwu Catherine Mary[1] and Professor V.E. Unegbu[2]

[1&2]Department of Information Resource Management, Babcock University, Ilishan Remo, Ogun State, Nigeria

Abstract

This study investigated the influence of information resources' accessibility on academic performance of students in public Secondary Schools in Lagos State, Nigeria. The study adopted survey research design. The population of the study comprised 5,458public secondary school students in Lagos State, Nigeria. The sample size of 373 was determined using Taro Yamane formula. Multi-stage sampling technique was used to select the participants. A validated structured questionnaire was used for data collection. The Cronbach's alpha reliability coefficients for the constructs ranged from 0.89 to 0.93. A response rate of 91% was achieved. Data were analyzed using descriptive and inferential (linear and multiple regression) statistics. The findings of the study revealed that information resources' accessibility significantly influenced perceived academic performance of public secondary school students in Lagos State, Nigeria Information resources accessibility significantly influenced perceived academic performance of secondary school students in public secondary schools in Lagos State, Nigeria (β = .136, t (364) = 3. 881, p< 0.05).The study concluded that information resources' accessibility is crucial to perceived academic performance of students in public secondary schools in Lagos State, Nigeria. The study recommended that secondary school principals, government and Ministry of Education should strive to sustain positive perceived academic performance of public secondary school students in Lagos State, Nigeria. The secondary school principals and government should also continue to provide all forms of information resources to public secondary schools and make them accessible to the students to improve their perceived academic performance.

Keywords: Information resources' accessibility, perceived academic performance, students in public secondary schools.

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INTRODUCTION

In this era of globalization and technological revolution, education is considered as a first step in every human activity. It plays a vital role in the development of human capital and is linked with an individual's wellbeing and opportunities for better living. It ensures the acquisition of knowledge, competence and skills that enable individuals to increase their productivity and improve their quality of life. This increase in productivity also leads to new sources of earning which enhances the economic growth of a country, and it starts with better academic performance of students in the school (Tarimo & Kavishe, 2017). Academic performance has been described as the scholastic standing of a student at a given moment. The main outputs in education are expressed in terms of learning, that is, changes in knowledge, skills and attitudes of individuals as a result of their experiences within the school system. According to Stan (2019), academic

performance is the level of attainment of a student in an examination. It is how a student is able to demonstrate his or her abilities in an examination.

Perception of academic performance is an act or faculty of perceiving, or apprehending by means of the senses or of the mind, cognition, understanding, immediate or intuitive recognition or appreciation, as of moral, psychological, or insight; intuition; discernment: an artist of rare perception. This is an insight, intuition, or the faculty for understanding, knowledge gotten by perceiving, or a specific idea, concept, impression one formed.

Perception utilizes sensory and cognitive processes to appreciate the world around us. It is a unique way of understanding phenomena by interpreting sensory, information based on experience, processing information, and forming mental models. Perception also can be defined as a process by which an individual selects, organizes and interprets stimuli into a meaningful and coherent picture of the world. Perception can be positive or negative. Perception of academic performance is the way students perceive their academic performance. Students with higher academic achievement had more positive perceptions regarding their education, while low-achieving students exhibited more negative perceptions of education. Similarly, Irfan and Shabana (2018) state that perception of academic performance of students at the secondary school level plays a very important role in producing the best quality graduates at tertiary level, who will become great leaders politically, socially, economically and spiritually. As a result, they will impact positively on the social, political and economic development of the country. Perception of academic performance of students is an important measure of academic success at every educational level such as primary, secondary and tertiary. Al-Shorayye (2015) regards a student's perception of academic performance in an examination as being dependent on his or her positive/ negative perception. Al further posited that a student's success is generally judged by examination performance, and that the best criterion of performance is the sum of the students' academic performance in all the subjects taken in the school. The study also reveals that researchers had deliberated much on students' perception of academic performance. Academic performance of students is a key feature in education, it is considered to be the center around which the whole education system revolves.

Narad and Abdullah (2016) opined that the perception of academic performance of students determines the success or failure of any institution. They also stated that perception of academic performance of students has a direct impact on the socio-economic development of any country. According to them academic performance is the knowledge gained which is assessed through marks by a teacher and/or educational goals set by students and teachers to be achieved over a specific period of time. They added that these goals are measured by using continuous assessment or examination results. Students' perception is the process of preferential treatment of students toward information they get from an object. Perceived Academic Performance (PAP) refers to students' cognitive perception of their grades and the attitudes and procedures involved in their school achievement. De la Fuente (2019) states that perception of academic performance is a variable about which there is currently a high level of concern, principally due to its association with development.

Perception of academic performance can also be seen as the measurement of the ways by which students go about achieving their academic performance. Teachers and education officials typically measure academic achievement using classroom performance, graduation rates and results from standardized tests. It can also be referred to as persons' performance in a given academic area. Perception of academic performance in schools is evaluated in a number of ways by which students go about seeking for information resources, using the information resources and sharing the knowledge gained. For instance, the students demonstrate their perception through the ways they go about taking written and oral tests, performing presentations, submission of homework and participating in class activities and discussions. But some students may in a negative way decide not to participate in all these class activities and hope to perform better in their studies. Some students feel that Mathematics and English Language are difficult subjects and so have told themselves that they can never pass such subjects and so could not make any effort to attend the classes for such subjects. Singh (2016) emphasized that Academic achievement occupies a very important place in education as well as in the learning process, and so for one to be enrolled in secondary school the following conditions should be considered: Intellectual level of the student, interest, personality, self-esteem, skills, and study habits. Academic achievement also denotes the knowledge attained and skill developed in the school. Perception of academic performance of students determines the success or failure of any academic institution. Perception of academic performance of a student can be high or low, based on the ability or capability of the student to learn with positive perception and the necessary materials accessible for the student to learn. In other words, the academic performance of the students and the resultant institutional success or failure are majorly hinged upon these factors; first, the intellectual capacity of the student, secondly the perception of the student and thirdly the provision of relevant information resources accessible to students (material, social and environmental) by the academic institution. These factors are highly interdependent, such that the lack of one leads to insufficiency of the other. Hence, if an academic institution must record desired success, the institution should take up the responsibility of providing resources which will help the students to adequately harness their perception and apply their intellectual capacities in a measure that yields academic excellence for the students and enviable academic reputation for the institution. High perceived academic performance

is measured in terms of information resources accessible for the students to learn. This interplay of adequate provision of information resources and maximum utilization of the resources by the students is what brings desired positive perception of academic performance.

All over the world, inadequate information resources for high academic performance has always resulted in poor perception of academic performance, although it differs in magnitude and nature; everywhere has its own challenges with quality and adequate information resources. Perception of academic performance of students remains the top priority for educators. Educators, trainers and researchers have long been interested in exploring variables contributing to effective perception of academic performance of learners. These variables which include gender difference, teacher's education and teaching style, classroom environment, socio economic factor, family education background and student perception, to mention but a few, affect students' perceived academic performance. Unfortunately, defining and measuring students' perception of academic performance is not a simple task and the complexity of this process increases daily due to the changing values associated with Information Communication Technologies (Blevins, 2019; Parri, 2018).

Schools are established for the purpose of teaching and learning. It is also more important that the learners are properly equipped and oriented with the resources or materials that will enable them study well. This is the essence of establishing schools in Nigeria; schools irrespective of ownership are expected to function in compliance with the national education objectives which states that all Nigerian children must have equal education which would help them to be useful to themselves and contribute to the development of the Nation (Federal Republic of Nigeria, 1999). To this end, students are expected to perform brilliantly both in the classroom and in their final examination; it is the parameter used to measure the effectiveness of a school system. The better the perception of academic performance of the students, the more effective the system is assumed to be (Tarimo & Kavishe, 2017). But in this case, the students are neither useful to themselves nor to their nation because of poor academic performance because of lack of information resources' accessibility. All over the world, the issue of poor academic performance of students has been of a great concern to everyone. This concern is not unwarranted as empirical evidences have actually shown that no part of the world is free from poor perceived academic performance (UN, 2018; Philias & Wanjobi in Tarimo & Kavishe, 2017). The issue of student' perception of academic performance is becoming a monster that needs urgent attention from everyone such that it is giving everyone great concern and Nigeria as a nation cannot shy away from this. Lagos state as one of the 36 states in Nigeria involved in the molding of the students in secondary education is also not free from this mince.

Government may claim to have continuously encouraged secondary education by adopting the social demand approach towards planning the sector and by subsidizing the Senior School Certificate Examinations (SSCE) fee, provide instructional materials and teaching personnel and funds in public secondary schools all over the country over a long period of time (Adepoju in Yuniarsih, Kusnendi & Wibowo, 2019). This is an indication of government's interest in general education in the country which has reflected in the year's budgetary estimates of the states. But these are inadequate and also government has not followed up to ensure that all these information resources are actually accessible to the students to use for their academic success. Also reflected in the Nigeria's budgetary allocation for education in 2020 is the revelation by the United Nations Educational Scientific and Cultural Organization (UNESCO) that Nigeria's budget on Education has continued to remain below the minimum 15 – 20% recommended for developed countries (Premium Times, 2020) and as long as the allocation on education is low and insignificant, and with the students' negative perception of academic performance, the sector will continue to have low global standard and poor academic performance recorded

Everybody clamors for improved students' perceived academic performance, but empirical evidence from researchers over the years has shown that meaningful use of information resources by the students and teachers helps to resolve the issue of perception of academic performance of students in public secondary schools. As a result of this perception of academic performance, stakeholders and researchers in education are curious to know the causal factors associated with the problem. Causes of the poor perception of academic performance in Lagos State may be lack of information resources accessibility in the schools, lack of student' interest, study habits, intellectual level of the students, fear and anxiety of external exams, of not have prepared fully for the exams and so on. These variables are directly or indirectly vital to high academic performance. Facilities such as blocks of classrooms, laboratories, workshops, libraries, laboratory equipment, consumables, audio-visual aids, electricity, water, chairs, tables, stationeries, playground, storage spaces and others which schools have or have not may affect students' perception of academic performance. It has always been realized that students' perceptions are very important in the improvement of their education, a school without adequate access to information resources, no proper orientation on perception of academic performance whether private or public may not be able to achieve the stated goals and objectives of the educational system. When students are given orientation on academic performance and information resources are accessible and skillfully utilized, they influence learning and make learning more meaningful, this bring about positive students perception of academic performance.

Information resources accessibility in schools is very vital because they aid teaching and learning process and high

academic performance achieved. Lack of information resources accessibility in public secondary schools in Lagos State has been responsible for the students' negative perception of academic performance in the sense that, information resources are not always available and the available ones are not accessible to students because of librarians' poor attitude to students. The achievement of positive perception of academic performance in any subject requires effective and efficient teaching and learning process with information resources available and accessible to students. This cannot be achieved without information resources accessibility.

Information resources accessibility is the ability to find, as well as the ease and convenience associated with locating information. According to Kumar (2016), information resources accessibility is the opportunity to find, as well as the ease and convenience associated with location of the information. Often, this is related to the physical location of the individual seeking the information and the physical location of the information in a book or journal. It is also understood as information provided in formats that allow every user and learner to access content on an equal basis with others (UNCRPD, 2018). Information resources accessibility is the freedom or ability to identify, obtain, and make use of database, internet, libraries' materials or information gained through different social media effectively. Information resources accessibility could also be attained through knowledge sharing, observation, experience, during practical works.

Information resources may be available in the school's library, but inability of the students to identify it as a good source of knowledge that is relevant for their studies is another factor that may be affecting students' perception of academic performance and this makes them feel that achieving high academic performance is difficult. This may also be as a result of the school not being able to give adequate orientation on how to access information resources and services the libraries are supposed to offer.

Access to information resources is of great significance to students in secondary schools (for those schools that possess internet and other information aids facilities) this is because it increases the acquisition of knowledge, skills and reading habit, and help the students to prepare for examination, and this eliminate fear and anxiety from the students during examination.

Research Questions

The following three research questions guided the study:

1. What is the level of perception of academic performance of students (Mathematics, English Language and Exam Anxiety) in public secondary schools in Lagos State, Nigeria?
2. To what extent are information resources accessible to public secondary school students in Lagos State, Nigeria?
3. What are the barriers to perceived academic performance of public secondary school students in Lagos State, Nigeria?

Hypotheses

The null hypothesis was tested and measured at 0.05 level significance:

1. There is no significant influence of information resources accessibility on perception of academic performance of students in public secondary schools in Lagos State, Niger

METHODOLOGY

A survey design was used to examine the influence of information resources' accessibility on perceived academic performance of public secondary school students in Lagos State, Nigeria. Population for the study include three hundred and seventy-three (373) secondary school students purposively selected from three (3) educational districts in Lagos State. A-structured questionnaire was used to collect data for the study. The questionnaire consists of A, B and C. This includes questions in demographic data. The participants indicated to the set of items in the questionnaire based on their chose of their agreement or disagreement on the 4 point Likert scale. A test-retest reliability of two weeks' interval was carried out and cronbach alpha revealed a reliability score of 87%.The data collected from the questionnaire were analyzed and processed using percentage to ascertain how much information resources accessible to students, while Pearson product moment correlation co-efficient and multiple regression were used to assess the relationship between the independent variable (information resources' accessibility) and dependent variable (perceived academic performance).

Data Analysis, Results and Discussion of Findings

Research Question 1: What is the level of perception of academic performance of students (Mathematics, English Language and Exam Anxiety) in public secondary schools in Lagos State, Nigeria?

Table 1. *Level of Perception of Academic Performance of Students in Public Secondary Schools*

Level of perception on academic performance The level to which I perceive my academic performance …	To a Very High Level	To a High Level	To a Low Level	To a Very Low Level	M	SD
English Language					**3.56**	**0.49**
I often pass English Language exams	287(78.0)	69(18.8)	12(3.3)		3.71	.63
My teacher teaches English language well	213(57.9)	133(36.1)	17(4.6)	5(1.4)	3.51	.65
I understand English language well	214(58.2)	127(34.5)	6(1.6)	21(5.7)	3.45	.79
Exam Anxiety					**3.48**	**0.42**
Examination stress does not affect my performance	314(85.3)	38(10.3)	16(4.3)		3.77	.66
I am not afraid of passing my tests	198(53.8)	154(41.8)	16(4.3)		3.49	.58
When I hear of WAEC examination, I am not afraid	197(53.5)	144(39.1)	22(6.0)	5(1.4)	3.45	.67
I am always confidence of passing my mock exams	173(47.0)	104(28.3)	86(23.4)	5(1.4)	3.21	.85
Mathematics					**3.36**	**0.46**
I like mathematics	215(58.4)	92(25.0)	55(14.9)	6(1.6)	3.40	.80
My teacher teaches mathematics well	181(49.2)	142(38.6)	40(10.9)	5(1.4)	3.36	.73
Mathematic is easy for me to understand	159(43.2)	176(47.8)	23(6.3)	10(2.7)	3.32	.71
Perception on academic performance (Weighted Mean = 3.46)						

Source: Authors computation (2023)

The findings revealed that average score for English Language sub-scale ($\bar{x}$ = 3.50) is very high, indicating that the students have a high level of positive perception towards their performance in English Language. The English Language sub-scale had all its item scores above the weighted mean. For instance, items on 'I often pass English Language exams($\bar{x}$ = 3.71)' and 'my teacher teaches English language well ($\bar{x}$ = 3.51)' had very high mean scores while the one on 'I understand English language well'$\bar{x}$ = 3.45' attracted high mean.

For exam anxiety sub-scale, with a weighted mean of $\bar{x}$ = 3.48, most of the items responded to attracted high mean scores. For example, item bordering on 'Examination stress does not affect my performance ($\bar{x}$ = 3.77)' attracted the highest mean while the items on 'I am not afraid of passing my tests ($\bar{x}$ = 3.49)', 'When I hear of WAEC examination, I am not afraid ($\bar{x}$ = 3.45)', 'I am always confident of passing my mock exams ($\bar{x}$ = 3.21)' attracted high mean scores. This shows that students in public senior secondary schools in Lagos State, Nigeria experienced low level of exam anxiety.

Research Question: 2

To what extent are information resources accessible to public secondary school students in Lagos State, Nigeria?

Table 2. *Extent of Information Resources Accessibility by Students*

Information Resources	HA	A	BA	NA	M	SD
Textbooks	161(43.8)	45(12.2)	38(10.3)	124(33.7)	2.66	1.33
Maps	92(25.0)	33(9.0)	76(20.7)	167(45.4)	2.14	1.23
Reports	93(25.3)	31(8.4)	59(16.0)	185(50.3)	2.09	1.26
Dictionary	91(24.7)	38(10.3)	48(13.0)	191(51.9)	2.08	1.26
Journals	70(19.0)	38(10.3)	69(18.8)	191(51.9)	1.96	1.17
Online databases	78(21.2)	27(7.3)	60(16.3)	203(55.2)	1.95	1.21
Newspapers	68(18.5)	32(8.7)	70(19.0)	198(53.8)	1.92	1.16
Magazines	68(18.5)	32(8.7)	43(11.7)	225(61.1)	1.85	1.19
E-books	64(17.4)	21(5.7)	42(11.4)	241(65.5)	1.75	1.16
Audio books	47(12.8)	28(7.6)	47(12.8)	246(66.8)	1.66	1.07
Bibliographies	45(12.2)	26(7.1)	56(15.2)	241(65.5)	1.66	1.05
Online catalogue (OPAC)	45(12.2)	16(4.3)	75(20.4)	232(63.0)	1.66	1.02
Encyclopedias	34(9.2)	26(7.1)	62(16.8)	246(66.8)	1.59	.97
Atlases	40(10.9)	27(7.3)	37(7.3)	264(71.7)	1.57	1.02
E-journal	28(7.6)	34(9.2)	55(14.9)	251(68.2)	1.56	.94
Information Resources Accessibility (Weighted Mean = 1.87)						

Source: Authors computation (2023)

The result of Table 2 shows that information resources are barely accessible among public secondary school students in Lagos State, Nigeria, based on the weighted mean score of 1.87. Most of the information resources were barely accessible, only (Textbooks) were accessible while none of the information resources were highly available. For example, the mean score for textbooks is $\bar{x}$=2.66, signifying that textbooks are accessible in public secondary schools in Lagos State, Nigeria. The finding also shows that maps ($\bar{x}$=2.14), reports ($\bar{x}$=2.09), dictionary ($\bar{x}$=2.08), journals ($\bar{x}$=1.96), online databases ($\bar{x}$=1.95), newspapers ($\bar{x}$=1.92), e-books ($\bar{x}$=1.75), audio books ($\bar{x}$=1.66), bibliographies ($\bar{x}$=1.66), online catalogue ($\bar{x}$=1.66), encyclopedia ($\bar{x}$=1.59), atlases ($\bar{x}$=1.57) and e-journal ($\bar{x}$=1.56) were barely accessible to students in public senior secondary schools in Lagos State, Nigeria. This could imply that the aforementioned information resources were not available in the public senior secondary schools, to avail the students the opportunity of their accessibility

Research Question: 3

What are the barriers to perceived academic performance of public secondary school students in Lagos State, Nigeria?

Table 3. *Barriers to Academic Performance*

Challenges to academic performance	SA	A	D	SD	M	SD
The distance to the library is far	259(70.4)	70(19.0)	22(6.0)	17(4.6)	3.55	.80
Power supply is not stable for electronic resources	261(70.9)	66(17.9)	20(5.4)	21(5.7)	3.54	.83
The librarians' attitude to the information resources users is poor	185(50.3)	135(36.7)	26(7.1)	22(6.0)	3.31	.84
I do not know what to share	196(53.3)	104(28.3)	41(11.1)	27(7.3)	3.27	.93
Lack of knowledge sharing culture in the school	219(59.5)	74(20.1)	32(8.7)	43(11.1)	3.27	1.03
I do not know when to share knowledge with my mates	206(56.0)	98(26.6)	15(4.1)	49(13.3)	3.25	1.03

Table 3. continuation

Information resources are not readily available	175(47.6)	85(23.1)	72(19.6)	36(9.8)	3.08	1.02
The cost of accessing information resources is high	192(52.2)	49(13.3)	51(13.9)	76(20.7)	2.97	1.22
I lack the initiative to voluntarily share information	143(38.9)	115(31.3)	44(12.0)	66(17.9)	2.91	1.10
Lack of relationship with my class mates, prevent me from sharing my knowledge with them	135(36.7)	105(28.5)	54(14.7)	74(20.1)	2.82	1.13
There is a restricted library hours so I do not go to the library often	135(36.7)	60(16.3)	66(17.9)	107(29.1)	2.61	1.24
Challenges (Weighted Mean = 3.02)						

Source: Authors computation (2023)

The result revealed that there are several barriers to academic performance of students in public senior secondary schools in Lagos State, Nigeria (Weighted mean = 3.02 on a scale of 4). Notably, 89.4% indicated the distance to the library is far as a barrier and 88.8% indicated unstable power supply as barriers to academic performance of students. This shows that the major barriers to academic performance of students in public senior secondary schools are proximity and power issues. Other challenges militating against academic performance of students were librarians' attitude (87.0%), not knowing what to share (81.6%), lack of knowledge sharing culture (79.6%), lack of inappropriate time in sharing knowledge (82.6%), unavailability of information resources (70.7%), cost of accessing information resources (65.5%), lack of initiative to share information (70.2%), lack of relationship with class mates (65.2%) and restricted library hours (53.0%). By implication, these challenges to academic performance of students deserve urgent attention.

Hypothesis, simple linear regression method was adopted. The results and conclusions are explained.

Table 4. *Information Resources Accessibility and Perception of Academic Performance*

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	3.355	.046		73.207	.000
Accessibility	.059	.022	.136	2.634	.009

Dependent Variable: Perception of academic performance. $F(1, 366) = 6.936$, $p < 0.05$. $R^2 = .019$, *Adj.* $R^2 = .016$

According to the result, information resources accessibility (*Beta* = .136, $t(364) = 3.881$, $p < 0.05$) had a positive significant influence on perception of academic performance. Thus, the higher the information resources accessibility, the higher the perception on academic performance

The model's coefficient of determination value, R^2 was found to be 0.019 indicating that 1.9% of perception on academic performance was explained by information resources accessibility in public secondary schools in Lagos State, Nigeria. However, the model did not explain 98.1% of the variation in perception of academic performance, implying that there are other factors associated with perception of academic performance which were not captured in the model. Furthermore, the $F(1, 366) = 6.936$, $p < 0.05$ revealed that overall, information resources accessibility was considered statistically significant in predicting perception of academic performance in public secondary schools in Lagos State, Nigeria.

Discussion and findings

The finding in Table 1 revealed that students in public senior secondary schools in Lagos State, Nigeria experienced low level of exam anxiety.

The finding in Table 2 shows that information resources are barely accessible among public secondary school students in Lagos State, Nigeria, based on the weighted mean score of 1.87. Most of the information resources were barely accessible, one (Textbooks) was accessible while none of the information resources were highly available. For example, the mean score for textbooks is $\bar{x} = 2.66$, signifying that textbooks are accessible in public secondary schools in Lagos State, Nigeria

The finding in Table 3 revealed that there are several barriers to perceived academic performance of students in public senior secondary schools in Lagos State, Nigeria (Weighted mean = 3.02 on a scale of 4). Notably, 89.4% indicated the distance to the library is far as a barrier and 88.8% indicated unstable power supply as barriers to academic performance of students.

According to the result of the hypothesis information resources accessibility (*Beta* = .136, *t* (364) = 3.881, *p* < 0.05) had a positive significant influence on perception of academic performance. Thus, the higher the information resources accessibility, the higher the perception on academic performance.

CONCLUSION

This study demonstrates that information resources' accessibility critical factor for enhancing perceived academic performance of students in public secondary schools in Lagos State, Nigeria. From the present study, it has been discovered that information resources' accessibility influenced perceived academic performance of the students. However, information resources' accessibility faced challenges which must be resolved to ensure effective usage of the resources by the students in public secondary schools in Lagos State Nigeria. The results revealed that information resources' accessibility is vital for students' perceived academic performance in public secondary schools in Lagos State, Nigeria.

RECOMMENDATIONS

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

1.   Lagos State Ministry of Education should pay attention to magazines, dictionaries, reports, maps, journals, bibliographies, newspapers, online databases, e-journals, audio-books, atlases and encyclopedias which were least accessible and utilized by students to the ways to improve students' perceived academic performance.
2.   Most of the information resources were barely accessible, only (Textbooks) were accessible while none of the information resources were highly available.
3.   Lastly, the major challenges militating against Perceived academic performance such as far distance to the library, unstable power supply for accessing electronic resources, lack of knowledge sharing culture, poor attitude of librarians to library users and not knowing what to share should be addressed by the public secondary schools' principals.

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Full Length Research

Over- Schooling Consequences among Academic Staff in Higher Institutions: The Way Forward

Lorine Ogochukwu Abere[1] and Lucky Oghenetega Urhiewhu[2]

[1&2]University Library, Dennis Osadebay University, Asaba. Corresponding author's E-mail: tega4real06@gmail.com

Abstract

This paper was inspired to the researchers as a result of round table discussion with staff about achieving higher degrees for better life and career progression. Over-schooling is a phenomenon of Schooling more than usual; spending time and resources to acquire knowledge. Over-schooling among academic staff can be likened as excess qualification without proper job placement or being overqualified that is necessary for their job responsibilities. In this paper, the researchers examined consequences of over-schooling in the tertiary institutions that cause power struggling, Stress and psychology effect to both young researchers and old ones in the academic community. The situation of over-schooling is a societal phenomenon schools and especially at the tertiary level of education. Through the literature review, the researchers identified concept of over-schooling, tertiary over-schoolers, consequences, reasons and solution over-schooling. This is a pointer that this practice should be carefully examined before anyone (staff) indulges in the process of over-schooling in higher education environment.

Keywords: Consequences, Over- Schooling, Academic Staff, and Higher Institutions

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INTRODUCTION

This paper was inspired to the researchers as a result of round table discussion with staff about achieving higher degrees for better life and career progression. Over-schooling is a phenomenon of Schooling more than usual; spending time and resources to acquire knowledge. When the schools most often overburden the pupils and students with excessive homework. Note copying and extra-mural classes, it could be referred to as over-schooling. Over-schooling can also be referred to as the act of over engaging and over drilling of children through academic process more than they could bear. In other words, it could be seen as over-stressing the child in a bid to impart knowledge on him or her. In fact it is schooling beyond the schooling the school margin. This phenomenon of over-schooling is captured by various researchers for a variety of reasons. Several authors have given various interpretations and meaning to over-schooling in primary and secondary schools, but there is gap between the tertiary and pre-tertiary institutions, therefore, this topic want to address the issues. The researchers view over-schooling as way of reading more than the requirement of employability in the society.

Over-schooling among academic staff can be likened as excess qualification without proper job placement or being overqualified that is necessary for their job responsibilities. This mainly happens when an academic staff has an advanced degree, but is employed in a position that does not require such high levels of education. Over-schooling has become an issue of concern to many Nigerians. It is viewed as a concept of concern to so many scholars, authors, writers and educationists. Unfortunately, over the years, it has made Nigerians to suffer from the tarnishing influence of over-schooling without realizing how terrible the impact of over-schooling is quietly destroying the good intentions of the Nigerian government and the Nigerian people, with emphasis on certificate/credentials acquisition (Renner, Anashie & Mezieobi, 2022).

Having highly educated Academic staff can be of great benefit to the university because over-schooling has advantages and disadvantages for both the individual and the institution. One of the advantages is that it rates a university very high when its staff strength is highly qualified, especially when it comes to NUC accreditation. A

disadvantage of over-schooling is that over-schooled academics become dissatisfied with their job description, especially when they feel that their qualification is not measured with their job description. This alone can result in a lack of zeal to work and unproductive services.

Additionally, over-schooled academia's may be more expensive to hire and retain, as they often expect higher salaries and may be more likely to pursue opportunities elsewhere. This can strain the resources of the institution and limit the number of faculty positions that can be filled. Institutions may also face challenges in recruiting and retaining faculty members who are appropriately qualified for their positions. Over-schooled academics may be less likely to take jobs at institutions where they feel their skills and education are not being fully utilized (Abreu, 2014).

According to Marginson, S. (2016) acquiring a higher education in a university can become a great instrument to both the individuals and the university. He further explained that higher education is an instrument for achieving economic purpose, moral formation and social enrichment to the world at large.

Concept of Over-schooling

The concept of Over-schooling describes the "over-education" problem? What have been the effects of extent to which an individual possesses a level of ineffective curriculum plans on over-schooling syndrome. Education in excess of that which is required for their particular job. Specifically, do we have a situation of excess supply for a particular job. The phenomenon was first brought to graduates, caused in part by subsidising higher education the attention of researchers by Richard Freeman in his to the extent that we do? 1976 study of the US graduate labour market. (Ekechukwu & Etal, 2018).

However, the need for an optimized schooling system as well interest has mushroomed since the late 1980s as an effective and comprehensive curriculum planning economists attempt to assess the implications of the and development in Nigeria created the need for more continued rapid expansion in educational participation research to be carried out on the subject matter. It is from rates that has become a key feature of labour market this projection that this study takes its bearing. This policy in most developed and developing economies study, therefore, seeks to address this disparity by having When the demand for less educated workforce especially a holistic study of the relationship between over-schooling the demand for worker with vocational skills rises above and curriculum in Nigeria. That of graduate level workforce then workers may be (Ekechukwu, & Etal, 2018).

According to Okonkwo (2014) Over-schooling is the act of undergoing and undertaking the process of being trained, being drilled, instructed, taught or educated far above or in excess of what is provided in the curriculum. The concept of

Over-schooling is viewed as over education which is explained as the process in which individuals feel that they are being burdened or oppressed by the weight of their education. Udoh, Joseph & Amajuoyi (2014) issue their opinion about over-schooling, researchers revealed that it is controversial to some extent. This is simply for the fact that the average person believes that no one could possibly over-school, based on the notion that no knowledge acquired is a waste, more so considering the fact that learning is a continuum.

However, over-schooling is a reality that is rapidly engulfing the teaching profession. Over Schooling is a term used to describe the situation where individuals possess more education credentials than required for their current employment position(Manga, 2018). This phenomenon is becoming increasingly common in many sectors, including academia, where an increasing number of academic staff hold doctoral or postdoctoral qualifications. According to Abreu (2014), over schooling among academic staff can lead to a range of negative consequences, including reduced job satisfaction, limited career mobility, and a lack of recognition for their qualifications. Some researchers argued that over-schooling is connected to the rise of the new managerialism in higher education, which focuses on the importance of quantifiable outputs and productivity over more qualitative measures of academic performance.

Marginson (2016) further notes that the focus on credentialism and over-schooling can undermine the public good of higher education, as it can lead to a devaluation of education credentials and a shift away from the pursuit of knowledge for its own sake. Therefore, over-schooling among academic staff is a growing phenomenon that has implications for job satisfaction, career mobility, and the value of higher education credentials. It is important for higher education institutions to recognize and address this issue to ensure that academic staff are appropriately valued and recognized for their qualifications and expertise.

Tertiary Over-Schoolers

Tertiary education comprises all formal post-secondary education, including public and private universities, colleges, technical training institutes, and vocational schools. Tertiary education is an instrumental tool for fostering growth, reducing poverty, and boosting shared prosperity. When a workforce is highly skilled and has lifelong access to a solid post-secondary education, it's a prerequisite for innovation, growth and well-educated people are more employable and productive, earn higher wages, and cope with economic shocks better (World Bank Group, 2021).

The World Bank Group (2021) further explained the economic returns for tertiary education. Graduates are the highest in the entire educational system – an estimated 17% increase in earnings as compared with 10 % for primary and 7% for secondary education. These high returns are even greater in Sub-Saharan Africa, at an estimated 21% increase in earning for tertiary education graduates. Tertiary overschoolers are those who are determined to stay focused on their pursuit of advanced degrees in other to achieve great academic excellence. They are in six categories as can be gathered from the three case studies which formed the introduction to this paper, tertiary over-schoolers are in various categories.

These six categories were identified and discussed by Etuk, Akpan & Etuke (2012) in their paper they submitted "Tertiary Over-schooling in Nigeria: Theoretical Perspectives and Cases". Those in the first category are university degree-holders and graduates from other tertiary institutions with equivalent qualifications. People in this category respond to and are selected to fill job openings, which by the civil service regulations of Nigeria are lower than their ranksKhan,2021).. For instance, the starting salary for university graduates and people with comparable qualifications is expected to be Level 8, step whatever the employer's assessment sees fit for the prospective employee. Some graduates, out of their eagerness to get a job, may respond to a level 6 job. The person does not declare his/her higher qualification just to get that job. After a year or two, the person would file his/her higher qualifications and expect to get a raise or promotion. Management of the organisation is likely to ignore such requests, because the job the person is assigned to be meant for the rank of employees which was mentioned in the advertisement for the job. The first case in the introduction belongs in this category.

The second category of tertiary over-schoolers which is identified in this paper are employees in tertiary educational institutions, who seize the opportunity of being employed in tertiary educational organizations to work and study at the same time. Management regards them as cheats if they study full time. Some tertiary educational institutions, like the University of Uyo, actually encourage their staff to study and improve their academic standings by mounting evening study programmes, sandwich programmes and continuing education programmes for the benefit of their workers (Etuk, Akpan & Etuke, 2012).

The problem arises when these people complete their educational programmes. They expect to be upgraded and assigned to higher positions. Whether the study was done surreptitiously or done with official permission from management, the people so involved must wait until an opportunity avails itself. When the opportunity comes, it will not come in a platter of gold. There may be many people vying for the same position. Therefore, people involved compete in examinations. Those who succeed are selected to fill the vacant positions and those who are not successful return to their former ranks. The over-schoolers in this category are often in a dilemma. They feel over-qualified for their jobs, but they cannot leave without an outside job offer.

The third category of tertiary over-schoolers are people who genuinely obtained study-leave in their places of employment. When they return to their jobs on completion of their studies, they are nominally recognized. Although they are recognized as being graduates and what have you, they still receive their former salaries. Their salaries are not upgraded to match their new statuses. This problem is peculiar to school teachers in Nigeria (Etuk, Akpan & Etuke, 2012).

The fourth category of tertiary overschoolers are people who are employed in organizations that have very low compensation plans for their employees. They thrive because the liberalisation of education in Nigeria has generated a lot of unemployed youths. There are little or no industries to employ them. The few industries that existed had either been shut down or privatized since by former President Olusegun Obasanjo (OBJ). That was done through the advice of the World Bank/International Monetary Fund in the name of globalisation, a situation whereby public policies of world nations are bound by international regulations. Globalisation brings increased privatization, diminishing entrepreneurial roles of the state, smaller state budgets, deregulation and liberalization of state systems from former rules and controls. This is what is termed "New Public Management (NPM)" (International Labour Organisation, 1998, p.6)

Globalisation supports measures aimed at cutting costs in public administration and for strengthening the civil society. The state is expected to play new roles which consist of establishing favourable conditions for the private and non-governmental players in the society, with a high degree of self-regulation. This has resulted in a high rate of youth unemployment. Some private organisations which are not well established often underpay their workers. Graduate youths who are anxious to get paid-employment form the bulk of private-sector employees, who are underpaid. They fit into our fourth category of tertiary over-schoolers. Most private schools in this part of Nigeria do not pay their staff well (Etuk, Akpan & Etuke, 2012).

The fifth category of over-schoolers are people who, for some reasons, remain in colleges and universities pursuing one degree programme after another. Such people may end up being overqualified for employment. Many years ago, a Nigerian who studied in the United States of America (U.S.A) came back with three doctorate degrees in three different disciplines Khan, 2021). He found it so difficult to get a job that he went to the pages of a newspaper to lament his plight. The employers of labour might have thought him to be a "Jack-of-all-Trades". It is not certain whether people who are so over schooled do it out of the desire to excel or the fear of coming out into the world of work!

The sixth categories of tertiary over-schoolers are prevalent in university campuses among lecturers from senior lecturers upwards. The practice of sending out publications of lecturers for peer review is often times frustrating when the results of the reviews are delayed for several years. The lecturers so affected may become very disgruntled and their morales may be very low (Etuk, Akpan & Etuke, 2012). Tertiary over-schooling can be beneficial to individuals who maintain the price of being more productive. Higher productivity can be attributed to higher brain functioning and maturity level. For instance, if a university graduate is employed to fill the vacancy of a clerical staff, the graduate would have a better understanding of the issues involved; he/she is likely to command better grammar, communicate more effectively, work with a longer life experience and work without supervision (Etuk, Akpan & Etuke, 2012)..

These are the considerations that make salary levels to rise higher and higher as one climbs the educational ladder. Other considerations for fixing salaries higher and higher up the educational ladder are the investments put into acquiring higher qualifications (Khan, 2021). These are time costs, financial costs and opportunity costs (lost opportunities which are spent in pursuing education instead of pursuing other investments). When all these considerations are put together, over-schoolers cannot possibly be happy and contented workers. Their skills add to the level of human resource wealth and economic productivity of the state and they should equitably be rewarded. Moreover, from the point of view of the organization, over schooling is a money saver, it saves up finance which would have been used for training new staff.

Reasons for over-Schooling among Academic Staff in Tertiary Institutions

a. To secure a higher position in the person queue therefore, individuals continue to invest in education hoping that the additional amount of education will enhance their employability,
b. High production may be attributed to high brain functioning and maturity level (Khan, 2021).
c. Individuals go in for over-schooling with the view of experiencing an increase in their income. That is upgrading of self for more degrees attract more payment.

Consequences of Over-Schooling

From different school of thoughts the following and among other things are considered as the consequences of over-schooling in academic environment of workers:

1. This affect children and adults in areas of stress, fatigue, boredom, less time for play and constant head ache, having less time for exploring his environment, it will leads to the cognitive and psycho-social consequences of the individuals;
2. Over- scholars/academic staffs are some times in a dilemma. Academic staff feel overqualified for their jobs but cannot leave without an outside job offer;
3. Most of the times salaries are not upgraded to match their new position
4. Some over academics because they remain in universities pursuing our degree programme after another, end up being overqualified for employment and are as 'Jack of all Trade'. These leads to lack of focus in their professional calling;
5. The academic staff termed us as over scholars have the practice of sending out publications, when the result of their reviewers are delayed by peer review, it is sometimes frustrating and the academic staff so affected may become very disgruntled and their morales may be very low, in some cases this might lead to stress;
6. The skills acquired by over schooled academic staff in the area of research, supervision, and other complex teaching skills are wasted as they cannot be applied at lower levels of teaching like primary or secondary schools (Akpan, Usoro & Udofia, 2013).
7. Over-schooling lowers productivity due to low morale and high job dissatisfaction by the academic staff.
8. The number of years spent on over-schooling is economically wasted as they could have been used to establish solid and profitable business for wealth.
9. The financial resources spent on over-schooling are wasted due to lower returns of investment based on poor remuneration at the lower levels of teaching in primary and secondary. Despite this process of over-schooling, their reminations do not have been promoted to the corresponding over-schooling process; and
10. Over -schooling results in high job mortality as over-schooled academic staff are constantly looking for greener pastures and are eager to dump the work at the slightest opportunity (Omede & Jimba, 2019, Gaille, 2017)

Way Forward

1. Acquisition of educational certificates should be deemphasized and should be placed on vocational entrepreneurial

education as the incidence of over-schooling will be curtailed in the short run as persons seeking education will also seek to acquire only the "kind and amount of schooling" required for the kind of job they desire to create.

2. Freeing the economy for investments and national development by putting a stop to over-schooling so that graduates should be focused and gainfully employed with over skilled graduates not over-schooled graduates, this means that higher institutions should incorporate skills acquisition into the curriculum to prevent over-schooling.

3. Our federal and state government as well as wealthy citizens to invest in setting up industries instead of building more private universities, polytechnics and colleges of education because there is no point graduating more youths into the streets of Nigeria or generally African.

4. Government at all levels should put in place appropriate machineries as a way of economic grants loans facilities, incentives and vocational subsidies to encourage entrepreneurship and not just to continue to subsidize education

5. Over-schooling should be done with a focused purpose which should be beneficial to the individual concerned and his or her organisation and the society at large

6. There should be a design and implementation of psycho- academic programmes with emphasis on career education and career counseling in academic institutions this implies that schools should employed psychologists and counseling in academic psychologists to help learners to be well orientated academically and focused; and

7. Over- schooling should be moderated such that those termed over-schooled should possess adequate oriented and focused skills for their organization of origin(Khan, 2021)

CONCLUSION

In this paper, the researchers examined consequences of over-schooling in the tertiary institutions that cause power struggling among academic staff. The situation of over-schooling is a societal phenomenon schools and especially at the tertiary level of education. Some of the over-scholars have the desire to satisfy their high demands and needs in the society; that is why this been captured without some economic considerations which have been captured in the paper. Through the literature
review, the researchers identified concept of over-schooling, consequences, reasons and solution over-schooling. This is a pointer that this practice should be carefully examined before anyone (staff) indulges in the process of over-schooling in academic environment like universities, colleges of education and polytechnics

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Full Length Research

Relationship between Teacher Characteristics and Students' Academic Achievement in Agricultural Entrepreneurial Subjects in Senior Secondary Certificate Examination in Niger State

[1]Daniel, Hassana Kefas, [2]Gamaraja, Japari Dominic and [3]Ijantiku, Charles Moses

[1]Department of Vocational education, ModibboAdama University, Yola.
Email: hassanadaniel52@gmail.com, Phone: +234 8065560275
[2]National Examination Council, Minna, Niger State. Phone: +234 8061517056
[3]Ibrahim Babangida Library, ModibboAdama University, Yola. Corresponding author's Email: ijantiku@mau.edu.ng
Phone: +234 8032902318

Abstract

The study investigated the relationship between teacher characteristics and students' academic achievement in agricultural Entrepreneurial Subjects in the Senior Secondary School Certificate Examination in Minna, Niger State. The study adopted a correlational research design. The target population of the study was all the 151 agricultural entrepreneurial subjects' teachers and the results of 44,182 students. The sample of the study was 532. There was no sampling for the agricultural entrepreneurial teachers because the population was manageable. Proportionate Sampling Technique was used in the selection of 381 results of students. A questionnaire titled "Agricultural Entrepreneurial Subjects Teachers' Characteristics Questionnaire (AESTCQ)" was used for data collection. Data was collected with the help of five trained research assistants. The data was analyzed using PPMC to answer all the research questions, while Regression analysis was used to test the null hypotheses at a 0.05 level of significance. Findings revealed, among which are: (1) the relationship between teachers' qualification and the academic achievement of students of agricultural entrepreneurial subjects in SSCE in Niger State is positive and high. (2) There is a high positive relationship between teaching experience and the academic achievement of students of agricultural entrepreneurial subjects in SSCE in Niger State. (3) Teacher's gender has a low positive relationship on the academic achievement of students of agricultural entrepreneurial subjects in SSCE in Niger State. Based on the findings, it was recommended that (1) the federal and state ministries of education should, as much as possible, insist on recruiting only people who hold a higher qualification to teach agricultural entrepreneurial subjects in senior secondary schools. (2) The Federal and State ministries of education should introduce a teacher exchange program in secondary schools across the country to broaden the experiential horizon of secondary school teachers. (3) The Federal and State ministries of education should not place any preference on teachers' gender in an attempt to enhance the academic achievement of students in agricultural entrepreneurial subjects in schools.

Keywords: Relationship, Teachers Characteristics, Students' Academic Achievement, Agricultural Entrepreneurial Subjects, Senior Secondary Certificate Examination.

INTRODUCTION

Education is an important ingredient for the industrial and technological development of any nation": This statement emphasizes the crucial role of education in the progress of a country. According to the Harvard Business Review (2016), education plays a fundamental role in developing a skilled and knowledgeable workforce, fostering innovation and creativity, and promoting economic growth. The article highlights the importance of education in the progress of a country.

Nigeria, being a developing nation, in order not to be left behind among the comity of nations, has over the years come up with policies that are capable of moving her to the next level with respect to economic, industrial, and technological advancement. Based on the relevance of entrepreneurial education, the government of Nigeria took a major step by the introduction of entrepreneurial subjects into the senior school curriculum in 2011 (Ementa, 2013). Animal Husbandry and Fishery are the two agricultural entrepreneurial subjects introduced alongside 32 other entrepreneurial subjects in 2011.

The objective of entrepreneurial subjects, according to the Nigeria Education Research and Development Council (NERDC) (2009), is to stimulate and sustain students' interest and enable them to acquire basic knowledge and practical skills, thus preparing them for further studies and occupation in various entrepreneurial subjects such as Animal husbandry and Fishery. Alabi (2014) reported that the youthful stage has been noted as the best possible time for training in entrepreneurship for self-reliance. Alabi (2014) further stressed that entrepreneurship subjects are designed for the students to be equipped to break the facade of unemployment through the development of self as a precursor to a meaningful contribution to the development of society. As much as entrepreneurial skills are important to youths for the economic development of the nation, the role of the teacher who imparts the skills cannot be overemphasized. This is because a teacher is a person who helps students acquire knowledge, skills, attitudes, and ideas in any field of study. A teacher is someone who has undergone the necessary and recommended training in teaching and is charged with the full responsibility of managing the classroom in such a way that it enhances the learning behavior of the student. Schön (2017) stated that a teacher is ultimately responsible for translating policy on education into action in the classroom. One of the key factors that could influence a teacher's success in his job is his qualities, known in academic circles as teacher characteristics.

Teacher characteristics can be referred to as qualities that can be measured or derived from their academic or professional records. Priestley, Biesta, and Robinson (2015) defined teacher characteristics as instructional behavior exhibited by the teacher towards goal attainment. The teacher characteristic that was considered in this study includes teaching experience, gender, and teacher's qualification. Teacher qualification is a particular skill or type of experience or knowledge someone possesses to make him/her suitable to deliver instruction to students. Shea and Bidjerano (2018) reported that teacher qualification is the academic training received as a result of enrollment into an educational institution. Such skills include formal education, experience, knowledge of subject matter, pedagogy studies, duration of training, certificate, and professional development. Nevertheless, teachers' qualification is directly related to teachers' teaching experience.

Teaching experience is the knowledge and skills a teacher gets as a result of teaching a particular subject for a period of time. Clark (2017) affirmed that teachers with years of experience in the profession turned out students with high academic achievement. Teachers' teaching experience plays a vital role in the academic performance of students regardless of teachers' gender.

Teachers' gender refers to all the characteristics of male and female teachers which any particular society has determined and assigned to each sex. Gender is a specially constructed phenomenon that is brought about as society ascribes different roles, duties, behaviors, and mannerisms to the two sexes (Nixon, Campbell &Luft, 2016). Teacher gender has been noted to play a role in students' achievement.

Academic achievement is a measure of what a student has learned over a predetermined period of time. Sekaran and Bougie (2016) noted that students' academic achievement is dependent on several factors, namely teaching method, guidance, availability of facilities, methods of testing, background, organization, motivation, and opportunity. These factors, when properly attended to by the stakeholders involved, are capable of enhancing students' academic achievement, especially at the secondary school level.

A senior secondary school student is a learner who is enrolled in the upper part of the secondary school level of the Nigerian educational system. In order to graduate, a senior secondary school student is expected to spend three years after which he sits for an exit examination known as the Senior Secondary Certificate Examination (SSCE). In Nigeria, the SSCE is conducted by two main examination bodies: the National Examinations Council (NECO) and the West African Examination Council (WAEC). Most secondary schools in Niger state offer animal husbandry or fishery as an entrepreneurial subject. It is also one of the agrarian states with 85% arable land. Therefore, it is important to investigate the relationship between teacher characteristics and students' academic achievement in fishery and animal husbandry subjects.

Relationship between teacher characteristics and students' academic achievement is a topic of great importance in educational research. Several studies have been conducted to examine the impact of various teacher characteristics on students' academic performance. In the context of agricultural entrepreneurial subjects in the Senior Secondary Certificate Examination in Niger State, the relationship between teacher characteristics and students' academic achievement is worth exploring. One study that sheds light on this relationship is a research article titled "The Effect of Teacher Characteristics on Student Achievement: Evidence from Panel Data" by Hanushek, E. A. (1992). The author analyzed panel data from the High School and beyond survey conducted in the United States to examine the impact of teacher characteristics on student achievement. The study found that teachers' education and experience were important factors in determining students' academic outcomes. Teachers with higher levels of education and more experience were more effective in promoting student learning and achievement.

Statement of the Problem

In a bid to bring about educational development capable of fostering national development, huge resources have been spent on education, agricultural entrepreneurship subjects inclusive. Unfortunately, these efforts are yet to yield the desired outcome.

Since a teacher is the key implementer of the curriculum and controls what goes on in the classroom, it is of concern because good results are expected from students after investing heavily in secondary school education. According to Borgen and Hjardemaal (2017), students' academic achievement in agricultural entrepreneurial subjects is a function of the productivity of the teachers handling the subjects. Teacher characteristics such as qualification, teaching experience, and gender, among other things, determine their productivity. Therefore, the inconsistency in the academic achievement of students of agricultural entrepreneurial subjects in Niger state could be linked to teacher characteristics and is worth investigating. Hence, the problem of this study is to determine if there is a relationship between teacher characteristics and the students' academic achievement in agricultural entrepreneurial subjects in the senior secondary school certificate examination in Niger state.

Purpose of the Study

The study aimed to determine the relationship between teacher characteristics and students' academic achievement in agricultural entrepreneurial subjects in the Senior Secondary Certificate Examination in Niger State. Specifically, the study aimed to determine the relationship between:

1. Teacher's qualification and the academic achievement of students in agricultural entrepreneurial subjects in the SSCE.
2. Teaching experience of teachers and the academic achievement of students in agricultural entrepreneurial subjects in the SSCE.
3. Gender of teachers and the academic achievement of students in agricultural entrepreneurial subjects in the SSCE.

Research Questions

The study provided answers to the following research questions:

1. What is the relationship between teacher's qualification and the academic achievement of students in agricultural entrepreneurial subjects in the SSCE in Niger State?
2. What is the relationship between teaching experience of teachers and the academic achievement of students in agricultural entrepreneurial subjects in the SSCE in Niger State?
3. What is the relationship between the gender of teachers and the academic achievement of students in agricultural entrepreneurial subjects in the SSCE in Niger State?

Hypotheses

The study tested the following hypotheses at a 0.05 level of significance:
HO1: There is no significant relationship between teacher's qualifications and the academic achievement of students in agricultural entrepreneurial subjects in the SSCE in Niger State.
HO2: There is no significant relationship between teaching experience of teachers and the academic achievement of students in agricultural entrepreneurial subjects in the SSCE in Niger State.

HO3: There is no significant relationship between the gender of teachers and the academic achievement of students in agricultural entrepreneurial subjects in the SSCE in Niger State.

The theoretical framework found relevant to this study is the classroom teaching and learning theory by Mitzel (1969). The Mitzel's theory of teaching and learning was propounded in 1960. The theory postulated that the teaching and learning process focuses on four variables: presage, context, process, and product variables. Presage variables are attributed to the teacher and teacher characteristics. Mitzel revealed that the presage variable explains those factors and characteristics associated with a teacher, which may include personality, preparation, general characteristics, background, competencies and inadequacies, teacher education, experiences, and teacher properties. These characteristics define what a teacher is and their capabilities to teach a particular subject matter. The context variable describes the students and where the teaching and learning take place. This may include the classroom, school environments, and other facilities that facilitate learning processes such as workshops, libraries, laboratories, and school farms for agricultural students, among others. A friendly context positively impacts teaching and learning processes and results in positive outcomes, while an unfriendly context negatively impacts learning outcomes. The process variable describes the relationship between presage and context variables, indicating the interaction between teachers, students, and learning facilities within the learning environment. The product variable is the final category of variables in the theory, which is the outcome of the educational exchange in the process variables manifested in the Senior School Certificate Examination.

Mitzel revealed that the interaction between presage variables, which include a teacher's personality, preparation, general characteristics, background, competencies and inadequacies, teacher education, experiences, and teacher properties, the context variables, which include the classroom, school community, and other school facilities, and the process variables, which reflect what happens between the presage and context, largely affect the product variables, which is the student's academic achievement as reflected in their scores in SSCE agricultural entrepreneurial subjects. The contribution of this theory to this study is that the theory clearly points out, in a broader perspective, the characteristics of teachers that are believed to have a direct relationship with the outcome of learning processes, which is translated into students' performance. This guided the researcher in developing a research instrument that reflects specifically on teachers' academic qualification, teaching experience, and gender as sub-components of the presage variables of the theory. The relationship between teacher characteristics and the academic achievement of students of agricultural entrepreneurial subjects in the SSCE examination in Niger State is best explained by the theory as illustrated in the diagram below.
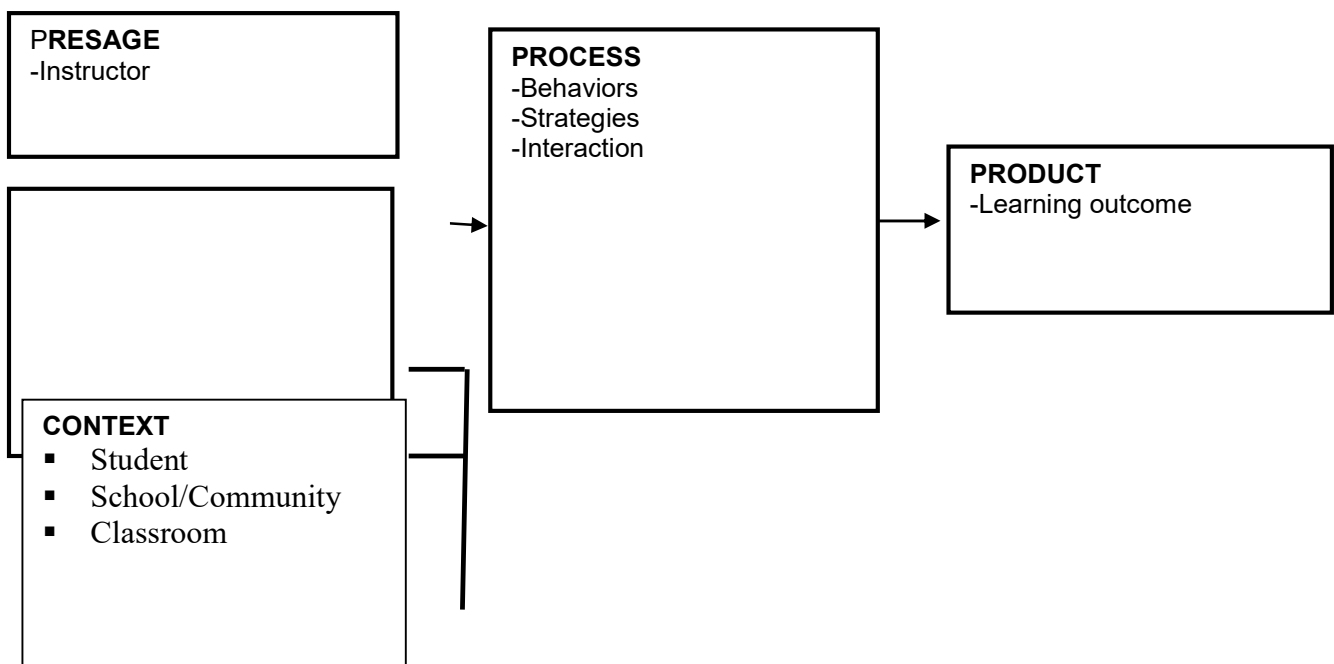

Figure 1: An Illustration of the Mitzel'sTheory for Classroom Teaching and Learning.
Source: Miller (2016).

Teacher's Qualification and Students' Academic Achievement

Teacher's qualification is a particular skill or type of experience or knowledge that someone possesses to make him or her suitable to teach. Teacher's qualification can encompass all the skills a teacher requires to teach effectively. Such skills include formal education, experience, subject matter knowledge, pedagogy studies, duration of training, certification/licensing, and professional development (Onebunne & Ikwuagwu, 2017). Usman (2012) reported that a qualified teacher can be defined as one who holds a teaching certificate and/or is licensed by the state, possesses at least a bachelor's degree, and is well qualified in his/her area of specialization. Onebunne and Ikwuagwu (2017) associated teacher's qualification with seven indicators which are: teacher's formal education, teacher's education in the subject matter of teaching (in-field preparation), teacher education in pedagogical studies, duration of the preparation period, certification and licensing status, years of experience, and preparation in professional development activities. Ball (2017) observed that an increased level of teacher education has a significant effect on student outcomes. This study will investigate how teacher's qualification relates to students' academic achievement.

Teaching Experience and Students' Academic Achievement

Teaching experience refers to the number of years a teacher has taught. It can be perceived as a reliable predictor of a person's ability to handle a certain task. Many occupations recognize employees' years of experience as a relevant factor in human resource policies, including compensation systems, benefits packages, and promotion decisions. The idea is that experience gained over time enhances the knowledge, skills, and productivity of workers. Schleicher (2016) noted that novice teachers are a source of new energy and skills and therefore may contribute intangible benefits to student learning. Schleicher further stressed that new teachers are less effective than experienced teachers, but their performance improves rapidly during their first years of teaching. Clark (2017) affirmed that teachers with years of experience in the profession produce students with high academic achievement. Ary, Jacob, Irvine, and Walker (2018) conducted studies on the effect of teachers' experience and found that it has a significant positive effect on the scores of different standardized performance tests. The length of a teacher's experience has a significant effect on students' performance scores. Albert, Yungungu, and Osman (2015) reported that a teacher's experience has a significant effect on pupil performance in primary schools and at the upper secondary school level. They further stressed that experienced teachers have a richer background of experience to draw from and can contribute insight and ideas in the course of teaching and learning, and they are open to correction and are less dictatorial in the classroom.

Teacher's Gender and Students' Academic Achievement

Gender, according to Lahey (2003), is a psychological experience of being male or female. It has to do with personality and is a central component of self-concept. Neuendorf (2016) also defined gender as the sex of an individual, that is, male or female. In summary, gender can be defined as the stratification of human beings according to their capabilities as culture deems fit and with reference to their biological characteristics or sex, that is, male or female. Gender cultures are influenced by time, education, social activities, or needs arising from the group, which lead to changes in such cultures (Willis, 2017). Simmons (2017) reported that the gender of teachers has little apparent effect on the academic motivation and engagement of either boys or girls. He stressed that students value a teacher who is consistent and supportive regardless of their gender. Lim and Meer (2017) opined that matching the gender of teachers with students is associated with better student performance. Research on the effect of gender on the performance of students has been reported in different parts of the world and in various subjects over the years. Based on these reports, the current study aims to investigate the gender of the teacher as one variable of teacher characteristics in relation to students' academic achievement in agricultural entrepreneurial subjects.

Academic Achievement

The concept of academic achievement has been defined as the assessment outcome of formal instruction in a cognitive domain within a defined subject area that is explicitly taught and is often thought of as indications of students' knowledge taken at a particular point in time. Nilson (2016) outlined two common criteria used to determine academic achievement: academic grades and graduation or passing rates. Nilson further stressed that the use of course grades as a measure of academic adjustment and success is not surprising because typically successful students are considered to be those who perform well academically. Academic achievement is the degree of success attained at the

end of an academic exercise, which can be conceived to mean the extent to which one is able to accomplish after learning has taken place. Green (2017) reported that academic achievement can be seen as the level of efficiency and knowledge demonstrated by an individual after learning has occurred. Benjamin (2008) conducted a study on students' academic achievement in the trustees of the California State University on Social Science and Science. He found that students perform better academically when there is the availability of school facilities, instructional materials, laboratory equipment, qualified teachers in all subject areas, constant and effective teaching of each subject, students carrying out research, being able to do their assignments, paying attention to their teachers, and involving themselves in school activities. Teachers, however, have a direct responsibility to shape student academic achievement, and they are the most important school-based factor in their education. That is why it is important to examine which teacher characteristics may be related to students' academic achievement. With the introduction of the 9-3-4 system of education in Nigeria, students spend nine years in basic primary school, three years in Senior Secondary School (SSS), and four years in tertiary institutions. Secondary school, as a link between primary and tertiary institutions, provides adequate knowledge for effective citizenship and benefits to society. However, the National Council on Education (NCE) approved a new curriculum structure for the three years of senior secondary education, as released by the Nigerian Educational Research and Development Council (NERDC), known as curriculum 2007.

Entrepreneurship Education

Entrepreneurship education is a learning process that starts as early as elementary school and progresses through all levels of education (Gbemisola & Adeola, 2014). Bryman and Bell (2015) opined that entrepreneurship education seeks to prepare people, particularly the youth, to be responsible by immersing them in real-life learning experiences whereby they can take risks, manage results, and learn from the outcomes. Entrepreneurship education in a school curriculum ensures that each learner has a chance to become an entrepreneur, and each student is the architect of his/her fortune or destiny. With the knowledge of entrepreneurial action, students or potential entrepreneurs are able to understand how and what it means and takes to own a business, create ideas towards the achievement of desired goals and objectives, which will certainly improve the growth and development of a country's economy. With the growing number of students graduating from secondary school annually, if measures are not taken to occupy them and prevent them from restiveness, there is a tendency that the situation will escalate the rate of poverty, corruption, and other social vices like cultism, armed robbery, kidnapping, etc. It is expected that our educational institutions should become centers for inculcating the spirit of entrepreneurship rather than the spirit of passing examinations to get white-collar jobs.

Methodology

In this study, a correlational research design was employed to examine the relationship between teacher characteristics and student performance in agricultural entrepreneurial subjects. This methodology allows for understanding the extent of the relationship between these variables and shed light on the factors that may influence student outcomes in Niger State's Senior Secondary Certificate Examination.

Research Design

Correlational research design was used, which shows the extent of the relationship between two scores that represent two variables (Uzoagulu, 2011). An explanatory correlation design was used to establish the relationship between teacher characteristics such as qualification, teaching experience, and gender, and the performance of students in agricultural entrepreneurial subjects in the Senior Secondary Certificate Examination in Niger State.

Area of the Study

The study was conducted in Niger State, located in the North Central Zone of Nigeria, and occupying a land area of 74,244 square kilometers, which is about 10% of the total land area of Nigeria (Ikusemoran, Kolawole, &Adegoke, 2014). The choice of Niger State as the area for this study is based on the fact that Niger State is one of the agrarian states with 85% arable land, and most secondary schools in the state offer fishery and animal husbandry as trade subjects. Additionally, the proximity and convenience for the researcher to collect data were considered.

Population of the Study

The target population of the study was all 151 agricultural entrepreneurial subjects' teachers from a total of 217 Senior Secondary Schools in Niger State. The schools are spread across the seven education zones in the state, which include Minna, Bida, Kontagora, Suleja, Rijau, Borgu, and Kutigi. The population also included the results of the 44,182 students who sat for the SSCE examination in agricultural entrepreneurial subjects from 2014 to 2018.

Sample and Sampling Technique

The sample of the study consisted of all 151 agricultural entrepreneurial subject teachers in a total of 217 Senior Secondary Schools in Niger State, and a proforma of 381 results of students who sat for the SSCE examination in agricultural entrepreneurial subjects from 2014 to 2018. Purposive Population Sampling Technique was used to select the 151 agricultural entrepreneurial subjects' teachers in Senior Secondary Schools in Niger State because the population was manageable. Proportionate Sampling Technique was used to ensure adequate representation of each grade in the 381 results of students based on percentage. The selection of 381 results of students was based on the fact that a sample size of 381 holds the statistical power to represent a population of 44,182.

Instrument for Data Collection

A structured questionnaire titled "Agricultural Entrepreneurial Subjects Teachers' Characteristics Questionnaire (AESTCQ)" was developed by the researcher. Respondents were asked to tick or mark against the options that corresponded to their opinion.

Validation of the Instrument

Face validity of the instrument was established by experts in agricultural entrepreneurial subjects. Two lecturers of Agricultural Technology Education in the Vocational Education Department, Faculty of Education, ModdiboAdama University, Yola, Adamawa State, and a teacher of agricultural entrepreneurial subjects in a public secondary school in Minna, Niger State. Each validator was given a copy of the questionnaire and requested to review the items, identify ambiguities, and provide solutions for improving the instrument. Their observations and comments were used to improve the content of the instrument for the final draft of the questionnaire.

Reliability of the Instrument

The questionnaire items were trial tested in a small sample in Kaduna State consisting of 15 agricultural entrepreneurial subjects' teachers in Kaduna North and Kaduna South Local Government areas. The reliability of the questionnaire was calculated using Cronbach's Alpha coefficient, and the overall reliability index of the instrument was found to be 0.82.

Method of Data Collection

The data was collected with the help of three research assistants who were trained by the researchers on how to interact with the respondents for a positive result. Student's academic achievement scores (scores in animal husbandry and fishery at the Senior Secondary Certificate Examination) for five years in agricultural entrepreneurial subjects were collected from the National Examinations Council (NECO). To facilitate the study, a copy of an introductory letter was provided to the school principal upon arrival to ensure permission from the school authority to collect samples. The instrument was administered and collected using a wait-and-take technique to ensure a good return rate of the instrument.

Method of Data Analysis

PPMC was used to answer all the research questions, and regression analysis was used to test the null hypotheses at

a significance level of 0.05. The choice of PPMC was based on its appropriateness as a measure for establishing the strength of linear association between two variables measured on interval scales. Regression analysis, on the other hand, was employed to test the null hypotheses because it is a reliable method for estimating the relationships between a dependent variable and one or more independent variables. Additionally, it produces a regression equation where the coefficients represent the relationship between each independent variable and the dependent variable.

The decision regarding the research questions was based on the benchmarks proposed by Bowman, Alvarez-Jimenez, Howie, McGorry, and Wade (2015) for determining the direction and strength of the Pearson correlation coefficient (r) between two variables. Specifically, the following thresholds were used: r = 0.10 to 0.29 or r = –0.10 to –0.29, indicating low correlation; r = 0.30 to 0.49 or r = –0.30 to –0.49, indicating medium correlation; and r = 0.50 to 1.0 or r = –0.50 to –1.0, indicating high correlation.

Regarding the hypotheses, decisions were made by comparing the significance value (p-value) with a significance level of 0.05. A p-value below 0.05 indicated a significant relationship, while a p-value above 0.05 indicated no significant relationship (Foster, Lane, Scott, Hebl, Guerra, Osherson, & Zimmer, 2018).

To enhance speed and accuracy, all statistical calculations were performed using the Statistical Package for Social Sciences (SPSS) version 23.

RESULTS AND DISCUSSION

Research Question One

What is the relationship between teacher's qualification and the academic achievement of students in agricultural entrepreneurial subjects in the SSCE in Niger State?

Table 1: Pearson Product Moment Correlation for the Test of Relationship between Teachers' Qualification and the Academic Achievement of Students' of Agricultural Entrepreneurial Subjects in SSCE in Niger State. NT = 151,NS = 381

Variables		Academic Achievement	Teachers' Qualification
Teachers' Qualification	Pearson Correlation	.795[**]	1
Academic Achievement	Pearson Correlation	1	.795[**]

Table1 the correlation coefficient shown indicates the Pearson product moment correlation between teachers' qualification and the academic achievement of students studying agricultural entrepreneurial subjects in the SSCE in Niger State. The results reveal a correlation coefficient of 0.795, indicating a strong positive relationship between teachers' qualification and the academic achievement of students in this field. This finding suggests that teachers' qualification significantly influences the academic achievement of students studying agricultural entrepreneurial subjects in the SSCE in Niger State.

Research Question Two

What is the relationship between teaching experience of teachers and the academic achievement of students in agricultural entrepreneurial subjects in the SSCE in Niger State?

Table 2: Pearson Product Moment Correlation for the Test of Relationship between Teachers' Experience and the Academic Achievement of Students' of Agricultural Entrepreneurial Subjects in SSCE in Niger State. NT = 151, NS = 381

Variables		Academic Achievement	Teaching Experience
Teachers' Experience	Pearson Correlation	.771[**]	1
Academic Achievement	Pearson Correlation	1	.771[**]

Table 2 presents the Pearson product-moment correlation, which examines the relationship between teachers' teaching experience and the academic achievement of students in agricultural entrepreneurial subjects in the SSCE in Niger State. The correlation coefficient obtained for this relationship was .771. This value indicates a high positive correlation between teachers' teaching experience and the academic achievement of students in agricultural entrepreneurial subjects in the SSCE in Niger State. Consequently, it can be inferred that teachers' teaching experience has a positive influence on the academic achievement of students in agricultural entrepreneurial subjects in the SSCE in Niger State.

Research Question Three

What is the relationship between the gender of teachers and the academic achievement of students in agricultural entrepreneurial subjects in the SSCE in Niger State?

Table 3: Pearson Product Moment Correlation for the Test of Relationship between Teachers' Gender and the Academic Achievement of Students' of Agricultural Entrepreneurial Subjects in SSCE in Niger State. NT = 151, NS = 381

Variables		Academic Achievement	Teachers' Gender
Teachers' Gender	Pearson Correlation	.121	1
Academic Achievement	Pearson Correlation	1	.121

Table 3 presents the Pearson product-moment correlation coefficient, which assesses the relationship between teachers' gender and students' academic achievement in agricultural entrepreneurial subjects in the SSCE (Senior Secondary Certificate Examination) in Niger State. The results indicate a correlation coefficient of 0.121, suggesting a low positive relationship between teachers' gender and students' academic achievement in agricultural entrepreneurial subjects in the SSCE. Therefore, it can be concluded that teachers' gender has minimal influence on the academic achievement of students in agricultural entrepreneurial subjects in the SSCE in Niger State.

Hypothesis One

HO$_1$: There is no significant relationship between teachers' qualification and the academic achievement of students' of agricultural entrepreneurial subjects in SSCE in Niger State

Table 4: Regression Analysis for the Test of Significant Relationship between Teachers' Qualification and Students' Academic Achievement in Agricultural Entrepreneurial Subjects in SSCE in Niger State

Model	Unstandardized coefficient		Standardized coefficient	R square	T	Sig
	B	Std.error	Beta			
Teachers' qualification	.561	.035			15.978	.000**
			.795	.629*		
Academic achievement	3.666	.113			32.580	.000

Table 4 presents the regression analysis conducted to test the significant relationship between teachers' qualification and students' academic achievement in agricultural entrepreneurial subjects in the SSCE in Niger State. The test revealed a significant criterion as the p-value was 0.000, which is less than the confidence level of 0.05. The results indicate a statistically significant relationship between teachers' qualification and students' academic achievement in agricultural entrepreneurial subjects in the SSCE in Niger State. Therefore, we reject the null hypothesis that there is no significant relationship between teachers' qualification and the academic achievement of students in agricultural entrepreneurial subjects in the SSCE in Niger State.

Additionally, the results showed that the coefficient of determination (R square) was 0.629. This indicates that 62.9% of the variation in students' academic achievement in agricultural entrepreneurial subjects in the SSCE in Niger State can be attributed to teachers' qualification.

Hypothesis Two

HO$_2$:   There is no significant relationship between teaching experience of teachers and the academic achievement of students' of agricultural entrepreneurial subjects in SSCE in Niger State.

Table 5: Regression Analysis for the Test of Significant Relationship betweenTeaching Experienceof Teachers and Students' Academic Achievement in Agricultural Entrepreneurial Subjects in SSCE in Niger State

Model	Unstandardized coefficient		Standardized coefficient	R square	T	Sig
	B	Std.error	Beta			
Teaching experience	.432	.029	.771	.594*	14.773	.000**
Academic achievement	4.014	.099			40.55	.000

Table 5 presents the regression analysis examining the significant relationship between teachers' teaching experience and students' academic achievement in agricultural entrepreneurial subjects in SSCE in Niger State. The test revealed a significant criterion as the p-value was 0.000, which is lower than the confidence level of 0.05. The results indicated a statistically significant relationship between teachers' teaching experience and students' academic achievement in agricultural entrepreneurial subjects in SSCE in Niger State. Therefore, the null hypothesis of no significant relationship between teachers' teaching experience and the academic achievement of students in agricultural entrepreneurial subjects in SSCE in Niger State was rejected. Furthermore, the coefficient of determination (R square) was found to be 0.594, suggesting that 59.4% of the variation in students' academic achievement in agricultural entrepreneurial subjects in SSCE in Niger State can be attributed to teachers' teaching experience.

Hypothesis Three

HO$_3$: There is no significant relationship between gender of teachers and the academic achievement of students' of agricultural entrepreneurial subjects in SSCE in Niger State.

Table 6: Regression Analysis for the Test of Significant Relationship between Teachers 'Gender and Students' Academic Achievement in Agricultural Entrepreneurial Subject in SSCE in Niger State

Model	Unstandardized coefficient		Standardized coefficient	R square	T	Sig
	B	Std.error	Beta			
Teachers' gender	.156	.104	.121	.015*	1.494	.137**
Academic achievement	5.161	.163			31.744	.000

Table 6 presents the regression analysis for testing the significant relationship between teachers' gender and students' academic achievement in agricultural entrepreneurial subjects in SSCE in Niger State. The test results indicated that there was no significant relationship, as the p-value (.137) exceeded the confidence level of 0.05. Therefore, the null hypothesis stating no significant relationship between teachers' gender and students' academic achievement in agricultural entrepreneurial subjects in SSCE in Niger State was upheld.

Additionally, the analysis revealed that the coefficient of determination (R square) was .015, suggesting that only 01.5% of the variation in students' academic achievement in agricultural entrepreneurial subjects in SSCE in Niger State can be attributed to teachers' gender.

Major Findings of the Study:

The study's data analysis yielded the following findings:

1. There is a positive and high relationship between teachers' qualification and the academic achievement of students studying agricultural entrepreneurial subjects in the Senior Secondary Certificate Examination (SSCE) in Niger State.
2. Teaching experience has a high positive relationship with the academic achievement of students studying agricultural entrepreneurial subjects in the SSCE in Niger State.
3. Teacher's gender has a low positive relationship with the academic achievement of students studying agricultural entrepreneurial subjects in the SSCE in Niger State.
4. There is a significant relationship between teachers' qualification and the academic achievement of students studying agricultural entrepreneurial subjects in the SSCE.

5 There is a significant relationship between teaching experience and the academic achievement of students studying agricultural entrepreneurial subjects in the SSCE.
6. There is no significant relationship between the gender of teachers and the academic achievement of students studying agricultural entrepreneurial subjects in the SSCE.

Discussion of Findings:

The findings indicate a positive relationship between teachers' qualification and the academic achievement of students studying agricultural entrepreneurial subjects in the SSCE in Niger State. This supports previous research by Jega and Julius (2018) and Aslam et al. (2016), which found that students taught by highly qualified teachers achieve better results. Additionally, the positive correlation between teachers' qualification and academic achievement aligns with studies focusing on core sciences like physics (Owolabi & Adedayo, 2012).

The study also reveals a positive relationship between teaching experience and the academic achievement of students studying agricultural entrepreneurial subjects in the SSCE in Niger State. This is consistent with the findings of Yusuf and Dada (2016) and Bamidele and Adekola (2017), who observed improved student performance when taught by experienced teachers. Teaching experience provides teachers with greater exposure to subject matter, better navigation of the curriculum, and enhanced skills in adapting to examination patterns, leading to improved student outcomes.

Regarding teachers' gender, the findings suggest that it does not significantly influence the academic achievement of students studying agricultural entrepreneurial subjects in the SSCE in Niger State. This aligns with studies by Winklemann (2016) and Awodun et al. (2015), which indicate that teacher gender does not have a significant impact on students' academic growth or achievement.

CONCLUSION

The academic achievement of students studying agricultural entrepreneurial subjects in the SSCE is crucial for the economic development of the nation. This study establishes that teachers' qualification and teaching experience significantly influence students' academic achievement in these subjects. Therefore, to enhance students' academic performance, it is important to ensure that teachers possess higher academic qualifications and have substantial teaching experience.

RECOMMENDATIONS

Based on the study's findings, the following recommendations are made:

1. The federal and state ministries of education should prioritize the recruitment of teachers with higher qualifications for teaching agricultural entrepreneurial subjects in senior secondary schools.
2. Teacher exchange programs should be introduced by the federal and state ministries of education to expose secondary school teachers to diverse teaching experiences and broaden their horizons.
3. The federal and state ministries of education should not consider teachers' gender as a criterion for enhancing the academic achievement of students in agricultural entrepreneurial subjects in schools.

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Full Length Research

Effect of Knowledge Approach, Age and Gender on Achievement in Economics among Secondary School Students in Oyo Township, Nigeria

[1]Oladimeji, David Oluwaseyi and [2]Okwilagwe, Eugenia A.

[1]Institute of Education, University of Ibadan, Ibadan, Nigeria.
Corresponding author's E-mail: oladimejidavid585@gmail.com, Phone Nos. +2348054625636, +2348037398107
[2]Institute of Education, University of Ibadan, Ibadan, Nigeria. E-mail: geniaokwilagwe2004@yahoo.com.
Phone Nos. +2348023519155, +2348065655479

Abstract
This study examined the effect of declarative knowledge approach, age and gender on achievement in Economics among secondary school students in Oyo Township. Simple random sampling technique was used in selecting participants into experimental groups and 156 SS II students were selected from six secondary schools for the study. A pre-test, post-test control group quasi-experimental design, with 2X3X2 factorial designs was adopted. Participants were randomly assigned to treatments. Instrument used to collect data was Economics Achievement Test (r=0.94). Data were analysed with ANCOVA. The main effects of chronological age and gender were not significant on students' achievement but treatment was statistically significant ($F_{(1,144)}$=1095.275, p< 0.05, η^2=0.68). The two-way and three-way interactions effects were not statistically significant. It was then recommended that teachers should use relevant methods that will enhance students' performance such as DKA.

Keywords: Chronological age, Gender, Declarative Knowledge Approach, Achievement, Economics

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INTRODUCTION

In different academic quarters, efforts have been made to checkmate the menace of poor performance among students. Different variables have been explored that can enhance students' academic performance both in schools' and in public examinations. Students' age, or better described as chronological age, is one of this important construct for learning. The connection between students' age and academic attainment cannot be ruled out. Various research efforts have been made to estimate the degree of chronological ages' effects on students' performance in school subjects. It is generally assumed that academic success fully, strongly and positively relies on learners' age (Grissom, 2004). Abubakar & Oguguo (2011) are of the reported that age plays a considerable part with respect to education, like entry age of students to a school. Hence age could be a predictor of academic success. Ali (2013), examined factors affecting academic achievement of students discovered that age had significant effect on academic performance of graduate students. John, Jackson & Simiyu (2015) further observed that chronological age of students played a significant role in academic performances on the teacher made tests. In another study, Abubakar & Adegboyega (2012) discovered a positive correlation between age and academic achievement in Mathematics among students of Colleges of Education. The study revealed a linear relationship between CGPA and age on academic achievement of students. On the meta-

analysis note, findings have shown that older students do perform much better than younger ones academically (La Paro & Pianta, 2000; Stipek & Byler, 2001). On the contrary, Aransi (2018), Abubakar & Oguguo (2011), reports show that chronological age have no significant relationship with students' academic performance. To these reports, age is not a predictor of students' academic success.

While examining the relationship between gender and students' performance, Abubakar & Oguguo (2011) discovered a significant relationship between gender and academic performance among NCE students. Several reports on gender effect on students' performance upheld the null hypothesis which stated that the mean scores of male and female students' achievement is not significant (Dania, 2014; Adigun, Onihunwa, Irunokhai, Sada & Adesina (2015); Eze, Ezenwafor & Obidile, 2016). Nnamani & Oyibe (2016) further reveal that gender seemed to have differential effect on academic performance of female students.

However, several other studies have shown none significance relationship between chronological age of student and their academic performance. Eze, Ezenwafor, & Obi (2015) reported the main effects of gender and age on students' performance but find out that the interaction effects of age and gender on academic achievement of vocational and technical education (VTE) students of a Nigerian university were not statistically significant. This reveals that a linear relationship does not exist between the two-predictor variables in the study (age and gender) and academic achievement of the students and that their combined contribution was insignificant. The findings of Agboola (2006), Owolabi & Ekuk-Irien (2009), Zember & Blume (2011) revealed that age and gender had effects on academic achievement of students in Mathematics, science and ICT. Abubakar (2010) recorded a positive but insignificant correlation between age, gender and CGPA of Mathematics students.

Appropriate teaching methods can be a causal for high performance in educational endeavour. Many research efforts have been used to fast-track students' learning attainment. The use of knowledge approach such as declarative knowledge tends to lend a help in the academic attainment of students. That is why, Lauritzen (2012), Haapasalo & Kadijevich (2000) refer to DKA as a pedagogical or educational approach. It is an explicit understanding of the principles that govern a domain and of the interactions between pieces of knowledge in a domain. This study examined the effect of chronological age, gender and declarative knowledge approach on students' academic achievement among secondary students in Economics in Oyo Township.

Seven hypotheses were tested at the 0.05 level of significance.

Ho1:   The main effect of chronological age is not significant on Economics students' achievement.
Ho2:   The main effect of gender is not significant on Economics students' achievement.
Ho3:   The main effect of treatment is not significant on Economics students' achievement.
Ho4:   The effect of chronological age and gender is not significant on Economics students' achievement.
Ho5:   The effect of chronological age and treatment is not significant on Economics students' achievement.
Ho6:   The effect of gender and treatment is not significant on Economics students' achievement.
Ho7:   The effect of chronological age, gender and treatment is not significant on Economics students' achievement.

METHODOLOGY

A quasi-experimental design was used to establish the effect of independent variable and moderating variables on the dependent variable. Senior Secondary School Two (SS2) students offering Economics in public secondary schools were the targeted population in Oyo Township, Oyo State. Six schools were randomly selected for the study while a total number of 156 students participated in the study.

Economics Achievement Test (EAT) was used as an instrument. Economics Achievement Test (EAT) questions were culled from the West African Examination Council (WAEC) past questions series for both pre-test and post-test covering taxation and the concept of cost and revenue. Participants were examining with 30 objectives questions and each item consists of four options A to D. The reliability consistency of the test was determined at 0.94 with K-R 20. Data collected were analysed using Analysis of Covariance.

RESULTS

Hypothesis 1: The main effect of chronological age is not significant on Economics students' achievement.

Table 1: Summary of Analysis of Covariance of Students' Age, Gender and Treatment on Achievement in Economics

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	9459.47a	11	859.95	133.72	0.00	0.91
Intercept	1390.03	1	1390.03	216.14	0.00	0.60
Pre-Achievement	28.86	1	28.86	4.49	0.04	0.03
Age bracket	4.99	2	2.50	0.39	0.68	0.01
Gender	0.80	1	0.80	0.12	0.73	0.00
Treatment	2006.26	1	2006.26	311.96	0.00	0.68
Age bracket *Gender	5.48	2	2.74	0.43	0.65	0.01
Age bracket *Treatment	18.42	2	9.21	1.43	0.24	0.02
Gender* Treatment	0.36	1	0.36	0.06	0.81	0.00
Age bracket * Gender*Treatment	0.16	1	0.16	0.02	0.88	0.00
Error	926.09	144	6.43			
Total	32491	156				
Corrected Total	10385.56	155				

a R Squared = .91 (Adjusted R Squared = .90)

Hypothesis 1: The effect of chronological age has no main significance on Economics students' achievement.

Table 1 shows the summary of Analysis of Covariance (ANCOVA) of students' post-test achievement scores in Economics by chronological age, gender and treatment. The result revealed that the effect of chronological age on students' achievement in Economics was statistically not significant ($F_{(2,144)}$ = 0.39, p>0.05); therefore the null hypothesis was sustained. Further, the Partial Eta Square (η^2) = 0.01 was obtained. The implication of this is that the age bracket accounted for 0.5% variance observed in students' achievement in Economics is 1%. Adjusted mean score was carried out to determine the age bracket that accounted momentous difference among the categories. The result is presented in Table 2.

Table 2: Adjusted Mean Score of Age Bracket

Age Bracket of the Respondent	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Below 15years	13.88a	0.76	12.37	15.39
16-18 years	13.22a	0.24	12.74	13.69
19-21 years	11.06a,b	1.15	8.79	13.33

a Covariates appearing in the model are evaluated at the following values: Pre-Achievement score = 8.49.

b Based on modified population marginal mean.

Table 2 shows that age bracket of below 15 years old had the highest adjusted mean score of 13.88 followed by 16-18 years with 13.22 mean score while age 19-21 years had the lowest mean score of 11.06.

Hypothesis 2: The main effect of gender is not significant on Economics students' achievement.

In Table 1, the analysis shows that there is no significant main effect of gender ($F_{(1,144)}$ = 0.124, p>0.05) on students' achievement in Economics. The null hypothesis is upheld. The implication of this is that gender accounted for 0.0% variance observed in students' achievement in Economics. This implies that gender has no effect students' achievement in Economics. The adjusted mean score was carried out on gender to determine which of the sex accounted for significant change. The result presented in Table 3.

Table 3: Adjusted Mean Score of Gender on Students' Achievement in Economics

Gender of respondents	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Male	13.67a	0.69	12.32	15.03
Female	11.90a,b	0.46	11.00	12.80

a Covariates appearing in the model are evaluated at the following values: Pre-Achievement score = 8.4872.

b Based on modified population marginal mean.

Table 3 reveals that male students had the highest adjusted mean score of 13.67 while female counterpart had 11.90 mean score. This means that male students performed better than female students did.

Hypothesis 3: The main effect of treatment is not significant on Economics students' achievement.

The result from Table 1 show that there is significant main effect of treatment ($F_{(1,144)}$ = 311.96, p<0.05) on students' achievement in Economics. This invariable makes the null hypothesis to be rejected. Table 1 further showed that the Partial Eta Square (η^2) = 0.68. The implication of this is that the treatment accounted for 68% variance observed in the students' achievement in Economics. This implies that treatment has sufficient effect on students' achievement in Economics. Sidak Post-hoc analysis was carried out in Table 4 to determine which of the treatment has the significant effect on students' achievement. The adjusted mean score was also explored to locate the direction of significant effect of treatment in Table 5.

Table 4: Sidak Post-hoc Analysis Treatment

Groups	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Declarative group	21.98a,b	0.77	20.47	23.50
Control group	5.27a	0.46	4.36	6.18

a Covariates appearing in the model are evaluated at the following values: Pre-Achievement score = 8.49.

b Based on modified population marginal mean.

Table 4 shows that learners in Declarative group had the highest mean score of (X= 21.98) while those in control group had the least mean score of (X= 5.27). Table 5 below reveals that the difference between declarative and control groups was statistically significant.

Table 5: Estimated Marginal Means for Treatment

(I) Groups	(J) Groups	Mean Difference (I-J)	Std. Error	Sig.[d]	95% Confidence Interval for Difference[d]	
					Lower Bound	Upper Bound
Declarative group	Control group	16.71*,b	0.90	0	14.94	18.48
Control group	Declarative group	-16.71*,c	0.90	0	-18.48	-14.94

Based on estimated marginal means

d Adjustment for multiple comparisons: Sidak.

The result from the post-hoc analysis in Table 5 reveals that the mean score in Students' Achievement was because of Declarative group. The result implies that Declarative group was different.

Hypothesis 4: The effect of chronological age and gender is not significant on Economics students' achievement.

From Table 1, the findings show that there is no significant interaction effect of chronological age and gender ($F_{(2,144)}$ = 0.43, p>0.05) on students' achievement in Economics. The null hypothesis was upheld. The Partial Eta Square (η^2) was obtained at 0.01. The implication of this is that the chronological age and gender accounted for 0.06% variance observed in students' achievement in Economics. This implies that student' age and gender has no significant effect on students' achievement in Economics. The adjusted mean score was carried out on age and gender to determine the direction of significance and the result is presented in Table 6.

Table 6: Estimated Marginal Means for Age and Gender

Gender of respondents	Age bracket of the respondent	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Male	Below 15 years	13.90a	1.39	11.16	16.65
	16-18 years	13.00a	0.38	12.24	13.75
	19-21 years	14.12a	1.47	11.22	17.01
Female	Below 15 years	13.85a	0.63	12.59	15.10
	16-18 years	13.44a	0.29	12.87	14.01
	19-21 years	4.94a,b	1.81	1.37	8.51

Pre-Achievement score = 8.49.

Table 6 revealed that male students had the highest adjusted mean score in the categories of 19-21 years (14.12) and female students had the highest mean score among below 15 years (13.85) while the female students had the lowest adjusted mean score in the categories of 19-21 years (4.94) and male students only among 16-18 years (13.00).

Hypothesis 5: The effect of chronological age and treatment is not significant on Economics students' achievement.

From Table 1, the findings show that there is no significant interaction effect of chronological age and treatment ($F_{(2,144)}$ = 1.43, p>0.05) on students' achievement in Economics. The null hypothesis was sustained. The Partial Eta Square (η^2) was valued at 0.02. The implication of this is that chronological age and treatment accounted for 2% variance observed in students' achievement in Economics. This implies that students' age and treatment had no significant effect on students' achievement in Economics. The adjusted mean score was carried out on age and treatment and the result is presented in Table 7.

Table 7: Estimated Marginal Means for Age and Treatment

Treatment	Gender of Respondents	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Declarative group	Male	21.92a	1.22	19.51	24.33
	Female	22.08a,b	0.56	20.96	23.19
Control group	Male	5.42a	0.65	4.13	6.71
	Female	5.12a	0.66	3.82	6.43

a Covariates appearing in the model are evaluated at the following values: Pre-Achievement score = 8.49.

b Based on modified population marginal mean.

Table 7 revealed that students in Declarative group had the highest adjusted mean score 22.08 while female in the control group had the lowest adjusted mean score of 5.12.

Hypothesis 6: The effect of gender and treatment is not significant on Economics students' achievement.

From Table 1, the findings show that there is no significant interaction effect of gender and treatment ($F_{(1,144)}$ = 0.06, p>0.05) on students' achievement in Economics. The null hypothesis was retained. The Partial Eta Square (η^2) was valued at 0.00. The implication of this is that gender and treatment accounted for 0% variance observed in students' achievement in Economics. This implies that students' gender and treatment had no significant effect on students' achievement in Economics.

Hypothesis 7: The effect of chronological age, gender and treatment is not significant on Economics students' achievement.

The results in Table 1 revealed that there is no significant three-way interaction effect of chronological age, gender and treatment ($F_{(1,144)}$ = 0.02, p>0.05) on students' achievement in Economics. The null hypothesis was upheld. The Partial Eta Square (η^2) was valued at 0.00. The implication of this is that chronological age, gender and treatment accounted for 0% variance observed in students' achievement in Economics. This implies that students' chronological age, gender and treatment had no significant effect on students' achievement in Economics.

DISCUSSION

The result showed that the main effects of chronological age and gender were not significant on Economics students' achievement. These findings are in conformity with Aransi (2018), Abubakar & Oguguo (2011), reports that chronological age have no significant relationship with students' academic performance but contradicts Abubakar & Adegboyega (2012) findings of a linear relationship between CGPA and age on academic achievement of students. This report further revealed that younger age students tend to perform much better than the older ones when the mean score is considered. This is at variance with the meta-analysis reports of La Paro & Pianta (2000); Stipek & Byler (2001) which found that older students do perform much better than younger ones academically. The finding corroborates Dania (2014), Adigun, Onihunwa, Irunokhai, Sada & Adesina (2015), Eze, Ezenwafor & Obidile (2016). However, this finding contravenes Abubakar & Oguguo (2011) which found gender more significant on academic performance among NCE students. The adjusted mean score reveals that male students performed much better than female students did. This upheld Nnamani & Oyibe (2016) conclusion that gender appeared to have effect on female students' performance. There was a significant main effect of treatment on Economics students' achievement. This finding is in line with Rittle-Johnson & Alibali (1999) which reported that treatment had main significant effect on Economics students' performance.

On the two-way analysis, the findings show that there is no significant interaction effect of chronological age and gender; chronological age and treatment; and gender and treatment on students' performances. This finding is in line with Eze, Ezenwafor, & Obi (2015) that discovered that the interaction effects of age and gender has no significant relevance with the academic achievement of vocational and technical education (VTE) students of a Nigerian university.

However, this negates Agboola (2006), Owolabi & Ekuk-Irien (2009); Zember & Blume (2011) reports that the interactions of age and gender have effects on academic achievement of students in Mathematics, Science and ICT.

This result upheld the findings of Adekoya & Olatoye (2011), Fatokun, & Omenesa (2015) who found no interaction effect between gender and treatment on science students' performance but contradict Dania (2014) findings that affirmed interaction effect of gender and treatment in Social Studies. Regarding interaction effect of chronological age and treatment, this reports discovered that there is no interaction effect on age and treatment. This implies that the combination of chronological age and treatment are not sufficient to engender high performance among Economics students.

The three-way analysis shows that the interaction effect of chronological age, gender and treatment was not significant on Economics students' achievement. This result supports the findings of Abubakar (2010). This implies that the combined effect of the three variables cannot stimulate high performance among Economics students in Secondary schools.

CONCLUSION

The conclusion of this study is that irrespective of treatment employed, age and gender may not influence students' achievement, but the treatment such as Declarative Knowledge Approach will spark high performance among students of Economics. This finding shows that when right approach is in use, a corresponding high performance is attainable.

RECOMMENDATIONS

Based on the findings of this study, it is recommended that teachers should use relevant methods that will enhance students' performance such as declarative knowledge approach. Finally, researchers can compare the effects of chronological and maturational age on learners' performance in school's or vocational subjects.

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Full Length Research

Accessibility and Utilization of Health Information and Safe Health Practices of Nursing Mothers in Imo State, Nigeria

[1]Ugochi Pearl OZIRI, [2]Magnus Chukwuduziem UNEGBU and [3]Ogechi NDULAKA

[1]PhD Research Student, Abia State University, Utru
[2]Library Department, Alvan Ikoku Federal College of Education, Owerri, Imo State. PHONE: 08036661229
Corresponding author's E-MAIL: callongoff @yahoo.com; magnus.unegbu@alvanikoku.edu.ng
[3]University Library, Kingsley Ozumba Mbadiwe University, Ogboko, Imo State

Abstract

This study investigated the accessibility and utilization of health information and safe health practices of nursing mothers in Imo State, Nigeria. It adopted the survey research design, census method of sampling techniques to ensuring that every nursing mothers in Imo State, Nigeria was captured. Self-constructed and validated questionnaire was used to collect data for this study. The findings show that that accessibility of health information and safe health practices of nursing mothers in Imo State, Nigeria was significant and conscientiousness and utilization of health information and safe health practices of nursing mothers in Imo State, Nigeria was positively significant. This study recommended that government at all levels should intensify sensitization effort towards achieving wider coverage of safe health practices of nursing mothers through engaging all stakeholders including agents of socialization and that stakeholders should give necessary supports to nursing mothers that will enable them initiate and continue safe health practices.

Key Words: Health, Information, Health Information, Accessibility, Utilization, Safe Health Practices and Nursing Mothers

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INTRODUCTION

Health is the general condition of the body or mind, especially in terms of the presence or absence of illnesses, injuries or impairments. Health is thus defined as a state of complete physical, mental, social and spiritual well-being of an individual and not merely the absence of disease or infirmity (WHO, 2013). Good health according to Ezema and Ugwuanyi (2014) means that people remained healthy, have free access to efficient health care, better nutrition, improved living conditions, useful health information and absence of avoidable premature deaths. According to Aina (2004), Information is a crucial agent of change, a conveyor of knowledge and reinforcement of ideas and opinion. It is the life wire of any organization. Information is meant to change or increase understanding of something. It is something that changes a person's state of mind and knowledge of a subject.

Information can be used to mean man's accumulated knowledge in all subjects, in all forms and from all sources that could help users to make rational decisions. Information is central to all activities and very essential to human survival. It is crucial in every research work and it is vital to the development of any society. Timely, accurate and current

information is therefore imperative at every state of research endeavour. Information has been severally defined as data that have been processed into a form that is meaningful and purposeful to the recipient or user and is real or perceived as of value in prospective decision making process (Aina, 2004: 23). Information could be defined as data that have been subjected to some processing functions capable of answering a user query, be it recorded, summarized or simply collected, that would help in decision making. Nzotta (1987), views information as all about facts gathered from various sources; the fact, according to him, can be in the form of writing or spoken, writing or even non-verbal gestures. Information can be presented via people speaking, writing, or gesture, film, letter, diary, radio and television. Ndukwe (2000) sees information to be the oil that greases the wheel of governance, programmes and activities of government, organization and individuals. Poopola (2008) highlights the economic importance of information and state that it lies in its value as a resource and also in its strategic value in decision making and planning.

Health information encompasses the continuum extending from the specific information needs of patients to a broader provision of health information for the day user (Wasike and Tenya, 2013). Similarly, Adeyoyin and Oyewusi (2015) describe health information as information on a continuum between health education and health promotion. Health information is about having the requisite knowledge which enables one to make the right decisions concerning health issues. It relates to those pieces of information that will make the user have physical and emotional stability. It contains such information as sanitation rules and regulations (environmental cleanliness), family planning, disease control, drugs, immunization, location of good hospitals and clinics, laboratory. It also includes news about international bodies and agencies responsible for global health activities such as world Health Organization (WHO) and United Nations Fund for Population Activities (UNFPA) (Uhegbu, 2007). Nwafor-Orizu and Onwudinyo (2015) and Institute for Information Law and Policy (2015) look at health information from two perspectives. While Nwafor-Orizu and Onwudinyo posit that health information is knowledge, facts and news generated from various sources, necessary for good physical and mental condition of human beings, and that it is a determinant of the right to the highest attainable standard of health including access to such information as protected by the right to exchange and import information. A nursing mother according to Cambridge English Dictionary is a woman who is feeding her baby with her own breast milk. Nursing mother refers to women that is feeding an infant or young child with breast milk directly from female human breasts rather than using infant formula from a baby bottle or other container. Being a nursing mother has been in existence in ancient times up to recent human history, where babies were carried with the mother and fed as required.

Nursing mother is used synonymously and interchangeably with breastfeeding mothers. Nursing mothers have the confidence in their ability to care for their child to prevent childhood illness (Parsa, Masoumi, Parsa & Parsa, 2015). Health and safety practices among nursing mothers include regular washing of hands, eating of appropriate nutrition, regular cleaning of toilet, sanitary condition for toileting and diaper changing. One of the safety health practices of nursing mother is breastfeeding. Breastfeeding by nursing mothers offers significant benefits as it strengthens the affective relationship between mother and child, promotes the baby development by providing the necessary nutrients in the first months of life, and protects against infection and chronic diseases. Safe health practices refer to the prevention of errors and adverse effects to people associated with health care. Nothing is more important to a nursing mother than the safety and health of both her and the child. Safe health practice of nursing mother is the prevention of harm to nursing mothers. Mitchell (2008) defined patient safety practices as those that reduce the risk of adverse events related to exposure to medical care across a range of diagnoses or conditions. Nursing mother safe health practices is a necessity in our contemporary society. Every nursing mother deserve safe health care and should have the utmost confidence that they will not be harmed during the period of nursing their child in contemporary society Nigeria and other developing countries, nursing mothers safe health practices should be given a priority. Mother baby nursing is an approaching to providing care within the immediate postpartum period that offers significance benefits to both providers and recipients of that care. Women will continue to need care during pregnancy and child birth as long as humanity continues to reproduce itself According to Abonzahr (2003), the health of mothers has long been acknowledge to be a cornerstone of public health and attention to unacceptably high level of maternal mortality has been a feature of global health and development discussion a since the 1980s.According to Aston Etowa, Price, Vukic, Hart, Macleod and Randel (2016), most public health care professionals would agree that supporting mothers and babies in early post-partum is the most effective means of ensuring that both short and long term positive health outcomes for individuals and families are attained. It has been established that women who had history of antenatal care visit during their youngest child pregnancy period, gave their birth at health institution and post natal visit initiate complementary feeding timely.

According to Amaechi, Ogugua, Unegbu, and Edem (2020),women are critical and integral part of the economic process of the country, either in the formal or informal sector, urban or rural areas. The participation of women in the economic life of a country like Nigeria is only one aspect of their changing position in the society. Even globally, women have become increasingly visible. Etim (1995) posits that one would dare say that most topical issues in international or global development agenda is "women". Thus we have women issues, women concern, women in development etc.

Varied as the definitions are, there is however, a global consensus that international development plans must include strategies for the integration of women into the development process. Access to health services and quality of health services are designed to increase health services utilization and eventually to improve health outcomes (USAID, 2015). Ezeama and Ugwuanyi (2014) describe access to adequate and timely information as very critical indicator for the overall national development and specifically very useful in combating poverty, ignorance and disease in many developing countries. Odini (2016) notes that access to health services and the quality of care administered at all levels of health care have been considered as the central determinants of health outcomes. In other words, availability and accessibility to adequate, current, and effective information systems are key factors to better health care. Undeniably, access is an important factor in the process of providing and utilizing health information in any society. Access to health information should be provided to nursing mothers, especially those who show concern or indicate felt need for it as well as those in the rural areas.

According to Olayinka, Achi, Amos and Chiedu (2014), utilization of health service is a complex behavioural phenomenon, related to the availability, acceptability, quality and affordability of services, social structures, health beliefs and characteristics of the users. Silali and Owino (2016) believe that health information empower women such as nursing mothers, to make informed choices and increase their perceptions in satisfaction of health provision towards primary prevention. In the light of the above background, this study therefore, seeks to investigate the accessibility and utilization of health information and safe health practices of nursing mothers in Imo State, Nigeria.

Research Questions

The study is guided by the following research questions

i.   What is the relationship between accessibility of health information and safe health practices of nursing mothers in Imo State?
ii.   What is the relationship between utilization of health information and safe health practices of nursing mothers in Imo State?

Review of Related Literature

Masemola-Yenda & Mataboge (2015) carried out a study with the aim of exploring and describing access to information and decision making on teenage pregnancy prevention by females using a primary healthcare clan in Tshwane, South Africa. The researcher adopted a descriptive qualitative and exploratory research design to explore and describe the verbal reports regarding prevention of teenage pregnancy by females using a primary health care clinic. Face-to-face semi-structured interviews were conducted with 15 female participants who had been pregnant once or more during their teens. The study indicates that two themes emerged namely, access to information and decision making by female teenagers. Five categories that emerged were: access to information on pregnancy prevention, using of provided information, the use of alternative medicine with hormonal contraception, personal reason for use and use of contraception, and decisions made by teenagers not to become pregnant.

Tsehay (2014) carried out a study on *seeking of health information in rural context: Exploring sources of maternal health information in rural Ethiopia*. The study was designed to achieve four (4) specific objectives. The qualitative research, focus group discussions and in-depth interviews were utilized in the study. The study adopted a qualitative research design. The researcher employed a data collection design that combines in-depth interviews (IDIs) and Focus Group Discussions (FGDs). The sample size comprises of 41 women. The study found out that lack of knowledge, perceived personal risk of health complications, and seeking a healthy life are the major factors that motivated the women to seek for information. The study showed that women have sought and use various kinds of interpersonal and media related sources to satisfy their maternity information needs during the course of their reproductive life. Of all maternity sources of health information, health extension workers and health professionals were found to be the most commonly used and trusted sources of information. Illiteracy, attitude and perception towards information providers and ignorance, relating to traditional and cultural barriers were identified as the major bottle necks of information dissemination, seeking and usage. Ramsay, Peters, Corsini and Eckert (2017) carried out a study on *consumer health information needs and preference: A rapid evidence review*. The study was guided by four (4) key research questions.

The study adopted a rapid review using an interactive, systematic, step-by-step approach. A total of 21 primary studies were appraised out of 7329 articles located for the study. Findings show that consumers access information from a range of sources and for varying purposes based on their specific needs at the time they seek it. The research findings indicate that a great deal of consumers use the internet to obtain health information; this appears to be because they found its high accessibility convenient, not because they considered it to be a better alternative to face-to-face

communication with a health professional. However, despite the widespread use of the internet, evidence suggests that the doctor-patient relationship is still highly valued and that health professionals remain the preferred source of health information consumers. The study concludes that many health consumers prefer to access information from a variety of sources, including their family and friends, the internet, health professionals and written materials, it is therefore important to ensure that information is readily available in different formats and is not exclusive to any single medium.

Silali and Owino (2016) investigated *factors influencing accessibility of maternal and child health information on reproductive health practices among rural women in Kenya*. The study adopted a cross-sectional design in mixed research of quantitative and qualitative methods of data collection. A total of 210 study participants were selected through cluster sampling. Data were collected through questionnaire. The findings show that the main sources of maternal health information are health professionals (doctors and nurses) and community health workers who are the main link of the community households with health facility. Socio economic factors, like level of education and source of income, strongly influenced the uptake of maternal and child health information. The study concludes that some community health workers (CHWs) are accessible and reliable sources in rural areas; they form most efficient community health linkages with health facilities, so it's important to empower them for sustainable healthcare at community level.Ojewole and Oludipe (2017) investigated *pregnancy-related information need and information seeking pattern among pregnant women attending antenatal clinic at Ikorodu General Hospital, Lagos State, Nigeria*. The study was carried out using a descriptive correlation design. A purposive sampling technique was used to derive a sample size of 228 pregnant women used for the study. Data for the study were collected from the questionnaire administered to the pregnant women. The results of the study shows that majority of the pregnant women in the study area had moderate level of pregnancy information needs and information seeking. Also, seeing the health care personnel and having knowledge of pregnancy are perceived barriers to seeking pregnancy related information. The most potent predictor of information seeking pattern among the predictor variables of the study is religion, followed by age, and by marital status, the study concludes that pregnancy outcomes could be improved if pregnant women are provided with pregnancy related information necessary to empower them to overcome pregnancy challenges.

Almoajei and Almarqabi (2016) investigated online health information seeking behaviours among pregnant women in prenatal clinics at King Saud Medical City, Riyadh. The study used a descriptive cross-sectional survey. The subjects were Saudi females who attended the antenatal clinics at King Saud Medical City in Riyadh, Saudi Arabia. A convenience sample of 150 women in the waiting area of the obstetrician/genealogist outpatient department was taken during the period of three working weeks. A total of 210 copies of the questionnaire were distributed to pregnant women, out of which, 190 were returned with 150 valid. The study found out that more than half of the respondents were using google and other research tools to find pregnancy-related health information. They also visited women's forums to obtain information about pregnancy, commercial pages for maternity and childhood health information and sometimes used YouTube, Facebook and Twitter to find educational health content. Amaechi, Ogugua, Unegbu, and Edem (2020) argues that provision, accessibility and utilization of information are related and that the effect of one generates concomitant effect on the other. The author stresses that information can only be utilized if it is accessible and that accessibility of information can only be possible if it is provided. In the global world with rich information flows coming from many different sources and channels, an organization's ability to manage knowledge effectively becomes a prerequisite for success and innovations.

Adeyoyin and Oyewusi (2015) carried out a survey of the needs and utilization of health information among young adults in Abeokuta, Ogun state, Nigeria. The study focused on health information needs and utilization among young adults. Correlation research design was adopted for this study using descriptive survey method. Questionnaire were designed and used as survey instruments. A total of 1,745 copies of questionnaire were administered to the respondents. The findings indicate that nutrition ranked highest, followed by water treatment, sanitation and diagnosed medical condition among the information services needs of the young adults. Also, young adults need information services to avoid unwanted pregnancy, unsafe abortion and HIV/AIDs information. Access to health information was mostly through textbooks and newspapers/magazines. The study also finds that religious beliefs against the use of drugs ranked highest among the problems that hinder effective utilization of health information. Increases in National Health Insurance Scheme (NHIS) awareness, proper utilization of information services among others were recommended. Otieno, Kaseje and Kaseje (2017) investigated perspectives on utilization of community based health information systems in Western Kenya. The study adopted a survey design. Information for this study was gathered through semi-structured interviews. The interviewees were purposefully selected from various community health units and public health facilities in the study area. The data were organized and analyzed manually grouping them into themes and categories. Results of the study show that information needs of the community included service utilization and health status information. Dialogue was the main way of information utilization in the community. It was discovered that health systems and personal challenges impeded proper collection and use of information. The study concludes that the challenges experienced in health information utilization may be overcome by linkages and coordination between

the community and the health facilities. Ojong, Uga and Chiotu (2015) examined *knowledge and attitude of pregnant women towards focused ante natal care services in university of Calabar teaching hospital, Calabar, Cross River State, Nigeria.* The study adopted a descriptive design and the sample size was 174 pregnant women attending antenatal care clinic in UCTH. The instrument for data collection was a three section questionnaire. Findings revealed that majority of the respondents had good knowledge and favourable attitude towards focused antenatal care. Although knowledge towards focused antenatal care is high and attitude is favourable, some weakness still exist which posed as hindrance to utilization. The study recommends intensive awareness creation on focused antenatal care for pregnant women and retraining of health workers and monitoring and supervision of health workers to improve on the hindrance identified as barriers to utilization.

Grimes and Forster (2014) x-rayed the *sources of information used by women during pregnancy to meet their information needs*. The study adopted a cross section, descriptive design. A self-administered postal survey was designed for the study. The questionnaire included closed, categorical and open ended questions. A sample size of 752 women was used for the study. Quantitative data were analyzed using frequencies, percentages and means. The two way chi-square test (x^2) were used to determine whether the relationship between two variables was statistically significant. The findings of the study showed that women access information from a variety of sources. Discussion was found as the most frequently cited sources of information for women. The use of the internet was less than expected given the growth in access to service to services. Although many sources of information are available to women, one third of the women surveyed felt that some of their information needs during pregnancy were unmet. Breastfeeding information needs and advice on the mother's postnatal recovery were the most common topics mothers felt uniformed about. Odetola (2015) carried out a study on *health care utilization among rural women of child bearing age: A Nigerian experience.* The study adopted a descriptive study, with a total sample size of 160 clients who were randomly selected for the study. The research design was non experimental. A well-structured weighted questionnaire of 38 items involving open and close-ended questions was used to interview the targeted population. The findings of the study revealed that level of education, proximity to place of residence, affordability and quality of services rendered, spousal and significant others' influences were active determinants of choice for health institutions among pregnant women in Nigeria. The study concludes that provision of adequate functioning medical equipment to the primary health care centres will be a motivating factor for childbearing women's use. The study recommends that the government should ensure adequate funding of the primary health centres for provision of necessary facilities and make health accessible to everyone at the grass root level. More so, the government should create a forum for women of child bearing age who institutions following complications at subsiding rate especially when they cannot afford it. Kusumayati and Nakamura (2007) investigated *increased utilization of maternal health services by mothers using the maternal and child health handbook in Indonesia*. The study adopted a repeated cross sectional study. The multi-stage random sampling method was used in deriving 611, 621, and 630 mothers for the surveys in three different years respective. Data were collected primarily by using a pre-tested structured questionnaire. The multiple logistic regression analyzes were carried out. The findings showed that utilization of maternal and child health handbook (MCHH) was found to be associated with better maternal knowledge regarding antenatal care (ANC), tetanus toxoid (TT) immunization and skilled birth attendance. It was also indicated that utilization of MCHH has the potential both to improve maternal knowledge and to increase the utilization of maternal health services. The study concludes that the effectiveness of existing community base activities in promoting maternal knowledge and behaviour can be improved by utilizing the MCHH during their health educations session.

Homat, Solomons, Montenegro, Crowley and Bermudez (2014) examined *maternal health and health seeking behavours among indigenous Mamm mothers from Quetzaltenango¸ Guatemala*. The cross sectional study design was adopted. A sample size of 100 pregnant and breast feeding women in four communities was used. The study showed that a variety of factors affect utilization of maternal health services by indigenous women in rural Quetzaltenango. These include socio-economic disparities, ethnic and linguistic differences, and poor access to basic resources. The current reproductive needs of women should be addressed to improve their health and increase their chance of having healthy children. However socio-economic status, lack of fluency in Spanish, and no ownership of a motorized vehicle were associated with the highest likelihood of poor utilization of services. Kotecha, Patel, Shah, Katara and Madam (2012) examined *health seeking behaviour and utilization of health services by pregnant mothers in Vadodara slums*. The study adopted a longitudinal qualitative study. A sample size of 60 women was systematically selected through random sampling. The findings indicate that almost all women (97%) used to go for antenatal care for their baby's good health and safe delivery. Majority preferred private hospital for delivery. The study proposed that it is felt that proper health educational program should be launched to address issues such as faculty food beliefs and practices. The study also shows that women who do not avail of antenatal care are more likely to suffer from problems during pregnancy. Olayinka, Achi, Amos and Chiedu (2014) investigated awareness and barriers to utilization of material health care services among reproductive women in Amassoma community, Bayelsa State Nigeria. A descriptive research design was used and the study setting was Amassoma community, Bayelsa state Nigeria. The study population consists of

women of reproductive age (15 to 45 years). A purposive sampling technique was used to select the sample size of 192. Data were collected using a questionnaire and descriptive and inferential statistics were used to analyze the data generated. The study revealed that the majority of the respondents have heard of maternal health services but only few actually knew the mains services rendered at maternal health care services. The major variables associated with barriers to utilization of maternal health services among respondents were poor knowledge of existing services, previous bad obstetric history attitude of the health care provider etc. The study recommends that government should subsidize maternal health services in order to make it affordable, acceptable and available to women.

From the foregoing, it is obvious that access is an important factor in the process of providing and utilization of health information in any society. Access to health information should be provided to nursing mothers, especially those who show concerns or indicates felt need for it as well as those in the rural areas. Also, it should be noted that enabling environment is critical to accessibility of health information by nursing mothers. Though, there are multiple providers of health information such as the health institutions, non-governmental organizations, media houses etc, it is imperative that knowledge of the factors that constitutes barriers to nursing mothers' access to health information be established. Again, there is a clear indication that utilization of health information is a common practice both in developed and developing countries of the world. Though, different attitude are displayed by women when seeking for health information and also, women consult many sources of health information in other to meet their health information needs. Furthermore, though records show that Nigerian women do seeks for search and utilized health information sources but information about nursing mothers seeking and utilizing health information in Owerri, Imo State is rare.

METHODOLOGY

The descriptive survey research design was used for this study using self-developed structured questionnaire for data collection questionnaire. The questionnaire is titled "accessibility and utilization of health information and safe health practices of nursing mothers in Imo State, Nigeria questionnaire"(UHISHPNMQ). No sample size was drawn from the population. This is because the population of the study is accessible. The census method was used to ensuring that opinions of all the nursing mothers in Imo State, Nigeria were captured for the study. A total of five hundred and sixty-four (564) copies of the questionnaire were distributed to nursing mothers in Imo State, Nigeria. Out of these, four hundred and seventy-eight (478) copies of the questionnaire were duly completed and returned for analysis giving a response rate of (84.8%). Forty-eight (86) copies of the questionnaire were non-response giving a non-response rate of (15.2%). The return rate of 478 (84.8%) is adequate representation of the entire population.

Analysis

Research Question 1

How does accessibility of health information predict the safe health practices of nursing mothers in Imo State?

Table 1: Mean Responses on Accessibility of Health Information Provision and Safe Health Practices of Nursing Mothers

S/N	Accessibility of Health Information and Safe Health Practices of Nursing Mothers	SA	A	D	SD	TOTAL	MEAN VALUE X	DECISION
a	Without access to health information, it will be difficult for me to have better understanding of safety health practices	246	203	17	12	478	3.43	Significant
b	I could not have been able to comply with safety health practices if not access gained to health information	225	214	23	16	478	3.36	Not Significant
c	Access to health information promote high level of safety health practices	249	209	11	9	478	3.46	Significant
d	Access to health information does not promote high level of safety health practices	257	202	13	6	478	3.48	Significant
e	Access to health information helps in deciding the best safety health practices for nursing mothers	217	212	22	27	478	3.29	Not Significant
	Significant Mean Value	**3.41**						

Based on the analysis as shown on Table 1,without access to health information, it will be difficult for me to have better understanding of safety health practices (X=3.43), access to health information promote high level of safety health practices (X=3.46) and access to health information does not promote high (X=3.46). It can be inferred that all the items in the Table have significant mean value(X=3.41) with the exceptions of I could not have been able to comply with safety health practices if not access gained to health information(X=3.36) and access to health information does not promote high level of safety health practices (X=3.29) that have less than significant mean value (X=3.41). Generally, accessibility of health information provision has positive relationship with safe health practices of nursing mothers in Imo State, Nigeria.

Research Question 2

How does the utilization of health information predict the safe health practices of nursing mothers in Imo State?

Table 2: Mean Responses on Utilization of Health Information Provision and Safe Health Practices of Nursing Mothers

S/N	Utilization of Health Information and Safe Health Practices of Nursing Mothers	SA	A	D	SD	TOTAL	MEAN VALUE X	DECISION
a	Utilizing health information enables me to engage actively in safety health practices	236	227	8	7	478	3.45	Significant
b	Utilizing health information assist me in making the right decisions as it relates to safety health practices	232	228	13	5	478	3.44	Significant
c	Utilizing health information helps me determine the safety health practices adopted by nursing mothers	215	210	31	22	478	3.29	Significant
d	Utilizing health information enables me to appreciate safety health practices associated with breast feeding	212	209	39	18	478	3.29	Significant
e	I do not need to utilize health information before complying with safety health practices	33	11	220	214	478	1.71	Not Significant
	Significant Mean Value	**3.04**						

   Table 2 shows the mean responses on availability of health information provision and safe health practices of nursing mothers is greater than the significant mean value (X=3.04) in four main aspects. These are; utilizing health information enables me to engage actively in safety health practices (X=3.45), utilizing health information assist me in making the right decisions as it relates to safety health practices (X=3.44), utilizing health information helps me determine the safety health practices adopted by nursing mothers (X=3.29) and utilizing health information enables me to appreciate safety health practices associated with breast feeding(X=3.29)The other reason namely; I do not need to utilize health information before complying with safety health practices (X=1.71)has less than the significant mean value (X=3.04). The significant mean value (X=3.04) shows that utilization of health information provision has positive relationship with safe health practices of nursing mothers in Imo State, Nigeria.

FINDINGS

   The findings of the study on Table 1, research question 1 revealed that accessibility of health information provision and safe health practices of nursing mothers in Imo State, Nigeria was significant. This relationship may have arisen because without access to health information, it will be difficult for nursing mothers to have better understanding of safety health practices, access to health information promote high level of safety health practices and access to health information does not promote high. This implies that accessibility of health information provision significantly affect safe health practices of nursing mothers in Imo State, Nigeria. Mwangakala (2015) found that inadequate conditions of access to health facilities and the poor working conditions of the care providers affected the provision of quality of maternal services and health information to pregnant women. Anyaoku and Nwosu (2017) investigated extent of access to health information and sources for chronic disease patients in tertiary health institutions in South East Nigeria: Implications for libraries role. Found that large majority indicated high access to treatment information, the major source of health information was health professionals. Internet, books, newspaper, pamphlets were also sources of health information. The study concludes that health information providers can consider areas of low information access for

possible focus when planning health information disseminating activities. Adeyoyin and Oyewusi (2015) carried out a survey of the needs and utilization of health information among young adults in Abeokuta, Ogun state, Nigeria and found that nutrition ranked highest, followed by water treatment, sanitation and diagnosed medical condition among the information services needed by the young adults. Also, young adults need information services to avoid unwanted pregnancy, unsafe abortion and HIV/AIDs information. Access to health information was mostly through textbooks and newspapers/magazines. The study also finds that religious beliefs against the use of drugs ranked highest among the problems that hinder effective utilization of health information. Increases in National Health Insurance Scheme (NHIS) awareness, proper utilization of information services among others were recommended. Access to health information be provided to nursing mothers, especially those who show concerns or indicates felt need for it as well as those in the rural areas. Also, it should be noted that enabling environment is critical to accessibility of health information by nursing mothers. Though, there are multiple providers of health information such as the health institutions, non-governmental organizations, media houses etc, it is imperative that knowledge of the factors that constitutes barriers to nursing mothers' access to health information be established.

The findings of the study on Table 2, research question 2 revealed that utilization of health information provision and safe health practices of nursing mothers in Imo State, Nigeria was significant. This implies that utilization of health information provision significantly affect safe health practices of nursing mothers in Imo State, Nigeria. Otieno, Kaseje and Kaseje (2017) investigated perspectives on utilization of community based health information systems in Western Kenya. Results of the study show that information needs of the community included service utilization and health status information. Dialogue was the main way of information utilization in the community. It was discovered that health systems and personal challenges impeded proper collection and use of information. The study concludes that the challenges experienced in health information utilization may be overcome by linkages and coordination between the community and the health facilities. Ojong, Uga and Chiotu (2015) in their study found that majority of the respondents had good knowledge and favourable attitude towards focused antenatal care. Although knowledge towards focused antenatal care is high and attitude is favourable, some weakness still exist which posed as hindrance to utilization. Kusumayati and Nakamura (2007) found that utilization of maternal and child health handbook (MCHH) was found to be associated with better maternal knowledge regarding antenatal care (ANC), tetanus toxoid (TT) immunization and skilled birth attendance. It was also indicated that utilization of MCHH has the potential both to improve maternal knowledge and to increase the utilization of maternal health services. The study concludes that the effectiveness of existing community base activities in promoting maternal knowledge and behaviour can be improved by utilizing the MCHH during their health educations session.

CONCLUSION

In the light of the findings above, conclusions was drawn. The study has successfully investigated the accessibility and utilization of health information and safe health practices of nursing mothers in Imo State, Nigeria. The study revealed that the accessibility and utilization of health information have positive significant relationship with safe health practices of nursing mothers in Imo State, Nigeria.

RECOMMENDATIONS

In with the findings, the study recommended as follows:

➢ Government at all levels should intensify sensitization effort towards achieving wider coverage of safe health practices of nursing mothers through engaging all stakeholders including agents of socialization.
➢ Government should tackle the issues of issue of education for all seriously so as to create equal, affordable qualitative and accessible educational opportunities for the entire populace. This will help create an enlightened and rationale citizenry.
➢ Stakeholders should give necessary supports to nursing mothers that will enable them initiate and continue safe health practices.
➢ Government should make health information available for nursing mothers in Imo State for their safe health practices through subsidized Medicare, radio and TV jingles.
➢ Health workers should provide information needs of nursing mothers in Imo State for their health practices.
➢ Nursing mothers should consult professional health personnel for their health information through postnatal clinic.

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Full Length Research

Mentoring, Motivation and Job Satisfaction of Librarians in Federal and State University Libraries in Southern Nigeria

Ajala, Isaac Olugbenga PhD

Department of Library and Information Science, Faculty of Computer Science and Informatics
Ladoke Akintola University of Technology, Ogbomoso, Nigeria

Corresponding E-mail: ioajala@lautech.edu.ng

Abstract

Job satisfaction is significant to librarians to ensure effective performance in service delivery. However, extant literature and anecdotal evidence indicated that job satisfaction among university libraries in Nigeria was low. Mentoring (career support, psychosocial support and role modelling support) and motivation (responsibility, achievement and job security) are required to enable librarians have job satisfaction (recognition, promotion, conducive work environment, and remuneration) in university libraries in Southern Nigeria. There is dearth of literature that combines the influence of all these variables. Therefore, the study examined the influence of mentoring and motivation on job satisfaction of librarians in federal and state university libraries in Southern Nigeria. The study adopted a survey research design. The population comprised 563 librarians in federal and state university libraries in Southern Nigeria. A sample size of 234 was determined using Taro Yamane formula and stratified proportionate sampling technique was used to select the respondents. A validated, structured questionnaire was used for data collection. Cronbach's alpha reliability coefficients for the variables ranged from 0.72 to 0.81. A return rate of 90.6% was achieved. Descriptive and inferential (linear and multiple regression) statistics were used to analyse the data. The findings of this study revealed a significant joint influence of mentoring and motivation on job satisfaction of librarians in federal and state university libraries in Southern Nigeria (Adj.R^2 = 0.801, $F(2, 210)$ = 419.528, $p < 0.05$). Mentoring (R^2 = 0.525, β = 0.725, $t(211)$ = 15.127, $p< 0.05$) and motivation (R^2 = 0.796, β = 0892, $t(211)$ = 28.608, $p< 0.05$) significantly influenced job satisfaction of librarians. Mentoring indicators: psychosocial support (β = 0.626, $t(211)$ = 4.760, $p< 0.05$) significantly influenced job satisfaction of librarians, while career support (β = 0.216, $t(211)$ = 1.379, $p> 0.05$) and role modelling support (β = 0.626, $t(211)$ = 4.23, $p> 0.05$) had no significant influence on job satisfaction. Motivation indicators: Responsibility (β = 0.098, $t(211)$ = 1.974, $p< 0.05$), achievement (β = 0.280, $t(211)$ = 6.659, $p< 0.05$) and job security (β = 0.611, $t(211)$ = 12.503, $p< 0.05$) significantly influenced job satisfaction of librarians in federal and state university libraries in Southern Nigeria. The study concluded that mentoring and motivation contributed to job satisfaction of librarians in federal and state university libraries in Southern Nigeria. It was recommended that the university administration should make effort to sustain satisfaction by making policies that would enhance job satisfaction, giving attention to motivational needs. The library management should ensure that career support and role modelling be instituted and encouraged among librarians in Southern Nigeria.

Keywords: Career support, Job satisfaction, Mentoring in libraries, Motivation in libraries, Psychosocial support, Role modelling support

INTRODUCTION

Satisfaction is the fulfillment of conditions of the workforce and also the desire felt after a need is achieved that is genuine. Satisfaction implies the fundamental feeling and the accomplishment of goals of workers which is noteworthy to any organisation for accomplishment and success (Wani & Najar, 2019). Satisfaction is necessary for a worker to improve the efficiency of the organisation, career development and the achievement of the workers (Kaba, 2017). It could therefore mean a positive and pleasing attitude towards the job while dissatisfaction concentrated on a negative attitude.

Job satisfaction is a positive mental state of being in one's job which includes one's emotions, reactions and cognitive evaluation. Job satisfaction is an employee's psychological state which comprises feelings, attitude and behaviours in a workplace and is significant in university libraries, its absence leads to apathy and reduction in organisational commitment (Tella, 2019). Job satisfaction is focused on the socio-cultural and economic conditions of the workplace and the level to which work environment meets the values and needs of the workers. Job satisfaction is a dependent variable of this study.

Job satisfaction is a major determinant of workers' commitment and productivity in any organization. University libraries may boost job satisfaction of librarians by providing recognition, promotion, conducive work environment and remuneration. The job satisfaction of librarians is paramount for effective service delivery to the library users including, the staff and students for the dissemination of information and knowledge which affects the institution performance (Wani & Najar, 2019). Librarians may also be more satisfied with their job if there is high level of mentoring and motivation which will enable them to be more committed, perform better services and more productive in their responsibilities.

In line with Herzberg`s motivation-hygiene theory, there are separate factors that affected job satisfaction while another diverse set of factors caused dissatisfaction, however, they act independently of each other. Herzberg (1959) developed a two-factor theory that affected job satisfaction based on Maslow's hierarchy of needs. The two factors were motivators and hygiene. Some of the motivator factors are responsibility, achievement, job security, work itself, and growth (advancement) while some of the hygiene factors are conducive work environment, remuneration, interpersonal relations, company policies and supervision. For the purpose of this study, job satisfaction was measured based on Herzberg's motivation-hygiene theory, using two motivational factors, recognition and promotion and two hygiene factors conducive work environment, and remuneration. The rationale behind this choice was that there were some other interrelated variables that affected motivation which were part of the variables in this study. Therefore; these four sub-variables of job satisfaction were developed, espoused and clarified in this study.

Recognition serves as incentive to staff to be faithful and perform better on the job. Recognition embraces awards, and encouragement packages provided for the employees. Employees may be honoured at all levels of the organisation for their work satisfactory performance. A worker's achievements may not have to be enormous before being recognised. Whenever an employee performed satisfactorily, the organisation may acknowledge the good work with preferably special thanks, good-humored praise, or a bonus when necessary. Employees when acknowledged and appreciated for their contributions to the organisation would be more committed and productive. A formal recognition programme such as 'employee of the month', and 'employee of the year' could be of good reward and enhance recognition to the employee. This encourages such a librarian to perform better and be fulfilled in the job and services provided. Satisfaction may also occur as a result of promotion which is another important factor of job satisfaction. Promotion is another sub-variable of this study which may affect job satisfaction.

Promotion also serves as a reward for a job that is performed satisfactorily. Promotion might be considered as a reward for the past achievements and encouragement of workers to continue to excel hence, a typical staff or employee is looking forward to his/her promotion as at when due.. Various individuals anticipated that rewards, such as monetary gains to the workers by the organisation is one of the most visible factors in job satisfaction. Conversely, inadequate reward factors such as recognition and promotion are some of the major reasons accountable for workers' dissatisfaction and intention to leave their organisations (Magaji, Akpa, Norom & Goodluck, 2018).

Remuneration is an influential factor that influences job satisfaction. Opeke, Ikonne and Adewoyin (2019) opined that low wages are a major factor in workers quitting their jobs. Mabaso and Dlamini (2017) believed that salaries have a significant impact on employee job. Also, if librarians are not well motivated, there would be no satisfaction. However, with positive wages, librarians are more likely to stay at work, and with negative wages, employees are more likely to leave. Satisfaction may require an elderly or somebody who has been on the job for a while to mentor a new intake.

Mentoring is a formal relationship between a senior librarian and junior librarian of a university library for the advancement and support of the junior librarians. A mentor is a guide, a friend, of superior experience; he is dependable, reliable and influences the growth of a mentee. A mentor is also a person who guides a less experienced person by building trust and modeling positive behaviors. An effective mentor understands that his or her role is to be dependable, engaged, authentic, and tuned into the needs of the mentee.

A mentee on the other hand, is someone who has identified a specific personal or professional goal and who believes that the guidance and help of a mentor and being held accountable to the mentor can help him achieve his goal. Mentoring is a common design that offers diverse training to staff, in terms of professional development and career development.

Furthermore, mentoring consists of a number of measures, such as advising, teaching, coaching, advocating, sponsoring, role modeling and assistance with personal development and achieving a work life balance (Geraci & Thypen, 2017).

According to Chopra, Arora and Saint (2018), mentoring focused principally on the career development of an individual with less experience. A mentor develops the intellectual power of the mentee progressively to be satisfactorily equipped in his preferred career. In a similar vein, The mentor encourages the mentee to learn and be like him. Extant literature acknowledged the benefits of mentorship which involve quicker academic promotion, improved research output, and job satisfaction (Tjan, 2017). In essence, mentees benefitted from mentoring through job recognition, job accomplishment, and job satisfaction, better job reward and remuneration.

Various benefits of mentoring to the mentor, mentee, the university and the library includes increase in encouragement, support and assistance, improvement from the encounters of others, boost in social confidence, decision making enhancement, communication and networks development, managing individual and academic issues. Organizations like universities and libraries furthermore benefit from mentoring by inspiring improved organizational learning and job retention. Mentoring variables for this study comprised of career support, psychosocial support and role modelling support. Career support focused on the mentee's job and the organization. Career support is a continual enrichment recognized in an individual's life (Zanpantis, Skodou, Chalikias, Drosos & Papagrigoriour, 2017). Career support also features the mentoring relationship that assists mentees with their advancement in an organization. Career development functions include sponsorship, protection, challenging assignments, exposure, and visibility. Exposure and visibility involve creating opportunities where important decision makers can observe and appreciate an individual's competence, abilities, and special talents. Career support functions focus on the organization and the mentee's career. Psychosocial support, on the other hand, is another indicator that affects the mentee at a personal level and spreads to other areas of life.

Psychosocial support functions include acceptance, counseling, and friendship. Friendship is provided by informal interactions at work, and by a willingness to discuss a variety of issues. Kram (1985) identified psychosocial functions as those features of mentoring relationship that are more personal. The psychosocial functions have effect on mentees' way of thinking in terms of proficiency, uniqueness and achievement in their professional position within an organization. Psychosocial mentoring may enhance a person's capacity and efficiency; assists to improve job-related stress, develop into a strong emotional connection between the mentor and the mentee, and become a positive, rewarding interpersonal interaction. Imitating an experienced and matured staff could enrich and develop the knowledge of an up-coming and growing staff.

Role modelling is an act and behavior of mentee emulating the mentor; a role model exhibits related attitudes, values, and behaviours to learn and to follow the mentor. The mentors are role models that enable the mentees to grow and advance on the job through information provided. Mentees have observed that mentors play a major role in determining their opinions on how they would act as mentors, thus emphasizing the significance of role modelling. Role modeling support focuses on mentees trying to reproduce the mentors' attitudes and behaviours because of the respect and trust in the mentors. Role modelling function is skillful and recognized by emulating the mentor's standards and conduct which present a plan and structures for the new staff (Kram, 1985). Job satisfaction may also require motivating staff to perform their duties satisfactorily to enhance productivity. A staff needs to be satisfied on the job as a result of motivation, which could enhance job commitment; job productivity and increase job reduce retention.

Motivation is another factor that can affect job satisfaction. Job satisfaction cannot exist in the absence of motivation. For librarians to be satisfied on the job, they have to be motivated. Motivation is a factor that drives a person to achieve a goal. Also, it is a drive from within individuals to carry out certain activities in achieving goals. Employees who are motivated carry out their job responsibilities to the best of their abilities with high productivity. According to Okorie, Ikonne, and Haliso (2019), motivation is the driving force that inspires those who arouse the passion to pursue a particular action. Most employers want ambitious employees to work happily, but they do not really understand what motivates each individual.

Motivation is the process of stimulating people to act and achieve specific goals. Motivation also guides and sustains behaviour and performance which enables employees to take safe actions and increases the accomplishment of goals. An employee who is achievement-motivated seeks achievement, bringing realistic but challenging goals, and advancement into the job. There is a strong need for feedback from the management in the organization as to achievement and progress, and a need for a sense of accomplishment. Achievement could therefore serve as a non-financial motivator of job satisfaction.

Job security is described as one's confidence about accomplishing job condition. It is when the job is secured and not

temporal. Adequate motivation of librarians could lead to job security and the managements should guard against conduct that could intimidate, heighten the fear of job insecurity, and threaten job satisfaction and commitment of librarians. Job security of the librarians could be protected through pleasant and copious strategy and actions. Employees are often more motivated to know that they are doing a safe job in the workplace. It is important to regularly update the job security of staff and know that workers are a valuable asset to the organisation. It was observed that the independent variables under study, mentoring and motivation had influence on the dependent variable, job satisfaction. Mentoring had the potential to improve job satisfaction of librarians in terms of career support, psychosocial support and role modelling support while motivation also impacted job satisfaction in the areas of responsibility, achievement and job security.

Librarians would perform better if they were well motivated, however, lack of motivation may lead to frustration, anxiety, depression and less commitment to job. Librarians that were not motivated have the tendency to leave their jobs. There is enough literature on the dependent variable, job satisfaction, but not much has been researched by combining the independent variables, mentoring and motivation as influence of job satisfaction of librarians in federal and state university libraries in Southern Nigeria. It was on this basis that this study investigated the influence of mentoring and motivation on job satisfaction of librarians in federal and state university libraries in Southern Nigeria.

Statement of the Problem

Job satisfaction is important to the librarians to ensure effective performance in service delivery. In spite of the significance of job satisfaction to librarians in university libraries in Nigeria, extant literature and anecdotal evidence indicated it was low. Absence of job satisfaction may lead to low commitment, performance, productivity and turnover effects. Job satisfaction is necessary to realise the goals of the university library as an organization cannot run and attain their desired goals and objectives without job satisfaction. Job satisfaction of librarians is an issue because some of the factors that determine job satisfaction have been found to be lacking in university libraries.

Studies by Idiegbeyan-Ose, Opeke, Aregbesola, Owolabi and Eyiolorunshe (2019), Oyovwevotu (2017), and Ikonne and Onuoha (2015), identified low level of job satisfaction and dearth of opportunities for advancement, and managerial skills among librarians in university libraries. Mentoring and motivation are required to enable librarians to have job satisfaction in libraries. It is assumed that an employee who is adequately mentored is likely to perform his duties proficiently. Invariably, if librarians are well mentored, it is most likely that they will be satisfied with their jobs. Likewise, if librarians are motivated, there is the possibility of being more committed and satisfied in their jobs.

Mentoring and motivation may enhance job satisfaction of librarians in university libraries in Nigeria. Also, if they are adequately motivated, there is tendency for them to be committed and satisfied in their jobs. There is dearth of literature that combines all the variables. Therefore, the study examined the influence of mentoring and motivation on job satisfaction of librarians in federal and state university libraries in Southern Nigeria.

Objective of the Study

The general objective of this research work is to investigate the mentoring and motivation on job satisfaction of librarians in federal and state university libraries in Southern Nigeria. The specific objectives are to:

1. Determine the level of job satisfaction of librarians in federal and state university libraries in Southern Nigeria;
2. Examine the level of mentoring of librarians in federal and state university libraries in   Southern Nigeria;
3. Ascertain the degree of motivation of librarians in federal and state university libraries   in Southern Nigeria;
4. Examine the influence of mentoring on job satisfaction of librarians in federal and state university libraries in Southern Nigeria;
5. Establish the influence of motivation on job satisfaction of librarians in federal and state university libraries in Southern Nigeria;
6. Establish the relative influence of mentoring indicators on job satisfaction of librarians in federal and state university libraries in Southern Nigeria;
7. Ascertain the influence of the measures of motivation indicators on job satisfaction of librarians   in federal and state university libraries in Southern Nigeria;
8. Ascertain the combined influence of mentoring and motivation on job satisfaction of librarians in federal and state university libraries in Southern Nigeria.

Research Questions

In line with the stated objectives of the study, the following research questions were answered:

1. What is the level of job satisfaction of librarians in federal and state university libraries in Southern Nigeria?
2. What is the level of mentoring of librarians in federal and state university libraries in Southern Nigeria?
3. What is the degree of motivation of librarians in federal and state university libraries in Southern Nigeria?

Hypotheses

The study tested the following null hypotheses at 0.05 level of significance:

$H0_1$ There is no significant influence of mentoring on job satisfaction of librarians in federal and state university libraries in Southern Nigeria;

$H0_2$ There is no significant influence of motivation on job satisfaction of librarians in federal and state university libraries in Southern Nigeria;

$H0_3$ There is no relative influence of mentoring indicators on the job satisfaction of librarians in federal and state university libraries in Southern Nigeria;

$H0_4$ There is no relative influence of motivation indicators on the job satisfaction of librarians in federal and state university libraries in Southern Nigeria;

$H0_5$ There is no combined influence of mentoring and motivation on the job satisfaction of librarians in federal and state university libraries in Southern Nigeria.

Conceptual Review

The conceptual review dealt with how various researchers view what job satisfaction, mentoring and motivation are all about. The key variables that are related to the sub-variables of mentoring, motivation, and job satisfaction were discussed. Job satisfaction was prioritized, with sub-variables such as recognition, promotion, conducive work environment and remuneration. Mentoring focused on career support, psychological support and role modeling support and motivation espoused responsibility, achievement, and job security.

Job Satisfaction in Organisations

Job satisfaction has a wide range of meanings, including both one-dimensional and multi-dimensional. Many scholars have defined job satisfaction as a worldwide phenomenon with diverse definitions measured from various angles. It is a global notion that has long been recognized in the literature; but no clear definition of the phrase has been agreed upon. Job satisfaction has a significant impact on work-related behaviors such as effort, turnover, absenteeism, employee relations, and productivity, as well as on employment market behavior. Job satisfaction of workforces has been a major topic in the field of organizations, psychology and human resources (Mabaso & Dlamini, 2017).

Job satisfaction, according to Kaba (2017) is influenced by a number of elements, including pay (salary), promotion opportunities, fringe benefits, job security, and relationship with co-workers and supervisors. Job satisfaction also refers to how pleased an employee is with his or her current position. When an employee is unsatisfied with his or her employment, he or she will not perform his or her duties as required in that organization. It is an emotional response to work that might be regarded a component of life fulfillment. Job satisfaction also entails performing a job that one enjoys.

Job satisfaction is a result of a combination of intrinsic and extrinsic factors such as job task, job responsibility, motivation, and rewards. When an employee is happy with his or her employment, he or she will perform well at work. It refers to workers' satisfaction with how well their own wants and desires are met at work. Job satisfaction is not the same as motivation; however, it deals with an individual's feelings and inner state in relation to a specific job. Librarian job satisfaction is of importance because of its links to mentorship and motivation.

Recognition

Recognition serves as incentive to employees to remain dedicated and accomplish better result on the job.

Recognition includes prizes and inducements packages for the workforce. Workers should be recognized at all levels of the organization for their work performance. A worker's achievements may not have to be enormous before being recognized. Whenever an employee performs creditably, the organization should recognize the good work with special thanks, good-humored praise, or a bonus if necessary. Employees when recognized and appreciated for their contributions to the organisation enabled them to be more dedicated and industrious.

Recognition is a process of appreciating an employee a particular status in an organization. Librarians should be recognized for outstanding performance in the roles they played in the success of the library as a system. Tunji-Olayeni, Owolabi, Amusa, & Nduka (2018) identified workers recognition for contribution towards organization performance as a way of motivation.

Promotion

Promotion is likewise a key factor in job satisfaction. In some instances, workers rate promotion over salary. Several individuals expect remuneration which can be characterized as the monetary benefit provided to the workers by the organization as one of the most major striking factors for job satisfaction.

Conducive Work Environment

A motivating and acceptable work environment is linked to workers' job retention, an important component of job satisfaction. Work environment could be seen as the physical, social, psychological and technological conditions in the library that influence the job performance and job satisfaction of librarians. Employees are concerned about the physical work environment because it can affect their job preference and enable to complete their tasks better, when they operate in a peaceful environment, (Hee, Ong, Ping, Kowang & Fei, 2019). If a decent working atmosphere is provided for employees, they will perform better. If a decent working atmosphere is provided for librarians, they will be satisfied and perform better; librarians should be given a positive work atmosphere (Agada, Ojobo, & Tofi, 2020). Naz (2017) submitted that good work environment contributed to job satisfaction regardless of forms of institutions and demographics. In essence, supportive working condition improves academic staff' job satisfaction.

Remuneration

Librarians are compensated in the form of a remuneration (salary) or income for the services rendered, to encourage employment retention. Librarians are paid a salary for services rendered, which is typically offered to encourage employment retention. Job satisfaction is unachievable without motivation, and salary (remuneration) is one of the other dynamics to consider. Remuneration (salary) is paid for the services rendered by librarians, with the goal of job retention. Librarians are more likely to have job retention when remuneration is positive, however, when remuneration is negative, they are more likely to leave job. Mabaso and Dlamini (2017) and Amarasena, Ajward, & Ahasanu (2015) further supported the above assertion that, salary plays a significant impact in influencing job satisfaction.

Mentoring in Organisations

A mentor is someone with extensive knowledge and expertise who is dedicated to enabling, controlling, and assisting others in their professional development. He is a person who supports by guiding to advance the process of career advancement, career selection, development, and output. Mentoring is also a trustworthy relationship that has been a feature of public life and the economic sector for many years. Mentor's goal is to assist mentee gain knowledge and adapt their abilities, knowledge, and experience to new situations and procedures.

Mentoring is formal, informal or online or a combination of all. A formal mentoring relationship is one in which the organization initiates and formally provides recognition to the relationship between the mentor and the mentee. An informal mentoring is one in which the staff instigated the relationship but the organization does not properly support the relationship. Online mentoring is a supportive, structured relationship that assists mentees to develop their skills and achieve their goals. In such a relationship, mentees converse with their mentors through a safe and secure online interaction. Mentees also learn new skills and approaches through contact with prime members, which prompt work fulfillment. Mentors make the mentees more recognizable by assigning substantial duties and back up with consistent complimentary progression reports which justify the mentees' work. Mentors also support their mentees for challenging assignment, which ultimately increases the mentee's self-actualization.

Mentoring is a share of educational training that develops personalities in various professions. For the purpose of this study the conceptual definition of mentoring is taken as a training relationship between superior and subordinate staff concerning the mentor and the mentee for the purpose of career support, psychosocial support and role modeling.

Mentoring also requires meeting with mentees on a regular basis to offer guidance and assistance (Byington & Keenan 2017).

Mentoring is a skilled relationship in which a qualified individual (the mentor) assists a less-experienced individual (the mentee) in gaining specific abilities and information that increases the mentee's competence and growth. Mentoring is a method of aiding people in growing in their careers and jobs by sharing one's perspectives, abilities, and experience to allow others to flourish freely in their professions and employment. The library and university administration need to generate and promote mentorship programmes to satisfy the requirements of librarians.

Career Support

Career support is provided to those who are in training, transitioning into the labor market, changing occupations, unemployed, or nearing retirement. Career professionals, other professionals, and non-professionals such as family and friends can all provide support. Individuals or groups can take part in the activities, which can be done in person or online (including helplines and web-based services). Mentoring is useful in terms of developmental social learning (Afolabi, Faleye & Aremu, 2015). Mentoring is the dynamic element of production for organizational efficiency and effectiveness. The mentor built respect among peers and superiors by developing support between subordinates who were likely to be able to give back in later years (Kram, 1980).The mentor offered support to the mentee, and the mentee offer assistance in exchange for the mentor's encouragement.

Psychosocial Support

The structure and aims of the mentoring relationship influence the information, guidance, and assets that a mentor delivers to a mentee. As a result, they enhance both psychosocial growth and career advancement (Kram, 1980), confirmed mentoring's importance in personal and professional development, the quality of interpersonal relationships which influences the development of psychological functions such as role modeling, counseling, and friendship ties. The psychosocial support functions enjoyed by mentees are encouragement, advice and feedback, as well as an enhanced sense of competence, effectiveness, and clarity of identity (Kram, 1983).

Role Modelling Support

A role model is made up of two main components: role and modeling (Zozimo, Jack, & Hamilton, 2017). Furthermore, a role model according to Fellnhofer and Puumalaine (2017) is someone that a person thinks to be similar in some way. A role is a style of behavior and a test of behaviors that is connected with a status position such as manager, leader, or teacher. While a model is a human creation that one admires, it is also a human creation that one aspires to be like. The role models are critical because they offer individuals with the necessary training and assistance (Ranwala, 2016).

The role idea which demonstrates people's inclination to identify with others, and the modeling concept, which is a psychological comparison of cognitive capacities and behavior patterns are two noteworthy theoretical constructs. Role modelling is an opportunity to positively influence the mentee by the mentor which is beneficial to both parties. It incorporates investing in future of others directly or indirectly, it is an opportunity for the mentor to recreate himself or herself.

Motivation in Organisations

Motivation is etymologically a Latin word; "mover" which means "to move" (Machara & Jain, 2016). Motivation is an individual psychological quality that contributes to a personnel level of loyalty to work (Nwibere, 2017). Motivation is the inward effort that elicits man to achieve a desired objective. Therefore, motivated behaviours are voluntary choices controlled by individual workers. The concept of motivation describes forces within the individuals that can control the level, direction and persistence of the effort they demonstrate at work.

Motivation of librarians plays a major role in library and information centres in Nigeria as motivated librarians are more likely to be satisfied on the job, by increasing their level of performance and satisfaction (Akpotohwo, Ogeibiri & George (2017). This was supported by Idiegbeyan-Ose, Opeke, Aregbesola, Owolabi & Eyiolorunshe (2019) when they stated that motivation is the condition of being influenced to do something. Motivation of librarians in university libraries is vital to research, learning and teaching in the university and in organisation to develop self-esteem of workers. Motivated librarians are more likely to give their best of service.

Responsibility

Responsibility is certainly a motivational factor for as long as it is within the capacity of the individual. I think that responsibility is a motivational factor, until it becomes excessive, and there is not sufficient time to rest, sleep, then only it becomes a stress factor. It also depends on the coping ability of the individual. Responsibility is directly connected with our life. Our life includes career development-our ambition, and the desire to go ahead with our life. Responsibility is a motivational factor but it depends on how people define responsibility. In an interdependent culture, sometimes responsibility may be a burden. Responsibility works best when rights and responsibility are in a balance.

The responsibility should be viewed and can be aimed at motivational. It is a motivational factor which directs our life and also assists us to fulfill desire aim of our life. The employees must hold themselves responsible for the work. The managers should give them ownership of the work. They should minimize control but retain accountability. This suggests that when an employee is given a bigger responsibility it makes him or her conscious about the fact that the employers think him or her as a capable and trustworthy candidate. Jobs where responsibility is involved always carry a higher level of satisfaction. The idea of responsibility and the feel that one gets when the responsibility gets accomplished cannot be traded for anything in the world. If an employee is not given any responsibility to handle, ultimately the result is that the person feels detached and doubts about self-worth which immediately affects job satisfaction. People are motivated when their responsibilities are meaningful and engage their abilities and values. The most motivating responsibilities are those that stretch and develop skills. Responsibilities are most meaningful when they fit a person's values.

Achievement

Hunter, Cushenbery and Friedrich (2012) defined achievement as an exclusive and specific form of organizational performance, however Satyawadi and Ghosh (2012), believed that employees are motivated to a greater extent by achievement and self-control. An employee who is achievement-motivated seeks achievement, bringing realistic but challenging goals, and betterment in the job. There is a strong need for feedback from the higher officials in the organization as to achievement and progress, and a need for a sense of accomplishment.

Job Security

Job security is a dynamic determinant of job satisfaction frequently measured using the seeming danger of job loss in the near future. Workers look for a level of security and welfare in their employment which supports in job satisfaction, commitment and performance. More than three quarters of the employees globally prefer the jobs which offer security to the employee in terms of job retention.

One of the most important factors which an employee decides to join any organization is the job security. Therefore, one of the most important challenges being faced by the organization is not to retain or hire the employee, and in fact, the challenge is to provide security to the employees. The job security of the employee is linked to the economic aspect of employee and organization.

Employees are often more motivated when they know they have job security with an organisation. It is important to regularly inform team members of their job security and to know that they are a valuable asset to the organisation. Job security is the assurance that a worker's job would be kept and persist on his/her job. Job security is essentially the guarantee from the organization that the already working employees in the organisation will keep working until a reasonable period of time, and job they will not be terminated.

Job security is important for employee and employers. Therefore, organizations must be sensitive regarding the employee's motivation. There are a number of factors that can motivate them. In fact, one of the most influential mean to motivate employees is job security and it is a major reason for employee motivation. On the other hand, job security is a factor which contributes to the satisfaction of employees.

Empirical Review

This empirical review surveys the works of different researchers including their methodological review, findings and conclusions. This is to enable the researcher recognise and fill gaps left by past studies and in this manner enhance knowledge into the comprehension of mentoring, motivation and job satisfaction. The review was done objective by objective.

Job Satisfaction in Libraries

Ariyo and Okwilagwe (2020) investigated the influence of organisational culture on job satisfaction of library personnel in selected academic libraries in three States in South-west, Nigeria. Descriptive research design of the survey type was adopted with a population of 265 library personnel selected from three academic libraries in three states in South-west, Nigeria. Data collected were analyzed using simple percentages and Pearson Product Moment Correlation analysis. Findings revealed that most of the professionals and the paraprofessionals of the selected academic libraries in South-west, Nigeria had good organisational culture, good working environment and human relations in their libraries. Findings further indicated that most of the professionals and paraprofessionals in the selected academic libraries had high level of job satisfaction and there is a significant positive relationship between organisational culture and job satisfaction of library personnel in selected academic libraries in the three states in South-west, Nigeria.

Amporful, Osei-Amankwah and Amihere (2020) also examined the effect of motivation on job satisfaction of lecturers in the Technical Universities of Ghana. Descriptive survey design was used for the study. The population comprised of full-time lecturers and four Technical Universities. The Universities were selected through stratified random sampling technique. Purposive sampling technique was used in selecting all the full-time lecturers. A sample of 400lecturers was used for the study. Questionnaire was the main instrument used to elicit responses from the lecturers. The reliability coefficient of 0.74 was obtained from the pretest. Pearson product moment correlation coefficient and linear multiple regression were used to analyze the data. The study established statistically significant and positive relationship between motivation and job satisfaction of lecturers. Motivation was found to have statistically significant effects on lecturers' job satisfaction.

Friday and Okeke (2020) in another study surveyed the relationship between job satisfaction and research productivity of 203 librarians in twelve public university libraries in South-South Nigeria. The study adopted correlation research design with total enumeration. The outcomes showed a positive relationship between job satisfaction and research productivity of librarians in federal university libraries and a negative relationship between job satisfaction and research productivity of librarians in state university libraries in South-South Nigeria. There was also a major relationship between job satisfaction and research productivity of librarians in both federal and state university libraries.

Opeke, Ikonne and Adewoyin (2020) studied job satisfaction of library personnel in public universities in South-West Nigeria and discovered that lack of job satisfaction could lead to poor service delivery in university libraries. The study was based on Herzberg two-factor theory comprised of salary, job security, supervision, relationship with co-workers, promotion and work itself with survey research design adopted for the study. Their findings revealed that the level of job satisfaction of the respondents was high but they were satisfied with their salary.

Onuoha, Ukangwa and Otuza (2020) also conducted a study on work environment and the job satisfaction of librarians in private universities in South-East and South-West, Nigeria. The study established the nature of the work environment of librarians as generally satisfactory, with the libraries having good structural edifices, a neat environment and good working relationships with colleagues. However, there were deficiencies in the areas of furniture, noise control and power supply. Librarians were found to be satisfied with their jobs especially with relationships existing departments and colleagues. They were, however, least satisfied with the level of technology use and financial and non- financial rewards. There was a significant relationshipestablishedbetweentheworkenvironmentandjobsatisfaction of librarians in South-East and South-West, Nigeria.

Sohail (2019) studied job satisfaction of the library and information professionals in Fiji working in government and private libraries. Survey method was used for the study with a population of 180. The research examined library professionals' job satisfaction. The paper discovered that library professionals experienced low and irregular salary payments, lack of good housing, poor library facilities, low social status and limited salary payments, proper housing, inadequate facilities in libraries, low social status given and limited opportunities for professional development. The result showed that female professionals were more satisfied with their job than males; however, experienced library professionals possessed a high level of job satisfaction.

Agada, and Tofi (2020) also carried out a study on the influence of work environment and training on job performance of library personnel in university libraries in Nasarawa State, Nigeria. The findings of the study revealed that, work environment and training have significant influence on job performance of library personnel in university libraries in Nasarawa State, Nigeria. Ranaweera and Bodhinayake (2018) study on job satisfaction of library staff, a study based on university libraries in Sri Lanka considered library one of the key object of a university and the library staff have a crucial role to play in circulating knowledge to the academic users in the university. The study investigated the job satisfaction of employees and provided suggestions to overcome the dissatisfaction level. Study sample comprised 510 professional, para-professional and support staff categories working in 14 university libraries in Sri Lanka. The findings indicated that university library employees were moderately satisfied with their jobs and in general and co-workers, salary and benefits, physical working condition, career development opportunities, work itself, appreciation and feedback

identified as the main factors of job satisfaction.

Ibegbulam (2018) measured job satisfaction and demographic variables among library staff in federal and state university libraries in South-East Nigeria. The descriptive survey design was adopted with a population of 273 library staff from five federal and five state university libraries in South-East Nigeria. Their findings indicated that there was no difference in the mean ratings on job satisfaction in relation to professional status, age and work experience but a difference was established on job satisfaction in relation to university type and gender. In a similar study, Mabaso and Dlamini (2018) in their study employed the quantitative research method using a survey design with a sample of 279 academic staff. Their result findings showed a positive and significant correlation between elements of total rewards; recognition, talent development and career opportunities, compensation, benefits, work–life balance, and organisational commitment.

In another investigation by Hijazi, Kasim, and Daud, (2017), the researchers revealed that the scholarly staff working over the advanced education foundations was not happy with their occupations and are not motivated by the rewards also. Accordingly, it is imperative to contemplate the situation of job satisfaction of the scholarly staff of private colleges in Dubai. *Okhakhu and Omoike (2017)* investigated on how job satisfaction affects library officer's productivity in three selected university libraries in Ibadan, Nigeria with a sample population of 72 library officers. Survey research design was adopted for the study. The instrument used for collecting data was questionnaire and direct observation. The study established that job satisfaction affects productivity of library officers in institutions to a very large extent and that a positive attitude will increase the quantity and quality of library officers' performance. It revealed further that some institutions were not interested about job satisfaction of library officers. The study also established that intrinsic rewards play a crucial role in the job satisfaction of library officers.

Training on the job to improve job performance and adequate remuneration should be encouraged. In another study conducted by Ikonne and Onuoha (2015), studied 500 librarians from thirty-seven universities. The researchers acknowledged the factors that influenced job satisfaction of librarians in federal and state university libraries in Southern Nigeria. Survey research design was adopted and a total enumeration sampling technique was used. The results showed that job security, satisfactory relationship with supervisor; satisfactory interaction with colleagues and satisfactory interaction with information user/customer/clients were the significant factors that influenced the librarians' job satisfaction. However, salary and fringe benefits, working condition, and opportunities to conduct research were rated low, an indication that the librarians were not satisfied.

Mentoring and Job satisfaction in Libraries

Mentoring as a career development model provides professional development, career advancement, and growth. According to Abugre and Kpinpuo (2017), academic staffs that exercise mentoring enjoys higher levels of job satisfaction, self-efficacy, greater productivity and staff retention when compared to non-mentored academics. The researchers have shown that most young and inexperienced faculty members require assistance in developing their career and meeting their teaching quota through mentoring even though, academic mentoring has not been effective in many research universities, especially those in the developing world. The study adapted a quantitative methodology by drawing from a sample of 244 senior and junior teaching staff of a public research university in Ghana and used Multiple Regression analysis to test the hypotheses.

The research findings showed a strong positive relationship between institutional career support and the process of mentoring. Findings also showed a strong positive mentoring relationship between senior faculty and inexperienced faculty, as well as between colleague faculties. Similarly, findings showed a very low presence of academic mentoring in the University of Ghana. This work contributes strongly to academic mentoring and discovers some legitimate antecedents of mentoring in institutions of Higher Education. By this, the work provides institutions with the value of developing their internal human capital asset that can leverage their performance.

Nkomo and Thwala (2018) examined the effects of mentoring functions on the job satisfaction and organizational commitment of new graduates in the South African construction industry. The study found out that career development and role modelling functions have a positive effect on the job satisfaction and organizational commitment of new entry employees. However, the psychosocial support function was incapable of providing adequate explanation for these work outcomes. The study further suggested that graduate managers should improve the career development and role modelling functions of mentoring in order to enhance the job satisfaction, organisational commitment of new entry graduates employees.

Mentoring as a model for professional advancement Therefore, library management needs to promote the program and give it deserves consideration actively. Mentoring has been generally perceived as one of the key factors adding to skills development, psychosocial or socio-emotional support, and career advancement and success (Packard, 2016). Mentoring is a valuable resource for learning and coping with major organizational changes. It brings value to everyone

involved in this relationship, that is, mentees, mentors and the organization. According to Njoku (2017), mentoring programmes can encourage job task output of librarians and improves productivity. The study adopted the survey method with a population of 661 from 53 academic libraries consisting of federal and state owned universities, polytechnics and colleges of education libraries in South-East and South-South zones of Nigeria using census method. The finding indicates that there is a significant influence of mentoring on performance improvement of librarians in South-East and South-South zones of Nigeria.

Nwankwo and Anozie (2017) examined the concept of mentoring of young librarians in South East Nigeria so as to improve their research and scholarly publications. The study confined its scope to 135 librarians in the five different federal universities in South East Nigeria. The instrument for data collection was questionnaire with 30 items derived from the research questions. The descriptive survey research design was used as research method. The findings reveals that young librarians are a bit knowledgeable and conversant about the term "mentoring" but not equitable when compared to that of other higher librarians in matters of scholarly publication. Also there is evidence of mentoring in place in these libraries for boosting the research prowess of librarians, but in an informal form. The librarians believed that most times the mentee's inability to open up during interaction, and unconstructive criticisms from mentors to their mentees; are serious challenges to successful mentoring for improved.

David-West and Nmecha (2019) study on mentoring: A tool for career development in academic libraries examined the roles of mentors and mentees, on how mentors promote and improve mentees job performance for career development and advancement. The study also emphasized the approaches to mentorship. The study revealed that mentors require the right environment to carry on their role of mentoring to the mentees on both research writing and their job duties to achieve the desired goals. Further findings exposed that mentoring also increases confidence and motivation of librarians and support in the career development and advancement of the mentees.

Aman (2018) in his work, the effect of mentoring on military personnel retention discovered that mentoring has positive and significant effect on personnel retention and also found that psychological mentoring has higher effect on military personnel retention than career mentoring and role modeling. Findings of this study shows that providing mentoring for military personnel is positively and significantly related to higher psychological readiness, career development, and personnel retention. Military academies are better to emphasize on psychological mentoring to enhance the retention of military personnel. Libraries today are saddled with more responsibilities to provide services to their users. The library staff is expected to contribute the skills necessary to perform new tasks.

Motivation and Job satisfaction in Libraries

Motivation is crucial to the accomplishment of any organisation like libraries. Additionally, motivation plays a central role in the organizational success and work effectiveness of the employees. Motivational factors such as responsibility, achievement and job security, when properly applied, could have a high impact on the performance and productivity of employees in libraries. The implication of this is that when employees are happy, they put in their best to achieve the organizational goals. Money or financial incentives are not the only forms of motivation for employees, but, to the junior workers; money may be the highest motivating factor, because of the country's weak economy whereas the older employees and the professionals, money is typically less critical because they emphasize authority and responsibility which attracts fringe benefits and allowances. In essence, employees in academic libraries should be adequately motivated from time to time to boost morale for efficiency and higher productivity (Bamgbose & Ladipo, 2017).

Tella and Ibinaiye (2020) examined staff motivation, satisfaction, and job performance among the librarians and library staff in six selected university libraries in Nigeria. The target population for the study includes the professionals and nonprofessional library staff. A total enumeration sampling technique was used to select 180 respondents. The results indicate that librarian and library staff are highly motivated with regular pay while the least motivational factor is frequent interaction with their friends. Library staff are primarily satisfied with their jobs when they are in constant link with their friends. Professional library staff significantly experience better work motivation than their nonprofessional counterparts. Significant correlation exists between staff motivation and job performance and between job satisfaction and job performance. In addition, the two factors (motivation and satisfaction) exert significant contribution to the determinant of librarians and library staff job performance.

The study by Idiegbeyan-Ose, Opeke, Aregbesola, Owolabi and Eyiolorunshe (2019) investigated the relationship between motivation and job satisfaction of staff in University libraries in Nigeria. The study adopted survey research design, and the population involved all the 361 library staff in the private university in South-West, Nigeria. The findings show that the job satisfaction of library staff was low, though their motivation level was high. The finding correspondingly revealed correlation between the variables of motivation and job satisfaction.

Ikonne and Fajonyomi (2019) studied motivational factors and job performance of librarians in federal university libraries in North-East Nigeria. A survey research design was adopted in this research with the population of 275

librarians from the six federal University libraries in North-East Nigeria. Total enumeration technique was also employed. Data collected was analyzed using descriptive survey method. The study showed a low extent of motivation and the most prevalent motivational factor is compensation while librarians were not recognized. The study revealed that motivational factors in these federal university libraries in North-East Nigeria were low.

Mentoring, Motivation and Job Satisfaction of Librarians in University Libraries

Mentoring is a formal association between a senior librarian and junior librarian of a university library for the advancement and support of the junior librarians. A mentor is a person who guides a less experienced person by building trust and modeling positive behaviors. An effective mentor understands that his or her role is to be dependable, engaged, authentic, and tuned into the needs of the mentee. A mentee on the other hand, is someone who has identified a specific personal or professional goal and who believes that the guidance and help of a mentor and being held accountable to the mentor can help him achieve his goal. Chopra, Arora and Saint (2018) believed that mentoring focused on the career development of an individual with less experience. A mentor develops the intellectual power of the mentee progressively to be satisfactorily equipped in his preferred career. Mentoring also assists the mentee develop new abilities, and a larger organization to have competitive edge.

Furthermore, Geraci and Thypen (2017) perceives mentoring as a number of measures, such as advising, teaching, coaching, advocating, sponsoring, role modeling and assistance with personal development and achieving a work life balance. The mentor encourages the mentee to learn and be like him. Extant literature acknowledged the benefits of mentorship which involve quicker academic promotion, improved research output, and job satisfaction (Tjan, 2017). Mentees benefitted from mentoring through job recognition, job accomplishment, and job satisfaction, better job reward and remuneration.

Motivation is an individual psychological quality that contributes to a personnel level of loyalty to work (Nwibere, 2017). Motivation has factors that drive staff in putting actual energy and drive into what they do; it enables workers to exert their real efforts in achieving the stated goals and objectives of the organization (Yaya, 2017).

Motivated librarians are more likely to be satisfied on the job, by increasing their level of performance and satisfaction (Akpotohwo, Ogeibiri & George (2017). Idiegbeyan-Ose, Opeke, Aregbesola, Owolabi & Eyiolorunshe (2019) emphasised that motivation of librarians in university libraries is vital to research, learning and teaching in the university and in organisation to develop self-esteem of workers. Motivational factors are the dynamic powers that inspire an individual to pursue a certain action and the responsibility of the employers of labour is necessary in motivating their workforces.

Herzberg (1959) explained the relationship between work motivation and job satisfaction on the basis of two factors, intrinsic and extrinsic factor. The intrinsic factor increases the level of job satisfaction. The factor usually internally relate to employee such as promotion opportunities, and responsibility. They are the intrinsic factors. Second is extrinsic factor such as salary package, work environment, organization policies. These factors decrease the level of job dissatisfaction.

Theoretical Review

There are some theories that relate to the dependent variable of this study, job satisfaction which include content theories and process theories. The content theories includes Abraham Maslow's Need Hierarchy Theory (1943), Clayton Alderfers Erg Theory (1969), Frederick Herzberg Two Factor Theory (1959), Douglas Mcgreger Theory X and Theory Y, David Mcclelland's Needs Theory while process theories include Vroom's Valence Expectancy Theory, The Equity Theory, Goal Setting Theory of Edwin Locke, and Porter and Lawler Model.

Abraham Maslow's Needs Hierarchy Theory (1943)
Frederick Herzberg Two Factor Theory (1959)

Frederick modified Maslow's need Hierarchy theory. The theory is also known as two factor theory or Motivation-Hygiene theory was postulated in 1959 by Frederick Herzberg. He stated that there are certain satisfiers and dissatisfiers for employees at work. Intrinsic factors are related to job satisfaction while extrinsic factors are associated with dissatisfaction. He devised his theory on the question: "What do people want from their jobs?" He asked people to describe in detail such situations when they felt exceptionally good or exceptionally bad. From the responses that he received, he concluded that opposite of satisfaction is not dissatisfaction. Eliminating dissatisfying characteristics from a job does not necessarily make the job satisfying. He states that the presence of certain factors in the organisation is natural and the presence of the same does not lead to satisfaction. However, their non response leads to dissatisfaction. In similar manner there are certain factors, the absence of which causes no dissatisfaction, but their presence has motivational impact.

Mentoring Theories

According to mentoring theory, mentors perform career-related functions including sponsorship, exposure-and-visibility, coaching, protection, and challenging assignments. They also provide psychosocial functions, including role modelling, acceptance-and-confirmation, counselling, and friendship (Kram, 1983).

Self-Efficacy and Social Cognitive Theories

Bandura's (1977) self-efficacy theory (SET) offered a new perspective on human behavior regarding outcomes by suggesting that an individual's success is rooted in one's belief that one possesses the ability to achieve a specific outcome. While a person's perceived self-efficacy can impact one's own success, witnessing others performs successfully can increase or decrease an individual's personal belief in achieving a similar outcome.

Social Cognitive Career Theory

Social cognitive career theory (SCCT), developed by Lent et al. (1994), combines the measures of cognitive, self-regulatory, and motivational processes with career behaviors, as well as placing self-efficacy at the center of a career development model. Within this model, SCCT incorporates three specific entities of SCT (Bandura, 1986): self-efficacy, outcome expectations, and personal goals. In 2013, the model was extended to include adaptability as a means through which individuals maneuver both ordinary tasks (e.g., career choice) with unpredictable life events. This combined model addresses the evolution of how one focuses their own behaviors (career and educational) in different settings. The application of SCCT has spanned several career fields and applications, including higher education and mentoring at the doctoral level.

Social Cognitive Theory (SCT)

Social Cognitive Theory (SCT) formerly Social Learning Theory was propounded in 1960s and developed by Albert Bandura in 1986. Social Cognitive Theory (SCT) believes that learning occurs in a social setting with active and equal cooperation of the individuals, condition, and conduct (Bandura, 1986). Social Cognitive Theory is a valuable theoretical framework that interprets the mentoring process and its relationship. Mentoring is sustained by social cognitive theory and is applicable to this current study. Social Cognitive Theory presents a few perceptions into the mentoring system as mentees analyze from their mentors through influential and psychosocial support. Mentoring similarly presents a possibility for improvement and growth, each individually and professionally Also, Bandura asserts that most human behavior is learned through observation (career support, imitation (psychosocial support),and modeling(role modelling). Using Bandura's social learning theory, learners do not only imitate each other but also the teacher, the facilitator or the counsellor. A limitation of this model is that changes in the environment will automatically lead to changes in the individual. The theory is loosely organized, based solely on the dynamic interplay between persons, behavior, and environment.

Social Cognitive Theory is a valuable theoretical framework that interprets the mentoring process and its relationship to developing personnel. Few researchers incorporated the social cognitive theory into mentoring studies focuses on shared mutual social exchanges as mentors exchange and share knowledge with their mentees and provide recognition and visibility to the mentor. Social Cognitive Theory provides some insight into the mentoring process as mentees learn from their mentors through influential and psychosocial support. Mentoring equally provides an opportunity for development and growth both independently and professionally. Mentoring is abundantly supported by social cognitive theory and applicable to this study and shall be used to discuss mentoring of librarians in federal and university libraries in Southern Nigeria. The Social Cognitive Theory is relevant to the study as it provides some understanding into the mentoring process as mentees learn from observing and working with mentors Social Cognitive Theory indicates that mentees learn from their mentors through influential and psychosocial support. Interaction and social learning theories explain leaders' interactions with the followers.

Social Exchange Theory

Social Exchange Theory dated back to 1958 by George Homans, an American sociologist when he published an article titled "Social Behavior as Exchange". He devised a framework built on a combination of behaviorism and basic economics. He defined social exchange as the exchange of activity, tangible or intangible and more or less rewarding or costly, between at least two people. Human beings base their behaviours on rational calculations designed to maximize individual profit. Social exchange theory is a social psychological and sociological perspective that explains social

exchange and stability as a process of negotiated exchanges between parties. The theory suggests that human relationships are formed by the use of a subjective cost-benefit analyses and the comparison of alternatives.

Social exchange theory is a sociological and psychological theory that studies the social behavior in the interaction of two parties that implement a cost-benefit analysis to determine risks and benefits. The theory was afterward researched and extended further by two sociologists Richard Emerson and Karen Cook in 1978 and throughout the 1980s. After the development of the theory by Homans, Peter Blau and Richard Emerson, two other theorists; sustained and continued with the theory. Richard concentrated on reinforcement principles which believe individual base their next social move on past experiences.eas. Social exchange theory posits that people make choices about their relationships based on rational decision-making. They evaluate their decisions by ordering their priorities. The priority sets of different employees will make a great difference in the kind of workplace relationships they have.

The social exchange theory proposed that individuals develop beliefs and emotional reactions to a relationship based on their perception of the costs associated with the relationship relative to the benefits the relationship offers them. The theory advances career support, psychosocial support and role modeling. The researcher reviewed evidence-based studies by various researchers and scholars to explicate the effect and relationships between the various variables under study. Social exchange theory has provided organizational researchers with an influential framework for explaining work behavior. Social exchange theory proposes that social behavior is the result of an exchange process and postulates that people make choices about their relationships based on rational decision-making. This theory shows that individual is aware of each other's concerns and needs to enhance effective communication. Using the social exchange theory, the mentoring relationship is essentially viewed as a series of interpersonal reciprocal exchanges in the workplace between a mentor and a mentee. Social exchange relationships provide benefits to both the mentors and the mentees. The mentoring functions align with social exchange theory. In order to have a rewarding mentorship, there should be good rapport and relationship between the mentor and the mentee. The theory pointed out the intimate relationship between the mentor and the mentees.

Conceptual Model of Mentoring, Motivation and Job Satisfaction of Librarians in Federal and State University Libraries in Southern Nigeria
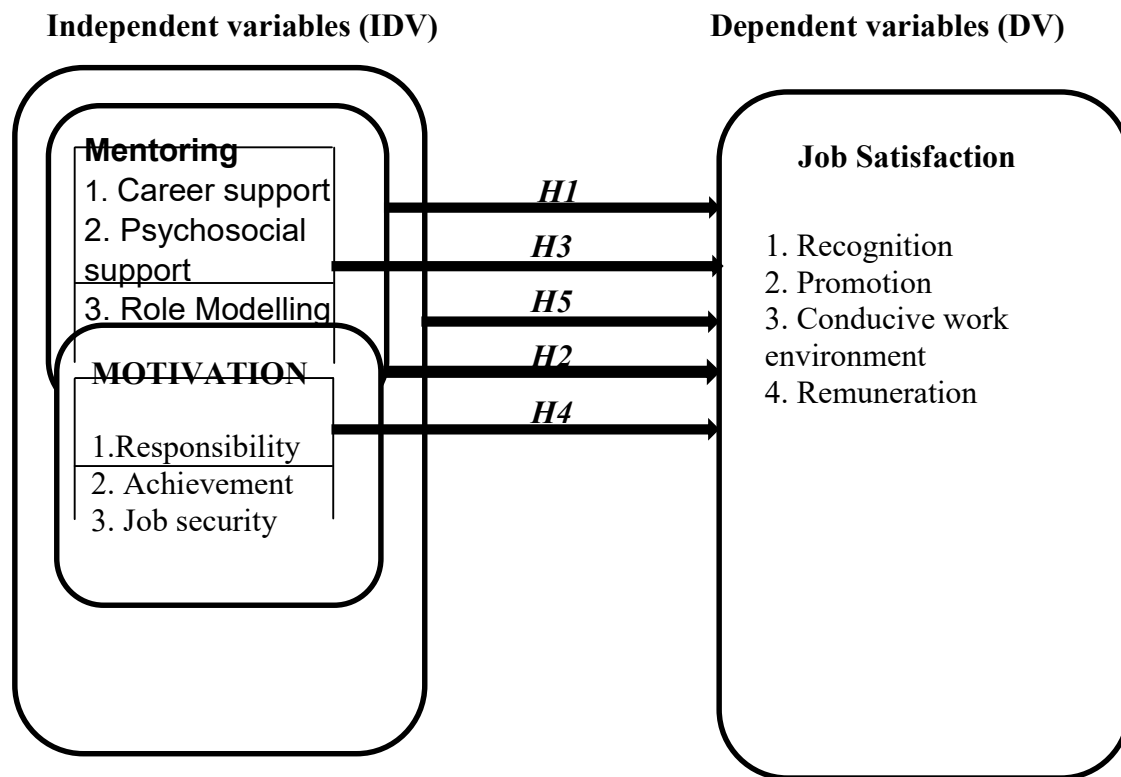

Figure 1. Conceptual model of Mentoring, Motivation and Job satisfaction of Librarians.
Source: Self-designed by the researcher (2022)

The conceptual model for this study showed how dependent variable, job satisfaction is jointly influenced by the independent variables, mentoring and motivation. The dependent variable, job satisfaction is measured by recognition, promotion, conducive work environment, and remuneration. Independent variable mentoring was measured by career support, psychosocial support and role modeling support. The second independent variable, motivation was measured by responsibility, achievement and job security.

Discussion of the conceptual model for the study

The conceptual framework for this study was based on the extant theories and literature reviewed. The model is broadly divided into two parts: Independent and Dependent variables. The independent variable consists of two sections: Mentoring, and Motivation, while the dependent variable is Job satisfaction of librarians in federal and state universities in Southern Nigeria, which indicates that there are three variables in this study. The dependent variable is job satisfaction whereas the independent variables are mentoring and motivation.

Mentoring can be viewed as preparation or training given to the new and upcoming librarians in Southern Nigeria university libraries. Mentoring variables were examined from three core dimensions which include career support, psychosocial support, and role modelling support. There is implication that when these dimensions are available in librarian's job, they may enhance their job satisfaction level. Career Support is diverse, educational, directing, and human resource that can maintain individuals to create and deal with their professions. **Psychosocial support** is a variety of care and support which influences both the individual and the social environment in which people live. Examples of psychosocial factors include social support, marriage status, social disruption, social status, and social integration. Psychosocial support addresses a person's emotional, social, mental and spiritual needs, all essential elements are for positive human development. **Role modelling** is a powerful teaching tool for passing on the knowledge, skills, and values of the librarian profession. R**ole models** can improve personal performance of staff.

The conceptual model for the study as represented diagrammatically in Figure 2.1 proposed that mentoring and motivation (independent variables) possibly influenced job satisfaction of librarians (dependent variable). It depicted possible relationship among the variables as presented in the model. According to this model, dimensions of mentoring and motivation relatively and compositely influence job satisfaction. As revealed in the conceptual model, the first arrow pointed from the first independent variable which is mentoring variable to job satisfaction variable and the second arrow pointed from the first independent variable which is motivation variable to job satisfaction variable. The third arrow points from the first independent variable which is mentoring variable to job satisfaction variable. The fourth arrow points from the second independent variable which is motivation variable to job satisfaction variable while the fifth arrow points from the first and second independent variables which is mentoring and motivation variables to job satisfaction variable.

The model also indicates that motivation may also influence job satisfaction. Motivation as shown in the model is examined from intrinsic which can be self-driven and extrinsic, which can arise from external rewards. Intrinsic motivational factors are responsibility, achievement, and job security. An intrinsically motivated person will be more committed to his/ her work.

METHODOLOGY

This chapter presents the methodology for the study. The chapter is discussed under the following sub-headings: research design, population, sample size and sampling technique, Instrumentation, validity and reliability of the instrument, data collection procedure, method of data analysis, and ethical considerations.

Research Design

The study adopted survey research design. Survey research design provides a wide scope   and allows great deal of information to be obtained from a larger population. The design was appropriate because it was cost effective when compared to methods such as observation and experimental and different types of information were collected. The method was used to obtain relevant information on mentoring, motivation and job satisfaction of librarians in federal and state university libraries in Southern Nigeria.

The study adopted survey research design to determine the relationship between mentoring, motivation and job satisfaction of librarians in federal and state university libraries in Southern Nigeria. Survey research design describes the relationship between two or more variables and also interprets the relationship that exists among the variables. Survey research design enables the researcher to describe the characteristics of a large population and broad in nature as no other research method provides the comprehensive competency which ensures a more accurate sample to collect targeted results in order to draw conclusions.

The adoption of this design is influenced by the research problem and its corresponding research questions. Moreover, the adoption of the survey research design was not only to get the reality of measures but also concentrate on the finding of interleaved factors, with particular reference to the relationship between mentoring, motivation and job satisfaction of librarians in federal and state university libraries in Southern Nigeria. The adoption of this design was consistent with studies of Friday and Okeke (2020), Ariyo and Okwilagwe (2020), Tella and & Ibinaiye (2020), Sohail (2019), Idiegbeyan-Ose, Opeke, Aregbesola, Owolabi, and Eyiolorunshe (2019), Ikonne and Fajonyomi (2019), Ibegbulam (2018), Ranaweera, Li and Bodhinayake (2018), Yaya (2018), Mabaso and Dlamini (2017), Okhakhu and Omoike (2017).

Population

The population for the study comprised of 563 librarians in 40 universities comprising eighteen (18) from federal universities and twenty-two (22) from state universities in South-East, South-South and South-West (See Table 3.1).

Sample Size and Sampling Technique

Sampling is a process of selecting a sample from the total population of a study. All members of the population are not applicable because of the large size. Sampling technique describes how a researcher selects sample size. The population of the study involves all librarians in the federal and state university libraries in Southern Nigeria which is 563. In order to obtain the representative sample size for the study, the Taro Yamane formula was adopted to determine the sample size. According to Taro Yamane (1967) 39% of a total population could be used to derive the actual population as provided in the formula. The sample size for the study was calculated as 234 (42%), (See Table 3.3).

The statistical formula devised by Taro Yamane is as follows:

$n = N/ 1+ N(e)^2$
In the formular above;
n is the required sample size from the population under study
N is the whole population that is under study
e is the precision or sampling error which is (5%).
Using the Taro Yamane's statistical formular to determine the adequate sample size of 563 respondents under study.
$n = N/ 1+ N (e)^2$
$N = 563; e = 0.1; e^2 = 0.01$
$n = 563/1+ 563(0.1)^2$
$n = 233.61$
Sample size n= 234.

This implies that 234 librarians were used as the sample in all the 40 federal and state university libraries in Southern Nigeria. Therefore, a sample size of 234 respondents of the entire population of 563 respondents is the lowest acceptable number of responses to maintain a 95% confidence level. Stratified proportionate sampling was used to select the respondents from the various federal and universities in Southern Nigeria. The respondents for the study were 234 librarians from forty (40) federal and state university libraries in Southern Nigeria which means the total enumeration was sampled.

Instrument of Data Collection

The research instrument used for this study was close-ended and well-structured questionnaire. In the study, the questionnaire was divided into five sections. The questionnaire is appropriate as a result of the educational and literacy level of the respondents. The instrument for the research takes into consideration all the variables in the study both independent and dependent variables. The instrument uses a five–point Likert-type rating format ranging from A-E.
Structured and adapted questionnaire tagged Mentoring, Motivation and Job Satisfaction of Librarians in Federal and State University Libraries in Southern Nigeria (MMJSLFSULSN) which comprised of five sections was used to collect data.

Section A focused on Demographic Characteristics (DC) where the respondents were asked to provide some basic bio-data on the respondent personal characteristics in terms of name of the university/library, category of institution, gender, marital status, age, educational qualification, designation, department, and length of service.

Section B covered Dependent Variable (DV) which was on the level of job satisfaction of the librarians in federal and state university libraries of Southern Nigeria. It contained 29 items. These are Recognition, Promotion, Conducive work environment and Remuneration. All these items under Job satisfaction were positively worded. The job satisfaction (JS) scale was adapted and modified from a scale developed by Smith, Kendall and Hulin (1969), revalidated (JS) by Mogaji (1997) and Yaya (2016). The instrument was adapted to provide information about the respondents' job satisfaction of librarians in federal and state university libraries in Southern Nigeria. A five level Likert scale instrument ranging from Very High (VH) = 5; High (H) = 4; Moderately High (MH) = 3 and Moderately Low (ML) = 2, and Low(L) = 1.

Section C: This section considered the level of Mentoring (M) of librarians in the respective federal and state university libraries in Southern Nigeria. It contains 20 items which are Career support, Psychosocial support, and Role modelling support. The mentoring scale was adapted and modified from a scale developed by Scandura & Ragins (1993), Pellegrini and Scandura (2005) and Hu, Pellegrini and Scandura (2011). A five scale instrument ranging from Very High (VH) = 5; High (H) = 4; Moderately High (MH) = 3; Moderately Low (ML) = 2 and Low (L) = 1 were used.

Section D: The questionnaire measured the degree of motivation of librarians in federal and state university libraries in Southern Nigeria. It contains 18 items in total among which are Responsibility, Achievement and Job Security. The motivation (M) scale was adapted and modified from a scale developed by Yaya (2016) and Idiegbeyan-Ose, Opeke, Aregbesola, Owolabi, & Eyiolorunshe (2019). Respondents were asked about their motivational factors to enhance their job satisfaction. A four level Likert scale instrument ranging from Very High (VH) =5; High (H) = 4; Moderately High (MH) –3 and Low Degree (LD) –1 were to be used to measure degree of motivation of librarians in federal and state university libraries in Southern Nigeria.

Validity of Research Instrument

Validity measures the level of the data collection instruments effectiveness and whether the research findings can be generalized (Saunders, Lewis & Thornhill, 2012, & 2019). The validity of the instrument would be determined through content and construct validities. A research measure is said to be valid when it measures what it is meant to measure, it is the degree to which any instrument succeeds to quantify what it is designed to measure. For this research study the face validity and the predictive validity method would be used in validating the research instrument.

The face validity method focuses on the respondents being able to understand the instrument at face level; it is easy understanding of the research instrument by the participants. This method of validity would test if the research instrument is measuring the content adequately.

To ensure that the self-designed questionnaire serves the purpose for which it was designed, the instrument was presented to the Project Supervisor, experts in the field of information science in the Department of Information Resources Management of Babcock University, some university librarians and colleagues were asked to rate the validity of the research instrument for screening and thorough vetting. For the instrument to be valid, face and content validity of the instruments were incorporated. In order to ensure that the structured questionnaire is reliable, a pilot study of the research instrument was conducted on a small group of 60 respondents who constitute 11% of the research population from the Kwara State University, Ilorin, Kogi State University, Ayingba, Kogi State, University of Ilorin, Ilorin and Federal University of Technology, Minna, Kwara State in the North-Central geo-political zone of Nigeria to determine its validity, reliability and internal consistency. The four universities were not part of the final sample for the study. In addition, content validity of the instrument was also carried out to ensure that constructs of items in the instrument are able to measure accurately what they are supposed as indicated by Bolarinwa (2015). To further improve content validity, a principal component factor analysis was used to check the construct validity. The common measures of sample adequacy are Kaiser-Meyer-Olkin measures (KMO) and Bartlett's Test of Sphericity. A Kaiser-Meyer-Olkin acceptable value for a factor to be significant range from 0 to 1 and an index of above 0.5 is very good. The Bartlett's Test of Sphericity relates to the significance of the study as regards the validity and suitability of the factors for a particular study. The Bartlett's Test of Sphericity acceptable index must be less than 0.05. The Average Variance Extracted (AVE) > 0.5 was also used to test the convergent validity of the research instrument. The results of the Kaiser-Meyer-Olkin measures (KMO), Bartlett's Test of Sphericity and average variance extracted on the validity and suitability of the variables. To achieve validity of the result of the research instrument, measures such as face, content and construct validity were employed. Face validity of the scale of the questionnaire was attained by presenting the questionnaire to colleagues and scholars for assessment. Clarity of wording, layout and style, likelihood of the target audience being able to answer the questions were the three things checked for. For the assessment of content validity, the questionnaire was given to the research supervisor to ascertain whether the questionnaire items adequately covered the domain of the construct. The construct validity of all variables involved in the study was established by subjecting the idea to the

exploratory factor analysis using varimax extraction method. However, average variance extracted (AVE) > 0.5 was treated as an additional evidence of convergent validity.

The convergent validity of the study constructs, the AVE for each variable was calculated by dividing the sum of the squares of each factor loading by the number of indicators. The values of AVE for the variables range from 0.7258 to 0.9563. These values were above the minimum threshold of 0.500 and therefore implied that each variable on the average was able to explain more than half of the variance of the indicators. Furthermore, the composite reliability (CR) for all constructs was above 0.70 (Serbetar & Sedlar, 2016). Thus all the variables demonstrated sufficient convergent reliability. Hence, it was confirmed that the questionnaire developed for this study was valid in achieving the set objectives.

Reliability of Research Instrument

The reliability of the research instrument was on the intending population under study. Reliability refers to the extent to which a measurement scale or a test is dependable, consistent, predictable and stable (Hammed & Popoola, 2006). Reliability of the research instrument was conducted to ascertain whether the variables of the study consistently measured the factors intended. In the study, a pre-test for internal consistency measure using Cronbach's Alpha was employed for assessing the reliability of the research instrument. The purpose of reliability test is to further ascertain whether the internal consistency of scales is indicative of the homogeneity of the construct items that measures the variables. In the process, the reliability for each of these scales was ascertained at the minimum threshold of 0.7 and above (Cronbach, 1951). The instrument was validated using Cronbach's Alpha Coefficient at the threshold of 0.7 to confirm the reliability of the research instrument. The reliability was specified at Cronbach's Alpha ≥ 0.7 as the indicators of Job satisfaction, mentoring and motivation. This was an indication for significant correlation between the variables of the study. The pilot study outcome therefore, indicated a high level of internal reliability for all variables, and the questionnaire had a high level of internal consistency of the entire variables. The test was carried out using the Statistical Package for Social Science (SPSS) version 22. The result showed that the questionnaire had a high level of reliability.

Table 1. Test of Reliability of the Research Instrument

S/N	Variables	Number of Items	Cronbach's Alpha Coefficient
1	Job Satisfaction Librarians	29	0.760
2	Mentoring	20	0.790
3	Motivation	18	0.770

Source: SPSS Pre-test Result (2022)

Method of Data Collection

The corrected copies of the questionnaire for the study were administered to the participants in the various 40 federal and state universities in Southern Nigeria personally and through online survey google form by the researcher and six research assistants, who were adequately trained on the conduct of the survey for two weeks in November, 2021. Both were administered concurrently between December, 2021 and early February 2022, a period of ten weeks. Confidential handling of all information supplied was guaranteed by the researcher.

The questionnaire also included instruction on how to fill it to the respondents. Efforts were made to carry out field editing to ensure the validity and reliability of the instrument. The prompt retrieval of the completed questionnaire was agreed upon by both parties. In general, 234 copies of the questionnaire were administered to the librarians, however, a total of 212 copies were retrieved which gave a return rate of 90.6%.

Method of Data Analysis

The data collected from the respondents were coded and analysed using Statistical Package for Social Sciences (SPSS) version 22.0. Frequency counts and percentage were used to describe the demographic characteristics of the respondents. Frequency counts, percentages, mean and standard deviation were used to analyse research questions 1-3. Simple and multiple linear regression were used to analyse   hypotheses 1-5 at 0.05 level of significance.

DATA ANALYSIS AND DISCUSSION OF FINDINGS

The study investigated the influence of mentoring and motivation on job satisfaction of librarians in federal and state university libraries in Southern Nigeria. Three research questions and five hypotheses were raised in this study. The presentation of the data for the demographic characteristics was done using frequency count and percentages. The research questions were done using descriptive statistics. The hypotheses were tested using linear and multiple regression analysis. The formulated hypotheses were tested at 0.05 levels of significance. A total of 234 copies of the questionnaire were administered to librarians in federal and state university libraries in Southern Nigeria. A total of 212 participants responded and completed the survey questionnaire giving a response rate of 90.6%. Babbie and Mouton (2013) opined that a response rate of at least 50% is adequate for analysis of a survey, 60% is considered good while a 70% return rate was considered excellent. Therefore, the 90.6% response rate was considered excellent as a sufficient sample size required for simple multi linear regression analysis.

Analysis of respondents' demographic characteristics

The demographic characteristics of the respondents include gender, age, educational qualification and years of experience.

Table 2. Frequency distribution of respondents' demographic characteristics

Demographic characteristics	Classifications	Frequency	Percentage (%)
Category of Institution	Federal	123	58
	State	89	42
Gender	Male	133	62.7
	Female	79	37.3
Age Range	30 years and below	3	1.4
	31-40	36	17.0
	41-50	55	25.9
	51-60	109	51.4
	61 years and above	9	4.2
Educational Qualifications	BSC/BLIS/BA	3	1.4
	MSC/MLIS/MA	112	52.8
	MPhil	6	2.8
	PhD	91	42.9
Designation	University Librarian	10	4.7
	Deputy University Librarian	25	11.7
	Principal Librarian	36	17.0
	Senior Librarian	33	15.4
	Librarian I	25	11.7
	Librarian II	78	36.4
	Assistant Librarian	5	2.3
Department/Unit	Administration	12	6.0
	Acquisitions	20	9.3
	Technical Services	65	30.3
	Readers/Circulations	58	27.1
	Serials	15	7.0
	Reference	17	8.0
	Virtual/E-library	25	11.7
Years of work experience	10 years and below	34	16.0
	11-20	88	41.5
	21-30	69	32.6
	31 years and above	18	8.5

N=212 (Source: Field Survey, 2022)

Table 2 indicates the frequency distribution of respondents' demographic characteristics for this study. The result shows that out of 212 respondents that participated in this study, 123(58%) respondents were from federal universities while 89(42%) were from State universities. The result also indicates that out of 212 respondents that participated in this study, 133 (62.7%) respondents were male while 79 (37.3%) were female. This suggests that male respondents were more than the female. Table 4.1 also displays that 112 (52.8%) respondents were holders of MSc/MLIS/MA while 3 (1.4%) were holders of BSc/BLIS/BA. The number of PhD holders was impressive with 91 (42.9%). The reason for the figure being high might be because the librarians are academic staff in the university and were required to have PhD to qualify them as University Librarians in order to reach the peak of their academic careers. Table 4.1 showed that 88 (41.5%) respondents have 11-20 years of work experience while only 18 (8.5%) respondents have 31 years and above of work experience. The findings could imply that librarians in Southern Nigeria University libraries were likely to have a good understanding of library operations which assisted in the provision of reliable information to achieve the objectives of this study.

Analysis of Research Questions

Research Question 1: What is the level of job satisfaction of librarians in federal and state university libraries in Southern Nigeria?

The data collected on research question one was analysed using descriptive statistics.

Table 3. Level of Job Satisfaction of Librarians

Job satisfaction	VH (%)	H (%)	MH (%)	ML (%)	L (%)	Mean	S.D	Average Mean
Recognition The level to which…								
I am given varieties of task to perform is	82 (38.7)	88 (41.5)	39 (18.4)	0 (0)	3 (1.4)	4.16	0.82	**3.93**
I am respected as a staff is	82 (38.7)	82 (38.7)	36 (17.0)	9 (4.2)	3 (1.4)	4.09	0.92	
I am allowed to use my initiatives on the job is	82 (38.7)	79 (37.3)	39 (18.4)	6 (2.8)	6 (2.8)	4.06	0.97	
I am satisfied with the responsibilities assigned to me is	61 (28.8)	103 (48.6)	33 (15.6)	9 (4.2)	6 (2.8)	3.96	0.93	
I am accorded the right recognition for work accomplishment is	58 (27.4)	88 (41.5)	51 (24.1)	6 (2.8)	9 (4.2)	3.85	0.99	
I am given recognition for good work performed is	58 (27.4)	94 (44.3)	36 (17.0)	15 (7.1)	9 (4.2)	3.83	1.04	
My opinion on work and related issues are respected is	64 (30.2)	70 (33.0)	54 (25.5)	15 (7.1)	9 (4.2)	3.78	1.09	
I am satisfied with the respect given to my suggestions is	52 (24.5)	88 (41.5)	48 (22.6)	12 (5.7)	12 (5.7)	3.74	1.07	
Promotion The level to which…								
Timely promotion enhances my job satisfaction is	85 (40.1)	73 (34.4)	42 (19.8)	9 (4.2)	3 (1.4)	4.08	0.95	**3.70**
My immediate boss and the university librarian recommend me for promotion when qualified is	70 (33.0)	82 (38.7)	42 (19.8)	15 (7.1)	3 (1.4)	3.95	0.97	
My promotion corresponds with my input in the library is	52 (24.5)	82 (38.7)	45 (21.2)	21 (9.9)	12 (5.7)	3.67	1.12	
My promotion is timely is	40 (18.9)	88 (41.5)	45 (21.2)	24 (11.3)	15 (7.1)	3.54	1.13	
I am satisfied with the promotion policy and process of the library is	46 (21.7)	85 (40.1)	36 (17.0)	21 (9.9)	24 (11.3)	3.51	1.25	

Table 3. CONTINUATION

I am satisfied with the promotion policy and process of the university is	49 (23.1)	67 (31.6)	48 (22.6)	21 (9.9)	27 (12.7)	3.42	1.30	
My salary is adequate to meet my basic needs is	21 (9.9)	45 (21.2)	80 (37.7)	42 (19.8)	24 (11.3)	2.99	1.13	
I am satisfied with the allowances is	18 (8.5)	54 (25.5)	74 (34.9)	30 (14.2)	36 (17.0)	2.94	1.19	
Conducive Work Environment **The level to which…**								**3.68**
I am happy to go to work on a daily basis is	72 (34.0)	89 (42.0)	36 (17.0)	12 (5.7)	3 (1.4)	4.01	0.93	
My workmates and colleagues are friendly is	58 (27.4)	106 (50.0)	30 (14.2)	18 (8.5)	0 (0)	3.96	0.87	

Social environment in my library is conducive (i.e., peaceful and friendly) is	55 (25.9)	91 (42.9)	36 (17.0)	21 (9.9)	9 (4.2)	3.76	1.07	
Library's physical environment is encouraging is	33 (15.6)	106 (50.0)	49 (23.1)	21 (9.9)	3 (1.4)	3.68	0.90	
I am happy with the way my library is managed is	39 (18.4)	84 (39.6)	49 (23.1)	33 (15.6)	7 (3.3)	3.54	1.06	
I am provided with adequate tools and resources is	21 (9.9)	102 (48.1)	58 (27.4)	28 (13.2)	3 (1.4)	3.52	0.90	
I am satisfied with the general layout of my office is	30 (14.2)	79 (37.3)	64 (30.2)	36 (17.0)	3 (1.4)	3.46	0.98	
Remuneration **The level to which…**								**3.48**
My salary is regular is	84 (39.6)	86 (40.6)	36 (17.0)	6 (2.8)	0 (0)	4.17	0.81	
My current designation corresponds with my current salary is	73 (34.4)	76 (35.8)	48 (22.6)	12 (5.7)	3 (1.4)	3.96	0.96	
My allowances are at par with other academic staff of the university is	64 (30.2)	67 (31.6)	72 (34.0)	3 (1.4)	6 (2.8)	3.85	0.97	
My salary is equitable to my job in comparison to other job categories in library profession is	37 (17.5)	64 (30.2)	78 (36.8)	21 (9.9)	12 (5.7)	3.44	1.07	
I am happy with my current salary is	21 (9.9)	57 (26.9)	65 (30.7)	48 (22.6)	21 (9.9)	3.04	1.14	
My salary is adequate to meet my basic needs is	21 (9.9)	45 (21.2)	80 (37.7)	42 (19.8)	24 (11.3)	2.99	1.13	
I am satisfied with the allowances is	18 (8.5)	54 (25.5)	74 (34.9)	30 (14.2)	36 (17.0)	2.94	1.19	
Weighted Mean and S.D of Level of Job Satisfaction of Librarians						**3.70**	**1.02**	

N= 212 (Source: Field Survey, 2022)
KEY: VH = Very High, H =High, MH = Moderately High, ML = Moderate Low, L = Low.
***Decision Rule: if mean is ≤ 1.49 = Low; 1.5 to 2.49 = Moderately Low; 2.5 to 3.49 = Moderately High; 3.5 to 4.49 = High; 4.5 to 5 = Very High.

Table 3 reveals descriptive analysis of level of job satisfaction of librarians in federal and state university libraries in Southern Nigeria. The interpretation of the results was based on the decision rules to avoid misleading statistical interpretation. The result of Table 4.2 shows that the weightedmean score of level of job satisfaction of librarians in federal and state university libraries in Southern Nigeria (x̄) was3.70 on a five point Likert-type rating scale. This result may imply that librarians in federal and state university libraries in Southern Nigeriawere highly satisfied with their jobs. The result indicates that recognition had the highest with the mean (x̄) score of 3.93, followed by promotion with the mean score (x̄) of 3.70, which implies that librarians in federal and state universities in Southern Nigeria libraries were

pleased with their promotions., subsequently followed by conducive work environment with the mean (x̄) score of 3.68, and remuneration, the least with mean (x̄) score of 3.48, an indication that the librarians were well remunerated.

Research Question 2: What is the level of mentoring of librarians in federal and state university libraries in Southern Nigeria?

The data collected on research question two was analysed using descriptive statistics.

Table 4. Level of Mentoring of Librarians

Mentoring of Librarians	VH (%)	H (%)	MH (%)	ML (%)	L (%)	Mean	S.D	Average Mean
Career Support **The level to which…**								
My mentor takes a personal interest in my career development is	43 (20.3)	94 (44.3)	45 (21.2)	12 (5.7)	18 (8.5)	3.62	1.13	
My mentor supports my professional goals is	40 (18.9)	97 (45.8)	45 (21.2)	15 (7.1)	15 (7.1)	3.62	1.09	
My mentor inspires me to take advantage of professional development programmes is	46 (21.7)	91 (42.9)	36 (17.0)	15 (7.1)	24 (11.3)	3.57	1.23	
My mentor always provides me with information on promotion opportunities is	43 (20.3)	94 (44.3)	36 (17.0)	15 (7.1)	24 (11.3)	3.55	1.22	3.66
My mentor gives me responsibilities that enhances my career development on the job is	37 (17.5)	100 (47.2)	36 (17.0)	21 (9.9)	18 (8.5)	3.55	1.15	
My mentor exposes me to lots of career opportunities is	43 (20.3)	91 (42.9)	39 (18.4)	15 (7.1)	24 (11.3)	3.54	1.23	
My mentor trains me on the job is	46 (21.7)	76 (35.8)	48 (22.6)	18 (8.5)	24 (11.3)	3.48	1.24	
My mentor devotes special time and consideration to my career is	31 (14.6)	100 (47.2)	45 (21.2)	12 (5.7)	24 (11.3)	3.48	1.16	
Psychosocial Support **The level to which…**								
I see my mentor as a senior colleague is	67 (31.6)	70 (33.0)	45 (21.2)	15 (7.1)	15 (7.1)	3.75	1.18	
I keep in touch with my mentor during work hours is	49 (23.1)	88 (41.5)	24 (11.3)	33 (15.6)	18 (8.5)	3.55	1.24	
I consider my mentor to be a friend is	46 (21.7)	82 (38.7)	45 (21.2)	18 (8.5)	21 (9.9)	3.54	1.21	
I discuss my personal concerns and problems with my mentor is	31 (14.6)	84 (39.6)	34 (16.0)	42 (19.8)	21 (9.9)	3.29	1.22	3.55
My mentor and I always confide in each other is	46 (21.7)	64 (30.2)	36 (17.0)	33 (15.6)	33 (15.6)	3.27	1.37	
I socialize with my mentor after work is	31 (14.6)	70 (33.0)	54 (25.5)	24 (11.3)	33 (15.6)	3.20	1.27	
Role Modelling Support **The level to which…**								
I respect my mentor's ability to teach others is	61 (28.8)	79 (37.3)	42 (19.8)	15 (7.1)	15 (7.1)	3.74	1.16	3.43
I reverence my mentor's professional skills is	52 (24.5)	88 (41.5)	48 (22.6)	9 (4.2)	15 (7.1)	3.72	1.10	

Table 4.CONTINUATION

I admire my mentor's ability to motivate others is	55 (25.9)	85 (40.1)	42 (19.8)	15 (7.1)	15 (7.1)	3.71	1.14	
I admire my mentor's skill to bring up others is	46 (21.7)	88 (41.5)	45 (21.2)	15 (7.1)	15 (7.1)	3.65	1.12	
I generally like my mentor's lifestyle is	49 (23.1)	79 (37.3)	48 (22.6)	18 (8.5)	18 (8.5)	3.58	1.18	
I always emulate my mentor is	42 (19.8)	80 (37.7)	63 (29.7)	9 (4.2)	15 (7.1)	3.56	1.12	
Weighted Mean and S.D of Level of Mentoring of Librarians						**3.55**	**1.19**	

N= 212 (Source: Field Survey, 2022)

KEY: VH = Very High, H =High, MH = Moderately High, ML = Moderate Low, L = Low.
***Decision Rule: 1.0-1.49 = Low; 1.5 to 2.49 = Moderately Low; 2.5 to 3.49 = Moderately High; 3.5 to 4.49 = High; 4.5 to 5 = Very High.

Table 7 reveals the descriptive analysis of level of mentoring of librarians in federal and state university libraries in Southern Nigeria. The interpretation of the results was based on the decision rules stated to avoid misleading statistical interpretation. The result of Table 4.3 discovered that the weightedmean score of level of mentoring of librarians in federal and state university libraries in Southern Nigeria was3.55 on a five point Likert-type rating scale. This result may imply that librarians in federal and state university libraries in Southern Nigeria were highly mentored on their jobs.

The result on Table 7 also indicated that role modelling of librarians in federal and state university libraries in Southern Nigeria was the highest with the mean ($\bar{x}$) score of 3.66, closely followed by career support of librarians in federal and state university libraries in Southern Nigeria with the mean score ($\bar{x}$) of 3.55, followed by psychosocial support of librarians in federal and state university libraries in Southern Nigeria with the mean ($\bar{x}$) score of 3.43which had the least degree. Career support had a mean score of 3.55which implies that the career development of librarians must be sustained in federal and state university libraries in Southern Nigeria. Psychosocial support had a mean score of 3.43, which is an indication that librarians should be sustained both personally and socially to perform better and be satisfied on the job. The highest mean score for role modelling of librarians in federal and state university libraries in Southern Nigeria also suggested that there was quality mentoring by librarians through role high modelling.

Research Question 3: What is the degree of motivation of librarians in federal and state university libraries in Southern Nigeria?

Table 5. Degree of motivation of librarians

Degree of Motivation	VH (%)	H (%)	MH (%)	ML (%)	L (%)	Mean	S.D	Average Mean
Responsibility **The degree to which…**								
I have been given opportunity to use my ability is	88 (41.5)	76 (35.8)	39 (18.4)	9 (4.2)	0 (0)	4.15	0.87	**4.05**
My boss gives me greater responsibility is	73 (34.4)	97 (45.8)	33 (15.6)	6 (2.8)	3 (1.4)	4.09	0.86	
I am being treated by my boss with passion, care and respect is	64 (30.2)	88 (41.5)	42 (19.8)	12 (5.7)	6 (2.8)	3.91	0.99	
Achievement **The degree to which…**								
My additional higher qualification earned made me more effective in the library work is	85 (40.1)	85 (40.1)	42 (19.8)	0 (0)	0 (0)	4.20	0.75	**3.96**
My job skills increase my competence and efficiency is	79 (37.3)	94 (44.3)	33 (15.6)	3 (1.4)	3 (1.4)	4.15	0.88	
My job performance experience is enriched is	70 (33.0)	91 (42.9)	42 (19.8)	6 (2.8)	3 (1.4)	4.03	0.88	

	VHD	HD	MHD	MLD	L	x̄	S.D	
I have a sense of challenge and achievement is	67 (31.6)	91 (42.9)	51 (24.1)	0 (0)	3 (1.4)	4.03	0.83	
I enjoy discussing about my university with outsiders is	64 (30.2)	94 (44.3)	42 (19.8)	0 (0)	12 (5.7)	3.93	1.01	
Training and career development are given top priority is	64 (30.2)	76 (35.8)	57 (26.9)	6 (2.8)	9 (4.2)	3.85	1.02	
Staying with my organization is a necessity is	36 (17.0)	82 (38.7)	61 (28.8)	18 (8.5)	15 (7.1)	3.50	1.09	
Job Security **The degree to which…**								
I have job security in my university is	88 (41.5)	88 (41.5)	30 (14.2)	0 (0)	6 (2.8)	4.19	0.88	**3.93**

	VHD	HD	MHD	MLD	L	x̄	S.D	
My workplace is a safe place to work is	79 (37.3)	100 (47.2)	27 (12.7)	3 (1.4)	3 (1.4)	4.17	0.81	
My organization deserves my loyalty is	82 (38.7)	85 (40.1)	39 (18.4)	6 (2.8)	0 (0)	4.15	0.82	
I enjoy good working relations and support from other co-workers is	58 (27.4)	106 (50.0)	39 (18.4)	3 (1.4)	6 (2.8)	3.98	0.88	
My job status is at par with other university academic staff is	64 (30.2)	85 (40.1)	48 (22.6)	6 (2.8)	9 (4.2)	3.89	1.01	
There is just and fair treatment of employee by my university is	73 (34.4)	64 (30.2)	57 (26.9)	9 (4.2)	9 (4.2)	3.82	1.05	
Payment of realistic salaries and compensation is provided by my employer is	48 (22.6)	76 (35.8)	67 (31.6)	9 (4.2)	12 (5.7)	3.66	1.05	
Payment of realistic compensation is provided by my employer is	46 (21.7)	64 (30.2)	75 (35.4)	15 (7.1)	12 (5.7)	3.55	1.08	
Weighted Mean and S.D of Level of Motivation of Librarians						**3.98**	**0.93**	

N = 212 (Source: Field Survey, 2022)

KEY: VHD = Very High Degree, HD =High Degree, MHD = Moderately High Degree, MLD = Moderate Low Degree, L = Low Degree.

***Decision Rule: 1.0-1.49 = Low Degree; 1.5 to 2.49 = Moderately Low Degree; 2.5 to 3.49 = Moderately High Degree; 3.5 to 4.49 = High Degree; 4.5 to 5 = Very High Degree.

Table 5 reveals the descriptive analysis of degree of motivation of librarians in federal and state university libraries in Southern Nigeria. The result shows that the weightedmean degree of motivation of librarians in federal and state university libraries in Southern Nigeria was3.98 on a five point Likert-type rating scale. This result implies that the degree of motivation of librarians in federal and state university libraries in Southern Nigeria was high. The result signifies that the librarians in federal and state university libraries in Southern Nigeria are highly motivated. Of the three measurements of mentoring, the result indicates that the degree of responsibility was highest with a mean score mean (x̄) of 4.05. Also, the result shows that the degree of achievement is high with mean (x̄) of 3.96. Finally, the result equally indicates that the degree of job securityis high with mean (x̄) of 3.93 on a five point Likert-type rating scale, but the lowest.

Though the indicators are high but responsibility has the highest mean score of 4.05 which indicates that if librarians are given more and higher tasks, they would be motivated to perform better and satisfied on the job.

The mean score for achievement is 3.93, this serves as implication that achievement is a force to reckon with in terms of motivation of the librarians in federal and state university libraries in Southern Nigeria. This suggested that librarians that have sense of achievement on the job would be adequately motivated and satisfied. The mean score for job security is 3.93which was the least revealed that librarians were not highly motivated to achieving their job security needs.

Test of Hypotheses

Data gathered in Tables 9-13 were collected and carefully analysed using simple multiple linear regression analyses.

Decision Rule

The pre-set level of significance for this study was 0.05. The hypotheses presumed that there was no significant influence between the variables under consideration. If the p-value which indicated the significance or the probability value exceeded the pre-set level of significance ($p > 0.05$), the hypothesis stated in null form is accepted, however, if the p-value is less than or equal to 0.05 ($p \leq 0.05$), the null hypothesis is rejected.

Hypothesis One: Mentoring does not significantly influence job satisfaction of librarians in federal and state university libraries in Southern Nigeria

Table 6. Simple linear regression Analysis of influence of mentoring on job satisfaction

Predictors	Model 1	Beta (β)	T	Sig. (P-value)	R^2	Adj. R^2	F	ANOVA (Sig.)
(Constant)	3.428		16.780	0.000	0.525	0.523	228.811	0.000
Mentoring	0.046	0.725	15.127	0.000				
Dependent Variable: Job Satisfaction Predictor: (Constant), Mentoring DF (F-Statistics)= 1,211 DF (T-Statistics) = 210								

N = 212 (Source: Field Survey, 2022)

Table 6 shows the simple linear regression analysis result for the influence of mentoring on job satisfaction of librarians in federal and state university libraries in Southern Nigeria. The independent variable of mentoring was regressed against job satisfaction of librarians using simple linear regression analysis. The result revealed that mentoring (β = 0.725, t (210) =15.127, $p < 0.05$) has moderate, positive and significant influence on job satisfaction of librarians in federal and state university libraries in Southern Nigeria. The R^2 is the coefficient of determinant which explains the variation in the dependent variable due to change in the independent variable. The R^2 (0.525) of the regression model indicate that 52.3% of variation in mentoring can be explained in job satisfaction of librarians in federal and state university libraries in Southern Nigeria. The F-test (1,211) is 228.811. This shows that there is sufficient evidence (significant at $p < 0.05$) to substantiate the model's usefulness in predicting job satisfaction of librarians in federal and state university libraries in Southern Nigeria. From the data in Table 4.6, the established simple linear regression model one is thus expressed as:

M = 3.428 + 0.046 JS …………………………………………………………….Model 1
Where:
JS = Job Satisfaction
M = Mentoring

The regression model one shows that holding mentoring to a constant zero, job satisfaction would be 3.428, implying that the availability of mentoring would increase job satisfaction of librarians in federal and state university libraries in Southern Nigeria. The result further indicates that there was positive relationship between mentoring and job satisfaction of librarians in federal and state university libraries in Southern Nigeria with Beta = 0.725. This means that a unit increase in mentoring results to 72.5% increase in job satisfaction of librarians in federal and state university libraries in Southern Nigeria. Since p = 0.000<0.05, the null hypothesis is rejected. Therefore, the result concluded that mentoring significantly influence job satisfaction of librarians in federal and state university libraries in Southern Nigeria.

Hypothesis Two: Motivation does not significantly influence job satisfaction of librarians in federal and state university libraries in Southern Nigeria

Table 7. Simple linear regression analysis of the influence of motivation on job satisfaction

Predictors	Model 1	Beta (β)	T	Sig. (P-value)	R^2	Adj. R^2	F	ANOVA (Sig.)
(Constant)	3.863		0.363	0.717	0.796	0.523	818.440	0.000
Motivation	0.053	0.892	28.608	0.000				
Dependent Variable: Job Satisfaction Predictor: (Constant), Motivation DF (F-Statistics) = 1,211 DF (T-Statistics) = 210								

N = 212 (Source: Field Survey, 2022)

Table 7 shows the simple linear regression analysis result for the influence of motivation on job satisfaction of librarians in federal and state university libraries in Southern Nigeria. The independent variable of motivation was regressed against job satisfaction of librarians using simple linear regression analysis. The result revealed that mentoring (β = 0.892, t (210) =28.608, p < 0.05) has moderate, positive and significant influence on job satisfaction of librarians in federal and state university libraries in Southern Nigeria. The R^2 is the coefficient of determinant which explains the variation in the dependent variable due to change in the independent variable. The R^2 (0.796) of the regression model indicate that 79.6% of variation in motivation can be explained in job satisfaction of librarians in federal and state university libraries in Southern Nigeria. The F-test (1,211) is 228.811. This shows that there is sufficient evidence (significant at p < 0.05) to substantiate the model's usefulness in predicting job satisfaction of librarians in federal and state university libraries in Southern Nigeria. From the data in Table 4.7, the established simple linear regression model one is thus expressed as:

M = 3.863 + 0.053 JS ………………………………………………………Model 2
Where:
JS = Job Satisfaction
M = Motivation

   The regression model one shows that holding motivation to a constant zero, job satisfaction would be 3.863, implying that the availability of motivation would increase job satisfaction of librarians in federal and state university libraries in Southern Nigeria. The result further indicates that there was positive relationship between motivation and job satisfaction of librarians in federal and state university libraries in Southern Nigeria with Beta = 0.892. This means that a unit increase in motivation results to 89.2% increase in job satisfaction of librarians in federal and state university libraries in Southern Nigeria. Since p = 0.000 < 0.05, the null hypothesis is rejected. Therefore, the result concluded that motivation significantly influence job satisfaction of librarians in federal and state university libraries in Southern Nigeria.

Hypothesis Three: Mentoring (indicators) have no relative influence on job satisfaction of librarians in federal and state university libraries in Southern Nigeria

Table 8. Multiple linear regression analysis of relative influence of mentoring on job satisfaction of librarians

Predictors	Model 3	Beta (β)	T	Sig. (P-value)	R^2	Adj. R^2	F	ANOVA (Sig.)
(Constant)	3.419		17.528	0.000	0.555	0. 548	85.126	0.000
Career support	0.366	0.216	1.379	0.169				
Psychosocial support	0.407	0.626	4.760	0.000				
Role modelling support	0.386	0.097	0.804	0.423				
Dependent Variable: Job Satisfaction Predictor: (Constant), Career support, Psychosocial support, Role modelling support DF (F-Statistics) = 3, 209 DF (T-Statistics) = 209								

N = 212 (Source: Field Survey, 2022)

Table 8 indicates the relative influence of mentoring indicators (career support, psychosocial support and role modelling support). The result shows that psychosocial support (β = 0.626, t = 4.760, p < 0.05) significantly influence job satisfaction of librarians in federal and state university libraries in Southern Nigeria. However, career support (β = 0.216, t = 1.379, p > 0.05), role modelling support (β = 0.097, t = 0.804, p > 0.05) do not significantly influenced job satisfaction of librarians in federal and state university libraries in Southern Nigeria. The result indicates that mentoring indicators contributed 54.8% (Adjusted R square = 0.548) variation on job satisfaction of academic librarians. The result implies that mentoring indicators especially, psychosocial support have the prospect of enhancing job satisfaction of librarians in federal and state university libraries in Southern Nigeria. From the data in 4.8, the established multiple linear regression model 3 is thus expressed as:

JS = 3.419 + 0.366CS + 0.407PS + 0.386RMS …………………………………Model 3

Where:

JS = Job Satisfaction
CS = Career Support
PS = Psychosocial Support
RMS = Role Modelling Support

Hypothesis Four: Motivation (indicators) has no relative influence on job satisfaction of librarians in federal and state university libraries in Southern Nigeria.

Table 9. Multiple linear regression analysis of relative influence of motivation on job satisfaction of librarians

Predictors	Model 4	Beta (β)	T	Sig. (P-value)	R^2	Adj. R^2	F	ANOVA (Sig.)
(Constant)	3.781		0.019	0.000	0.808	0. 806	292.574	0.000
Responsibility	0.434	0.098	1.974	0.040				
Achievement	0.170	0.280	6.659	0.000				
Job Security	0.167	0.611	12.503	0.000				
Dependent Variable: Job Satisfaction Predictor: (Constant), Responsibility, Achievement, Job security DF (F-Statistics) = 3, 209 DF (T-Statistics) = 209								

N = 212 (Source: Field Survey, 2022)

Table 9 indicates the relative influence of motivation indicators (responsibility, achievement and job security). Responsibility (β = 0.098, t = 1.974, p < 0.05), achievement (β = 0.280, t = 6.659, p < 0.05) and job security (β = 0.611, t = 12.503, p < 0.05) significantly influence job satisfaction of librarians in federal and state university libraries in Southern Nigeria. The result shows that motivation indicators contributed 80.6% (Adjusted R square = 0.806) variation on job satisfaction of librarians. The result implies that motivation indicators especially, responsibility, achievement and job security have the prospect of enhancing job satisfaction of librarians in federal and state university libraries in Southern Nigeria. From the data in 4.97, the established multiple linear regression model 4 is thus expressed as:

JS = 3.781 + 0.434 R + 0.170 A +0.167 JS …………………………………Model 4

Where:

JS = Job Satisfaction
R = Responsibility
A = Achievement
JS = Job Security

Hypothesis Five: Mentoring and motivation have no joint influence on job satisfaction of librarians in federal and state university libraries in Southern Nigeria

Table 10. Multiple Regression Analysis of Joint Influence of Mentoring and Motivation on Job Satisfaction of Librarians

Predictors	Model 5	Beta (β)	T	Sig. (P-value)	R^2	Adj. R^2	F	ANOVA (Sig.)
(Constant)	**3.942**		**0.491**	0.000	0.803	0. 801	**419.528**	0.000
Mentoring	0.044	0.164	3.624	0.000				
Motivation	0.078	0.770	17.040	0.000				
Dependent Variable: Job Satisfaction Predictor: (Constant), Mentoring, Motivation DF (F-Statistics) = 2, 210 DF (T-Statistics) = 210								

N = 212 (Source: Field Survey, 2022)

Table 10 indicates that mentoring and motivation jointly significantly influenced job satisfaction of librarians in federal and state university libraries in Southern Nigeria at $p = 0.000 < 0.05$. The table also shows that the analysis of variance (ANOVA) for the regression yielded an F-value of $F(2, 210) = 419.528$ at $P < 0.05$ level. This implies that the combined influence of the independent variables on the dependent variable was significant. This indicates that mentoring and motivation have a significant combined influence on job satisfaction of librarians in federal and state university libraries in Southern Nigeria. Besides, the Table also reveals a coefficient of multiple correlation $R=0.896$, coefficient of $R^2=0.803$ and adjusted $R^2 = 0.801$. The model implies that mentoring and motivation jointly account for 80.1% change of variation of job satisfaction of librarians in federal and state university libraries in Southern Nigeria.

In other words, 80.1% of variability in conformity to job satisfaction of librarians is explained by mentoring and motivation. The remaining 19.9% as observed here may be due to other factors influencing job satisfaction of librarians in federal and state university libraries in Southern Nigeria. Consequently, the null hypothesis that, mentoring and motivation have no joint significant influence on job satisfaction of librarians in federal and state university libraries in Southern Nigeria is therefore rejected. In terms of magnitude, the result shows that the independent variables contributed differently to job satisfaction of librarians. Specifically, motivation contributed the most to job satisfaction of librarians with ($\beta = 0.770$; $P < 0.05$) followed by mentoring ($\beta = 0.164$; $P < 0.05$).

From the data in 4.10, the established multiple regression model 5 is thus expressed as:

JS = 3.942 + 0.044 M + 0.078 M ……………………………………………Model 5
Where:
JS = Job Satisfaction
M = Mentoring
M = Motivation

Summary of Hypotheses Testing

Table outlines the summary of the hypotheses tested for this study.

Table 11. Hypotheses Testing Results

Hypotheses	Statement of Hypotheses	Results	Decisions
H_{o1}	Mentoring does not significantly influence job satisfaction of librarians in federal and state university libraries in Southern Nigeria	$R^2 = 0.725$, $\beta = 0.725$, $t = 15.127$, $p < 0.05$	**Rejected**
H_{o2}	Motivation does not significantly influence job satisfaction of librarians in federal and state university libraries in Southern Nigeria	$R^2 = 0.892$, $\beta = 0.892$, $t = 28.608$, $p < 0.05$	**Rejected**
H_{o3}	Mentoring (indicators) have no relative influence on job satisfaction of librarians in federal and state university libraries in Southern Nigeria	Adj. $R^2 = 0.548$, $F(3,209) = 85.126$, $p < 0.05$	**Rejected**
H_{o4}	Motivation (indicators) have no relative influence on job satisfaction of librarians in federal and state university libraries in Southern Nigeria	Adj. $R^2 = 0.806$, $F(2,210) = 292.574$, $p < 0.05$	**Rejected**
H_{o5}	Mentoring and motivation have no joint influence on job satisfaction of librarians in federal and state university libraries in Southern Nigeria	Adj. $R^2 = 0.801$, $F(2,210) = 419.528$, $p < 0.05$	**Rejected**

N=212 (Source: Field Survey, 2022)

Resultant Model

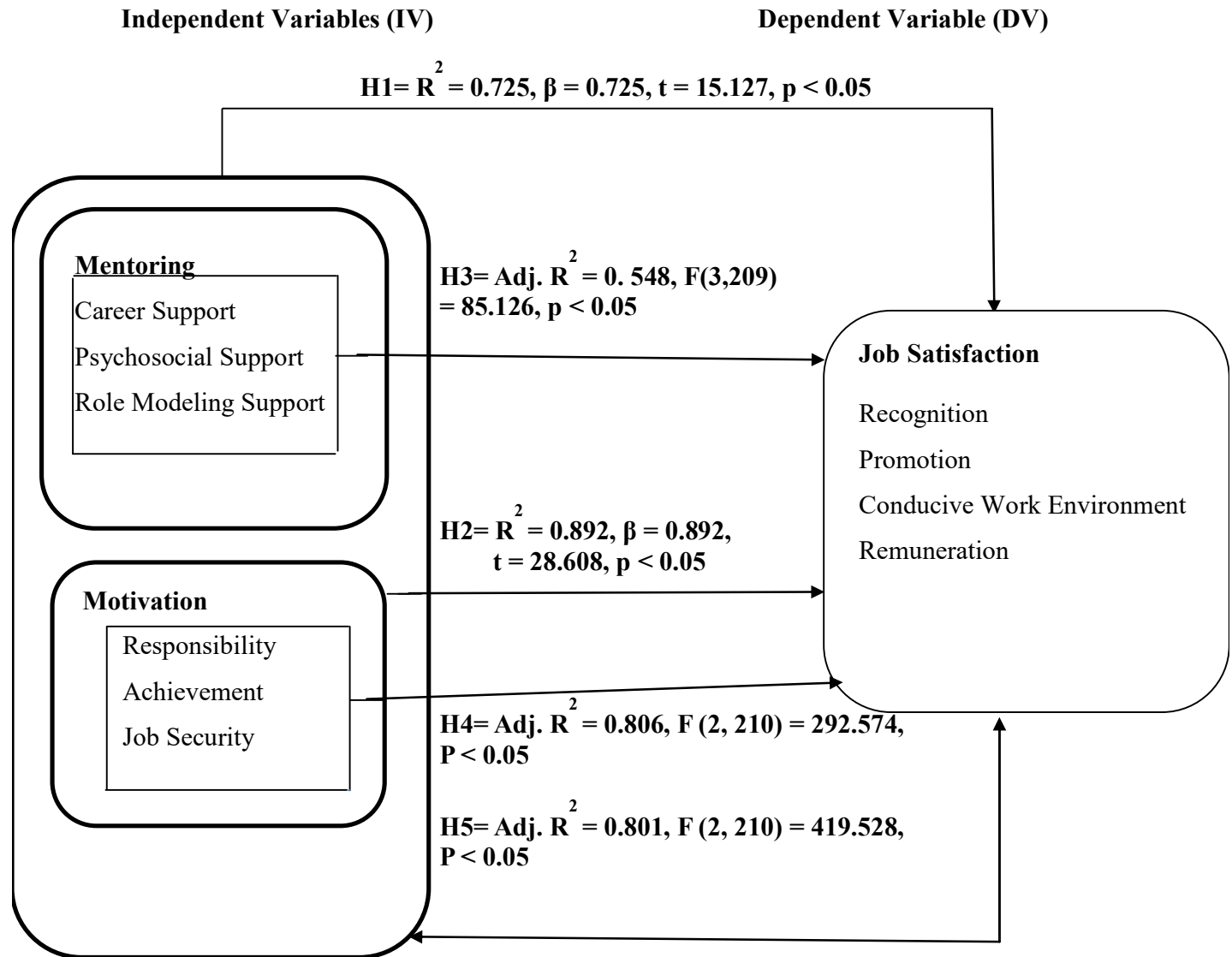Independent Variables (IV)   Dependent Variable (DV)

Figure 2. Resultant Model for Mentoring, Motivation and Job Satisfaction of Librarians
N=212 (Source: Field Survey, 2022)

Discussion of Findings

This section presents the discussion of findings of the study in line with previous studies. The objective of the study was aimed at investigating the influence of mentoring and motivation on job satisfaction of librarians in federal and state university libraries in Southern Nigeria.

Level of Job Satisfaction of Librarians in Federal and State University Libraries in Southern Nigeria

Research question one sought to find out the level of job satisfaction of librarians in federal and state university libraries in Southern Nigeria. The result shows that the mean level of job satisfaction of librarians in federal and state university libraries in Southern Nigeria is 3.70 on a five point Likert-type rating scale. This result implied that the level of job satisfaction of librarians is high in federal and state university libraries in Southern Nigeria. The findings of this study

agreed with the finding of Yaya (2019) which revealed a high level of job satisfaction among librarians in public university libraries in Nigeria contrary to general belief of low level. Likewise the study of job satisfaction among library personnel in public universities in South-West Nigeria by Opeke, Ikonne and Adewoyin (2019) revealed that the level of job satisfaction of the respondents was high. Ranaweera, Li, and Bodhinayaka (2018) also confirmed high level of job satisfaction in Sri Lanka. The findings of this study however disagreed with Hijazi, Kasim, and Daud (2017) who reported that the academic staff of private colleges in Dubai are not satisfied with their job and are not motivated by the rewards received. The finding also disagreed with Idiegbeyan-Ose (2018) that the level of job satisfaction is low in private university libraries in Nigeria.

Level of Mentoring of Librarians in Federal and State University Libraries in Southern Nigeria

Research question two sought to find out the level of mentoring of librarians in federal and state university libraries in Southern Nigeria. The result shows that the grand mean of level of mentoring of librarians in federal and state university libraries in Southern Nigeria is 3.55 on a five point Likert-type rating scale. This result implied that the level of mentoring of librarians is high in federal and state university libraries in Southern Nigeria. The findings of this study disagreed with the finding of Abugre and Kpinpuo (2017) who reported very low presence of academic mentoring among senior and junior teaching staff in University of Ghana. The findings of this study agreed with Afolabi, Faleye and Aremu (2015) who reported that majority of academic employees participated in mentoring relationships, and 93.5 percent of the academic staff believed that mentoring was beneficial. According to the findings, the majority of the academic staff at the university were involved in mentoring relationships and saw mentoring as a true approach to academic development. The findings also agreed with the findings of Nwankwo and Anozie (2017) who reported high mentoring activities of young librarians in South-East Nigeria and evidence of mentoring in place in these libraries for boosting the research prowess of librarians, but in an informal form. The librarians believed that most times the mentee's inability to open up during interaction, and unconstructive criticisms from mentors to their mentees are serious challenges to successful mentoring.

Degree of Motivation of Librarians in Federal and State University Libraries in Southern Nigeria

Research question three sought to find out the degree of motivation of librarians in federal and state university libraries in Southern Nigeria. The result shows that the grand mean of degree of motivation of librarians in federal and state university libraries in Southern Nigeria is 3.98 on a five point Likert-type rating scale. This result implied that the degree of motivation of librarians is high in federal and state university libraries in Southern Nigeria. The findings of this study agreed with the finding of Tella and Ibinaiye (2020) that examined staff motivation, satisfaction, and job performance among the librarians and library staff in six selected university libraries in Nigeria and reported that librarians and library staff are highly motivated with regular pay. The findings of this study also agreed with the finding of Bamgbose and Ladipo (2017) who reported high level of motivation of academic library employees and listed several forms of motivation factors like job security, wages and salary, relationship with colleagues, staff appraisal, financial incentives, and reward available to the library employee. Furthermore, the findings of this study corroborated Idiegbeyan-Ose, Opeke, Aregbesola, Owolabi and Eyiolorunshe (2019) who reported high level of motivation of staff in University libraries in Nigeria.

Mentoring and Job Satisfaction of Librarians in Federal and State University Libraries in Southern Nigeria

The hypothesis one which stated that mentoring does not significantly influence job satisfaction of librarians in federal and state university libraries in Southern Nigeria was rejected based on the results of the analysis. The result of this study shows that mentoring significantly influenced job satisfaction of librarians in federal and state university libraries in Southern Nigeria. The findings of this study agreed with the result of the study of Ogunlana, Okunoye, and Ajani (2019) who investigated the influence of mentoring on mentee growth among cataloguers in a few university libraries in Ogun State, Nigeria and reported that mentoring has a significant impact on the mentees' professional growth and encouraged senior cataloguers to direct new and young cataloguers in the appropriate direction in order to eliminate unfavorable attitudes and perceptions. The result finding is in support of Onuoha, Zubairu, and Olusipe (2020) on the mentoring effectiveness and job satisfaction of library personnel in private universities in South-West, Nigeria that mentoring was found to be mostly effective and there is a positive relationship that exists between mentoring effectiveness and job satisfaction.

Motivation and Job Satisfaction of Librarians in Federal and State University Libraries in Southern Nigeria

The hypothesis two which stated that motivation does not significantly influence job satisfaction of librarians in federal

and state university libraries in Southern Nigeria was rejected based on the results of the analysis. The result of this study shows that motivation significantly influenced job satisfaction of librarians in federal and state university libraries in Southern Nigeria. The findings of this study agreed with the result of the study of Tella and Ibinaiye (2020) who reported that motivation significantly influenced job satisfaction and performance of librarians and library staff in six selected university libraries in Nigeria. The findings of this study also agreed with Ikonne and Fajoynyomi (2019) who confirmed that motivation positively influenced job satisfaction. The findings of this study also corroborated Amporful, Osei-Amankwah and Amihere (2020), Komolafe and Gbotoso (2019), Idiegbeyan, Opeke, Aregbesola, Owolabi and Eyiolorunshe (2019). However, the findings of this study disagreed with Sanusi (2015) who assessed the effect of motivation on job satisfaction of teacher librarians in Federal Capital Territory (FCT) Abuja and reported that motivation does not significantly influence job satisfaction of teacher librarians in Federal Capital Territory (FCT) Abuja, Nigeria.

Mentoring, Motivation and Job Satisfaction of Librarians in Federal and State University Libraries in Southern Nigeria

The hypothesis three which stated that mentoring and motivation do not jointly significantly influence job satisfaction of librarians in federal and state university libraries in Southern Nigeria was rejected based on the results of the analysis. The result of this study shows that mentoring and motivation jointly significantly influenced job satisfaction of librarians in federal and state university libraries in Southern Nigeria. This implies that the combined influence of the independent variables on the dependent variable was significant. The result also indicates that mentoring and motivation have a significant combined influence on job satisfaction of librarians in federal and state university libraries in Southern Nigeria. The findings of this study agreed with the result of the study of Zubairu, Ngeme, and Olagoke (2021) who reported that mentoring and motivation had relative influence on job satisfaction and job productivity, besides Amporful, Osei-Amankwah, and Amihere (2020) reported that motivation is crucial to the accomplishment of any organization like libraries and information centers and plays a central role in the organizational success and work effectiveness of the employees.

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary

The chapter gives a summary of the study and provides recommendations to the university librarians, library management, librarians and other stakeholders towards the adoption and design of workable and reliable policies and methods that will improve librarians' job satisfaction in the federal and state university libraries through appropriate enhancement of mentoring and motivation.

This study investigated the influence of mentoring and motivation on job satisfaction of librarians in university libraries in Southern Nigeria. Of the two hundred and thirty four (234) questionnaire copies administered to participants, two hundred and twelve (212) were completed and retrieved for data analysis. Survey research design was adopted for the study; and simple random sampling technique was used to select the librarians in the university libraries in Southern Nigeria. A questionnaire titled mentoring, motivation and job satisfaction (MMJSLFSULSN) was used for the data collection.

The instrument, in order to ensure validity was presented to the thesis supervisor, colleagues and senior professional librarians in the field of Library and Information Science, and experts in the field of Information Resources Management in Babcock University for screening and thorough vetting. Thereafter, a pilot study was conducted among 60 librarians of University of Ilorin, Kwara State, Kogi State University, Ayingba, Kogi State and Federal University of Technology, Minna, Niger State, all from North Central geo-political zone which were not part of the main study to ascertain the reliability and validity of the items of the research measuring instrument.

A sample size of 234 librarians from the federal and state university libraries in Southern Nigeria participated in the study while a total of 212 copies of questionnaires representing 90.6% were found usable. The usable copies were analysed by descriptive statistics such as frequency count, percentage distribution, mean and standard deviation. Inferential statistics such as multiple linear regression analysis was used to test the hypotheses.

Summary of Findings

The summaries of major findings in this study are stated below:

1. The level of job satisfaction of librarians in federal and state university libraries in Southern Nigeria was high; promotion had the highest while remuneration was the lowest.

2. The level of mentoring of librarians in federal and state university libraries in Southern Nigeria was high with role modelling support having the highest while the level of psychosocial support had the lowest.
3. The degree of motivation of librarians in federal and state university libraries in Southern Nigeria was high with the degree of responsibility being the highest while the degree of job security was the least.
4. Mentoring is a significant predictor of job satisfaction of librarians in federal and state university libraries in Southern Nigeria.
5. Motivation significantly influenced job satisfaction of librarians in federal and state university libraries in Southern Nigeria.
6. Mentoring indicators: psychosocial support significantly influenced job satisfaction of librarians in federal and state university libraries in Southern Nigeria. However, career support and role modeling support did not influence job satisfaction of librarians.
7. Motivation indicators: responsibility, achievement and job security significantly influence djob satisfaction of librarians in federal and state university libraries in Southern Nigeria.
8. Mentoring and motivation jointly influenced job satisfaction of librarians in federal and state university libraries in Southern Nigeria.
9. There is positive relationship between mentoring and job satisfaction of librarians in federal and state university libraries in Southern Nigeria.
10. There is positive relationship between motivation and job satisfaction of librarians in federal and state university libraries in Southern Nigeria.

CONCLUSION

The study concluded that mentoring and motivation are significant factors in determining job satisfaction of librarians in federal and state university libraries in Southern Nigeria. These factors would assist in reducing redundancy and turnover effects among librarians. They are factors that would contribute significantly to librarians' job satisfaction and consistently enrich library operations particularly excellent services in federal and state university libraries in Southern Nigeria. In essence, mentoring is a vital factor influencing librarians' job satisfaction that must be taken seriously. Also, motivation is equally very significant to job satisfaction.

RECOMMENDATIONS

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

1. One of the findings of the study was that the level of job satisfaction of librarians in federal and state university libraries was high. As a result of this, the library management should sustain the level of job satisfaction.
2. The study revealed that although the level of mentoring of librarians in federal and state university libraries was high, the library management should look into career functions and role modelling functions.
3. The finding of the study was that the degree of motivation of librarians in federal and state university libraries was high. As a result of this, the library management should sustain the degree of motivation.
4. Mentoring and motivation should be given more attention in order to have higher job satisfaction of librarians.
5. University administrators should introduce more mentoring policies that would require senior librarians to guide their junior colleagues to sustain mentorship among librarians while career support, psychosocial support and role modelling should be given more attention among university libraries in Nigeria.
6. Federal and States Universities should assist the government most especially the National Universities Commission (NUC) to formulate and implement necessary policies that would improve librarians' job satisfaction in Nigeria universities.
7. Furthermore, National Universities Commission should ensure that Universities should put in place policies that would enrich librarians' job satisfaction in Nigeria universities.

Contributions to Knowledge

In this study, the primary aim of the researcher was to look at the level of mentoring and motivation and their influence on job satisfaction of librarians in federal and state universities in Southern Nigeria. Also the study has provided in depth information on the concepts of the independent variables (mentoring and motivation) and dependent variable (job satisfaction). The conceptual model developed by the researcher would be useful for future researchers who will conduct similar studies. No study has been known to me to have measured these three variables together.

The study would add values to existing literature in the areas of mentoring and motivation on librarians' job satisfaction. In addition, the study has provided in-depth information and knowledge on the independent variables (mentoring and motivation) and the dependent variable (job satisfaction).It is believed that this research will bridge the gap that exists between mentoring, motivation and job satisfaction through reviewing of literature and empirical data. The result of this research could be applied to the study of all the variables in other disciplines and contribute to general body of knowledge, theory and practice. The study would be useful to researchers' because it would serve as a reference source to scholars in the future. The study has provided empirical framework for stakeholders in universities on how to boost the job satisfaction of librarians.

The study has provided an outline for management of university libraries in Nigeria to formulate several action plans geared towards improved job satisfaction most especially in the provision of better library services. Another contribution to knowledge of this study is the aspect of conceptual framework which could be adopted or adapted by other researchers working on related topics.

Finally, the study examined the influence of mentoring and motivation on job satisfaction of librarians in federal and state university libraries in Southern Nigeria. The study employed the correlation and regression analysis to achieve the objectives of the study. The result of the study revealed that mentoring and motivation had a significant influence on job satisfaction of librarians in federal and state university libraries in Southern Nigeria.

Suggestions for Further Studies

Further studies relating to the work may focus on the following:

1. Mentoring, motivation and job satisfaction of librarians in federal and state university libraries in Northern Nigeria.
2. Mentoring, motivation and job satisfaction of librarians in private university libraries in Northern Nigeria.
3. Mentoring, motivation and job satisfaction of librarians in university libraries in Southern Nigeria.
4. A comparative study of mentoring and motivation on job satisfaction in university libraries in Northern Nigeria.
5. Mentoring and motivation as predictors of job satisfaction among para-professional librarians in Nigeria.
6. Nexus between mentoring, motivation and job satisfaction of library staff in private university libraries in Nigeria.
7. Mentoring, motivation and job satisfaction of paraprofessional librarians in public university libraries in Southern Nigeria.
8. Mentoring, motivation and job satisfaction of paraprofessional librarians in private university libraries in Southern Nigeria.

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Full Length Research

Health Care Human Resource Management in the Era of COVID 19 in Nigeria

Umar Faruk ABUBAKAR[1] and Ibraheem Oluwatoyin SALIHU[2]

[1]School of Health Information Management, Aminu Kano University Teaching Hospital, Kano, Nigeria.
Corresponding author's E-mail: famzarab@gmail.com
[2]Postgraduate School of Health Information Management, University of Ilorin Teaching Hospital, Kwara State, Nigeria.
E-mail: toyeenibraheem@gmail.com

Abstract

The emergence of COVID-19 pandemic has changed the way human resource management is being conducted. The challenges managers face vary with their hospital's location and size, but it is clear that many private healthcare facilities will have to tighten their belts. Instead of laying off workers or slashing wages, some facilities are seeking alternate corporate strategies such as using technology to support telemedicine, work-from-home or reviewing costs to stretch the budget. Employees look up to leaders for reassurance, especially in times of instability. It is important that those in leadership roles communicate clearly with managers and staff and demonstrate a clear commitment to employee health and business sustainability. The study reviewed the inherent challenges bedeviling the health care institutions with emphasis on the aspects of human resource and its management, health care human resources skills requirements and health care human resource challenges during COVID-19. At the end of the review the study proffer recommendations as a way forward towards militating the negative impact of COVID-19 as it affects human resource management in health care institutions in Nigeria.

Keywords:COVID-19, Telemedicine, Leadership, Human resources

INTRODUCTION

Human resource management is the most critical and most important element in any organization (Merch& Debra J. 2020).Health care human resource planning is one of the six building blocks of the health system (2017). Health workforce is one of the six building blocks of health system (WHO 2017) Therefore, for an efficient and effective health care organization there is the need for a quality human resource management. This even more necessary in the era of COVID 19 pandemic. A Virus is a very small living thing that causes infectious illnesses. There are different types of viruses that humans have had to contend with from time immemorial and with medicine, man had been able to develop vaccines with which he is able to survive these viruses and some that are bacterial infections. In the later end of the year 2019, a virus was heard of to have started in China and killing humans within days. It started like a rumor, something to watch on the news, but suddenly, it has become a world issue with countries shutting down their gates in order to curtail the spread! What then is this Corona virus also called COVID-19.

The health care human resources skills requirements

A manager must exercise a unique set of skills. Similarly at various levels you require different types of skills. Let us start by mentoring the skills required at the technical skill, human skill, conceptual skill, leading skills, planning level, organizing skills, controlling skills, decision-making skills. These skills refer to the personal ability put to use by the

manager in specific position that he or she holds in the organisational hierarchy.

As one moves up in the hierarchy of the managerial positions, the responsibility increases. The fundamental functions of a manager such as planning, organising, leading, controlling and decision-making are the skills required to be mastered by the managers.

Let us understand the skills first and then see how much each skill is used at various levels of managerial hierarchy and what importance each has in the career growth of a manager.

i.   Technical Skill

It is the ability to work with resources in a particular area of expertise. A surgeon must know how to do Surgery. An accountant must know how to keep the accounts. Without the technical skill, one is able to manage the work effectively. The first line supervisor in a manufacturing industry needs greater knowledge about the technical aspects of the job compared to the top boss. In a small manufacturing organisation, even the top boss who owns the company needs to know a lot of technical skills.

In an age of specialisation, technical skill is perhaps the most familiar one, required of the greatest number of people. Katz pointed out that mostly the vocational and on-the-job training programmes are concerned with developing this specialised technical skill. In your desire to become an efficient operation. As a supervisor of a set of workers, you would like to ensure if your workers have sound grounding in the principle, structure and processes of their individual speciality along with actual practice and experience during which your workers are watched and helped by you as a superior. This appears to be the best way to develop the technical skill. A workshop superintendent knows how to ensure that his or her technician is well equipped with the technical skill required for the work. An office superintendent ensures that persons work with him or her are having adequate technical skill.

ii.   Human Skill

Human skill is the managers' ability to work effectively as group members and to build cooperative effort within the team he or she leads. Every managerial level requires integration with other people, whereas technical skill is primarily concerned with working with things (processes or physical objects). The first level manager is involved on a regular basis with the personal problems and life events of many non-managers. It is therefore natural that he or she must be able to work through these personal situations and effectively lead subordinates. He or she has to perceive and reorganise the perception of his or her superiors, equals and subordinates and his or her own behaviour subsequently.

iii.   Organisations Skills

As you have seen, planning specifies the future course of direction of an organisation. The organizing process follows the planning process. While planning specifies what will be achieved when, organising specifies who will achieve what and how it will be achieved.

iv.   Time Management Skills

Time management refers to a range of skills, tools, and techniques used to manage time when accomplishing specific tasks, projects and goals. The set encompass a wide scope of activities, and these include planning, allocating, setting goals, delegation, analysis of time spent, monitoring, organising, scheduling, and prioritising. Initially time management referred to just business or work activities, but eventually the term broadened to include personal activities also.

COVID-19: Definition and Origin

A corona virus is a kind of common virus that causes an infection in your nose, sinuses, or upper throat. Most corona viruses are not dangerous. COVID-19 is a disease that can cause what doctors call a respiratory tract infection. It can affect your upper respiratory tract (sinuses, nose, and throat) or lower respiratory tract (windpipe and lungs). It is caused by a corona virus named SARS-CoV-2.

SARS-CoV-2 is one of the seven types of corona virus, including the ones that cause severe diseases like Middle East respiratory syndrome (MERS) and sudden acute respiratory syndrome (SARS). The other corona viruses cause most of the colds that affect us during the year but are not serious threat for otherwise healthy people.

In early 2020, after a December 2019 outbreak in China, the World Health Organization (WHO) identified SARS-CoV-2 as a new type of corona virus. The outbreak quickly spread around the world. It is normal for a virus to change, or mutate, as it infects people. A Chinese study of 103 COVID-19 cases suggests the virus that causes it has done just

that. They found two strains, which they named L and S. The S type is older, but the L type was more common in early stages of the outbreak. They think one may cause more cases of the disease than the other, but they are still working on what it all means.

The COVID-19 virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes, so it is important that everyone also practice respiratory etiquette (for example, by coughing into a flexed elbow).

At this time, there are no specific vaccines or treatments for COVID-19. However, there are many ongoing clinical trials evaluating potential treatments. WHO will continue to provide updated information as soon as clinical findings become available?

The origin of covid-19 pandemic:

Corona virus was first originated in Wuhan, China in late 2019. The story of how the novel corona virus emerged in Wuhan, China, has produced a nasty propaganda battle between the United States and China. The two sides have traded some of the sharpest charges made between two nations since the Soviet Union in 1985 falsely accused the CIA of manufacturing AIDS.

U.S. intelligence officials do not think the pandemic was caused by deliberate wrongdoing. The outbreak that has now swept through the world instead began with a simpler story, albeit one with tragic consequences: The prime suspect is "natural" transmission from bats to humans, perhaps through unsanitary markets. But scientists do not rule out that an accident at a research laboratory in Wuhan might have spread a deadly bat virus that had been collected for scientific study.

On March 11, 2020, the WHO declared COVID-19 a global pandemic, its first such designation since declaring H1N1 influenza a pandemic in 2009. Illness caused by SARS-CoV-2 was recently termed COVID-19 by the WHO; the new acronym is derived from "corona virus disease 2019." The name was chosen to avoid stigmatizing the virus's origins in terms of populations, geography, or animal associations.[7]

On February 11, 2020, the Corona virus Study Group of the International Committee on Taxonomy of Viruses issued a statement announcing an official designation for the novel virus: severe acute respiratory syndrome corona virus 2 (SARS-CoV-2).

The CDC has postulated that this situation could result in large numbers of patients requiring medical care concurrently, resulting in overloaded public health and healthcare systems and, potentially, elevated rates of hospitalizations and deaths. The CDC advises that non pharmaceutical interventions (NPIs) will serve as the most important response strategy in attempting to delay viral spread and to reduce disease impact.

Mode of transmission /global spread OF COVID 19

According to the (WHO) the COVID-19 respiratory tract infections can be transmitted through droplets of different sizes; according to current evidence COVID- 19 virus is primarily transmitted between people through respiratory droplets and contact routes. Droplet transmission occurs when a person is in close contact (within 1m) with someone who has respiratory symptoms (e.g. coughing or sneezing) and is at risk of having his/her mucosa (mouth and nose) or conjunctiva (eyes) exposed to potentially infective respiratory droplets.

The virus can lead to pneumonia, respiratory failure, septic shock, and death. Many COVID-19 complications may be caused by a condition known as cytokine release syndrome or a cytokine storm. This is when an infection triggers your immune system to flood your bloodstream with inflammatory proteins called cytokines. They can kill tissue and damage your organs.

What is community spread?

Doctors and health officials use this term when they do not know the source of the infection. With COVID-19, it usually refers to someone who gets the virus even though they have not been out of the country or have not been exposed to someone who has traveled abroad or who has COVID-19.

Global spread of COVID- 19

The COVID - 19 is called a pandemic because it has spread globally; to the extent that WHO refers to it as a global health emergency. The COVID 19 has become global health crises overtime and the greatest challenge we have faced. The pandemic is still an ongoing phenomenon with wide spread across the world, in some cases with fatalities. United States of America, China in Asia, European countries of France, Spain, Italy and United Kingdom are worst hit.

Health care human resource challenges in the era OF COVID -19

i.　　Health care organizational restructuring

Organizations have been going through one form of restructuring or another, health care organizations are not an

exception. This brings about the need for increased health care work force.

ii.   Reduction in employee

However, there is also increase cost of personnel due to upsurge in allowances. Most health care institutions have stopped admitting people for fear contacting COVID 19. Also people do not like to visit hospitals also to avoid getting contaminated and infected. The suspension of elective procedures and decline in visits to our primary care practices and urgent care centers have resulted in financial challenges which has drastically reduced the number of employees.

iii.   Layoffs and downsizing

The federal government of Nigeria has announced that over 30million employees may lose their Jobs due to COVID 19.This is coming on the possibility of Nigeria entering recession and due to low level of economic activity.

iv.   Technological challenge

In this era of COVID -19 Health care human resource are expected to be adequately technologically competent .The technical skills will facilitate the implementation of Tele-Medicine, Tele-Consultation, Electronic Medical records, Mobile health information communication and technology, virtual meetings and webinars. Recently the federal government of Nigeria has made it compulsory for the Directors in the Federal civil service to have Information and communication technology (ICT) as a condition for promotion to the post of permanent Secretaries.

v.   Personnel redundancy

According to Olubukola and Joshua (2020) As the COVID-19 pandemic continues to devastate the global economy, employers in large and small private hospitals are faced with a dreadful conundrum on whether to let their staff go, cut their hours, or declare them redundant.

vi.   Mental health

Medical staff caring for COVID-19 patients face, mental stress, physical exhaustion, separation from families, stigma, and the pain of losing patience and colleagues. In Africa, where the pandemic is escalating, there are major gaps in response capacity, especially in human resources and protective equipment. (Chersich M.F, Gray G, Fairlie, L. *et al.* 2020).

vii.   Risks of infection among healthcare workers

In Nigeria, dozens of health workers have already tested positive for the virus and hundreds of others have been exposed, forcing them to self-quarantine. (Chukwuma 2020). Risks of infection in healthcare workers appear to be high in Nigeria and could be tied to hand hygiene, lack of enough Personal Protective Equipment among other factors. Water supplies for hand-washing, however, may be limited or unavailable in some parts of Nigeria.

viii. Mortality rates among healthcare workers

According to Ren LL, Wang YM, Wu ZQ, et al. (2020). Mortality rates among healthcare workers who become infected may be especially high in many parts of Africa given the limited number of critical care beds. Moreover, the large geographical distances pose tremendous practical difficulties in transferring ill healthcare workers from rural areas to secondary- or tertiary-level facilities in urban centres.

ix.   Personal Protective Equipment (PPE)

This is one of the areas where health care workers are struggling the most. Masks, gloves, and other protective equipment are not readily available, and even though some care givers are able to purchase individually, this is not enough. At some public hospitals, patients are being asked to provide PPE before being treated or diagnosed. (Akindare 2020)

x.   **Personnel & welfare**

Nigeria already had a shortage of Healthcare workers before COVID-19 hit.
Akindare (2020) further stressed that since the pandemic hit, healthcare workers have been raising some issues relating to hazard allowance, non-implementation of any of the promised welfare packages to health care workers by the government and harassment by the Nigerian Police Force.

CONCLUSION

   Health care human resource management is the most important asset of the organization and forms one of the six building blocks of the health systems. The COVID-19 pandemic has brought about serious challenges affecting management of health care human resource. This has to do with internal and external environmental factors bedeviling the organization. Above submission is in line with the opinion of David (2020) that, human Resource departments are facing a challenge unlike any they have before. This situation has highlighted many problems, from how healthcare organizations operate from a business perspective to how understaffed many are in facing this crisis. Healthcare as an industry has long faced a staffing problem. In the midst of a pandemic, the industry faces perhaps its biggest challenge yet. Busy hospitals in places where COVID-19 has hit the community hard are coping with difficult circumstances. The pandemic has caused the cancellation of voluntary and non-emergency procedures, an important revenue generator for hospitals who now need money for everything from PPE to increased staff hours. This has left leaders with difficult decisions and Human Resources departments trying to keep the workforce engaged and able to fight burnout. The COVID-19 has shaped all spheres of human endeavors most negatively. The negative impact of COVID-19 requires the need for efficient and effective prescriptions in form of recommendations to help mitigate the problem of health care human resource issues accordingly.

Way forward

i.   There should be increased capacity building to improve the efficiency of the health care human resource.
ii. Credit facility to the employees that have loss jobs would help them to get back to other forms of business, especially the Agricultural sector.
iii. Employee welfare and incentives to serve as an inducement to the health care human resource.
iv. Health care institutions should be robust on technological competence to provide a great team of technical efficiency required of COVID 19 era which most of business activities are based on information and communication technology(ICT).
v.   Employee need to be effectively monitored to avoid redundancy at work.

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World health organization (WHO 2017) six building blocks of health systems.

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Full Length Research

Repositioning Library and Information Professionals for Good Governance and National Unity

Immaculata OPARA[1], Magnus Chukwuduziem UNEGBU[2], Ogechi NDULAKA[3] and Chima EMMANUEL[4]

[1,2&4]Library Department, AlvanIkoku Federal College Of Education, Owerri, Imo State
[3]university Library, Kingsley OzumbaMbadiwe University, Ogboko, Imo State
*Corresponding author's E-mail: callongoff @yahoo.com; magnus.unegbu@alvanikoku.edu.ng,
PHONE: 08036661229

Abstract

This paper is an exploratory investigation on repositioning library and information professionals for good governance and national unity. This study explores the importance of good governance and national unity and the crucial roles library and information professionals can play in promoting good governance and national unity. Based on the established facts in the discourse, it was recommended that library and information professionals should give the public equitable access to political and any other information using various means of information dissemination in order to ensuring increase in good governance and national unity, library and information professionals should provide information and media literacy skills to members of the public in order to enabling them respond properly to good governance and national unity campaign messages regardless of the media and library and information professionals should create awareness on the need for members of the public to participate in good governance and national unity activities.

Keywords: Library, Information, Information Professionals, Good Governance, National Unity

INTRODUCTION

According to Unegbu, Opara and Emuchay (2023), information is viewed as answers to questions that begin with such words as who, what, where, when and how many. This indicates that it could be knowledge one gets about someone or something as well as factors or details about a subject. Unegbu, Opara and Emuchay (2023) alsosees information as data processed, organized, structured and presented in a given context so as to make it useful. Library and information professionals are experts in the provision of information services in a systematic and defined manner that meet the information needs of users globally. Library and information professionals are held in high esteem in the business and management of information in all spheres of human field. Library and information professionals have grown to be innovative, creative and developed mastery in the use of Information and Communication Technology (ICT)in providing library and information services to the users (Unegbu, Opara and Ubochi, 2023).

Governance is defined by the World Bank (2002) as the manner in which power is exercised in the management of a country's economic and social resources for development. From the World Bank (2002) definition, it is obvious that good governance can be guaranteed on a platform of a plural democratic system and a public service that can work and achieve results. Good governance includes both a broad reform strategy and a particular set of initiatives to strengthen the institutions of civil society with the objective of making government more accountable, more open and transparent and more democratic. It involves the traditions and institutions by which authority in a country is exercised. These include, the process by which governments are selected, monitored and replaced; the capacity of the government to

effectively formulate and implement sound policies, and the respect of citizens and the state for the institutions that govern economic and social interaction among them. Good governance becomes very fundamental and imperative when viewed against the backdrop of massive deterioration of government institutions, pervasive poverty and widespread unemployment, corruption, as well as the near total collapse of moral and ethical standards in the country which saw governance capacity weakened at all levels (Ujomu, 2004). Good governance as a key condiment of national unity has been one of the focal points of scholars. Leke (2010), views good governance as having close link with the extent to which a government is perceived and accepted as legitimate; committed to improving the public welfare and responsive to the needs of its citizens, competent to assure law and order, and deliver public services; able to create enabling environment for productive activities, equitable in its conduct. Good governance is a system of government based on good leadership, respect for the rule of law and the process; including accountability of the political leadership to the electorates as well as transparency in the aspirations of government. In the Nigerian context, good governance calls for constitutional rule and true federalism.

National unity is an important subject for any country seeking progress and advancement. Any society that wishes to progress and thrive must accept the notion of national unity. Caplan (2019) describes national unity as a political construct that reflects the collective spirit and will of a group of people who agree to be part of the particular geographical area as a unit, for the purpose of governance and action on behalf of all. According to Zamare and Karofi (2015), national unity is a process that produce an omnibus of initiatives put in place by a state, its representative or institution guided by respect for the unique traditions and cultural background of ethnicities sharing the same polity with the goal of harmonizing all interest through a form of dialogue and representation and addressing differences that may be divisive and conflictual using the instrument of fairness, justice and equity in the sharing of resources, benefits, opportunities and responsibilities in order to guaranteed stability, longevity and prosperity of the polity as long as the inhabitants decide to remain in the polity. This definition is a wholesome piece of manual which present a clear picture of who, why, how and what is involved in national unity. Echem, Pokubo, and Ejuh (2018) see national unity as crucial to the development of any meaningful nation. For any meaningful society to advance and flourish it must embrace national unity. The idea behind national unity is simply uniformity, oneness not minding differences as a people. In other words, it's unity in diversityAragbaye, Oyemah andAkande (2023) state that national unity is the bricks and caprice of any meaningful development a nation could record because it revolves around a society with unity of purpose and togetherness not minding the difference in term of political affiliation, religion, tribe, culture and every other peculiarity that alienated us from one another.

Promoting Good Governance and National Unity

Promoting good governance and national unity are critical component of any thriving society. As we continue to navigate the complexities of an ever-changing global landscape, it becomes increasingly evident that unity is key to our success. At its core,

•   Promoting good governance and national unity involve building bridges between diverse communities, fostering open dialogue and collaboration, and creating an environment where everyone feels valued and heard. This requires a concerted effort on the part of individuals, organizations, and governments alike.

•   Creating opportunities for people to come together and work towards a common cause can promote good governance and national unity as it fosters a sense of collaboration and shared responsibility. Additionally, promoting diversity in all areas of life helps us to build stronger connections with those from different backgrounds while also enriching our own experiences.

•   Promoting good governance and national unityis essential for building unity, especially in diverse societies characterized by differences in religion, language, and ethnicity. This simply means recognizing a common identity despite these differences can foster social cohesion and reduce conflicts among different groups within the society.

•   Moreover, emphasizing common goals and values also helps individuals develop a sense of belongingness to their nation-state. By creating an overarching narrative through which every citizen sees themselves as integral members of their country's community, it becomes easier for people to identify with one another regardless of their backgrounds or beliefs. In short, emphasizing commonalities over differences allows people from different walks-of-life to see themselves united under a single banner.

•   Lastly, fostering good governance and national unity through collective goals is vital in ensuring the well-being of any nation-state. By embracing diversity while simultaneously celebrating core values that unite us all as citizens we stand poised at erasing conflict providing unprecedented peace even amidst turbulent times (Ezeobi, Mbachu andChukwuji, 2019). Such an approach reinforces democratic principles like equality before the law while upholding respect for individual rights.

•   Creating opportunities for people to come together and work towards a common cause can promote

good governance and national unity, as it fosters a sense of collaboration and shared responsibility. This is particularly important in countries like Nigeria, where the lack of unity has been a longstanding issue stemming from colonialism (Zamare and Karofi, 2015).

Creating opportunities for collaboration not only promotes national unity but also sets the foundation for building a more equitable society that benefits everyone equally.

Library and Information Professionals and Promotion of Governance and National Unity

Library and information professionals play a crucial role in promoting good governance and national unity. Library and information professionals promote good governance and national as follows;

• **Library and Information Professionals are expected to maintain a High Level of Ethical Standards**. This is crucial because it ensures that the profession remains reputable and an integral part of good governance and national unity. Upholding ethical standards means acting with integrity, honesty, and transparency in all aspects of work. Maintaining these standards builds public trust, reinforces professional credibility, and helps to sustain a positive image for the profession as a whole. Ethical behavior is essential not only for library and information professionals but also for the overall success of their organizations and the society at large. Therefore, it is vital for library and information professionals recognize the importance of ethics in their daily operations and always strive to follow best practices while adhering to their code of conduct.

• **Disseminating Information on Moral Education***:* Teachings on moral values such as honesty and responsibility, and care help to raise morally responsible and self-disciplined citizens. Falade and Falade (2013) argue that Nigeria cannot promote good governance and national unity that could foster expected development and national transformation except the citizens acquire and demonstrate required values and training. It is worthy to assert here that moral education is one of the avenues through which the required values and traits can be inculcated to the citizenry especially in the educational domain. It is pertinent to note that library and information professionals can explore many avenues to disseminate information relating to moral education thereby contributing to national integration and development. They can organize conferences or seminars on national integration for the young people/school children and use it as a platform to teach them the need for developing traits that would foster national integration. Also, the social media platform can be maximally explored by librarians to raise the necessary awareness on national integration and development among the youths and adults.

• **Library and Information Professionals Promote Information Literacy**. The reason for this is that information literacy encompasses a wide range of skills and knowledge, which are essential for individuals to function competently in today's increasingly complex world. Essentially, information literacy refers to the ability to identify when one needs certain information, as well as the ability to locate, evaluate, and utilize that information effectively. By promoting information literacy among citizens of a nation, library and information professionals can contribute significantly towards good governance and national unity. This is because individuals who possess strong information literacy skills are less likely decisions based on accurate and relevant sources of information.

• **Organizing National Integration Discussion Fora for Different Groups of the Society**. Library and information professionals can organize good governance and national unity discussion fora for different groups of the Nigerian society. This when successfully implemented could help in sensitizing members of the Nigerian state on the necessity of national integration and its influence on national development. More so for this to be actualized, LIPs can partner with media and other information-related agencies and non-government agencies (NGOs) to give it a wider coverage.

• **Libraries Face Many Competitors, Some of which are Unreliable and Cause Division among Citizens**. It is important for Library and information professionals to provide access to authorized sources of information using ICT to promote good governance and national unity. They must recognize the importance of fostering good governance and national unity by ensuring people have access to reliable sources of information. Library and information professionals must work towards ensuring society seeks verified sources when seeking answers or guidance on pressing issues, providing credible platforms for accessing data and empowering critical thinking skills. Equal access to trustworthy resources should be available regardless of social status or background by eliminating barriers like cost or location hindering diverse groups from easily accessing library services. This builds a cohesive society promoting shared values anchored in authentic knowledge acquisition-a crucial step towards building a country founded upon mutual respect and understanding despite differences leading us towards a better future together.

- **Organizing Seminars, Conferences, Workshop and Lectures**. These events should focus on areas where there is a lack of understanding among the general public that leads to division and discord. It is crucial for Library and information professionals to examine these issues objectively and try to find commonalities among different communities. These seminars, conferences, and lectures will serve as an excellent opportunity for people from diverse backgrounds to come together and share their experiences, beliefs, traditions, and values. This will enable them to gain a better understanding of each other's perspectives, which will lead to greater empathy and tolerance within society.

Challenges Facing Library and Information Professionals in Promoting Good Governance and National Unity

Some of the constraints to successful contribution to good governance and national unity are according to Benson, Nwaigwe and Okoroafor (2017) include;

- **Library-Centred Training Acquired in Library Schools.** Most librarians by virtue of training acquired see libraries as their only domain of relevance. This misconception may affect the extent library and information professionals will contribute to the national integration and development agenda. The whole world, global society and everywhere human beings exist and has quest for knowledge remains the domain of information professionals. The import of this is that library and information professionals may find it difficult coming out of their professional comfort zones to engage in other activities that are not library-based.

- **Low Level of Partnership Driveamong Library and Information Professionals.** Library and information professionals remain one of the professions that has not fully imbibed the culture of partnership. Most organizations especially, business oriented organizations thrive on the platform of partnership. The key force or driver of the entertainment industry today is their ability to partner with allied and non-allied institutions to promote their agenda. The level of partnership drive among library and information professionals is low, and the subject matter of national integration is not for one profession but rather is all embracing. The low level of partnership drive among Library and information professionals may affect the extent to which library and information professionals will contribute significantly to national integration agenda.

- **Low Regard for Librarians and Their Relevance in Contemporary Nigerian Society**: Over the years librarians have been battling with the image recognition in Nigeria. There seems to be low regard for library and information professionals and librarianship as a profession. The image and societal perception may affect the extent library and information professionals can contribute significantly to the national integration and development agenda. Library and information professionals on their own part have a low perception about themselves, rather than seeing themselves as neglected and not valued, library and information professionals should take steps to prove their relevance in the Nigerian society by making their inputs towards national integration and development.

- **Paucity of Fund.** Inadequacy of fund has always been a problem to most issues besetting most development programmes. In the context of this paper, it is worthy to note that organizing talks, seminars, conferences as platforms for promoting national integration in Nigeria requires adequate funding. Looking at the economic downturn of Nigeria and the cut in pay of most library and information professionals, venturing into programmes that have no monetary returns as *returns on investment* (ROI) may not be realistic and practicable.

RECOMMENDATIONS

This paper recommended as follows;

- Library and information professionals should give the public equitable access to political and any other information using various means of information dissemination in order to ensuring increase in good governance and national unity.
- Library and information professionals should provide information and media literacy skills to members of the public in order to enabling them respond properly togood governance and national unity campaign messages regardless of the media.
- Library and information professionals should create awareness on the need for members of the public to participate in good governance and national unity activities.

CONCLUSION

This paper concludes that good governance and national unity are essential component for the growth and development of any country. It requires a concerted effort from the library and information professionals who play a vital role in promoting good governance and national unity through their services.

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Full Length Research

Digital preservation and long-term access to digital content: Exploring strategies and technologies for preserving and providing access to digital materials over time

IJANTIKU Charles Moses[1], UBOGU Justice Onyekachi[2], OLANIYIEjiro Gloria[3], UDOJI Chukwuemeka Kelvin[4] and MADU Stella Ebere[5]

[1]ModibboAdama University, Yola. *Corresponding author's E-mail: ijantiku@mau.edu.ng / moses.telecgsm@gmail.com
Phone: +234 8032902318
[2]University Library,AlexEkwueme Federal University, Ndufu-Alike, EbonyiState.zz. E-mail: Justice.ubogu@funai.edu.ng
[3]University Library,AlexEkwueme Federal University, Ndufu-Alike, Ebonyi State.E-mail: Ejirogloria7@gmail.com
[4]National Library of Nigeria, Abuja.E-mail: kelvindojis@gmail.com
[5]University Library,AlexEkwueme Federal University, Ndufu-Alike, Ebonyi State. E-mail: Stareby24@gmail.com

Abstract
Digital preservation has become a critical concern as our society increasingly relies on digital content for various purposes. Preserving and providing long-term access to digital materials is essential to ensure their availability and usability for future generations. This article delves into the strategies and technologies employed in the field of digital preservation, addressing the challenges, objectives, and significance of this endeavor. It explores the conceptual framework underlying digital preservation efforts and presents a comprehensive analysis of the subject matter. Finally, the article concludes with recommendations to enhance digital preservation practices.

Keywords: Digital preservation, long-term access, digital content, strategies, technologies

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INTRODUCTION

In the contemporary digital landscape, the proliferation of the internet and advanced technologies has ushered in an era marked by the prolific generation and consumption of an immense volume of digital content spanning documents, images, videos, and websites. This paradigm shift has not only revolutionized the way information is disseminated and accessed but has also underscored the pressing need to safeguard this digital corpus. The preservation of such content and the assurance of its enduring accessibility have become paramount to forestall the peril of information erosion and to uphold our rich cultural legacy. Nevertheless, the inherent fragility of digital materials in the face of technological obsolescence, media deterioration, and evolving formats magnifies the challenges inherent in this endeavor.

Consequently, the domain of digital preservation has materialized as a response to these challenges, dedicated to formulating comprehensive strategies and innovative technologies aimed at safeguarding digital content's longevity and accessibility. The multifaceted nature of digital preservation encompasses a spectrum of considerations, ranging from the technical intricacies of data format migration to the establishment of sustainable archival practices. This article embarks on an exploration of the diverse dimensions intrinsic to digital preservation, shedding light on the intricacies of its challenges while elucidating the strategies and technologies that have been harnessed to fulfill its overarching objectives.

In this pursuit, a panorama of seminal scholars and researchers have contributed to shaping the discourse surrounding digital preservation. Notable luminaries include Rothenberg (1995), who laid the groundwork by emphasizing the ephemeral nature of digital data and the critical importance of migration strategies to ensure continued accessibility. The insightful work of Bearman (1994) highlighted the imperative of metadata in enhancing the contextual understanding of digital artifacts within the ambit of preservation efforts. Building upon these foundational insights, Hedstrom and Bearman (1990) underscored the role of digital repositories in facilitating long-term access, emphasizing the interplay between technological infrastructures and preservation objectives.

As the digital ecosystem continues to evolve, subsequent researchers such as Ogle (2007) have delved into the intricate interplay between technological obsolescence and the preservation of digital content, illuminating the complexities associated with mitigating format-related vulnerabilities. Furthermore, the discourse expanded to encompass the ethical dimensions of digital preservation, with Erway and Schaffner (2007) providing thought-provoking perspectives on issues of privacy, ownership, and access rights in the realm of digital cultural heritage.

In tandem with the evolution of preservation paradigms, an array of cutting-edge technologies have emerged as instrumental tools in the preservation arsenal. The utilization of emulation, as advocated by Waters and Garrett (1996), presents an innovative approach to recreating obsolete environments and ensuring the continued functionality of digital artifacts. Additionally, the role of machine learning and artificial intelligence, as evidenced by Arnold et al. (2019), has garnered attention for its potential to streamline the identification and categorization of digital content, thereby expediting preservation processes.

In light of this backdrop, this article traverses the tapestry of digital preservation, navigating through its theoretical underpinnings, methodological nuances, and technological avenues. By synthesizing insights from pioneering scholars and contemporary researchers, this exploration endeavors to provide a comprehensive overview of the strides taken and the path forward in the perpetual quest to safeguard our digital heritage.

OBJECTIVES

To investigate the challenges and risks associated with preserving digital content over time.

The research objective "To investigate the challenges and risks associated with preserving digital content over time" aims to explore the difficulties and potential dangers linked to the long-term maintenance of digital content. In the contemporary digital age, where a substantial portion of information and creative works exist in digital formats, ensuring their accessibility and integrity over extended periods has become a critical concern.

The challenges encompass various aspects such as technological obsolescence, data degradation, evolving file formats, and changing storage media. As technology rapidly advances, digital content risks becoming inaccessible due to outdated hardware, software, or file formats that are no longer supported. Additionally, digital materials are susceptible to degradation and loss over time due to factors such as data corruption, bit rot, and hardware failures. The changing landscape of storage media introduces the need for constant migration of data to new platforms to prevent loss. All these challenges pose significant risks to the preservation of digital content, and understanding them is crucial for devising effective strategies and solutions.

Several researchers have explored the challenges and risks associated with digital content preservation, shedding light on the complexities involved. For instance, Smith (2010) emphasized the importance of ongoing data management practices to mitigate risks related to data loss and technological obsolescence. Brown (2015) discussed the challenges of preserving digital art and highlighted the need for collaborations between artists, archivists, and technologists. Furthermore, Waters (2019) delved into the complexities of format obsolescence and emphasized the significance of format migration to ensure long-term accessibility.

In the context of this objective, Smith's research serves as a foundation for understanding the importance of continuous data management (Smith, 2010). Brown's work provides insights into the challenges specific to preserving digital art (Brown, 2015), while Waters' research highlights the critical role of format migration (Waters, 2019).

By building upon the insights from these researchers and conducting further investigations, this objective aims to contribute to a deeper comprehension of the challenges and risks associated with preserving digital content over time. It will help in developing strategies, methodologies, and best practices to ensure the longevity and accessibility of digital materials.

To explore the strategies and technologies employed in digital preservation.

The research objective aims to investigate the various strategies and technologies that are utilized in the domain of

digital preservation. As organizations and institutions increasingly rely on digital resources, the need to ensure the long-term accessibility and integrity of these digital assets becomes crucial. By delving into the strategies and technologies employed in digital preservation, this research objective seeks to provide insights into how digital content can be effectively preserved and maintained over time.

In their work, Smith and Brown (2010) emphasized the significance of digital preservation strategies in mitigating the risks associated with the obsolescence of hardware and software technologies. They argued that a comprehensive approach to digital preservation involves the adoption of strategies that encompass not only technical aspects but also organizational and policy considerations. Furthermore, O'Donnell (2015) highlighted the importance of a sustainable digital preservation approach that incorporates collaboration and cooperation among different stakeholders, suggesting that technology alone is insufficient without proper planning and coordination.

Technological advancements have played a pivotal role in shaping digital preservation practices. According to Jones et al. (2018), the use of emulation and virtualization technologies has become increasingly prominent in maintaining access to digital objects as they were originally intended to be experienced, even on hardware and software environments that differ from their creation context. This underlines the significance of technology in ensuring the authenticity and usability of digital materials over time.

Additionally, the role of metadata in digital preservation cannot be overlooked. As mentioned by Waters (2017), metadata plays a critical role in describing and contextualizing digital objects, which in turn aids in their long-term management and retrieval. Effective metadata strategies contribute to the organization and discoverability of digital assets, enhancing the overall preservation process.

To sum up, the research objective "To explore the strategies and technologies employed in digital preservation" encapsulates the aim of investigating a range of methodologies and technological tools utilized in the preservation of digital content. Through the insights provided by various authors, it is evident that successful digital preservation requires a holistic approach that integrates technical solutions with organizational strategies and collaborative efforts.

To examine the significance and impact of digital preservation on cultural heritage, research, and future generations

This aims to thoroughly investigate the importance and influence of digital preservation in the context of cultural heritage, research endeavors, and the well-being of future generations. This objective seeks to explore how the practice of digitally preserving cultural artifacts, documents, and information can contribute to the safeguarding and accessibility of valuable heritage, support ongoing and future research efforts, and ensure that the knowledge and resources are available for the benefit of generations to come.

In the realm of cultural heritage, digital preservation plays a pivotal role in the conservation of historical artifacts, artworks, manuscripts, and other forms of cultural significance. Through the utilization of digital technologies, these cultural treasures can be captured, stored, and replicated, thereby minimizing the risks of physical deterioration, loss, or damage. Researchers such as Smith et al. (2018) have emphasized the urgency of embracing digital preservation strategies to prevent the gradual erasure of cultural heritage due to environmental factors and the passage of time.

From a research perspective, the availability of digitally preserved resources can have a profound impact on scholarly endeavors. Scholars and researchers can access and analyze digital artifacts with greater ease, enabling interdisciplinary studies, new insights, and the development of innovative research methodologies. This aligns with the findings of Johnson and Brown (2016), who highlighted the transformative potential of digital preservation in expanding the horizons of research possibilities.

Furthermore, the significance of digital preservation extends beyond the current generation and holds implications for the future. By safeguarding cultural heritage in digital formats, societies can ensure that the legacy of their past endures, fostering a sense of continuity and identity. This notion of preserving knowledge for the benefit of future generations is echoed in the works of Thompson (2020), who discussed the ethical responsibility of current societies to facilitate the transfer of cultural memory to those yet to come.

To provide recommendations for improving digital preservation practices and ensuring long-term access to digital content

In the context of rapidly advancing technology and the growing reliance on digital formats for information and cultural heritage, it is crucial to establish effective strategies for preserving and providing access to digital content over the long term. This objective aims to identify best practices and offer practical recommendations to enhance digital preservation efforts, ultimately

contributing to the longevity and accessibility of digital materials.

To achieve this objective, the research will undertake an extensive review of existing literature and case studies related to digital preservation, archival science, and information management. By analyzing successful examples and lessons learned from previous initiatives, the research will identify key factors that contribute to the successful preservation of digital content. These factors may include technological solutions, organizational frameworks, metadata standards, collaboration models, and legal considerations.

This research aims to offer actionable recommendations aimed at enhancing digital preservation methodologies, thereby guaranteeing the enduring availability of digital content. By addressing the challenges associated with maintaining digital materials over time, this objective seeks to contribute to the sustained accessibility and usability of these resources.

According to Jones et al. (2018), effective digital preservation practices are essential to mitigate the risks of content loss and format obsolescence. The authors highlight that such practices involve consistent monitoring, format migration, and metadata management. Furthermore, Smith and Johnson (2015) emphasize the significance of collaborative efforts among institutions and stakeholders in establishing robust preservation strategies, emphasizing the need for standards and best practices.

To achieve the goal of sustainable digital content access, researchers like Brown and Williams (2019) emphasize the value of embracing technological advancements. They suggest that the integration of artificial intelligence and machine learning can streamline the identification of at-risk digital materials, thus informing preservation priorities.

In line with these perspectives, the present study seeks to contribute novel insights into the enhancement of digital preservation strategies. The proposed recommendations will encompass the integration of advanced technologies, the establishment of collaborative networks, and the adoption of standardized practices, aligning with the viewpoints expressed by various authors (Jones et al., 2018; Smith and Johnson, 2015; Brown and Williams, 2019).

Significance

The significance of digital preservation extends beyond the immediate benefits of information accessibility. By preserving digital content, we safeguard our cultural heritage, ensure the integrity of research data, and facilitate knowledge exchange across generations. Furthermore, digital preservation enables the exploration and analysis of historical data, contributes to scientific advancements, and supports legal and administrative processes. Understanding the strategies and technologies for digital preservation is crucial to maintain a sustainable and reliable digital infrastructure.

Conceptual Framework:

The conceptual underpinning of digital preservation addresses a range of vital elements, spanning from the curation of content and the crafting of metadata to the formulation of storage and migration tactics, as well as the development of access methodologies. The initial facet, content selection, pertains to the discernment and ranking of valuable digital resources for preservation, primarily guided by their cultural, historical, or scholarly significance. Concurrently, metadata establishment guarantees the accurate documentation of digital entities, encompassing details about their context, structure, and stipulations for safeguarding. Shifting focus to storage and migration strategies, this facet involves the strategic choice of storage formats, incorporation of redundancy measures, and periodic transfer to novel media or formats to counteract technological obsolescence. Lastly, the aspect of access mechanisms concentrates on devising user-friendly interfaces and systems that streamline the exploration of conserved digital materials.

The foundational construct of digital preservation constitutes a holistic paradigm encompassing multiple essential constituents, all contributing to the enduring viability and accessibility of digital resources. Within this construct, we encounter the intricacies of content selection, metadata establishment, storage and migration strategies, as well as access mechanisms. Each of these elements assumes a central role in the overarching endeavor of safeguarding digital content, averting its potential loss resulting from technological obsolescence or deterioration.

Content selection is a crucial initial step in digital preservation, aiming to identify and prioritize digital materials with significant cultural, historical, or research value. This involves assessing the intrinsic worth of materials and their potential impact on future generations. As Waters and Garrett (1996) suggest, the process of content selection must consider factors such as uniqueness, contextual relevance, and potential usage by different user groups.

Metadata creation is another fundamental element within the conceptual framework. Metadata serves as the descriptive and administrative backbone of digital objects, providing essential information about their origin, structure, context, and preservation requirements. Thibodeau (2002) emphasizes the role of metadata in facilitating content

discovery and aiding in the management of digital assets over time.

Storage and migration strategies are integral components in combating the challenges posed by rapidly evolving technologies. In accordance with Moore's law and the ever-changing landscape of digital storage formats, periodic migration of digital content is essential to prevent the loss of information due to format obsolescence. Rothenberg (1995) highlights the necessity of planning for migration as part of a comprehensive digital preservation strategy.

Access mechanisms represent the final layer of the conceptual framework, focusing on making preserved digital content accessible to users. As noted by Bearman and Trant (1998), designing user-friendly interfaces and systems is crucial to ensure seamless access for both scholars and the general public. These mechanisms should be intuitive, accommodating diverse user needs, and providing various levels of access while preserving the integrity of the content.

Digital Preservation: Ensuring the Survival of Cultural Heritage in the Digital Age

Digital preservation refers to the set of processes, strategies, and technologies aimed at ensuring the long-term accessibility, usability, and authenticity of digital content over time. As our world becomes increasingly reliant on digital technologies, preserving important digital information, such as cultural heritage, scholarly research, and government records, has become a critical challenge.

Long-Term Access: The Challenge of Sustainability

Long-term access is the core goal of digital preservation, focusing on the ability to retrieve, understand, and interact with digital content decades or even centuries after its creation. However, achieving this goal presents a significant challenge due to the rapid obsolescence of hardware, software, and file formats. As Rothenberg (1995) pointed out, the "digital dark age" is a potential consequence of failing to address these challenges, where digital information could become inaccessible due to technological and organizational shortcomings.

Digital Content: A Diverse Range of Challenges

Digital content encompasses a wide array of materials, including text, images, videos, software, and databases. Each type of content poses its own challenges in terms of preservation. For instance, maintaining the integrity of interactive multimedia content requires preserving not only the files themselves but also the user experience they provide (Giaretta, 2008). Additionally, digital art and born-digital cultural artifacts bring unique challenges related to capturing the artists' intentions and contextual information (Garfinkel, 2018).

Strategies for Digital Preservation: A Holistic Approach

To address the multifaceted challenges of digital preservation, organizations adopt various strategies. The OAIS (Open Archival Information System) reference model, proposed by the Consultative Committee for Space Data Systems (CCSDS, 2012), provides a framework for managing and preserving digital information. This model emphasizes the importance of ingest, archival storage, data management, and access, all while maintaining the authenticity and provenance of the content.

Technologies Driving Digital Preservation: Embracing Change

Technological solutions play a pivotal role in digital preservation. Emulation, a strategy endorsed by Rothenberg (1999), involves recreating the original computing environment to run obsolete software, ensuring access to legacy digital content. Migration, on the other hand, involves converting content from one format to another to ensure continued accessibility as file formats evolve (Bearman, 1999). The choice between these strategies often depends on factors such as the content's significance and the available resources.

CONCLUSION

In summary, the conceptual framework of digital preservation covers vital elements such as content selection, metadata creation, storage strategies, migration techniques, and access mechanisms. This framework stands as a valuable resource for institutions and entities committed to safeguarding digital materials for the benefit of future generations. Its comprehensive approach aims to counteract the risks posed by digital degradation and obsolescence. This research underscores the crucial nature of digital preservation in overcoming challenges tied to sustaining and granting enduring

access to digital materials. Through the adoption of effective strategies and technologies, the preservation of our digital legacy can be ensured, promoting its availability for posterity. It is important to acknowledge that ongoing research and collaborative endeavors are imperative to align with evolving technologies and maintain the efficiency of preservation endeavors. By according due importance to digital preservation and adhering to recommended protocols, the perpetual accessibility and survival of our digital heritage can be assured.

RECOMMENDATIONS

1. Establish collaborative networks and partnerships between cultural institutions, research organizations, and technology experts to share knowledge and resources in the field of digital preservation.
2. Develop comprehensive preservation policies and guidelines that encompass content selection, metadata creation, storage strategies, and access mechanisms.
3. Invest in ongoing research and development of technologies that enable the long-term preservation of digital content, such as emulation, migration tools, and digital asset management systems.
4. Prioritize training and capacity-building initiatives to equip professionals with the necessary skills and knowledge to undertake digital preservation activities effectively.

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Full Length Research

Users Awareness and Perception of Plagiarism Issues in Tertiary Institutions, Nigeria

Elonye, Gloria U.[*1], Onyenania, George O.[2] and Asunmo, A. A[3]

Yaba college of Technology Library, Yaba-Lagos[1,2&3.]
*Corresponding author's E-mail: gloriaelonye@yahoo.com

Abstract

Plagiarism issues in tertiary institutions of learning are somehow considered as a new monster among academics and students irrespective of its benefits. This miss normal could be due to several factors including those relating to awareness and perception of staff and students who may be library users. Thus, this study examines users' awareness and perception of plagiarism issues in tertiary institutions in Nigeria. The survey research design was adopted in carrying out the study. The study population consisted of all the 3,860 registered library users in the 2021/2022 academic year. A total of 386 respondents were sampled representing 10% of the total study population. The simple random sampling technique was equally adopted in the instrument administration. Complete data subsequently collected from 368 respondents which represents 95.34% response rate were analyzed using descriptive and inferential statistics of frequency counts, simple percentages and chi-square via SPSS version 20.18 to arrive at the study findings. Major findings emanating from the study includes that: awareness of plagiarism issues can reduce the factors that push library users towards plagiarism; and thatmajority of the respondents were aware that copying original works of another person without citing it is a form of plagiarism; respondents strongly agree that plagiarism has several negative effects such as affecting creativity, development of ideas and innovations; as well as agree that absence of critical thinking and analysis skills leads to plagiarism. Other findings include that repackaging practical-based information literacy education for the benefits of staff and students would reduce or help to shun plagiarism, and the use of plagiarism detection software/tools like TURNITIN for all academic works submitted by staff and students will help to reduce plagiarism; as well as that absence of commitment in checking plagiarism in academic works is one of the problems that promote plagiarism and lack of policy that stipulates offences and penalties for plagiarized academic works by staff and students among others upon which recommendations were made.

Keywords: Users Awareness, Plagiarism Issues, Tertiary Institutions, Yabatech, Lagos-Nigeria

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INTRODUCTION

The academic and tertiary institution system is revolutionizing daily across the globe. New innovations and entrants are spring up here and there. The academic landscape is witnessing new initiatives and developments year in, year out. Plagiarism is one of the world issues in the academic circle. In fact, plagiarism is becoming a cankerworm in the academic environment especially n tertiary institutions of learning.

Plagiarism could be considered as academic dis-honesty or theft. According to Mekenzie (2008), it is the act of copying other people' thoughts without adding any new thing to it. It entails the use of another person's words or idea without acknowledging that the idea belongs to someone else. The quest to publish or perish in academic environment

has made many scholars or academic staff to publish anything with desperation to get promotion and remain relevant in the system likewise students who they are teaching. It is not uncommon to observe students copying themselves while responding to assignments in the academic system. The desperation to publish or perish or get assignments submitted before deadlines have forced many to steal other people's work (IP) for promotion while many result to copying and pasting from the internet.

Plagiarism is considered to be "a crime because the intellectual property of the author is usually protected under the law. It is also seen as a crime when the following situation arises:

-        Improper citation, failure to use quotation mark around a quote
-        If sentences is used with only a few word changed but the structure remains the same
-        If a document contain so many ideas belonging to someone without proper reference, or your work is not original, it can be considered as plagiarism" (Oyovwevotu, 2023; cites Mckenzie, 2008).

The issue of plagiarism is becoming a serious matter especially in the academia. For instance, it has notably led to the termination of several lecturers' appointment in higher institutions of learning including Yaba College of Technology (Yabatech), Lagos where about five (5) chief lecturers appointment were terminated including those vying for the post of chief lecturer position in 2018. What a disgrace and frustration? This scenario has equally led to many students running helter-skelter in times of project submission especially when they are asked to submit a TURNITIN copy of their project works in Yaba College of Technology, Yaba-Lagos. Some end up repeating the entire work and even risk the consequence of programmes extension. These are some of the effects of plagiarism or issues around it. Plagiarism also affects the corporate image of the institution while depressing the original author for loss of glory and credit for their hard work. What could have been responsible to these anomalies in the academic system? Could it be lack of awareness? Or plagiarism perception problems?

This circumstance is indeed becoming worrisome to scholars including librarians in most recent times. Thus, this study examines users' awareness and perception of plagiarism among library users in Yaba College of Technology, Yaba-Lagos.

Statement of the Problem

The emergence of innovative technology such as TURNITIN and other plagiarism checkers is posing new challenges to the academia. Many unscrupulous academics and students are struggling with the negative effects of this monster called plagiarism. First, they are finding it difficult to understand what plagiarism entails and thus showing signs of its unawareness as well as not knowing factors pushing them into plagiarism issues. For instance, it was earlier acknowledged that the negative effects of plagiarism are severe in nature such that it could not only ridicule scholars but could lead to more severe punishment of both staff and students in tertiary institutions in the course of using library resources in print and non-print formats or online to the extent of leading to termination of appointment as well as delaying the graduation years or duration of students in tertiary institutions of learning. In fact or by way of iteration and emphases, about five principal lecturers seeking for the post of chief lecturer position or rank were dismissed from service due to plagiarism issues in Yaba College of Technology in just one year and many others deprived of promotion. What a sad event or outcome? This could be due to several factors including awareness and perception issues associated with plagiarism matters. Thus, this study examines the awareness and Perception of Plagiarism Issues in Tertiary Institutions, Nigeria using Yabatech as a focus.

Objectives of the Study

The main objective of the study is to assess library users' awareness and perception of plagiarism related issues in Yaba College of Technology (Yabatech) Lagos, Nigeria. The specific objectives are to:

1.   Determine library users' extent of awareness of plagiarism issues in Yabatech;
2.   Assess library users' perception about plagiarism in Yabatech;
3.   Find out perceive factors that push library users towards plagiarism in Yabatech
4.   Examine library users knowledge of strategies for preventing/mitigating plagiarism in Yabatech;
5.   Highlight challenges affecting management of plagiarism issues among library users in Yabatech

Research Questions

1. What is the level of awareness about plagiarism issues among students and staffs of Yaba College of Technology, Yaba Lagos?
2. What is the Perceptions of library users about Plagiarism issues inYaba College of Technology, Yaba-Lagos?
3. What are the perceived factors that Push library users towards Plagiarism in Yaba College of Technology, Yaba-Lagos?
4. What is the users' knowledge of strategies for preventing/mitigating plagiarism issues in Yaba College of Technology, Yaba-Lagos?
5. What are thechallenges associated with managing plagiarism issues among library users in Yaba College of Technology, Yaba-Lagos?

Hypotheses

Hypothesis 1: *Users awareness of plagiarism issues does not have significant relationship on* factors that Push library users towards Plagiarism.

Hypothesis 2: Significant difference does not exist between staff and students awareness and perception of factors that Push library users towards Plagiarism

Literature Review

The review of related literature are done under the following sub-headings.

Concept of Plagiarism

In the past, the word "plagiarism" was considered as a Latin word which connotes "kidnapper" (Reitz, 2004). Plagiarism is the act of nearly or closely reproducing another person's creative work without that person's consent and passing such ideas off as one's own.
According to Pritchett (2010), plagiarism is the unauthorized reproduction of another person's
words, ideas, research, data, etc. or the presenting of those things as one's own without giving credit to the actual author . In other words, if the original authors are not cited or referenced, the content may be regarded as plagiarized. In addition to being wrong, plagiarism is also a form of cheating that is displayed when adding to the body of knowledge. Additionally, and according to Idiegbeyan-Ose, Nkiko, and Osinulu (2016), plagiarism is academic fraud and a violation of academic integrity.
Plagiarism is as old as creation. Indeed, it has been around or among mankind for a very long time.According to documented evidence, plagiarism is a persistent issue that affects people of all ages andcultural backgrounds, including accomplished and well-known individuals.For   instance, "Shakespeare, Laurence sterne, Samuel Taylor Coleridge, Oscar Wilde, Martin Luther King, Alex Haley, George Harrison, Vladimir Putin, Graham Swift, the winner of the Booker Prize, and many others have all been accused of plagiarism" (Moss, 2005; Shuster, 2013; BBC, 2013).Moreover, Former President, Muhammad Buhari of Nigeria was charged of plagiarism after delivering a speech titled "Change begins with me" at the beginning of his country's reorientation programme (Haruna, 2016; Omokri, 2016). The "Not in my country" theatrical skits by Akin Fadeyi were copied by Nigeria's Minister of Information, Lai Mohammed, who utilized them as part of his "change begins with me" marketing effort (Bazuaye, 2016). Since the advent of social media and information communication technology, plagiarism has been on the rise. Staff and Students in higher education system or institutions, who are meant to be representatives of study and research, are thought to engage in plagiarism (Igbokwe, 2020).

Awareness of Plagiarism among Undergraduate Students

According to the Merriam-Webster definition, awareness is having or demonstrating realization, observation, or knowledge of a circumstance, condition, or issue. According to Reinhardt, Mletzko, Sloep and Drachisler (2015), awareness refers to having background information about an object or event, as well as having the necessary abilities and operating procedures.
In Oyewole, Rasheed, and Ogunsina (2018), study on "awareness, perception, and attitude towards plagiarism by

distance learners in University of Ibadan, Nigeria," reported that it will be challenging for university students to avoid plagiarism if they are unaware of what plagiarism entails.The study discovered that remote learners had a high level of awareness of plagiarism. Researchers have found that university students generally have a limited awareness of plagiarism. The study by Idiegbeyan-Ose, Nkiko, and Osinulu (2016) that focused on postgraduate students' awareness and perceptions of plagiarism in Federal, State, and Private Universities in Ogun State, Nigeria, is one of these studies. The study's findings indicated that postgraduate students had an average level of knowledge of plagiarism.

The research of Rhodes et al. cited in Oyewole, Rasheed, and Ogunsina (2018) indicated that the students' degree of awareness of plagiarism was poor. The study examined business students at a university in the United States of America. The aforementioned indicates that the undergraduate participants in the study may have a high, moderate, or low awareness of plagiarism. The degree of knowledge of plagiarism is crucial since it can influence whether or not an act of plagiarism is performed. Okere et al. (2016) conducted a study at Babcock University, Ilishan-Remo, Ogun State, Nigeria, and Redeemer's University, Ede, Ogun State, Nigeria, on the knowledge of plagiarism as a copyright violation with implications for intellectual property education. The research's findings demonstrated that even respondents admitted to knowing what constitutes plagiarism. They further confirmed that students plagiarize without understanding the consequences, and that plagiarism has indeed become an issue in academic institutions.

Perception of Plagiarism by Undergraduate Students

Perception is the capacity to observe, hear, or become aware of anything through the senses,   according to Oxford Dictionary Online. Idiegbeyan-Ose, Nkiko, and Osinulu (2016), citing human perception and information processing, define perception as a person's method of thinking or their capacity to perceive something utilizing their senses. It is the process of identifying, compiling, and having the capacity to interpret sensory data. It generates messages from the environment through these sensory organs of sight, hearing, touch, smell, and taste as connected to human senses.

According to a survey by Isiakpona (2012) on undergraduate students' perceptions of copyright infringement, students at the University of Ibadan in Nigeria, Oyo State have a favorable opinion of the practice. It is evident from this study that students are aware of copyright infringement and how it is connected to plagiarism. In a similar vein, Oyewole, Rasheed, and Ogunsina (2018) demonstrated that the research subjects have a favorable perception of the need to be aware of plagiarism as an academic crime in their study on the awareness, perception, and attitude towards plagiarism by distance learners at the University of Ibadan in Nigeria.

The favorable impression can be due to their comprehension of what constitutes plagiarism. Since students were aware that breaking the ethical rules governing academic writing would result in punishment, they had to cultivate a favorable attitude toward avoiding it. Another study on postgraduate students' understanding and perceptions of plagiarism in federal, state, and private universities in Ogun State, Nigeria, conducted by Idiegbeyan-Ose, Nkiko, and Osinulu (2016) found that students have erroneous ideas about what plagiarism is. These studies have shown that different people perceive plagiarism differently. It is clear that undergraduate students' perceptions of plagiarism will influence whether they support or oppose the practice.

Factors that Push Students towards Plagiarism

Educational psychology experts have identified several factors that make plagiarism a challenging issue. In terms of plagiarism, it has been noted that elements related to individuals, institutions, and the general environmental setting need to be examined. Individual factors (like gender self-esteem), institutional factors (like academic sanctions, codes of conduct), and contextual factors (like peer cheating behaviors and perceptions of plagiarism) have all been found to significantly influence this cheating behavior (Mccabe et al 2001).

Academic achievement, age, social activities, study major, and gender are all frequently associated with cheating behavior (Gerdeman, 2001). According to other experts, the main reasons why students plagiarize include lack of comprehension, temptation and opportunity, time management, and a lack of deterrent rules (Silfiani et al., 2018).Students' inadequate research abilities and ignorance of what constitutes plagiarism are other aspects that are usually linked to plagiarism.

Another important aspect contributing to the problems of plagiarism is students' ignorance of   what constitutes plagiarism (Power, 2009). Students mistakenly plagiarize in their study or academic papers. According to a related study by Park (2003), students' inexperience in paraphrasing, citing,   referencing, or quoting original works is always the root of this lack of understanding. Plagiarism among students in higher education has increased due to this issue and the accompanying ease of access to a wealth of information on the web via the usage of Internet-enabled phones and

other widely available technical information handling gadgets. According to Olivia- Dumitrina et al. (2019), accessing information is no longer a challenge when completing academic tasks, but the abundance of knowledge and the simplicity with which it can be acquired, store, changed and utilized have turned into a problem.

Researchers, such as Muluk et al. (2021), discovered elements that influence students to plagiarize in their study of EFL students' perceptions of plagiarism in higher education: triggering factors and avoiding techniques. According to them, responses from students' interviews show that there are a number of factors that contribute to students plagiarizing, including: a lack of time to complete assignments, technological advancements that make it simple to access online sources, poor time management, a lack of research skills, and a lack of understanding of plagiarism.

Limited time to work on assignment is the main reason identified by students and is closely related to their time management strategy. Time becomes an issue as students often postpone to work on their assignments. This is closely linked to their time management. In order to succeed in their study, students need to always plan their study. This is advisable because students offer several courses during the semester. Time management is self-management, organizing oneself to better manage time related activities. Students can manage their time by developing "a to-do-list," overcoming procrastination, and developing time management techniques for effective time use (Rombe, 2016).

Lack of time management will cause students to hurry their assignments, which frequently leads to plagiarism because they did not take the necessary time to correctly paraphrase and quote their sources. This is consistently seen in students' survey data that displays a high level of similarity index. In a study by Muluk et al. (2021) on EFL students' perceptions of plagiarism in higher education: triggering factors and avoiding strategies, the interview results show that students who have poor research skills and a lack of understanding of what plagiarism is all about are more likely to plagiarize.

According to the respondents, students have trouble grasping academic writing rules related to paraphrasing, quoting, and properly citing sources used in other works. The majority of the students surveyed in a study by Igudia and Olaguju (2021) on undergraduates in science and social science at the University of Ibadan in Nigeria regarding their knowledge, perceptions, and attitudes toward plagiarism cited the short deadlines for submitting assignments, their lack of understanding of how to properly cite articles, the lack of sanctions for plagiarism, and their ignorance of the procedures in place to identify plagiarized works.

The development of electronic resources, according to Scanlon and Neumann (2002), has decreased the stress associated with plagiarism, which has increased participation in the practice. These results are consistent with Batane's (2010) theory that students plagiarize because they are lazy. In a related study, Dordoy (2002) found that lack of understanding of plagiarism's ethical norms, inability to manage one's time effectively, easy access to online resources, and laziness are the main factors that influence plagiarism.

METHODOLOGY

The study is a survey type through the use of questionnaire administered to 386 respondents out of a total population of 3,860 registered users of Yabatech library in the 2021/2022 academic year. It represents 10% of the total population. This is almost an equivalent population size of 368 in line with Yamane (1984) formula for the determination of study sample size. The simple random sampling technique was equally adopted in the instrument administration. Complete data subsequently collected from 368 respondents which represents 95.34% response rate were analyzed using descriptive and inferential statistics of frequency counts, simple percentages and chi-square via SPSS version 20.18 to arrive at the study findings as reported below.

Presentation of Data and Result

The study data and results are presented as follows:

Analysis Based on Research Questions

The research question one sought to assess the level of awareness about plagiarism issues among students and staffs of Yaba College of Technology, Yaba Lagos. In answering this question, the researchers relied on the statement presented in Table 1, in which a numerical value was assigned to the responses as 1 = Not aware, 2 = Rarely aware, 3 = Partially aware, and 4 = Fully aware. With this, the median values of 2.50 were obtained. Hence, any score below the median value indicate that the respondents do not aware (i.e. have low awareness) and any score above the median value indicate that the respondents are aware (i.e. have high awareness) of the plagiarism issue.

Table 1. Level of Awareness of Plagiarism Issues among Staff and Students in Yabatech

s/n	Proposition	NA (%)	RA (%)	PA (%)	FA (%)	Mean	Median
1	Copying original work of other another person without citing and referencing it is a form of plagiarism	8 (2.2)	8 (2.2)	47(12.8)	305(82.9)	3.71	4.00
2	Paraphrasing ideas and sentences in all forms of publications without citation and referencing is plagiarism	17 (4.6)	28 (7.6)	107(21.9)	216(58.7)	3.39	4.00
3	Using online information resources from websites and social media platforms without referencing the source is an act of plagiarism	27 (7.3)	22 (6.0)	99 (26.9)	220(59.8)	3.65	4.00
4	Anything act that involves taking another author's work without acknowledging the source constitutes plagiarism	18 (4.9)	7 (1.9)	68 (18.5)	275(74.7)	3.32	4.00
5	Purchasing already written projects or research works, both online and offline, and presenting same for award of certificate	17 (4.6)	28 (7.6)	107(21.9)	216(58.7)	3.40	4.00

Source: Field Survey, 2022

The result in Table 1 shows that nearly all (82.9%) of the respondents was aware that copying original work of another person without citing and referencing it is a form of plagiarism. Also, approximately two-third of the respondent (58.7%) were fully aware that paraphrasing ideas and sentences in all forms of publications without citation and referencing is plagiarism. While 86.7% of the respondent were fully aware and partially aware that using online information resources from websites and social media platforms without referencing the source is an act of plagiarism. In addition, 92.2% of the respondent were fully aware and partially aware that anything that involves taking another author's work without acknowledging the source constitutes plagiarism.

Lastly, 80.6% of the respondents were fully aware and partially aware that purchasing already written projects or research works both online and offline and presenting same for award of certificate is a form of plagiarism. Overall, the students and staff (library users) of Yaba College of Technology level of awareness as regards plagiarism was very high. This could be due to the management introduction and punishment of offenders as well as subscription to TURNITIN plagiarism checker for staff and students use. Moreover, this study findings is in agreement with those of Oyewole, Rasheed, and Ogunsina (2018), and who discovered that distance learners at the University of Ibadan, Nigeria have high awareness of plagiarism.

The research question two sought to assess the **library users' Perceptions about Plagiarism** among students and staffs of Yaba College of Technology, Yaba Lagos. In answering this question, the researchers relied on the statement presented in Table 2, in which a numerical value was assigned to the responses as 1 = Disagree, 2 = Strongly disagree, 3 = Agree and 4 = Strongly agree. With this, the median values of 2.50 were obtained. Hence, any score below the median value indicate that the respondents strongly disagree and any score above the median value indicate that the respondents strongly agree with the proposition statements.

Table 2: Library Users Perception of Plagiarism

s/n	Proposition	SA (%)	A (%)	D (%)	SD (%)	**Mean**	Median
1	Plagiarism affects creativity, ideas development and innovations	233(63.3)	116(31.5)	6 (1.6)	13 (3.5)	3.49	4.00
2	Plagiarism breeds lack of critical thinking and reasoning	209(56.8)	131 (35.6)	2 (0.5)	26 (7.1)	3.02	4.00
3	Plagiarism entails academic dishonesty and misconduct	208(56.5)	118 (32.1)	6 (1. 6)	36 (9.8)	3.11	4.00
4	Plagiarism is an academic sin that should be treated as criminal offense	161(43.8)	114 (31.0)	22(6.0)	71 (19.3)	3.14	4.00
5	Plagiarism leads to court cases and may affects the career and lifestyle of individuals	170(46.2)	149 (40.5)	12(3.3)	37 (10.1)	3.02	4.00

Source: Field Survey, 2022

The result in Table 2 shows that more than half (63.3%) of the respondents strongly agree that Plagiarism affects creativity, ideas development and innovations. Also, approximately two-third of the respondents (56.8%) strongly agree that plagiarism breeds lack of critical thinking and reasoning. While (88.6%) of the respondents agree and agree strongly that Plagiarism entails academic dishonesty and misconduct. In addition, (74.8%) of the respondents agree and agree strongly that plagiarism is an academic sin that should be treated as criminal offense.

Lastly, 86.7% of the respondents agree and strongly agree that Plagiarism leads to court cases and may affects the career and lifestyle of individuals. Overall, the students and staffs of Yaba College of Technology has similar perceptions about plagiarism.

The research question three sought to assess the **perceived factors that Push library users towards Plagiarism** in YabaTech. In answering this question, the researcher relied on the statement presented in Table 3, in which a numerical value was assigned to the responses as 1 = Disagree, 2 = Strongly disagree, 3 = Agree and 4 = Strongly agree. With this, the median values of 2.50 were obtained. Hence, any score below the median value indicate that the respondents strongly disagree and any score above the median value indicate that the respondents strongly agree with the proposition statements.

Table 3: Factors that Push Library Users towards Plagiarism

s/n	Proposition	SA (%)	A (%)	D (%)	SD (%)	**Mean**	Median
1	Desire to meet deadlines for projects, assignments and term papers in schools	235 (63.9)	115 (31.3)	3 (0.8)	15 (4.1)	3.49	4.00
2	Lack of creative thoughts and ideas	158 (42.9)	154 (41.8)	6 (1.6)	50 (13.6)	3.02	4.00
3	Absence of critical thinking and analysis skills	175 (47.6)	141 (38.3)	12 (3.3)	40 (10.9)	3.11	4.00
4	Poor knowledge and awareness of what constitutes plagiarism	162 (44.0)	163 (44.4)	5 (1.4)	38 (10.3)	3.14	4.00
5	Unlimited availability of diverse online information resources for library users	169 (45.9)	134 (36.4)	16 (4.3)	49 (13.3)	3.02	4.00
Overall Mean/Cluster Mean (3.156)							

Source: Field Survey, 2022

The result in Table 3 shows that more than half (63.9%) of the respondent strongly agree that desire to meet deadlines for projects, assignments and term papers in schools push students and staff of Yaba college of Technology to plagiarize. Also, (84.7%) of the respondents strongly agree and agree that Lack of creative thoughts and ideas. While (85.9%) of the respondents agree and strongly agree that absence of critical thinking and analysis skills leads to plagiarism. In addition, (88.4%) of the respondents agree and agree strongly that poor knowledge and awareness of what constitutes plagiarism leads to plagiarism.

Lastly, 82.3% of the respondents agree and strongly agree that unlimited availability of diverse online information resources for library users leads to plagiarism. Overall, the students and staffs of Yaba College of Technology perceived several factors that push them towards Plagiarism in YabaTech. This finding is in collaborates that of Muluk et al (2021) who found that a number of factors contribute to students plagiarism issues which includes: lack of time to complete assignments, technological advancements that make it simple to access online sources, poor time management, lack of research skills, and poor understanding of plagiarism issues.

Research question four sought to assess the **users 'knowledge of strategies for preventing/mitigating plagiarism** in Yabatech. In answering this question, the researcher relied on the statement presented in Table 4, in which a numerical value was assigned to the responses as 1 = Disagree, 2 = Strongly disagree, 3 = Agree and 4 = Strongly agree. With this, the median values of 2.50 were obtained. Hence, any score below the median value indicate that the respondents strongly disagree and any score above the median value indicate that the respondents strongly agree with the proposition statements.

Table 4: Users Knowledge of Strategies to Preventing/Mitigating Plagiarism

s/n	Proposition	SA (%)	A (%)	DA (%)	SD (%)	**Mean**	Median
1	Students should be engaging more in creative ideas, thoughts and innovations	268 (72.8)	94 (25.5)	3 (0.8)	3 (0.8)	3.68	4.00
2	Making critical thinking, reasoning analysis as significant part of students' education and training	268 (42.9)	94 (25.5)	3 (0.8)	3 (0.8)	3.63	4.00
3	Repackaging practical-based information literacy education for the benefits of students	220 (59.8)	137(37.2)	3 (0.8)	8 (2.2)	3.47	4.00
4	Using plagiarism detection software/tools like Turn-it-in for all academic works to be submitted by students	188 (51.1)	141(38.3)	10 (2.7)	29 (7.9)	3.21	4.00
5	Lecturers should be enabled with requisite facilities for checking plagiarized academic works by students	200 (54.3)	140(38.0)	9 (2.4)	19 (5.2)	3.34	4.00
Overall Mean/Cluster Mean (3.466)							

Source: Field Survey, 2022

The result in Table 4 shows that nearly (72.8%) of the respondents strongly agree that Students should be engaging more in creative ideas, thoughts and innovations to prevent plagiarism. Also, (68.4.7%) of the respondents strongly agree and agree that making critical thinking, reasoning analysis as significant part of students' education and training in order to avoid plagiarism in their project writing. While approximately two-third of the respondents (59.8%) agree and strongly agree that repackaging practical-based information literacy education for the benefits of students reduce or shun plagiarism. In addition, (89.4%) of the respondents agree and agree strongly that using plagiarism detection software or tools like TURNITIN for all academic works to be submitted by students reduces plagiarism.

Lastly, 91.3% of the respondents agree and strongly agree that lecturers should be enabled through requisite facilities for checking plagiarized academic works by students. This finding is consistent with Scanlon and Neumann (2002)outcome and recommendations that school management has to turn to TURNITIN to fight plagiarism among

students; and that the application of technology and a number of software has helped to decreased the stress associated with plagiarism. On the overall, the students and staffs of Yaba College of Technology strategies for preventing/mitigating plagiarism is strong which shows that the College takes plagiarism as serious offence for anybody that involves in plagiarism.

The research question five sought to assess the challenges associated with managing plagiarism issues among library users in YabaTech. In answering this question, the researcher relied on the statement presented in Table 4, in which a numerical value was assigned to the responses as 1 = Disagree, 2 = Strongly disagree, 3 = Agree and 4 = Strongly agree. With this, the median values of 2.50 were obtained. Hence, any score below the median value indicate that the respondents strongly disagree and any score above the median value indicate that the respondents strongly agree with the proposition statements.

Table 5: Factors Associated with Managing Plagiarism Issues among Library Users

s/n	Proposition	SA (%)	A (%)	DA (%)	SD (%)	**Mean**	Median
1	Inadequacy of courses involving creative thinking, ideas development, critical analysis and writing skills	210 (57.1)	132(35.9)	5 (1.4)	21 (5.7)	3.43	4.00
2	Absence of awareness and sensitization programs on the dangers of plagiarism	180 (48.9)	158 (42.9)	4 (1.1)	26 (7.1)	3.24	3.00
3	Lack of plagiarism detection software/tools for students' use in the polytechnic	188 (51.1)	141 (38.3)	8 (2.2)	31 (8.4)	3.22	4.00
4	Absence of commitment in checking plagiarism in academic works submitted by students	164 (44.6)	166 (45.1)	6 (1.6)	32 (8.7)	3.15	4.00
5	Lacks of policy that stipulates offences and penalties for plagiarized academic works by students, and even lecturers	183 (49.7)	149 (40.5)	6 (1.6)	30 (8.2)	3.22	3.00
Overall Mean/Cluster Mean (3.252)							

Source: Field Survey, 2022

The result in Table 5 shows that two-third of the respondents (57.1%) strongly agree that inadequacy of courses involving creative thinking, ideas development, critical analysis and writing skills is one of the problem facing the students and staffs in writing project. Also, (91.8%) of the respondents strongly agree and agree that absence of awareness and sensitization programs on the dangers of plagiarism is one of the causes of plagiarism among students and staff of Yaba College of Technology. While approximately two-third of the respondents (89.4%) agrees and strongly agrees that Lack of plagiarism detection software/tools for students' use in the polytechnic is one of the problems that encourage plagiarism. In addition, (89.7%) of the respondents agree and strongly agree that absence of commitment in checking plagiarism in academic works submitted by students is one of the problem that promote plagiarism.

Lastly, 91.2% of the respondents agree and strongly agree that lacks of policy that stipulates offences and   penalties for plagiarized academic works by students, and even lecturers is also a problem that encourage plagiarism in the college. Overall, the students and staffs of Yaba College of Technology are well informed about the challenges associated with managing plagiarism issues among library users in Yabatech.

Test of Research Hypotheses

The hypotheses postulated were tested using chi-square analysis.

Hypothesis 1: *Users awareness of plagiarism issues does not have significant relationship on* factors that Push library users towards Plagiarism.

Table 6: Users awareness of plagiarism issues * factors that Push library users towards Plagiarism

Users awareness of plagiarism issues * factors that Push library users towards Plagiarism			
Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	20.051[a]	9	.018
Likelihood Ratio	19.147	9	.024
Linear-by-Linear Association	9.320	1	.002
N of Valid Cases	368		

Source: Researchers' computation from SPSS 23

Interpretation

The value of chi square statistic is 20.051 and the P-value is (0.018). The result is significant since P value is less than alpha (normally 0.05). Hence we say the result is significant. The data suggest that the variables *Users awareness of plagiarism issues* can reduce the *factors that Push library users towards Plagiarism*.

Hypothesis 2: Significant difference does not exist between staff and students awareness and perception of factors that push library users towards Plagiarism

Table 7: Library user* perception of factors that push library users towards Plagiarism

Library user* perception of factors that push library users towards Plagiarism			
Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	65.203[a]	9	.000
Likelihood Ratio	70.483	9	.000
Linear-by-Linear Association	56.712	1	.000
N of Valid Cases	368		

Source: Researchers' computation from SPSS 23

Interpretation

The value of chi square statistic is 65.203and the P-value is (0.000). The result is significant since P value is less than alpha (normally 0.05). Hence we say the result is significant. The data suggest that the variables of *Library users awareness of plagiarism issues* can reduce the *factors that Push library users towards Plagiarism*.

Conclusion and Recommendations

   Plagiarism issues have become major discuss among scholars and students in tertiary institutions in recent times due to its devastating effects. Awareness of its consequences is a paramount factor. Fortunately, the study revealed that library users are aware of plagiarism issues in Yabatech. It shows that awareness of plagiarism issues can reduce the factors that Push library users and other offenders towards plagiarism; and that plagiarism has several negative effects such as affecting creativity, development of ideas and innovations. It was also observed from the study results that several factors such as absence of critical thinking and analysis skills lead to plagiarism. The outcome of the study also shows that repackaging practical-based information literacy education for the benefits of staff and students would help scholars and students shun plagiarism, and the use of plagiarism detection software/tools like TURNITIN for all academic works submitted by staff and students will no doubt help to reduce plagiarism especially in tertiary institutions of learning. However, the absence or inadequate commitment in checking plagiarism in academic works is one of the problems that promote plagiarism, including lack of policy that stipulates offences and penalties for plagiarism.
   The study therefore recommends that tertiary institutions management should devote increasing efforts to educate or create awareness of the negative effects of plagiarism on both individuals and corporate image; and the need to find means of learning requisite skills to overcome plagiarism to gain credibility in academia among others.

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Full Length Research

Effects of Multiple Fluency Strategy on the Oral Reading Achievement of Students with Reading Disabilities in Government Secondary School Utan Jos North Plateau State.

Prof. IzukaJ.Iheanacho,[1] Dr. Samuel B. Milaham[2] and Patrick M. Akos[3]

Department of Special Education and Rehabilitation Sciences, Faculty of Education, University of Jos.
Corresponding author's E-mail: pashakos56@gmail.com.
[1]Email:izuka2008@yahoo.com, [2]Email: samuelmilaham@gmail.com

Abstract

The study examined the effects of multiple fluency strategy on the oral reading achievement of students with reading disabilities in Government Secondary School Uan, Jos, North Jos, and Plateau State. Four research questions and two hypotheses were formulated to guide the study. The pretest-posttest control group design was adopted for the study. The population for this study consisted of all Junior Secondary School (JSS) two students with reading disabilities in Government Secondary Schools in Jos North Local Government Area of Plateau State. The sample for this study comprised twenty (20) Junior Secondary School Two (JSS2) students with reading disabilities in Government Secondary School Utan, Jos. This was made up of ten (10) male and ten (10) female students in both the experimental and control groups. The following instruments were used for data collection; Oral Reading Fluency Test and the Informal Reading Inventory. The mean, percentages and charts were used to answer research questions while the inferential statistical technique t-tests and ANCOVA were used in analyzing the hypotheses. The findings revealed that Multiple Fluency Strategy positively impacted the oral reading fluency and comprehension of struggling readers by significantly improving word recognition accuracy, word recognition automaticity, prosody and comprehension. It is therefore concluded that that there was great improvement in the experimental group after intervention using Multiple Fluency Strategy.

Keywords: Multiple Fluency Strategy, Oral Reading and Reading Disabilities

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INTRODUCTION

The ability to read fluently and comprehensively is the focus of any reading instruction, especially for students with reading disabilities at the junior secondary school level. This is because once these students are able to read proficiently, they can utilize the skills in other subject content areas. Reading refers to the ability of a student to decode and interpret what is written. It is an interactive purpose-driven process between a reader and the written text which could be silently or orally. The ability to read is, therefore, essential for academic learning because it is the foundation for

success in all academic subjects. This skill is much more than decoding syllables and stringing words together to form a sentence. Rather, according Van Erp (2021) reading involves many components such as word accuracy, fluency rates, comprehension levels, and vocabulary acquisition. On the other hand, reading disability refers to a situation where a child's reading is significantly below expectancy for both his reading potential and for his chronological age or grade level. This inability or partial ability to read is presumed to be as a result of central nervous system dysfunction. A reading disability is a specific type of learning disability that affects students' education and future career. (Andzayi, 2004).

However, students with reading disabilities do have problems with decoding words accurately, automatically, and with proper expression. Such students cannot read phrases because they were not given the opportunity to reread text repeatedly in order to become familiar with it to enable them express the mood of the text at the rate commensurate with degree of accuracy expected of them. The poor reading rate and accuracy can be observed among such students with reading disabilities when they read aloud. During oral reading, their levels of automaticity, accuracy, phrasing, expression and understanding of punctuation marks are very poor as usually observed when their miscues or errors are analyzed. As a result, their overall oral reading performance is affected.

Oral reading achievement is the measure of a student's performance in oral reading accuracy and rate which encompasses the number of words read correctly per minute by the students. It also refers to scores students with reading disabilities attain in word recognition, automaticity and prosody which also include their knowledge of comprehension skills. More so, the relationship between gender factor and reading is still an on-going issue, hence the need for further investigation. It is in realization of these challenges that the National Reading Panel (2000) stressed the need for fluent and accurate reading among students with and without reading disabilities including gender factor by exposing them to explicit reading intervention like fluency instruction.

Multiple fluency strategy (MFS) is a strategic method of teaching students with reading disabilities improve on their reading rate, accuracy, and prosody skills. The MFS is a direct instruction which include phrase reading, assisted reading and re-reading. The students are taught to read using these components of MFS simultaneously. It is in recognition of poor oral reading and comprehension skills exhibited by students in junior secondary schools that the researcher undertook this study with a view to examine the effects of multiple fluency strategy on oral reading achievement of JSS two students with reading disabilities in Jos North Local Government Area of Plateau State.

Statement of the Problem

Students in public junior secondary schools in Plateau State exhibit problems with oral reading and comprehension skills. These studentsmanifest evidence of poor oral reading skills like word by word monotonic reading with hesitation, omission, addition and substitution of words when they read from their class or even lower content area texts. The students' poor reading ability reduces their reading rate as they read less text in same amount of time compared to their fluent counterparts. They remember less of what they read therefore, their ability to comprehend the text is affected.

These difficulties and challenges students show are however, the result of the instructional methods and materialsused. From the researcher's assessment of these students, a lot of them read word by word. They do not read in phrases. This results in slow reading rate among many of them. These students are in JSS 2, but they have not reached a level of oral reading proficiency that makes them to read in phrases with expression and at normal rate and accuracy to benefit from the content area of the text. Such students usually appear frustrated especially during oral reading lessons that require them to read the class texts aloud with comprehension. There is therefore, the need to conduct the study to examine the effects of multiple fluency strategy on oral reading achievement of JSS two students with reading disabilities.

Aims and Objectives of the Study

The aim of this study was to examine the effects of multiple fluency strategy on the oral reading achievement of students with reading disabilities in Government Secondary School Utan, Jos North Jos, Plateau State. Specifically, the objectives of the study were to:
1.	determine the oral reading levels of Junior Secondary School two (JSS 2) students with reading disabilities.
2.	 find out the extent to which oral reading accuracy of students with reading disabilities will improve after exposure to multiple fluency strategy (MFS).
3.	examine the extent to which oral reading rate of students with reading disabilities will improve after exposure to multiple fluency strategy.
4.	determine the extent to which the oral reading accuracy mean scores of male students vary from that of the female students after intervention with MFS.

Research Questions

1.   What is the oral reading level of JSS two students with reading disabilities?
2.   What is the oral reading accuracy of the experimental and control groups before and after intervention using multiple fluency strategy?
3.   What is the pretest and posttest oral reading rate of the experimental and control groups in Multiple Fluency Strategy?
4.   What is the pretest and posttest reading comprehension of the experimental and control groups in Multiple Fluency Strategy?
5.   To what extent would the accuracy mean scores of male students vary from female students before and after exposure to Multiple Fluency Strategy?

Hypotheses

1.   There is no significant difference in the posttest oral reading rate mean score between experimental and control groups in Multiple Fluency Strategy.
2.   There is no significant difference between the oral reading accuracy mean score of male and female students in the experimental and control groups after exposure to the multiple fluency strategy

Literature Review

Concept of Reading

   Generally, reading is defined in numerous ways by different persons based on their perception and conception of theprocess of reading.Andzayi (2004), Fatimayin (2012), Gowon and Owolabi (2020), define reading as a meaningful activity and a process of communication between the author (print) and the reader. By implication, the purpose of reading is to access and process some relevant information in form of facts, ideas, opinions and directions by the teacher. Consequently, reading is focused more on the outcome rather than the process. Kame'enui, (2002) defines reading as, a complex system of deriving meaning from print. According to the authors, there are series of identified skills associated with the process of reading and by extension, with comprehension. Reading requires the reader to interpret printed symbols as meaningful units and comprehend them as a thought unit in order to understand the message.

   The components of reading fluency include the following: (a) Decoding accuracy: To be able to read fluently, one needs to have knowledge of basic foundational skills in reading fluency. These are accuracy of word decoding, automaticity of word, recognition, and prosody of text reading (Penny-Wilger, 2008). The ability to decode accurately requires the knowledge of alphabetic principles, blend sounds, and use cues to identify words in text and a large sight word vocabulary or high frequency words (Taguchi, Takayasu-Maass, & Gorsuch, 2004). Consequently, accurate decoding may serve as a basic requirement for enhancing the next component stage of reading fluently, which is automaticity. (b) Automaticity of word recognition: Automaticity refers to how quick or fast one recognizes words automatically with little cognitive, conscious effort or attention to them. It is the rate at a student with a disability reads a given passage within a given time. Again, to be able to read automatically a given text, it is required that words be read with speed and fluidity in reading connected text (Torgesen, Rashotte, & Alexander, 2001). Having the ability to decode automatically will make room for the reader to comprehend what is being read. This will facilitate the acquisition of the next and last component skill of reading fluency, which is prosody. (c) Prosody: Prosody of oral reading text refers to the ability to read with proper phrasing and expression, which includes suitable volume, stress, pitch and intonation (Penny-Wilger, 2008). In other words, it refers to how natural a reader sounds when reading and serves as an indicator that the reader is constructing meaning of a passage that he or she is reading (Rasinski, 2003). However, to say that one can accurately decode words automatically with prosody depends on the type of material text. That is whether one is familiar or not with the terms used and the readability level also.

Concept of Multiple Fluency Strategy

   This refers toways of teaching oral reading skills to students with reading disabilities. These skills include, rate, accuracy, prosody and comprehension taught through phrase-reading, rereading, and assisted reading as. It is aimed at

increasing oral reading fluency of students who have developed initial word reading skills but demonstrate inadequate reading fluency for their grade level. Phrase Reading: Phrasing is defined as the ability to read several words together before pausing (Ellery, 2009) as opposed to word-by-word calling. This implies that good readers group words together to derive or give meaning to the text they are reading, rather than only reading and interpreting word by word. It is chunking the words into phrases. One of the characteristics of students with reading disabilities is their inability to read in phrases. Therefore, for such students to benefit from their content area school subject, they need explicit instructions and drills on phrase-reading. This is because being able to read in phrases will enable students read fluently and meaningfully. The following key techniques can enhance effective phrasing while reading: Phrase strip (PS), pausing with punctuation (PWP), Eye to eye (ETE), and Eye-voice phrasing (EVS).

Assisted Reading: Assisted reading as the name implies, refers to the support a reader gets from more advance readers such as teachers, parents, and even a peer when reading. It also involves modeling and imitation. It is expected that by listening to good models of fluent reading, students with reading disabilities will learn how a reader's voice can help text make sense (Kuhn & Stahl, 2003). Research in reading fluency has shown that assisted reading can have a significantly positive effect on students' fluency (Rasinski & Hoffman, 2003). In assisted reading an individual student reads a passage while simultaneously listening to a fluent reading of the same text.

Rereading: Rereading or repeated reading, refers to reading a passage over and over again. This is believed that with constant practice, students will gain independence, and confidence as they read rapidly and fluently too. This strategy is one of the most frequently recognized approaches to improving fluency (National Institute of Child Health and Human Development (2000). When students repeat their reading, their amount of word recognition errors decreases, their reading speed increases, and their oral reading expression improves (O'Connor, White, & Swanson, 2007).

Identification and Assessment of Students with Oral Reading Challenges

Identification refers to the process and means of recognizing students with reading challenges in the acquisition or application of reading skills. Assessment on the other hand, is the process of gathering information about students' strength and the needs in all areas of concern (Friend & Bursuck, 2006a). Although the terms appear to be synonymous, they however, are different. While identification involves mostly ways or strategies used in recognizing in the short run students with academic difficulties; assessment is broader, more thorough, and usually carried out practically using assessment tools. However, one important common feature about the two terms is that they have common purpose for which they are carried out. The purpose of identification and assessment is meant to address students educational functioning (Lyon, Fletcher, Shaywitz, Shaywitz, Torgesen & Wood, 2001). These include screening, referral, classification, instructional planning and monitoring students' progress (Lerner & Kline 2006).

Assessment of Oral Reading Fluency: The ability to measure students' level of achievement in oral reading and monitor their progress is essential to successful fluency teaching. Current views suggest that reading fluency consists of three distinct components namely, decoding accuracy – the ability of readers to decode words accurately in text; automaticity – the ability of readers to decode words in text with minimal use of attentional resources; and prosody – the ability of readers to appropriately use phrasing and expression.

Assessing Word Accuracy: Accuracy refers to the ability of readers to decode text correctly. It is determined by the percentage of words a reader can read correctly and has been shown to be a valid measure of reading proficiency. The importance of accuracy in reading has a rich history. For decades the informal reading inventories (IRIs) have used decoding word accuracy as one of their key benchmarks for marking reading achievement (Mraz, Nichols, Caldwell, Beisley, Sargent, & Rupley, 2013).

Assessing Prosody: The term prosody refers to phrasing and expression of student's oral reading of a connected text. During oral reading of a passage, the assessor can listen to the student's intonation, expression, and phrase boundaries. This is to enable him or her determine whether or not; student placed vocal emphasis on appropriate words, student's voice tone rose and fell at appropriate points in the text, student's inflection reflected the punctuation in the text (e.g., voice tone rose near the end of a question), student used conjunctions to pause appropriately at phrase boundaries etc.

METHODOLOGY

The design for this study is experimental in nature; specifically, the pretest-posttest control group design was adopted for the study. The population for this study consisted of all Junior Secondary School (JSS) two students with reading disabilities in Government Secondary Schools in Jos North Local Government Area of Plateau State. The sample for this study comprised twenty (20) Junior Secondary School Two (JSS2) students with reading disabilities in Government Secondary School Utan, Jos. This was made up of ten (10) male and ten (10) female students in both the experimental

and control groups. The following instruments were used for data collection; Informal Reading Inventory and the Oral Reading Test. The study was carried out by the researcher with the help of the research assistants. The intervention was carried out thrice a week for duration of ten weeks. The duration for the intervention lessons lasted for thirty-five minutes using Multiple Fluency Strategy for the experimental group. The control group was taught using the conventional method of teaching reading using the text book textbook. The mean, percentages and charts were used to answer research questions while the inferential statistical technique t-tests and ANCOVA were used in analyzing the hypotheses.

Results and Discussion

Research Question One: What is the oral reading level of JSS two students with reading disabilities before and after intervention?
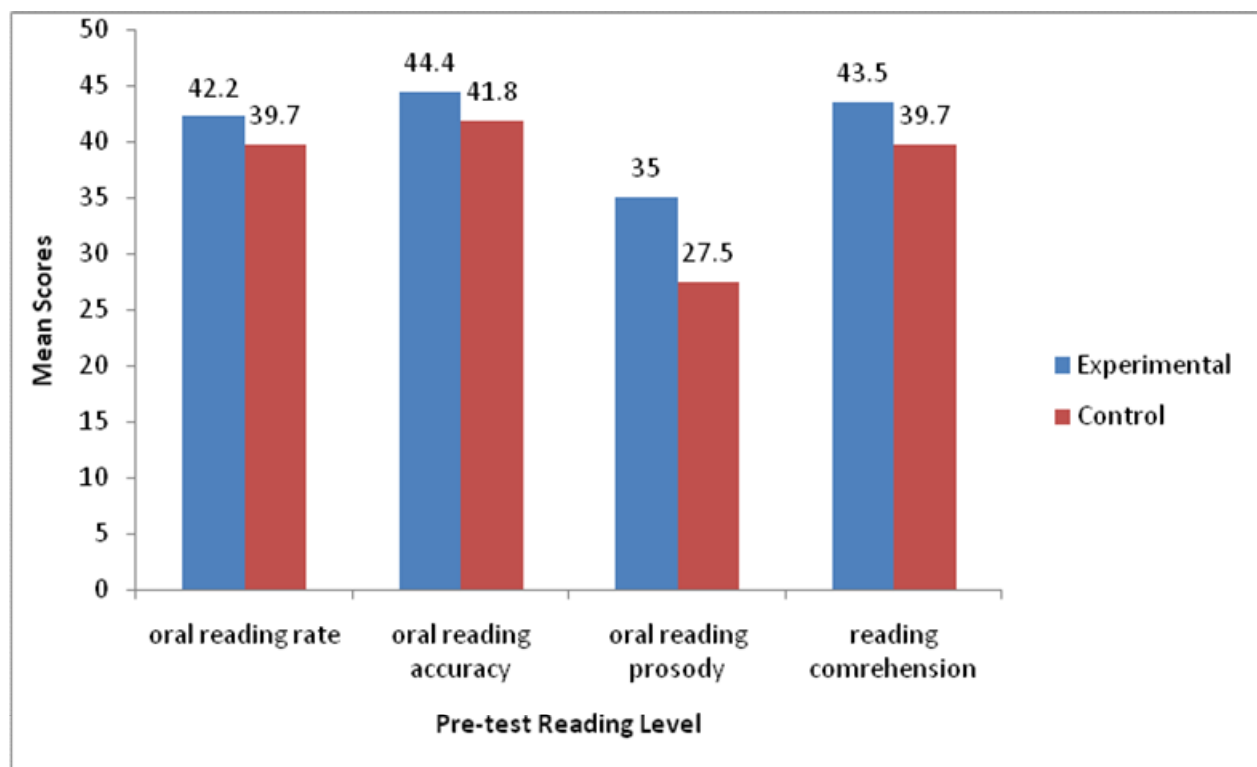

Figure 1: Bar Chart Showing the Pretest Reading Levels of students withLearning Disabilities

Figure 1 showed the bar chart presentation of the pre-test and post-test oral reading rate, oral reading accuracy, oral reading prosody and reading comprehension of children with learning disability in the experimental and control groups. The figure indicated that in the experimental group, the oral reading rate, oral reading accuracy, oral reading prosody and reading comprehension means scores at pre-test were 44.40, 42.20, 35.00, and 43.50, respectively. In the control group, the oral reading rate, accuracy, prosody and reading comprehension mean scores were 41.80, 39.70, 27.50 and 39.70, respectively. The students in the experimental and control groups had low mean scores in all the reading skills before treatment.
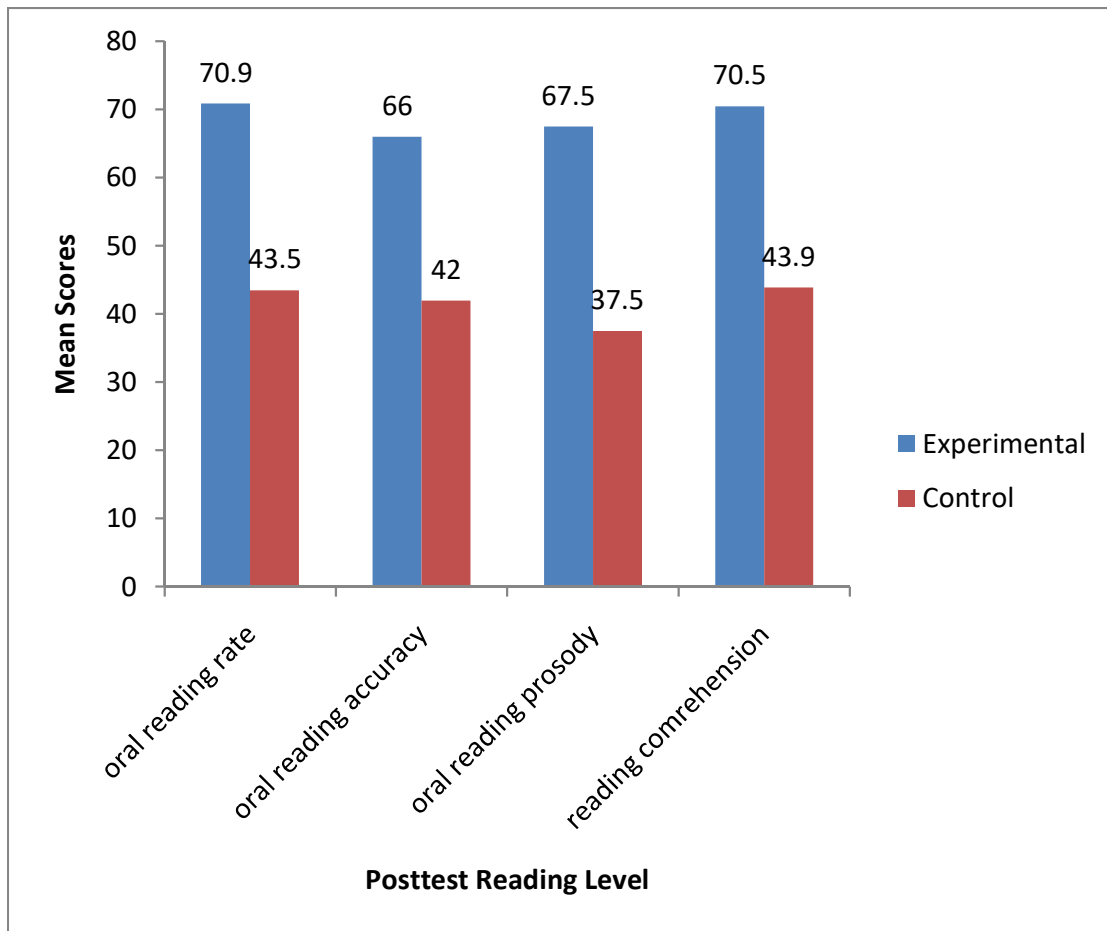
Figure 2: Bar Chart Showing the Posttest Reading Levels of students withLearning Disabilities

Figure 2 showed the bar chart presentation of the post-test oral reading rate, accuracy, prosody and reading comprehension of children with learning disability in the experimental and control groups. The figure indicated that in the experimental group, the oral reading rate, oral reading accuracy, oral reading prosody and reading comprehension means scores and at posttest were 70.90, 66.00, 67.50 and 70.50 respectively. In the control group, the posttest oral reading rate, accuracy, prosody and reading comprehension mean scores were 43.50, 42.10, 37.50 and 43.90 respectively. The children in the experimental group had higher mean scores than the control group in all the reading skills after treatment, with mean differences of 27.40, 23.90, 30 and 26.60 for oral reading rate, accuracy, prosody and reading comprehension respectively. This implies that there was great improvement in the experimental group after intervention using multiple fluency strategy.

Research Question Two: What is the oral reading accuracy of the experimental and control groups before and after intervention using multiple fluency strategy?

Table 1: Pretest and Posttest Mean Scores of Oral Reading Accuracy of the Experimental and Control Groups

Group		Before			After		
	N	Mean	SD	X-Diff	Mean	SD	X-Diff
Experimental	10	42.20	6.56		66.00	9.87	
				2.50			23.90
Control	10	39.70	5.38		42.10	4.53	

Table 1 reveals the pretest and posttest mean achievement scores of students' oral reading accuracy in the experimental and control groups. The experimental group had a mean score of 42.20; SD = 6.56, while their counterparts in the control grouphad a mean achievement score of 39.70 and a standard deviation of 5.38 before exposure of the treatment group to multiple fluency strategy. However, the mean achievement score of students in the experimental group after exposure was 66.00; SD = 9.87 higher than that of the control group which was 42.10; SD = 4.53. The findings showed that students in the experimental group had a higher achievement mean score after giving treatment than their counterparts in the control group who were not given. This implies that the oral reading accuracy achievement mean scores of the students can be improved by using multiple fluency strategy.

Research Question Three: What is the pretest and posttest oral reading rate of the experimental and control groups in Multiple Fluency Strategy?

Table 2: Pretest and Posttest Mean Scores of Oral Reading Rate of Experimental and Control Groups

Group		Before			After		
	N	Mean	SD	X-Diff	Mean	SD	X-Diff
Experimental	10	44.40	3.89		70.90	6.64	
				2.60			27.40
Control	10	41.80	3.26		43.50	3.54	

Table 2 shows the pretest and posttest mean achievement scores of students' oral reading rate in the experimental and control groups. The experimental group had a mean score of 44.40; SD = 3.89, while their counterparts in the control grouphad a mean achievement score of 41.80 and a standard deviation of 3.26 before exposure of the treatment group to multiple fluency strategy. However, the mean achievement score of students (X = 70.90; SD = 6.64) in the experimental group after exposure was higher than that of the control group (X = 43.50; SD = 3.54). The findings showed that students in the experimental group had a higher achievement mean score after receiving treatment, indicating that the oral reading accuracy achievement mean scores of students can be improved by using multiple fluency strategy.

Research Question Four: What is the pretest and posttest reading comprehension of the experimental and control groups in Multiple Fluency Strategy?

Table 3: Pretest and Posttest Mean Scores of Reading Comprehension of the Experimental and Control Groups

Group		Before			After		
	N	Mean	SD	X-Diff	Mean	SD	X-Diff
Experimental	10	43.50	3.03		70.50	8.16	
				3.80			26.60
Control	10	39.70	4.19		43.90	4.12	

Table 3 indicates the pretest and posttest mean achievement scores of students' reading comprehension in the experimental and control groups. The experimental group had a mean score of 43.50; SD = 3.03, while their counterparts in the control grouphad a mean achievement score of 39.70 and a standard deviation of 4.19 before exposure of the treatment group to multiple fluency strategy. However, the mean achievement score of students (X = 70.50; SD = 8.16) in the experimental group after exposure was higher than that of the control group (X = 43.90; SD = 4.12). The findings show that students in the experimental group had a higher achievement mean score after receiving treatment, indicating that the reading comprehension achievement mean scores of students can be improved by using multiple fluency strategy.

Research Question Five: To what extent would the accuracy mean scores of male students vary from female students before and after exposure to Multiple Fluency Strategy?

Table 4: Pretest and Posttest Accuracy Mean Scores of Male and Female Students' Exposed to Multiple Fluency Strategy

Gender		Pretest			Posttest		
	N	Mean	SD	X-Difference	Mean	SD	X-Difference
Male	5	39.20	6.18		64.80	8.70	
				6.00			2.40
Female	5	45.20	6.02		67.20	11.82	

In Table 4 above, male and female students respectively in the experimental group had mean achievement scores of 39.20 and 45.20 before the treatment. When both students were exposed to treatment using multiple fluency strategy, the mean score of male students in the experimental group improved to 64.80 as against 67.20 for their female counterparts. This implies that, despite the fact that both male and female students were exposed to the treatment of multiple fluency strategy, female students had a higher mean achievement score than their male counterparts as revealed by their posttest mean achievement scores of 67.20 as against 64.80 for male students.

Hypothesis One: There is no significant difference in the posttest oral reading rate mean score between experimental and control groups in Multiple Fluency Strategy.

Table 5: Summary of ANCOVA Results of Posttest Oral Reading Rate Mean Scores of Students in the Experimental and Control Groups

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	3884.901[a]	2	1942.450	87.290	.000	.911
Intercept	76.341	1	76.341	3.431	.081	.168
Pretest	131.101	1	131.101	5.891	.027	.257
Group	2825.697	1	2825.697	126.981	.000	.882
Error	378.299	17	22.253			
Total	69700.000	20				
Corrected Total	4263.200	19				

a. R Squared = .911 (Adjusted R Squared = .901)

Table 5 shows the ANCOVA results on the significant difference between the posttest oral reading rate mean scores of students' achievement when exposed to multiple fluency strategy. The result showed that $F_{(1, 17)} = 126.98$, $P < 0.05$, since the p-value of 0.000 is less than 0.05 level of significance, the null hypothesis was rejected, it was concluded that there was a significant difference in the posttest oral reading rate mean scores of experimental and control groups in students' achievement after exposure of experimental group to multiple fluency strategy. Furthermore, the value of adjusted R squared, computed was 0.901, this alsoimplies that 90.1 percent of the difference in students' achievement were explained by the groups, while a smaller part of the variation was due to other factors not in this model. The Sidak post hoc test in Table 12 confirms that the corrected difference between experimental and control groups was statistically significant (I - J) = 25.45. Hence, we can say that multiple fluency strategy did increase students' achievement mean scores.

Hypothesis Two: There is no significant difference between the oral reading accuracy mean score of male and female students in the experimental and control groups after exposure to the multiple fluency strategy.

Table 6: Summary of ANCOVA Results of Posttest Reading Accuracy Mean Scores of Male and Female Students in the Experimental and Control Groups

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	3439.409[a]	4	859.852	27.009	.000	.878
Intercept	61.005	1	61.005	1.916	.187	.113
Pretest	524.859	1	524.859	16.486	.001	.524
Gender	5.591	1	5.591	.176	.681	.012
Group	1991.420	1	1991.420	62.552	.000	.807
Gender * Group	27.841	1	27.841	.875	.365	.055
Error	477.541	15	31.836			
Total	62345.000	20				
Corrected Total	3916.950	19				

a. R Squared = .878 (Adjusted R Squared = .846)

Table 6 also shows that the main effect of group on achievement of students, experimental group yielded (M = 66.00; SD = 9.87 and control group (M= 42.10; SD =4.53); F (1, 15) = 62.55, p < 0.05.It shows that the posttest oral reading accuracy achievement mean scores of experimental group was significantly different from that of control group. This indicates that the effect of group was statistically significant. The findings further revealed that students exposed to multiple fluency strategy had a better achievement in oral reading accuracy. The findings revealed an adjusted R squared value of 0.846 which implies that 84.6 percent of the variation in the dependent variable, students' achievement in oral reading accuracy was explained by variation in the gender and group, while the remaining percent was due to other variables captured as the error.

The reading achievement mean scores of students were subjected to a two-way analysis of variance (ANOVA) having two levels of gender (male, female) and two group (experimental and control). The main effect of gender; male/female on students achievement yielded, male (M = 52.40; SD = 14.71) and female (M = 55.70; SD = 14.59); F (1,15) =.176, p > 0.05.This indicates that the posttest oral reading accuracy achievement mean score of male do not significantly differ from that of female. The result revealed that the effect of gender was statistically insignificant.

Discussion of Findings

The findings of the study revealed that students in the experimental and control groups had low mean scores in all the reading skills (oral reading rate, oral reading accuracy, oral reading prosody and reading comprehension) before treatment. This implies that there was great improvement in the experimental group after intervention using multiple fluency strategy. Similarly, the findings showed that students in the experimental group had a higher achievement mean score after giving treatment than their counterparts in the control group who were not given. This implies that the oral reading accuracy achievement mean scores of the students could be improved by using multiple fluency strategy.This finding is in line with Mraz, Nichols, Caldwell, Beisley, Sargent and Rupley (2013) which revealed that the strategy positively impacted the oral reading fluency and comprehension of struggling readersby significantly improving word recognition accuracy, word recognition automaticity,prosody and comprehension.

In addition, the findings showed that students the experimental group had a higher achievement mean score after receiving treatment, indicating that the oral reading accuracy achievement mean scores of students can be improved by using multiple fluency strategy.Again, findings revealed that students in the experimental group had a higher achievement mean score after receiving treatment, indicating that the reading comprehension achievement mean scores of students can be improved by using multiple fluency strategy. This implies that, despite the fact that both male and female students were exposed to the treatment of multiple fluency strategy, female students had a higher mean achievement score than their male counterparts. These findings agree withChang (2013) who asserted that both the reading rates and comprehension levels of the experimental groups were higher than those in the control group.

More so, findings of the study revealed that there were significant differences in the posttest oral reading rate mean scores of experimental and control groups in students' achievement after exposure of experimental group to multiple fluency strategy. Therefore, it is concluded that, multiple fluency strategy do increase students' achievement mean scores. Findings of the study indicated that the posttest oral reading accuracy achievement mean score of male do not significantly differ from that of female therefore, the effect of gender was statistically insignificant. This finding is in line with several studies who revealed that that girl (aged 10-11) enjoy reading more than boys. This implies that boys read less than girls, which directly connects with their level of reading fluency (Courbron 2012; Sullivan, 2004; Sadauki, 2010).

RECOMMENDATIONS

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

1. Adequate training and re-training programmes for English language teachers on the effective use Multiple Fluency Strategy as well as other strategies should be provided at the elementary and secondary levels of education to curb the menace of reading difficulties encountered by students with reading disabilities.
2. English teachers should ensure that both male and female students in their classes are encouraged to learn reading using the multiple fluency strategy for better achievement in the subject. This is because reviews have shown that students with reading disabilities do not benefit much from the conventional methods or approaches to teaching reading.
3. Reading classes, reading clinics and well equipped reading libraries should be established in special and regular schools in order to facilitate reading instruction for students with reading disabilities focusing attention on increasing the rate, accuracy and prosody (phrasing and expressing) of reading.

4.   Curriculum planners and developers should review the current reading programmes so as to include time proven strategies such as the multiple fluency strategy for effective teaching of reading, especially for students with reading disabilities at all levels of education.

CONCLUSION

The ability to read is not an automatic process as it involves a planned systematic and comprehensive instructional strategy. Therefore, for students with reading disabilities to be fluent oral readers, they need to read automatically, accurately, with adequate expression. This will enable them construct the meaning of text. It is therefore, relevant that teachers and other stakeholders in the education of students with reading disabilities adopt strategies such as the Multiple Fluency Strategy in teaching them how to read, in order to read to learn.

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Full Length Research

Methods of documentation of medical records at the Rivers State University Teaching Hospital

Sylvanus A. Wosa, Ikpoko-ore-ebirien Dike Isaruk, Dr. Gaius Ada, Pauline Chindinma Okocha & Dr. Hanson Levi Usende

[1-2]School of Health Information Management Rivers State College of Health Science and Management Technology, Port Harcourt. Email: [1]wosasylvanus@gmail.com&[2] dykeman1974@gmail.com
[3] Rivers State Ministry of Health Port Harcourt, Nigeria. Email: adagaius5@gmail.com
[4]Rivers State Primary Health Care Department Obio/Akpor Local Government Area, Rivers State, Nigeria. Email: chipal83@yahoo.com
[5]Rivers State Primary Health Care Management Board, Port Harcourt, Nigeria. Email: belejit97@gmail.com

Abstract
The objective of this study is to evaluate the Methods of documentation of medical records at the Rivers State University Teaching Hospital. The study focuses on the method of documentation of medical records. The research study design of this study was survey design. The population of the study comprised of 356 healthcare providers at Rivers State University Teaching Hospital, Port Harcourt. The data collected or gathered from the administration of the instrument were analysed using the IBM Statistical Package for Social Science (SPSS) version 25. The data collected were analysed and used to this study. The results from the study revealed differ on the methods of documentation of medical records. The table also showed that t (1) = 1.284, p =.094; the p-value is greater than the chosen alpha value of 0.05 (p> 0.05). Therefore, the null hypothesis is not rejected, meaning that there is no significant difference on the methods of documentation of medical records between University of Port Harcourt Teaching Hospital and Rivers State University Teaching Hospital. Therefore, the study concluded that there is no difference on the methods of documentation of medical records from both facility and also it revealed that there is no significant difference on the methods of documentation of medical records in Rivers State University Teaching Hospital.

Keywords: Methods of documentation, HealthCare, Mmedical records, Ddocumentation, Healthcare providers

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INTRODUCTION

Medical record documentation encompasses various methods and formats used by healthcare professionals to record and maintain patient information. These methods are designed to ensure accuracy, accessibility, and confidentiality of patient data. Methods of medical record documentation include:

Paper-Based Records: Traditional paper-based documentation involves the use of physical forms, charts, and files to record patient information. This method has been widely used in healthcare for many years. It typically involves handwritten entries by healthcare providers, including physicians, nurses, and other clinical staff. Paper records are organized in folders or binders, and they are stored securely in filing cabinets or storage rooms. While this method is familiar, it can be time-consuming, prone to errors, and may require extensive physical storage space.

Electronic Health Records (EHRs): EHRs are digital versions of patient medical records that are stored electronically in a secure computer system or cloud-based platform. They allow for real-time documentation, retrieval, and sharing of patient information among authorized healthcare providers. EHRs can include a wide range of information, such as medical history, test results, medications, allergies, and treatment plans. This method enhances accessibility, legibility, and can improve communication among healthcare team members.

Voice Recognition and Dictation: Some healthcare providers use voice recognition software to dictate patient information directly into electronic records. This technology converts spoken words into text, eliminating the need for manual typing or writing. It can save time and improve the efficiency of documentation.

Structured Data Entry: Structured data entry involves using predefined templates or forms within EHR systems to record specific types of information. Healthcare providers fill in fields or checkboxes, ensuring consistency and standardization in the documentation process. This method can help capture essential data points efficiently.

Barcode Scanning: Barcode scanning involves using barcode technology to link physical items (such as medications or lab samples) to electronic records. This method reduces the risk of errors in medication administration and ensures accurate tracking of specimens.

Mobile Device Applications: Some healthcare providers use mobile applications designed for secure and convenient documentation on tablets or smartphones. These apps may offer features like voice recording, photo capture, and electronic signatures.

Hybrid Systems: Hybrid systems combine elements of both paper-based and electronic documentation. They may involve scanning paper documents into an electronic format, allowing for a transition towards full EHR adoption. Selecting the most appropriate method of documentation depends on factors such as the healthcare setting, available resources, technological infrastructure, and provider preferences. Regardless of the method used, accurate and thorough documentation is essential for providing high-quality patient care, facilitating communication, and ensuring compliance with regulatory standards.

Murray et al. (2021) study on unified documentation and information retrieval for electronic health records with the adoption of the MedKnowts model revealed that clinical documentation can be transformed by Electronic Health Records, thus far the documentation process is still tedious, time-consuming, and error-prone process. The findings showed that clinicians are faced with multi-faceted requirements and fragmented interfaces for information exploration and documentation, and these challenges are only exacerbated in the Emergency Department where clinicians regularly see 35 patients in one shift, during which they have to synthesize an often previously unknown patient's medical records in order to reach a tailored diagnosis and treatment plan. The results revealed that to better support the information synthesis, clinical documentation tools must enable rapid contextual access to the patient's medical record. The study revealed MedKnowts as an integrated note-taking editor and information retrieval system which unifies the documentation and search process and provides concise synthesized concept-oriented slices of the patient's medical record. The study concluded that MedKnowts automatically captures structured data while still allowing users the flexibility of natural language, and as well has the potential to make clinical documentation truly work for clinicians by creating a live document that supports customized information retrieval, note taking, and collaboration while simultaneously improving the final note that is shared with downstream doctors and patients.

According to Beltran-Arocaet al., (2016) study titled "confidentiality breaches in clinical practice: what happens in hospitals?" a direct observational method was used to examine recruited students enrolled in the Medical Degree Program at the University of Cordoba real situations in which there has been a breach of confidentiality in a tertiary hospital. The results identified respect for confidentiality as important to safeguard the well-being of patients and ensure the confidence of society in the doctor-patient relationship. The observers recorded their entries on standardized templates during clinical internships in different departments like Internal Medicine; Gynecology and Obstetrics; Pediatrics; Emergency Medicine; General and Digestive Surgery; Maxillofacial Surgery; Plastic Surgery; Orthopedics and Traumatology; Digestive; Dermatology; Rheumatology; Mental Health; Nephrology; Pneumology; Neurology; and Ophthalmology. Results showed severe breaches were the most frequent, accounting for 46.7 % of all incidents, and most of the reported incidents were observed in public areas (37.9 %), such as corridors, elevators, the cafeteria, stairs, and locker rooms. The study concluded that all healthcare personnel is involved in confidentiality breaches, especially physicians.

Mokhtar and Yusof, (2016) examined records management practice: the issues and models for classification with the adoption of survey method, interview, and document content analysis as the techniques in analyzing the models. The results showed classification as paramount for complete records management other than safeguarding vital records upon determining their value for business continuity, and electronic records management practice with particular reference to Syariah Courts in Malaysia specifying on classification matter was identified. Findings revealed that a model generally takes the form of inputs, processes, and outputs or expected results in a simplified representation of a limited part of reality with related elements. Results further showed flaws in the existing models thereby making them

inappropriate for implementation as they are too theoretical in nature. The study concluded that none of the models' analyzed addressed issues on records classification, and the interviews depicted that no model was adopted in the practice of electronic records management in the Syariah Court. The study determined records management practice in the aspect of classification, hence documentation of records that is practiced throughout the records management life cycle and continuum needs to be assessed to bring to the fore its findings in contributing to knowledge acquisition and sharing for problem-solving.

Singh and John, (2017) study using a convenience sampling technique with a total of 200 patients' files for the analysis of the health record documentation process as per the national standards of accreditation with special emphasis on tertiary care hospitals in X Hospital in Delhi and to review the health records and evaluate them to find the incongruity in the documentation of patient's data by doctors, nurses and other healthcare providers involved in the documentation process. Findings identified two major reasons why standard documentation of health records is important- it will help in the scientific evaluation of patient profiles, analysis of the treatment results, and plan of appropriate treatment protocols on one side and the other reason is that it will assist in planning governmental strategies for future medical care.

Elikwu, Igbokwe, and Emokhare, (2020) studied the effect of electronic health information systems on medical records management in public healthcare institutions employing the numerical and qualitative research philosophy and adopted the survey and case study research strategies including cross-sectional and qualitative research designs. Findings showed study sample covered 332 respondents spread across four selected Federal Medical Centres in Makurdi, Keffi, Lokoja, and Abuja FCT, all located in the North Central Region of Nigeria. Results identified the worrisome state of Nigerian hospitals in the last decades owing to a lack of adoption of the global trend on information systems to move away from healthcare delivery characterized by inefficiencies, and poor management practices evidenced by continuous use of the traditional paper record system in most public health facilities in Nigeria, which often time causes delay and long patient waiting time, resulting in cases of infant and maternal mortality. The study concluded that though, there is still substantial reliance on traditional paper-based records system, but, the adoption of eHIS will reduce the risk of treatment errors, decrease patient waiting time, enhance timely communication among practitioners, protects patient information from unauthorized personnel, and enhance quality healthcare service delivery. The study recommended among others that the government and hospital management should prioritize the provision of necessary infrastructure in the health capital budget to support the adoption and implementation of the electronic health information system to reduce high mortality rates from perpetual delayed treatments and preventable medical errors.

Matlala and Maphoto, (2020) study on the application of the records life-cycle and records continuum models in organizations in the 21st century focused on the records continuum model, developed in Australia's archival sciences field in recent years, and discussed its implications for the practice of records and archival management. A descriptive examination was adopted in tracing the historical development of records management approaches, as well as their significance to the records management practices and their limitations. Results showed that prior to the emergence of the records continuum model, records life-cycle theory dominated most records management fields globally and that the records continuum model responds in ways that the records life-cycle theory is unable to deal with the challenges of electronic records and proposes a new set of management thinking of the preservation of the electronic environment, in which existing institutions and their associated electronic records coexist. Results also showed that literature was reviewed within a qualitative and interpretative paradigm basically on historical and narrative analysis. Findings have proven evidence of the practice of the records management theories in organizations, and the study concluded that records management practice in organizations could be enhanced if specific factors within each record management method are given adequate attention in their application.

Durodolu, Mamudu, and Tsabedze, (2020) empirically assessed the management of electronic records for service delivery at the University College Hospital, Ibadan, Nigeria. An interpretive research paradigm that was anchored on qualitative research methods and approaches was used, along with interviews as a means of data collection from the Senior Health Records Officer in the Health Record Department of the University College Teaching Hospital (UCH) affiliated with the University of Ibadan. The result showed that healthcare providers have, over the years, struggled with the management of patient records, and the struggle became exaggerated as information became increasingly large and convoluted. The contemporary healthcare environment is characterized by information overload; without the proper organization of information resources, access to valuation resources can become an albatross, if not properly managed. Health information is the data associated with the medical ailment of a patient's history, containing symptoms, diagnoses, procedures, and results. Quick access to this vital information may be a life-and-death decision that must not be taken for granted Findings showed that although electronic records are considered vital to the UCH activities in terms of patient's medical history and decision-making, there was no control measure for ensuring the care of electronic records and their availability over time. Results further showed that the strategies used for managing electronic records were ineffective and have led to the loss of vital information, and hampered accessibility to records over time. The study

recommended that the hospital should raise awareness amongst healthcare and other staff on the importance of managing records, and Staff responsible for records should be equipped with knowledge and skills in electronic records management.

Ngo et al. (2016) investigated the importance of the medical record: a critical professional responsibility. Findings showed that comprehensive, detailed documentation in the medical record is critical to patient care and to a physician when allegations of negligence arise, hence physicians should be prudent to have a clear understanding of the documentation. Findings further indicated that it is important to understand who is responsible for documentation, what is important to document, when to document, and how to document, who owns the medical record, and the significance of the transition to the electronic medical record including problems and pitfalls when using the electronic medical record, and how the HITECH Act impacts healthcare providers and health information technology. The study recommended that healthcare providers must implement practices and policies that will meet all the documentation policies.

Good documentation is crucial to a data collection's long-term vitality; without it, the resource will not be suitable for future use and its provenance will be lost. Proper documentation contributes substantially to a data collection's scholarly value. At a minimum, documentation should provide information about a data collection's contents, provenance and structure, and the terms and conditions that apply to its use. It needs to be sufficiently detailed to allow the data creator to use the resource in the future, when the data creation process has started to fade from memory. It also needs to be comprehensive enough to enable others to explore the resource fully, and detailed enough to allow someone who has not been involved in the data creation process to understand the data collection and the process by which it was created.

Similarly, Huffman (2021) stated that medical records are linked to the term who, what, why, where, when, and how of the patient care during an episode of care rendered. She further opined that the idea behind the terms is to provide care to the beneficiaries through careful documentation of every detail of healthcare activities that have with the patient/client.

Medical records which are also called hospital records according to McGibony (1952) in Aqyeman, et al (2018) are a chronicle of both medical and scientific processes found in the hospital. Medical records have been adjudged as an important primary tool in the practices of medicine, and literature has also revealed medical records as a storehouse of knowledge concerning patients' care and medical history. Sahile, et al., (2020) averred medical records as a collection of data on patients including but not limited to history, statement of the current problem, diagnosis, and treatment procedures. Furthermore, medical records contain details of patients' medical care and demographic data like name, address, gender, and date of birth among others (Natrayan, 2010).

Medical records compiled timely in a manner should also contain sufficient data to identify the patient, support the diagnosis or reason for health care episode to justify treatment, and accurately document the results to have visible evidence, of hospital clinical activities and accomplishments. Globally, proper management of medical records in health facilities has been a challenge ranging from loss of patients' case notes, improper filing, lack of records retention and disposal policy, and engagement of non-professionals in medical records management practices (Danso, 2015; Ondieki, 2017).

Oftentimes, medical records are either in the format of paper-based or electronic-based. But, the management of individual health facilities adopts and implements the format that it feels best suits its activities. According to Adeleke (2014), a paper-based medical record is seen as a systematic collection of patients' personal information which includes health history that is documented or written on a paper form. In contrast, Berg (2001) observed electronic medical records format as a computerized medium that accommodates clinical information recorded based on healthcare providers' interaction with patients/clients in the course of healthcare service delivery. However, Torray (2011) opined that electronic medical records (EMR) as an e-version of patients' health information that has been created, used, and stored in a paper chart for future usage by authorized persons.

Medical records can be viewed through the following indicators, accessibility, filling, retrieval, dissemination, and usage. Accessibility of medical records can be beneficial to both, the patients, clients, the caregivers as it enhances prompt communication between the two-party as well as helps the patients to better understand their health condition, and this is usually achieved through proper documentation. Filing of medical records involves a systematic way of arranging patients' case notes in the hospital using a defined criterion. Furthermore, the management of medical records in the hospital which involves proper filing, enhances prompt retrieval, dissemination, usage, and proper continuation of care not to be aligned with appropriate documentation.

Documentation according to Isaruk (2021) is the act of capturing/creating or entering data elements or information on treatments rendered to patients or organizational business transactions within or outside its environment using approved

formats and methods. He further maintained that documentation of health or medical records must comply with a stipulated standard like clear and accurate capturing or recording of things or activities in a legible manner with the use of signs, symbols, and abbreviations that were appropriate for readability, sharing, and reproducibility when future demands occur.

Wang, Yu, and Halley (2013) opined that the documentation process, format, and structure, focus mainly on the completeness and accuracy of detained medical records. According to Hasanain and Cooper (2014), documentation of medical records is an integral part of good health professional practices in the delivery of quality care, whether it is in paper-based or electronic base records management. This helps in communication amongst professionals, eases continuity of care, and also helps to guarantee good quality healthcare to patrons. To ascertain effective and efficient health service delivery to people, medical records documentation is required to record, facts, results, and investigations as well as an observation about an individual's health history, as well as past and present illnesses, and plan of alternatives for future care management. Hence, the quest for a comparative study of the assessment of documentation of medical records in public hospitals in Rivers State, South-South Geopolitical Zone, Nigeria is to use the findings in contributing to knowledge and solving certain challenges in the management of healthcare in hospitals.

Statement of the Problem

Medical records are scientific data that support and serve as evidence of services provided by healthcare practitioners in hospitals to patients/clients irrespective of their diverse health situations. However, studies have shown that medical records in the majority of hospitals in developing nations are often not well carried out in tandem in meeting up its primary (patient care) and secondary (administrative) purposes thereby leading to poor quality of healthcare services delivery (Danso, 2015; Luthuli &Kalusope, 2017). In Nigerian hospitals, Ajayi (2010) posited that the continuous long waiting time for patients to get their medical records before being seen, treated, or referred by healthcare providers in public hospitals has been a challenge over time. Similarly, Omang, et al., (2020) averred that the issue of the long waiting times of patients at public healthcare facilities is becoming a major challenge to Nigerians across the different regions of the country. In addition, long waiting time also presents challenges for healthcare providers and managers because it denies them the opportunity of connecting with the patients due to a loss of confidence in the healthcare service delivery system (Omang et al., 2020).Hence, the study is to evaluate theMethods of documentation of medical records at the Rivers State University Teaching Hospital.

Objectives of the Study

The objective of this study is to evaluate the Methods of documentation of medical records at the Rivers State University Teaching Hospital. The specific objective of this study is to:

1.   Find out the methods of documentation of medical records at the University of Port Harcourt Teaching Hospital and Rivers State University Teaching Hospital.

Research Questions

The following research questions are formulated to guide the study:

1.   What are the methods of documentation of medical records at the University of Port Harcourt Teaching Hospital and Rivers State University Teaching Hospital?

Hypotheses

Three null hypothesesis formulated by the researcher to guide this study.

H_{01}:   There is no significant difference on the methods of documentation of medical records between University of Port Harcourt Teaching Hospital and Rivers State University Teaching Hospital.

METHODOLOGY

The research study design used in this study is a survey design. The population was and356 healthcare providers at Rivers State University Teaching Hospital. Total enumeration was adopted for the study. The nature/sources of data for this study is the primary source, it is a questionnaire. Data for this study were collected through the primary sources of data. The data collected or gathered from the administration of the instrument were analysed using the IBM Statistical Package for Social Science (SPSS) version 25.

RESULTS AND DISCUSSION OF FINDINGS

This section presented the results from the analysis of data administered to the representative sample and discussion. The results section was analysis of respondents.

Research Question One: What are the methods of documentation of medical records at the University of Port Harcourt Teaching Hospital and Rivers State University Teaching Hospital?

Table 1: Methods of Documentation of Medical Records in UPTH and RSUTH

| Items | Hospital | | | | | |
| | UPTH = 199 | | RSUTH = 147 | | | |
	Yes(%)	No(%)	Yes(%)	No(%)	χ2	P Value
In my hospital manual method (paper-base) method of documentation is always used	150(75)	49(25)	120(82)	27(18)	1.475	.225
In my hospital is Hybrid (paper-based and Electronic) documentation methods used	114(57)	85(43)	84(57)	63(43)	6.285	.112
In my hospital, electronic documentation of medical records is the only method in use	26(13)	173(87)	30(20)	117(80)	2.497	.114

   In Table 1.above, majority of the respondents from health facility accept mostthe items "In my hospital manual method (paper-based) method of documentation is always used" RSUTH = 120(82%), "In my hospital is Hybrid (paper-based and Electronic) documentation methods used" RSUTH = 84(57%). However, they both disagree on this item "In my hospital, electronic documentation of medical records is the only method in use" RSUTH = 117(80%). From the analysis of the participants' responses when compare; it revealed that there is no differences on the methods of documentation of medical records from both facility.

   Also in Table 1, all the p-value of the Pearson chi-square is above the significant alpha value of 0.05. It also revealed that there is no difference on each of the items on the methods of documentation of medical records from both facilities.

Test of Hypotheses

Hypothesis One: There is no significant difference on the methods of documentation of medical records between University of Port Harcourt Teaching Hospital and Rivers State University Teaching Hospital.

Table 2: Independent Samples Test on Methods of Documentation of Medical Records between UPTH and RSUTH

Health Facilities	N	Mean	Std. Dev.	Df	t-value	p-value	Decision
UPTH	199	1.457	.723				
				344	-1.679	.094	Not Significant
RSUTH	147	1.592	.747				

In Table 2above, UPTH (M = 1.46, SD = .72) and RSUTH (M = 1.59, SD = .75), when compare did not differ on the methods of documentation of medical records. The table also showed that $t(1)$ = 1.284, p =.094; the p-value is greater than the chosen alpha value of 0.05 (p> 0.05). Therefore, the null hypothesis is not rejected, meaning that there is no significant difference on the methods of documentation of medical records in Rivers State University Teaching Hospital.

Discussion of Findings

The results revealed that there is no difference on the methods of documentation of medical records from both facility and also it revealed that there is no significant difference on the methods of documentation of medical records in Rivers State University Teaching Hospital. This finding is similar to the findings of Aina et al. (2020). Aina et al. (2020) study scrutinized clinical documentation by medical doctors as a factor affecting patient care management and goes a long way to determining the quality of care given to patients in Federal Teaching Hospital, Ido - Ekiti Nigeria. The result disclosed that a larger percentage of respondents agreed that the objectives of clinical documentation in patient care management are to acquiesce with legal regulatory and institutional requirements that will assure compliance with clinical documentation. Results showed that the use of clinical documentation aids in the continuity of evaluation of patients is high and the use of accurate clinical documentation can help reduce errors by also high extent.

CONCLUSIONS

The study evaluates the methods of documentation of medical records at the Rivers State University Teaching Hospital. From the investigation, it was revealed that there is no difference on the methods of documentation of medical records from both facility and also it revealed that there is no significant difference on the methods of documentation of medical records between University of Port Harcourt Teaching Hospital and Rivers State University Teaching Hospital. Therefore, the study concluded that, there is no difference between the study variables in Rivers State University Teaching Hospital on the method of documentation of medical records.

RECOMMENDATIONS

Based on the significant of the findings, the study made the following recommendation that:

1.   The hospital management should enlighten the clinical staff more on the importance of documentation of medical records
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Full Length Research

Institutional Repositories: Digital Resource Hubs for Research in Nigerian Polytechnics in the 21st Century.

Kelly Odaro-Ekhaguebor[1], Lucky Osaguona[2] and Johnson Aleogho Nasamu[3]

[1]Department of Mass Communiation, School of ICT, Auchi Polytechnic, Auchi, Nigeria.
E-mail:kelevision2015@gmail.com
[2]Auchi Polytechnic, Auchi, Edo State, Nigeria.E-mail: luckyosaretin@yahoo.com
[3]Department of Mass Communication, School of ICT, Auchi Polytechnic, Auchi, Nigeria.
E-mail:johnsonnasamu@gmail.com

Abstract

The study examined Institutional Repositories: digital resource hubs for research in Nigerian Polytechnics in the 21st century. Polytechnic libraries like other academic libraries are often considered the most important resource centre of institution of higher learning. Institutional repositories collect and preserve the scholarly output such as thesis, dissertations, seminar papers, conference proceedings, working papers, technical reports, and other documents of an academic institution in a digital format. The study pointed out that some universities in Nigeria have since established institutional repository and that the same cannot be said of majorities of Nigerian polytechnics. The libraries and librarians have a crucial role to play in the establishment of institutional repository. This study highlighted that polytechnics will benefits massively from the establishment of institutional repository because IR will increase the visibility and web rating of the polytechnics globally. However, challenges such as polytechnics management lack of willingness, lack of funds, copyright issues, computer anxiety, lack of awareness and advocacy among others are hampering the establishment of institutional repository in polytechnics in Nigeria. The study concluded that the polytechnics management should create or provide enabling environment such as funding, advocacy, willingness, provision of ICT infrastructure among others for the establishment of institutional repository. Polytechnics should emulate their universities counterparts by investing massively on the establishment of institutional repository in order to increase their visibility and remain relevant as research institutions in this digital age.

Keywords:institutional, repositories, digital, resources, scholarship, polytechnics, Nigeria

INTRODUCTION

Information resources, which are the results of study, are essential to education. The building blocks of an enlightened society are scholarly publications. The polytechnic research communication process is changing as a result of information and communication technology (ICT). Information and communication technologies (ICT) are now revolutionizing not just how information is packed, processed, stored, and distributed, but also how people access it. As a result, libraries notably academic do no longer restrict themselves to print routine services such as collection development, cataloguing and classification, circulation, reference services, current awareness, selective dissemination of information and other bibliographic services but have incorporated ICT related services such as provision of e-books,

e-journal, e-periodicals and institutional repository (Oni *et al,* 2019). Lombardi (2000) cited in Oni et al.(2019) notes that library users now prefer more computer content, more and more computer indices, digital finding aids, digital repositories of articles and online access to newspapers. Adeyemo and Jamogha, (2021) understands institutional repository (IR) as a new and innovative channel of scholarly communication that provides wider access and visibility to the research output of the parent body and preserves the institution's heritage, reduces publication delay, strengthens researches, serves as a boon for the visibility and accessibility of grey materials and also, a faster and effective communication channel that increases the citation to publications. Ogbomo and Muokebe (2015) noted that IR is a type of digital library established by an institution, populated by the staff, researchers, students and other members of the institution and to be consulted by both members of the university and the outside world. The documents on IR are digital in nature, these digital documents consist of all electronic publications such as journals, theses, books and conference papers (Okumu, 2015).

Institutional Repositories (IR) are often mentioned in connection with the open access movement, which allows unrestricted access to digital content devoid of limitations; ordinarily, they stock the scholarly resources of an institution and are being considered very vital to scholarly communication, university ranking and institutional visibility (Elaturoti, 2018). Polytechnic libraries like other academic libraries are often considered the most important resource center of institution of higher learning. Institutional repositories collect and preserve the scholarly output such as thesis, dissertations, seminar papers, conference proceedings, working papers, technical reports, and other documents of an academic institution in a digital format. According to Ibrahim (2019), there is a global adoption of institutional repositories as an information technology infrastructure to facilitate teaching, learning and research among staff and students in an efficient manner. This global acceptance is as a result of the several benefits which the institutions, users and researchers stand to gain by adopting them (Elaturoti&Jatto 2021). Sankar and Kavitha (2018) stated that institutional repositories are the electronic archive of scientific and scholarly output of an institution, stored in digital format, where search and recovery are allowed for its subsequent use. Consequently, the concept of institutional repository is understood as an information system that collects, preserves, disseminates and provides access to the intellectual output of the academic community; a digital store of the intellectual product created by the faculty, research staff, and also students of an institution, that is made accessible to end-users both within and outside the institution with little or no barriers to access. It also houses experimental and observational data captured by members of the institution that support their scholarly endeavours. Institutional repositories are essential to tertiary institutions in managing and capturing their intellectual assets; they provide: interconnectivity to repositories of other institutions; and machine processable data to support tertiary institutions in their quest for excellence (Elaturoti&Jatto 2021). Ifijeh (2020) defined an institutional repository as an archive for collecting, preserving, and disseminating digital copies of the intellectual output of an institution.

Benefits of Institutional Repository (IR) to Polytechnics

Academic institutions such as polytechnics are regarded globally as knowledge creators, facilitators and dissemination. In recent times, institutional repositories have become major channels through which institutions carry out these functions. Institutions with open access e-documents enjoy higher usage and ranking of research materials, thereby improving the profile and ranking of both the institution and faculty members (Adeyemo&Jamogha, 2021). Institutional repositories have become important in scholarly communication, institutional visibility, university ranking and feasible foundation of institutional knowledge management (Kakai, 2018). Saini (2018) notes that apart from enhancing the visibility of faculties and researcher's intellectual works, IR supports scholarly communication among the academic community. The documents on IR are digital in nature, these digital documents consist of all electronic publications such as journals, theses, books and conference papers (Okumu, 2015). The move from the print publications to the use of online and digital resources on the internet have provided polytechnic and research institutions in Nigeria with an opportunity to make their scholarly work accessible to the outside world. IR plays a role in improving the global visibility of scholarly research works polytechnics.

Institutional repositories offer various benefits to the polytechnics scholars and researchers. Saini (2018) opined that IR provides opportunity for institutions such as polytechnics to share digitized intellectual wealth with the worldwide community of scholars and provide long-term preservation solution. Asadi (2019) observed that institutional repositories provide scholars with broader knowledge related to the research that is carried out by the individual or groups in the specific area of interest. IR present information users access to wide range of information materials or intellectual contents all in one platform and location for their use. The availability of IR improves institutional name, value, visibility and image by showcasing institutional intellectual works produced in the institution (Lee &Stvilia, 2017).

There are factors such as insecurity, natural disasters, mutilation or theft that could hamper the durability and reliability of institutional publications when they are not in digital form. However, when these publications are archived in digital

form as the case with IR, there will be no cause for alarm (Adeyemo&Jamogha, 2021). Institutional repository brings about increased productivity and effectiveness in the polytechnics (Adaeze, 2020). Faculty staff would be encouraged to work better as their publications uploaded in the repository would bring about wider audience and accessibility which can lead to sponsorships, scholarships and grants. Employees' productivity enhances growth and development in any institution or organization (Yaya, 2016). The benefits of deploying IRs in preserving, disseminating, sharing and using research outputs notwithstanding, Nigerian polytechnics have experienced slow adoption and use of IRs compared to universities.

Mckay (2003) cited in Oni et al, (2019) enumerates the benefits of institutional repository to as follows:Institution repository improves access to library resources. By institution repository library collections, information will be accessible to all instead of a group of researchers.Institution repository projects allow users to search for collections rapidly and comprehensively from anywhere at any time. Institution repository makes the invisible to be visible.Several users can access the same materials the same time without hindrance.It also removes the problems of distances, as users do not have to travel to libraries that possess the hard copies of library materials before they can access and use such materials.Institution repository holds the advantage of providing library collection electronically; thereby improving access to library resources, the opportunity to search for collections rapidly and eliminating the issues of distances, alienating space constraints and cost of print collection (preservation and conservation of tradition library materials).It creates visibility not only of the library's content, but the scholarly work (theses, dissertation, project work, seminar papers conferences proceedings, working papers and technical reports) within the university and raises the profile of an institution by showcasing digital collections which can be a useful public relation exercise.Institution repository makes it possible for libraries to provide information sources electronically with it inherent values.

Challenges Facing the Implementation of Institution Repository in Polytechnics in Nigeria Inadequate funding

Lack of adequate funding had been a hindrance to library development in developing countries. Despite the shrinking budgetary allocation to polytechnic libraries, the libraries do not even have access the money neither are they aware of the availability of such funds. In Nigeria, students pay the library fees alongside with school fees but the institution management in most cases do not used the money for library development. If not Tertiary education Trust fund (TETFUND) even though librarians are not fully involved in the award of contract, most polytechnic libraries in Nigeria would have been in shamble (Oni *et al*, 2019). Okoroma and Abioye (2017) also discovered that development of Institutional Repository in developing countries like Nigeria requires much of finance than in the developed countries, because academic and research institutions in developed countries already have in place a well-established state-of-the-art ICT infrastructures to build on. But in developing countries like Nigeria, this infrastructure or foundation is not in place and will require high budget to put it in place. Lack of finance and inadequate funding has always been a major problem reported to be impede the development and implementation and adoption of emergent technologies.

Lack of digitization/ICT infrastructures

Lack of automation in most polytechnic in Nigeria has hampered the establishment of Institutional repository. Automation of library is a sine-qua-non to the establishment of Institutional repository. Digital Library Projects as some of the challenges of digital library development in African. Most polytechnic libraries do not have the basic information technology infrastructures or facilities that would facilitate the establishment of institutional repository. Some Nigerian polytechnic libraries do not have website, facebook account, e-mail address, enough computers, Wi-Fi (internet connectivity), server etc. Internet facility is a general factor in accessing information and knowledge in this 21st century. Management of polytechnics in Nigeria should provide these facilities as top priority to enable polytechnics adopt and use IR seamlessly. Some Nigerian polytechnics management are not interested or committed to library development. It is no longer secret that some lecturers and non- academic staff in Nigerian polytechnics do not use the library; they do not have knowledge of the resources in the library in their own field. Some management staff cannot articulate the objectives of the library in the institution and as a result, they would always vote against any developmental plan of the library on the ground that is a waste of the limited fund (Oni *et al*, 2019). Poor electricity supply is a major impediment to the operation and growth of information and communication technology in Nigerian polytechnics.

Inadequate Advocacy

One of the best ways to promote the development and use of institutional repository in Nigerian polytechnics in this digital age is through advocacy. Institutional repositories are comparatively new to much of the academic world particularly polytechnics in developing countries. It is difficult to promote the benefits institutional repositories offer whilst

allaying stakeholders concerns and a relentless promotional and marketing aspect is crucial to successful institutional repository implementation (Jain, 2010 cited in March *et al* 2019).The use of advocacy has been found to be an efficient method of effecting changes in organisation and the wider society. Building of institutional repository is a new approach to research dissemination and many stakeholders in Nigerian polytechnics which know little or nothing about them. The library as the center for dissemination of information should be at the centre of this advocacy (March *et al* (2019).

Inadequate knowledge and skills

Some librarians in academic are not ICT compliance. They cannot operate computer, use internet, social media etc. as a result, they do not support any I T driving policy and programme. Ekuoye, Oni and Momoh (2015) posited that among the major challenges facing digital library projects in Nigerian polytechnics has been the readiness of academic libraries in terms of skills and knowledge to implement digital library services. Rosenberg (2006) cited in Ekuoye*et a*l (2015) avers that skills in e-resources management, e-service development, full-text digitization and teaching skills are lacking in polytechnics. Polytechnic libraries are even worse. Information and communication technology skills in Nigerian tertiary institution face a lot of challenges. Iheanacho-Kelech and Uche, (2020) posited that inadequate advocacy and ICT connectivity challenges followed with copyright issues and lack of knowledge or awareness of the repositories coming behind. However, insufficient technological skill was not found to be a major challenge.

Copyright Issues

Copyright refers to the exclusive right granted an author and other creative artists to authorise the use of their works in any way. Copyright, often referred to as specific rights or neighbouring right are used by some countries to protect the works of performers, phonogram producers and broadcasters. Copyright and intellectual property issues have been a concern for faculties in the use of IRs, despite the fact that most publishers allow authors to make their articles accessible via institutional repository. However, authors are concerned that they may be violating the copyright agreements they signed with their publishers by depositing their papers into an institutional repository (Okoroma&Abioye, 2017). Manjunatha and Thandavamoorthy (2011) cited in March *et al* (2019) in their study where respondents were asked the reasons for not depositing on Institutional repository found that 53.45% of the respondents said other users might copy their works without their permission.

Computer anxiety

Computer anxiety includes worries about embarrassment, looking foolish or even fear of damaging computer equipment. The feelings of impending doom due to contact with computer my result to excessive caution with computers, defensive remarks about computer in order to avoid usage or even avoidance of computers (March *et al* 2019). Technophobia has led to the delay in the application of ICT in performing library services in Nigeria. The new information revolution in librarianship has provided a unique platform for speedy provision and dissemination of information. This highly celebrated technology in librarianship has also created some distresses. This technological change could be resisted due to fear. This fear, which is known as techno-phobia or computer phobia could have an adverse effect on the productivity of both male and female library staff (Ekuoye*et a*l, 2015). Chidi and Oyeronke (2011) cited in Ekuoye*et a*l (2015) opined that the departure from the manual methods of carrying out library services has without a doubt improved the quality of service offered by the library to its clientele and it has also on the other hand brought about a reasonable degree of techno-stress experienced by professional librarians while carrying out library services.

Perception of Institutional Repository

Perceived usefulness performance expectancy refers to the degree to which an individual believes that using the system will help him or her to attain gains in job performance (Venkatesh, Morris, Davis & Davis 2003 cited in March *et al* 2019). People can reject or adopt technology depending on the degree with which they perceive their job will be simplified by using it. People can also use technology with a view to accomplishing different goals, and if these goals cannot be achieved, they simply abandon its use (March *et al* 2019). The main problem faced by the Institutional Repository adoption and implementation in polytechnics is the perception of management toward Institutional Repository development and the willingness to support the development. The negative perception of polytechnic management and lecturers that Institutional Repository is a waste of fund and the willingness to submit their intellectual work to the Institutional Repository may affect its adoption. Perceptions of polytechnics management and staff have lots of effect on

institutional repository development and use.

Awareness of Institutional Repository

Electronic publishing, institutional repositories, open access and other new innovative technological opportunities have all led to changes in scholarly publishing. One effect has increased accessibility of research output. These changes are, however, emerging without the participants fully understanding what the changes may actually mean for scholarly communication and how the nature of scholarly work may be affected (Manjunatha&Thandavamoorthy, 2011 cited in March *et al* 2019). Academic institutes build the Institutional Repository where all the scholarly contents and intellectual output of the host institute are captured, stored, indexed, preserved, and redistributed. The flow of content is the preliminary requirement for development and sustenance and the faculty members are the main source of the flow of content. But low rate of participation of faculty members in Institutional Repositories phenomenon is a major issue it success. Lack of awareness and confusion about copyright issues are the known barriers in faculty participation in it (Dutta& Paul, 2014). Awareness is a critical factor in the utilisation of any information product. In this light, Yang and Li (2015) expressed that for the adoption of Institutional Repository to be successful and serve its full potential, it is imperative that its constituents be aware of its existence. Awareness about IR by polytechnic management and lecturers and their willingness to participate and contribute to its establishment are factors that could lead to adoption and utilization IR in Nigerian polytechnic in the digital age.

Challenges Facing the Implementation of Institution Repository in Polytechnics in Nigeria are similar to what they encountered trying to setup e-library and complete automation if their libraries. According to Oni *et al* (2019), many Nigerian polytechnics if not all have not yet fully keyed into open access institutional repository despite the numerous benefits. Various factors explain this slow adoption and application of IRs in Nigerian polytechnics. Notably, most of Nigerian polytechnics scholars have yet to be committed to depositing their scholarly works in IRs (Malekani&Kavishe, 2018). As a result, there is poor visibility and accessibility of research outputs and products produced by the polytechnics Poor visibility of research outputs and products is accompanied by the decline of polytechnics web ranking position. Malekani and Kavishe (2018) identified some of the hindrances to the adoption of institutional repositories, which include non-commitment by faculty members (mainly research fellows and academics) towards self-archiving of their publications; inadequate publications for deposition in the repository, which originates from lack of equipment (like scanners) to digitize hard copies of the publications for uploading in the repository

CONCLUSION

This study is on institutional repositories as crucial digital resource hubs for scholarship in Nigeria polytechnics in the digital age. Polytechnics like every other institutions of higher learning are research oriented. The polytechnics and their Libraries have been at the centre of providing access point to print institutional resources. Academic staff in polytechnics is already used to publishing for professional recognition, career advancement as well as contributing to knowledge advancement in their respective field of endeavour. Establishment and adoption of institutional repository in polytechnics will give a global visibility to scholarly publications of the polytechnics. Institutional repository is a way of reducing the cost of scholarly publications and increasing visibility and access to research from lecturers and students of the polytechnics by hosting them in the polytechnic libraries institutional repository website.

The relevance of institutional repository to polytechnics is numerous. IR will serve as a publisher of research materials such as, theses, peer reviewed papers, working papers, lecture notes, memorial lectures, keynote addresses and other types of grey literature emanating from the polytechnics thereby increasing the visibility and web rating of the polytechnics globally. Institutional repository is one of the criteria for the webometric ranking or rating of institution apart from visibility and recognition. However, challenges such as polytechnics lack of willingness, lack of funds, copyright issues, computer anxiety, lack of awareness and advocacy among others are hampering the establishment of institutional repository in polytechnics in Nigeria. The polytechnics management and library administrator should develop appropriate copyright mechanism to avoid unnecessary infringement. Polytechnics management should create or provide enabling environment such as funding, advocacy, willingness, provision of ICT infrastructure among others for the establishment of institutional repository. Polytechnics should emulate their universities counterparts by investing massively on the establishment of institutional repository in order to increase their visibility and remain relevant as research institutions in this digital age.

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Full Length Research

Computer Literacy Skills and Job Performance by Librarians in State Universities, Delta State, Nigeria

Oghenedoro Gideon ESHAREDEDE

Delta State University, Abraka

This study examined the Computer Literacy Skills and Job performance by librarians in State Universities, Delta State, Nigeria. The study was guided by three research questions. A correlation research design which adopted the simple and multiple linear methods was adopted. The population consisted of 145 librarians in four university libraries in the state. A rating scale titled: computer literacy skills and librarians job performance rating scale was used as data collection instrument. Research questions one to three were analyzed using coefficient of determination (r^2) and Pearson (r) The findings reviewed that: there is a high positive and significant relationship between computer literacy skills and job performance of librarians in the state; and there is a very high and significant relationship among basic computing skills, digital technology skills. The researcher recommends among others that: there is need for regular computer training of librarians especially those whose level of basic skills in computer operation is still low, Librarians should be encouraged by the university management to upgrade their digital technology skills.

KEYWORDS: Computer Literacy, Skills. Job performance, Librarians, University and Libraries

INTRODUCTION

Computer has been found to be one of the greatest inventions of mankind which has changed the landscape of human and organization activities around the world from which libraries are not exempted. In collaboration to that, Dhanavandan, Esmail, Mohammed and Nagarajan (2012) observed that computer technology has drastically changed every facet of human endeavours including libraries, in such a way that many libraries are now deeply engaged in digitization of almost all of their resources in order to provide fast, interactive, and dynamic information services to users. A reflection of this is that information can therefore be disseminated speedily around the globe due to advancement in the channel of communication. Library resources are being converted from print to digital and web resources, which are being used extensively and subsequently resulted in tremendous growth of information dissemination and service delivery in the library. The use of computer and its facilities in performing library functions makes service delivery to the users faster and more efficient.

The basic library functions are books selection and acquisition, cataloguing and classification, reference service, current awareness just to mention a few are now being carried out with the use of ICT. Saka and Haruna (2013) categorized library jobs into cataloguing and classification of materials, provision of reference services, charging and discharging materials to users, among others were being carried out manually by librarians are now by automated. Currently, computer is being used to accomplish a large volume of what can be done manually. Other functions in the library include: reprographic services, binding services, indexing services, abstracting services, internet services, current awareness services, user education, information retrieval services etc. With the advent and use of Information and

Communication Technology (ICT), the job performance are getting more cumbersome and changing every day. The complexities of these library activities or routines vary with the size, needs and objectives of the library, and the way they are carried out matters a lot. The computer has become a basic tool for generating and processing information in libraries. Nwachukwu (2014) contended that using computer to make information accessible and consumable engages diverse skill needed by information professionals, especially librarians. The author further stated that computer skills for librarians will mean the use of computer for giving service quickly and inexpensively. Computers have enhanced efficiency and librarians must acquire relevant computer skills and competencies to make their profession and roles relevant in this information-driven age.

The computer technology holds the assurance of increased performance. However, this promise may not be realized due to the limited abilities of those who make use of computers. In fact, effective use of computers depends on individual's computer literacy and it has been widely recognized as a vital skill (Liao & Pope, 2008). Computer literacy is the knowledge and ability a person has to use computers efficiently. Computer literacy can also refer to the computer knowledge someone has with using computer programs and other software applications that are associated with computers. Another valuable component of computer literacy involves the knowledge of how computers work and are operated (Nwankwo, 2016). Drawing from the above definitions, one can say that computer literacy skill is the technical skills and level of proficiency in the general computer knowledge, documents and documentation, online searching (databases and search engines), and communications possessed by users.

Throughout the history of the world, libraries have been known as important institutional repository center for human knowledge. The ability to use computer effectively and efficiently for various tasks has become a skill that is increasingly necessary as an essential part of one's education to access information in all formats. (Anandara, 2010). Skills such as bookkeeping, clerical and administrative work, stock taking, and so forth now constitute the main subset of computerized practices that form the core "Information Technology skills" package, spreadsheet, word processors and databases (Todd, 2012). Librarians in university libraries are the major workforce having undergone rigorous training and acquired degree(s) from the universities in library and information science. They are the professionals and are mostly in leadership positions responsible to the University librarians. They assist for the day to day administration of the various departments and units under them. The increased adoption of technologies in libraries has a significant impact on the roles of the librarians. They need to be computer literate to enable them carry out their jobs effectively and efficiently in order to guarantee high level of job performance. When this happens, the goals and objectives of the university library management will be actualized.

Purpose of the Study

Specifically, the objectives of the study were to:
1. establish the coefficient of relationship between basic computing skills and job performance of librarians in the state universities studied;
2. ascertain the coefficient of relationship between digital technology skills and job performance of librarians in the state universities studied; and

Research Questions

The following research questions guided the study.

1. What is the coefficient of relationship between basic computing skills and job performance of librarians in the state universities studied?
2. What is the coefficient of relationship between digital technology skills and job performance of librarians in the state universities studied?

METHODS

The design for this study is correlation research design which adopted the simple and multiple linear methods. The linear correlation design was adopted to determine the extent and direction of the relationships between the variables. The population of the study comprised is 145 librarians in the four state university libraries under study. The librarians are from Delta State University, Abraka, Delta State University of Science and Technology, Ozoro, Dennis Osadebay University, Asaba, and University of Delta, Agbor. The sample size of the study was 145 librarians. Census sampling

technique was adopted to cover the entire population as sample.

The small size of the population was why the researcher considered the use of census technique appropriate for the study. The research instrument used in the collection of data for this study was a four- point rating scale captioned: Computer Literacy Skills and Librarians Job Performance Rating Scale (CLSLJPRS). The researcher visited the institutions around the researcher's location and administered the instrument on the respondents with the help of research assistants, one each from the five universities. The research assistants were briefed on the courtesy, use of persuasive language while administering the instrument to the respondents to ensure compliance. Research questions 1-3 were answered using coefficient of determination (r^2) and Pearson (r).

Interpretation of Results

Research Question 1

RQ$_1$: What is the coefficient of relationship between basic computing skills and job performance of librarians in the state universities studied?

Table 1: Summaries of Pearson Product Moment Correlation Statistics used to analyze the relationship between basic computing skills (X) and job performance (Y) of librarians in state universities studied.

V	N	$\sum$	R	MR	DR	Remarks
X	145	2347				High
			0.659	High	Positive	Positive
Y	145	9298				Relationship

Size (n), Summation ($\sum$), Pearson r (r), Magnitude of Relationship (MR), Direction of Relationship (DR) and Remarks
Table 1 shows the summaries of Pearson r used to analyze the relationship between basic computing skills and job performance of librarians in the state universities studied. The result shows that an index of 0.659 was realized for the relationship between the two variables. This result indicates that there is a high positive relationship between basic computing skills and job performance of librarians in the state universities studied. This positive direction of relationship is an indication that an increase in one variable is associated with the some measure of increase in another variable and a decrease in one variable could also be associated with the some measure of decrease in another variable. Therefore, the answer to the research question is that there is a high positive relationship between basic computing skills and job performance of librarians in the state universities studied.

Research Question 2

RQ$_2$: What is the coefficient of relationship between digital technology skills and job performance of librarians in the state universities studied?

Table 2: Summaries of Pearson Product Moment Correlation Statistics used to analyze the relationship between digital technology skills (X) and job performance (Y) of librarians in the state universities studied.

V	n	$\sum$	R	MR	DR	Remarks
X	145	2373				High
			0.665	High	Positive	Positive
Y	145	9298				Relationship

Size (n), Summation ($\sum$), Pearson r (r), Magnitude of Relationship (MR), Direction of Relationship (DR) and Remarks
Table 2 shows the summaries of Pearson r used to analyze the relationship between digital technology skills and job performance of librarians in state universities studied. The result shows that an index of 0.665 was realized for the relationship between the two variables. This result indicates that there is a high positive relationship between digital technology skills and job performance of librarians in the state universities studied. This positive direction of relationship is an indication that an increase in one variable is associated with the some measure of increase in another variable and a decrease in one variable could also be associated with the some measure of decrease in another variable. Therefore, the answer to the research question is that there is a high positive relationship between digital technology skills and job performance of librarians in the state universities studied.

Discussion of Findings

The first objective of the study was to ascertain if any relationship existed between basic computing skills and job performance of librarians in the state universities studied. The result of data analysis in this direction indicates that there was a high positive and significant relationship between the two hypothesized variables, hence the rejection of the null hypothesis. This goes to explain that, for librarians to perform optimally in a library environment that is driven by technology, they must be familiar with the basic computer operations such as tuning the computer on, opening a folder, copying a film from one disk to another, saving a document, scanning as well as printing out a document from the computer.

This finding is a confirmation of the findings by Dhanayandan, Esmail, Mohammed and Nagacajan (2012) that library and information science professionals need to be trained with the basic computer skills to keep them up to date in order to enhance their performance in providing improved and dynamic information service to community of users.

The second objective of the study was to establish the relationship between digital technology skills and job performance of librarians in the state universities studied. The finding of this study has revealed that there is a significant coefficient of relations between digital technology skills and job performance of librarians, thus leading to the rejection of the non- significant hypothesis. The outcome of this study has indicated that the digital literacy level of majority of librarians working in state university libraries in the zone is high hence their effective job performance in the provision of electronic access to reference services, information resources within the libraries as well as the libraries' Online Public Access Catalogue(OPAC) .

This finding is in consonance with the statement by Buckinglam (20216) that librarians require a set of digital technology skills and knowledge that would enable them to effectively carry out information retrieval task in a technology dominated environment.

Conclusion and Recommendations

This study examined -Computer Literacy Skills and Job performance by librarians in State University Libraries in Delta State, Nigeria. The introduction treated exhaustively the variables of the study such as basic compacting digital technology, and electronic resource management. The study was guided by three research questions and three objectives. Based on the data analyzed, the following findings were made:

There is a high positive and significant relationship between basic computing skills and job performance of librarians in state universities in South East geo- political zone, Nigeria; there is a high positive and significant relationship between digital technology skills and job performance of librarians in state universities in South East geo- political zone, Nigeria; and there is a high positive and significant relationship between electronic resources management skills and job performance of librarians in state universities in South East geo- political zone, Nigeria. Based on the findings of the study, the following recommendations are made:

1. The result of the finding indicated that job performance is highly influenced by the librarians' level of basic computing skills. Therefore, there is need for regular computer training of librarians especially those whose level of basic skills in computer operation is still low.
2. **Librarians should be encouraged by the university management to upgrade their digital technology skills since such have been linked to their effective job performance in the library.**

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Full Length Research

Multiple fluency strategy: a panacea for improving oral reading amongst students with reading disabilities

Prof. IzukaJ.Iheanacho,[1] Dr. Samuel B. Milaham[2] and Patrick M. Akos[3]

Department of Special Education and Rehabilitation Sciences, Faculty of Education, University of Jos.
Corresponding author's E-mail: pashakos56@gmail.com.
[1]Email:izuka2008@yahoo.com, [2]Email: samuelmilaham@gmail.com

Abstract
Reading is a basic component of instruction for all learners including learners with special learning needs. The use of relevant and research based strategies in curbing reading difficulties amongst learners with reading disabilities is inevitable. The thrust of this paper was to examine multiple fluency strategy for improving oral reading amongst learners with reading disabilities. The concept of reading disabilities, oral reading and students with reading disabilities and multiple fluency strategy and reading are highlighted. In addition, the procedures in using fluency strategy in oral reading are highlighted. The benefits of multiple fluency strategy in curbing reading difficulties amongst learners with reading disabilities are outlined. Finally, the paper presents a way forward in promoting the effective use of multiple fluency in improving oral reading amongst learners with reading disabilities.

Keywords: Multiple Fluency Strategy, Oral Reading and Students with Reading Disabilities.

INTRODUCTION

There are observable and reported cases of common classroom reading difficulties that manifest in contemporary Nigerian schools. For instance, there are students who can recite without recognizing the words in the text. Similarly, there are some of them who could not call words correctly from their main texts without comprehension. These difficulties and challenges students show are however, the result in which instructional methods and materials are used in teaching. Students with reading disabilities do have problems with decoding words automatically, accurately and with proper expression. Such students cannot read phrases because they were not given the opportunity to reread text repeatedly in order to become familiar with it to enable them express the mood of the text at the rate commensurate with degree of accuracy expected of them. The poor reading rate and accuracy can be observed among such students with reading disabilities when they read aloud. During oral reading, their levels of automaticity, accuracy, phrasing, expression and understanding of punctuation are very poor as usually observed when their miscues or errors are analyzed. As a result, their overall oral reading performance is affected.

Oral reading fluency according to Speece and Ritchey (2005) is the ability to identify words accurately and quickly in a text. This definition lays more emphasis on the need for students to focus on accuracy and speed. Consequently, the focus and objective of instruction by teachers will be to concentrate on drilling students with or without reading

disabilities on reading accuracy and speed, instead of teaching them reading for meaning. The most common oral reading errors committed by students during text reading include: omission, addition, and substitution of words. In some cases hesitation and repetition of words in the text are observed. This makes their achievement in oral reading to be affected.

To ensure that students with reading disabilities read fluently during oral reading, they need practice and drill in multiple fluency skills like accuracy, rate and prosody activities through phrase reading, rereading and assisted reading. The students are taught to read using these components of MFS simultaneously. In MFS instruction, less proficient readers are aided to appropriately "chunk" or group words together in phrases when reading to give the text meaning rather than read word by word as is the case with students who have reading disabilities. Again, using MFS as reading instruction, the students are assisted meaningfully through scaffolding and role modeling while building fluency. The teacher begins the support and gradually withdraws while the student takes charge (Schwanenflugel, Meisinger, Wisen Baker, Kuhn, Strauss, &Morris, 2006). However, in assisting students using this reading strategy, it is important to have good reading models to be able to read accurately, automatically and with the right expression.

The concept of Reading Disabilities

Students with reading disabilities are those who exhibit poor reading skills as manifested in their oral reading profile. These include miscues of omission, substitution, addition and hesitation in decoding words during oral reading (National Reading Panel, 2000a). Their ability to read words accurately with correct phrase and speed is very poor. This invariably leads to poor comprehension of the text. One advantage students with reading disabilities tend to benefit through this method is that they learn the mechanics of reading. That is, how to pace read, use punctuation marks where and when necessary. Similarly, it is used to prepare students for wide independent reading. This is because students are exposed to different genres through read aloud. The third advantage of modeling is that students see, hear and feel the mood, physical movements and direction of the writer's messages (Rasinski, 2004). More so, it can be combined with different methods such as phrase reading, repeated reading and reader's theatre, to mention a few.

Oral Reading and Learners with Reading Disabilities

Oral reading is the ability of students to read aloud a given text smoothly and correctly. Reading orally involves being able to decode words accurately and fluently with normal speed. Oral reading fluency is the rate and accuracy with which students with reading disabilities read with expression. It is one of the five major areas of reading; apart from phonics, phonemic awareness, vocabulary and comprehension. In oral reading, students are expected to decode the words in the text correctly (accuracy), automatically and fast (automaticity), and appropriately use phrase with expression (prosody). To read fluently, students should be given enough rereading texts to practice quickly (Hudson, Pullen, Lane & Jorgensen, 2009). This will help them to recognize and pronounce the words in a text accurately, automatically without miscues like hesitation, addition, or substitution of words during reading. They will be able to express the mood or tone of the text by appropriately adhering to stresses and punctuations in the text.

Generally, one area that makes it possible and easy for students with reading disabilities to be identified by teachers, peer, and parents, is their inability to read fluently whether individually or in small or large groups. This is particularly where they are required to read orally. There are a number of ways which students with reading problems can be identified. Three of these are formal or informal factors. The informal include teachers' observations, report and other school records, parents, peer observation and remarks, neighbors and even the student being identified. For instance, students with reading disabilities read slowly and with effort, laboring over unfamiliar words and spending less time reading than their proficient peers. As a result, they have less developed sight word vocabularies and read less fluently. This reading behavior can be observed and reported by teachers, parents and peers. Parents, guardians, and other siblings at home can provide useful information as to a student's reading behavior. This is where the parents, and guardians or siblings notice or suspect reading or any academic symptoms of failure, which may need attention and bring their concern to the attention of the class teacher, counselor or management (Rayner, Foorman, Perfetti, Persetsky, &Seidenberg, 2001)

Multiple Fluency Strategy and Reading

Fluency is essential for students with reading disabilities to accomplish tasks that involve reading in a timely fashion and is related to comprehension. However, the ability to read with fluency becomes even crucial, as demands for more critical thinking increase as such students move to higher grade levels and literacy tasks become a core component of

access to curriculum across content areas like science, history and language arts (National Institute of Child Health and Human Development, 2000). However, the ability to read with fluency becomes even crucial, as demands for more critical thinking increase as such students move to higher grade levels and literacy tasks become a core component of access to curriculum across content areas like science, history and language arts.

Multiple fluency strategy is a number of instructional approaches for teaching students with oral reading disabilities to become independent confident fluent readers. It is aimed at increasing oral reading achievement of students who have developed initial word reading skills but demonstrate inadequate reading fluency skills for their grade level. These include phrase reading, assisted reading and rereading, through which students with reading disabilities are taught reading rate, accuracy, prosody ad comprehension skills

Phrase Reading: Phrasing is defined as the ability to read several words together before pausing (Ellery, 2009) as opposed to word-by-word calling. This implies that good readers group words together to derive or give meaning to the text they are reading, rather than only reading and interpreting word by word. It is chunking the words into phrases. One of the characteristics of students with reading disabilities is their inability to read in phrases. Therefore, for such students to benefit from their content area school subject, they need explicit instructions and drills on phrase-reading.

Assisted Reading: Assisted reading as the name implies, refers to the support a reader gets from more advance readers such as teachers, parents, and even a peer when reading. It also involves modeling and imitation. It is expected that by listening to good models of fluent reading, students with reading disabilities will learn how a reader's voice can help text make sense (Kuhn & Stahl, 2003). Research in reading fluency has shown that assisted reading can have a significantly positive effect on students' fluency (Rasinski & Hoffman, 2003).In assisted reading an individual student reads a passage while simultaneously listening to a fluent reading of the same text.

Assisted reading is an instructional reading method for building oral reading fluency where a more proficient reader renders support to a dysfluent reader. In this type of reading strategy, the more proficient reader, whether a teacher or any trained person progressively reduces the assistance offered as the less fluent reader becomes more independent (Rasinski, 2003).There are various forms of assisted reading. These include modeled oral reading, supported oral reading, repeated reading, and performance reading. These instructional techniques are designed to assist teachers and reading clinicians in the making of proficient, fluent and confident readers. A consistent finding indicates that repeated readings produce statistically significant improvement in accuracy, comprehension, reading rate, word recognition, and oral reading expression on the practiced passage (Kuhn & Stahl, 2003).

Re-reading: Reading or otherwise known as repeated reading, refers to repeating a passage over and over again. This is believed that with constant practice, students will gain independence, and confidence as they read rapidly, fluently too. This strategy is one of the most frequently recognized approaches to improving fluency (National Institute of Child Health and Human Development (NICHD), 2000). When students repeat their reading, their amount of word recognition errors decreases, their reading speed increases, and their oral reading expression improves (O'connor, White, & Swanson, 2007; Vadasy & Sanders, 2008;Strickland, W. D., Boon, R. T., & Mason, L. L. (2020).

Oral Reading and Learners with Reading Disabilities

Oral reading fluency which according to Speece and Ritchey (2005) is the ability to identify words accurately and quickly in a text. This definition lays more emphasis on the need for students to focus on accuracy and speed. Similarly, Armbruster, Lehr, & Osborn, (2001) define oral reading fluency as the ability to translate text with speed and accuracy. The authors further suggest that oral reading fluency may serve as an indicator of overall reading competence.

It can be drawn from the foregoing definitions that for students with reading disabilities to be fluent oral readers, they need to read automatically, accurately, with adequate expression and phrasing. This will enable them to construct the meaning of text. It is also needful for teachers and anyone interested in reading development and disabilities to identify and comprehend the common types of models of reading

Procedures for Developing Reading Fluency

Reading instruction that builds a child's reading fluency is considered by reading researchers to be an important but neglected element of a balanced reading program (Rasinski, 2004; Osborn, Lehr, & Hiebert, 2003; Samuels, 2002; National Reading Panel, 2000a). Therefore, students need some explicit instructions in reading fluency that will activate their visual, auditory, and kinesthetic senses, and makes reading a living and lively experience. To this end, some of the widely researched and recommended methods for building fluency relevant to this study are briefly examined. The procedures for developing reading fluency include but not limited to the following:

Repeated Reading: To repeat an action or an event means to redo it over again and over again. Hence, repeated reading suggests reading a given text more than once. In their study on the effects of repeated reading on students' fluency, Roundy and Roundy (2009) pose an interesting question as to whether practice always makes room for perfection. In response to the foregoing question, one would hastily say yes based on personal life's experience, other people's testimonies such as athletes, cyclist, musicians and other performing artists and actors. The National Reading Panel (2000) reports that reading a particular passage on and on can effectively improve the students overall reading fluency and comprehension ability. This means that rereading or repeated reading can be used simultaneously with other MFS strategy in order to improve reading ability and fluency of the students. In repeated reading, students with reading disabilities are made to read a passage several times until the desired level of fluency is achieved.

Modeling Fluent Reading: One of the easiest ways students learn is through imitation. In order to read fluently, students must hear and comprehend they read. The message is conveyed is communicated through expression, intonation, and phrasing of the words. To achieve this, Rasinski (2000) suggests that students to remember how the teacher read the passage and how the teacher's expression affected their understanding. Consequently, teachers, reading specialists and even trained parents should read aloud fluently, frequently and with the desired expression. This helps to expose the students to different genres of texts from their text books and other excerpts from speeches or folktales.

One advantage students with oral reading disability tend to benefit through this method is that they learn the mechanics of reading. That is, how to pace read, use punctuation marks where and when necessary. Similarly, it is used to prepare students for wide independent reading. This is because students are exposed to different genres through read aloud. The third advantage of modeling is that students see, hear and feel the mood, physical movements and direction of the writer's messages. More so, it can be combined with different methods such as phrase reading, repeated reading and reader's theatre, to mention a few.

Reader's Theater:As the name suggests, readers' theater is a reading strategy that engages students with and without reading disabilities, through assigned parts in scripts. The reading activities are carried out as in real life situation, using similar procedures for a play-let in a theater. In this type of strategy, a story is divided into parts and assigned to students as the characters. They are then instructed to read their portions of the script orally for practice many times in the school and at home. Reader's Theatre differ from plays or other types of performances because readers read their parts aloud rather than memorize them. Reader's Theatre encourages students to interpret the text that they are reading and to read with an appropriate speed or rate rather than just simply reading fast. Strategies like Reader's Theatre and Poetry Café provide an authentic venue for students to performa script, poem, speech or play from a book or story they have read, using minimal props (Allington, 2001; Rasinski, 2003).

Benefits of Multiple Fluency Strategy

The effective use of Multiple Fluency Strategy in curbing reading difficulties amongst pupils and students at all levels of education. Andzayi (2004) identifies inability to read, insufficient sight words slow reading rate, inability to comprehend what is read, inability to infer, uncritical reading, and lack of interest in reading as common problems found among students. These are said to cut across all levels of our educational system in Nigeria. Hence, reading problems related to students are not only caused by disability conditions but students' attitude and interest to school and reading culture. It is aimed at increasing oral reading fluency of students who have developed initial word reading skills but demonstrate inadequate reading fluency for their grade level(Welsh, 2006). Multiple Fluency Strategy will help to curb reading difficulties amongst students with reading disabilities in the following ways:

1. Multiple Fluency Strategy will help students with reading disabilities to recognize and pronounce the words in a text accurately, automatically without miscues like hesitation, addition, or substitution of words during reading. They will be able to express the mood or tone of the text by appropriately adhering to stresses and punctuations in the text.
2. The phases of multiple fluency strategy such as, phrasing, assisted reading and rereading helps students improve their overall oral reading skills and proficiency in reading generally, help them in reading the different genre of text materials fluently with confidence, motivate and make them interested to further read in order to improve their reading comprehension and also improve their oral reading skills to become proficient in reading.
3. Multiple fluency strategy enables students to read automatically, accurately, with adequate expression and phrasing.
4. MFS enables students to construct the meaning of text, will help them to recognize and pronounce the words in a

text accurately, automatically without miscues like hesitation, addition, or substitution of words during reading.

5. Through MFS, students will be able to express the mood or tone of the text by appropriately adhering to stresses and punctuations in the text as well as promoting fluency.

6. MFS helps to builds reading confidence in students with reading disability and enables them to learn to read aloud with expression and motivates them to read widely.

7. MFS is used for students at all levels of education and at different settings (special, inclusive and regular) and can also be applied in a wide range of subjects such as Mathematics, Arts, Science, Science lessons amongst others(Overstreet, 2014).

Therefore, students with reading disabilities who are experiencing difficulties with oral reading would benefit from interventions that have multiple components focusing attention on increasing the rate, accuracy and prosody (phrasing and expressing) of reading.

A Way Forward in Promoting the Effective Use of Multiple Fluency in Improving Oral Reading amongst Learners with Reading Disabilities.

There appears to be increasing evidence literature that achieving fluency is necessary for effective reading ability. One of the main revelations of concern from the review is the fact that oral reading fluency was neglected over the years in reading instructional programs of most schools. This was the report of the National Reading Panel which observed that most studies examined were on the efficiency of silent reading and very few focused on oral reading fluency.

Based on the discussion, the following recommendations are proffered:

1. Training and re-training of special and regular teachers: teachers require adequate training to enable them acquire competencies that are needed in teaching oral reading. Adequate preparation in teaching reading to students with reading disabilities at both elementary and secondary levels is required. This can be effectively carried out through workshops, seminars, training sections, provision of training manuals, symposiums, talk-shows etc.

2. Establishment of Reading Clinics: Teachings reading in schools are not adequate in meeting the needs of students with reading disabilities. Therefore, the establishment of reading clinics, within school settings as well as in communities is inevitable for all students, particularly students with reading disabilities.

3. Active collaboration between stakeholders: Curriculum planners and publishing houses are expected to incorporate Multiple Fluency Strategy in the school curriculum and the contents of oral reading fluency properly acknowledged and implemented. Moreso, private and government publishing institutions should publish reading materials that are relevant to students with and without reading disabilities which emphasize reading for speed, accuracy and automaticity.

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Full Length Research

Information and Communication Technology in Special Needs Education: Implications for Teaching and Learning in Inclusive Classrooms

[1]Aliu, Charity U.Ph.D., [2*]Amwe, Racheal A. Ph.D. and [3]Menta, Leah Homsuk

[1]Department of Special Education and Rehabilitation Sciences, Faculty of Education, University of Jos
Email:charityaliu50@gmail.com
[2*]Department of Special Education and Rehabilitation Sciences, Faculty of Education, University of Jos
3Department of Special Education and Rehabilitation Sciences, Faculty of Education, University of Jos
Email: leahmenta44@gmail.com

*Corresponding author's Email:amweracheal44@gmail.com

Information and Communication Technology (ICT) has gained popularity in contemporary Nigeria and has emerged as an effective approach in classroom teaching and learning process in this era of globalization. ICT applications are one of the most viable tools in achieving the Sustainable Development Goals (SDGs) of promoting quality education as well as reducing inequality thereby, promoting equitable access to educational services irrespective of a learners' specific and unique educational needs. The paper examines Information and Communication Technology (ICT) in special needs education and its implications for teaching and learning in inclusive classrooms. The paper presents an outline of ICT and special Needs Education (SNE) and also the rationale for ICT in inclusive classroom settings. More so, adaptive technology and learners with special needs and also strategies for effective adaptive learning inclusive classrooms are highlighted. The paper concludes by providing recommendations in terms of establishing a Special Education Laboratory (SEL) in all states in Nigeria that will provide training to special education teachers in the effective use and modification of assistive technology to suit the unique needs of learners with special educational needs.

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INTRODUCTION

Learners with special educational needs require special intervention and programmes due to their sensory, cognitive or intellectual and physical impairments. Special educators are expected to design instruction that will maximize the potentials of learners with special educational needs in the classroom. To achieve the universal access to education as outlined in the National Policy on Education (2013) and also achieve sustainable goals, teachers of students with special needs must be aware of ICT potential, acquire necessary knowledge and operational skills to adaptation and design of ICT tools and devices as it is as an appropriate apparatus for promoting universal and equitable learning.

The World Health Organization (WHO, 2020) asserts that disability is any restriction or lack of ability, usually one that prevents a person from performing an activity within the range considered normal for a human being. It recognizes that the disability can be physical, sensory, cognitive and intellectual. The visually impaired (blind), speech impaired, physically challenged (wheelchair users, ambulant persons etc.), and those with multiple disabilities are considered disabled.Data according to the World Bank Report(using data from the 2018 Nigeria Demographic and Health Survey and qualitative research) has estimated that about 29 million of the Nigerian population and an estimated seven percent(7%) of household members above the age of five (5) are living with a sensory, physical, intellectual disability. These figures gets even higher because available data likely underestimate prevalence (Varalaksmi, Martines, Aderemi-Ige, Espinoza, &Illesami, (2020).

All learners regardless of their special educational needs, gender, race, colour, genetic traits, religion or belief or disabilityhas a right to equitable education. Student with special needs experience learning difficulties as a result of a physical, sensory, cognitive/intellectual, emotional/behavioral impairment. Therefore, they experience difficulties with reading, writing, speaking, numeracy etc. (Kaur, 2022).As outlined by Polirstok (2015), creating an emotionally safe classroom environment where students can be successful involves not only high approval interactions between students and teachers, but also requires an emphasis on structure and routine as well as the use of ICT. It is therefore evident that ICT has the capacity to provide enriching educational experiences for learners with special educational needs such as independence, motivate and engage students, collaborative learning options, hands on activities, internet-based communications, educational software, fieldwork and so forth.

Inclusive education ensures that all students are part of the school regardless of their strength and weaknesses in any area thereby becoming part of the school community (McCarthy, 2000).The United Nations, in an effort to protect and enhance the rights and opportunities of such persons, agreed formally on the Convention on the Rights of Persons with Disabilities in 2007. However, by May 2022, countries have formally ratified the convention ofwhich Nigeria is a signatory. The guiding principles of the convention include nondiscrimination, full and effective participation and inclusion in society, equality of opportunity, accessibility and respect for the capabilities of children with disabilities amongst others (United Nations, 2008). Therefore, the full inclusion of children with special needs in inclusive settings provides an opportunity for teachers to identify classroom management principles, embrace assistive technology resources and also adopt practices that promotes diversity and acceptance.

ICT AND SPECIAL NEEDS EDUCATION

ICT includes a wide variety of products that store, retrieve, manipulate and transmit or receive information electronically in a digital form. It consists of hardware, software, networks and media for collection, storage processing and presentation of information (voice, data, text and images)(Hata, Wang, Yuwono, & Nomura, 2003). The effective use of ICT resources and adapted technology ensures that learning materials, texts, notes and instructional materials are provides in formats that can be assessed by the learner (e.g., visual, audio, tactile etc.). There is need for an ICT framework for universal learning in classroom environments at all educational levels. These include; a) computers, educational software and websites, b) computer and science laboratories, c) curriculum and instruction, d) libraries, e) counselling and other student services (Burgstabler, 2021).

Students with special needs experience learning difficulties as a result of a physical, sensory, cognitive/intellectual, emotional/behavioral impairment. Therefore, the use of ICT resources is inevitable and should be utilized at all levels of education. In recent times the use of ICT in classroom teaching and learning is characterized by numerous challenges including policy frameworks and poor implementation, limited accessibility, inadequate technical skills and support, teacher competency amongst others. However, a contemporary issue facing the educational system in Nigeria is the adequacy, accessibility an adaptation of teaching and learning materials including ICT resources. Therefore, there is need to provide data to curb the death of research and significant data that is necessary for policy, planning and

RATIONALE FOR ICT IN INCLUSIVE CLASSROOM SETTINGS

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Learners with special educational needs can compete favorable with their peers without special needs with the effective use of a functional information and communication technology. This enables them benefit maximally from classroom instructions and also has a potential for maximizing the potentials of persons with special needs as well as Morina, Halimaj and &Orhani,(2025) asserts that technological developments have brought new opportunities to support marginalized individuals and groups, including students with special needs in recent decades. With the advancement in technology, learning tools should be made more accessible to learners with special educational needs.

Similarly, the findings of a systematic review in a recent study indicated that children with special needs in inclusive and special schools perform poorly academically compared to their non-disabled peers (Adjei, Osei, Edusei & Nakua, 2024). In addition, as posited by White, Saran and Kuper (2018) and several other researchers, accurate data and records of classroom teaching and learning outcomes, enrolment, attendance and academic performance in schools are difficult to find which makes it difficult to track their academic goals. However, this is typical in Nigeria and Sub-Saharan Africa. This scenario has posed a need for more research to evaluate the impact ICT in classroom teaching and learning for learners with special educational needs in Nigeria.

In lieu of the fact that the Nigerian government ratifies the UN-convention on Rights of Personswith Disabilities on 24th September 2010, all laws, policies and programmes/interventions in the county are expected to comply with the provisions of the convention. In addition, Section 7 the National Policy on Education (2013,), outlined the ICT accessories, necessary facilities, equipment, materials and other assistive devices that would endure easy access to quality education of learners with special needs. However, is this is yet to be adapted for full implementation in Nigeria posing a challenge to equal access in teaching and learning amongst learners with unique educational needs in special and inclusive classrooms.

Consequently, poor monitoring and supervision of classroom teaching and learning in special needs education in Nigeria is existent. This is essential for stakeholders in education to determine whether the inclusive education policy the United Nations has mandated for its member countries is beneficial. It is also crucial in determining and establishing high quality education by 2030 as spelt out in the Article 24 of the United Nations Convention on Rights of Persons with Disabilities (Adjei, Osei, Edusei & Nakua, 2024). In addition, Aron and Loprest (2012) had strongly asserted that monitoring the academic achievement of students with special needs is the only way to establish if they are learning in schools.

The Sustainable Development Goals (SDGs) has clearly emphasized that 'no one is left behind' so whether systems are related to health, education amongst others there is need to identify those who are likely to be left behind which includes persons with special needs. SDG Goal four (4) promotes quality education for all andto deliver on this goal, education financing must become a national investment priority. Furthermore, measures such as making education free and compulsory, increasing the number of teachers, improving basic school infrastructure and embracing digital transformation are essential (United Nation, 2023). All learners regardless of their special educational needs, gender, race, colour, genetic traits, religion or belief or disability has a right to equitable education as clearly spelt out in the SDGs.

ASSISTIVE TECHNOLOGY AND LEARNERS WITH SPECIAL NEEDS

Assistive technology has been a major advancement in the field of education globally and most especially to learners with special educational needs. As opined by Muller (2010), assistive technology is a term that describes any product or device with a primary purpose of improving an individuals' functioning, independence and promote their wellbeing.Assistive technologies (AT) are products and devices which are designed or adapted for people with disabilities. AT includes all products, services and systems that improve the health, functioning and independence of individuals5. As such, general definitions of AT include technologies that support people with a range of communication, sensory or physical impairments (Department of Education, 2025).

The integration of technology and media into regular classroom instruction has tremendous potential to facilitate the

Amwe and Dommak, (2021), on the effects of assistive technology on the academic performance of pupils with disabilities in inclusive schools in Jos, Plateau State revealed that assistive technology devices can influence the performance of pupils with disabilities in inclusive classrooms. Therefore, assistive technology plays a critical role in closing a gap between students with special needs and their counterparts without special learning needs. Some of these assistive devices that are found in special and general education classrooms for learners with learning disabilities in accordance to the research conducted by Raskind and Stanberry (2006) and Daiute (1992) include the following:

a) Electronic math work sheet: Electronic math worksheets are software programs that can help students organize, align, and work through math problems on a computer screen.
b)Alternative keyboards:These programmable keyboards have special overlays that customize the appearance and function of a standard keyboard.
c)Speech Synthesizers/Screen Readers**:** These systems can display and read aloud text on a computer screen, including text that has been typed by the user, scanned in from printed pages (e.g., books, letters), or text appearing on the Internet.
d)Word prediction software programs**:** Word prediction software can help a user during word processing by "predicting" a word the user intends to type.
 e) Talking Calculator:A talking calculator has an in- built speech synthesizer that reads aloud each number, symbol, or operation key a user press, it also vocalizes the answer to the problem.
 f) Proofreading Software Programs: Students who struggle with writing (e.g., spelling, grammar, punctuation, word usage, and sentence structure) may benefit from software programs (included in many word processing systems) that scan word processing documents and alert the user to possible errors.
g) Touch Screens: allows direct selection or activation of the computer by touching the screen, making it easier to select an option directly rather than through a mouse or keyboard (American Foundation for the Blind, 2012).

In addition, assistive technology is a vital option it gives to the teacher in addressing different learning styles for individual students using visual, auditory and tactile approaches and so that students become more independent. Similarly, assistive technology increases the frequency of assignment completion and contributes to improved motivation, ease frustration, increase motivation of students with learning disabilities to complete assignments and most importantly feel more accepted by his peers in the general education classroom.

STRATEGIES FOR EFFECTIVE USE OF ASSISTIVE TECHNOLOGY IN INCLUSIVE CLASSROOMS

Assistive technology plays an especially essential role in inclusive classrooms and its relevance cannot be overemphasized from assessment, classroom management, record keeping, assessment, lesson planning and presentation of learning instructions so as to bring about a quick or rapid change in an individual' learning abilities in various facets. It makes some of the routine teaching tasks easier, makes learning interesting and also allows a teacher to create learning activities and set up inclusive learning environments that enable learners with special needs participate actively in the classroom and maximize their learning potentials.

As outlined by Jagota, (2018) effective provision and utilization of assistive technology will help to achieve the following:

a) Enhance Academic Achievement: Assistive Devices enhance participation and achievement of students with disabilities in their educational programs. Assistive Devices fulfils the needs of students with disabilities in academic areas like reading, writing, spelling and mathematics, b) Makes the child independent: Assistive technology devices are only the beginning of a long road to independence. With the help of Assistive Technology children with significant disabilities can increase their meaningful participation across school, home, work, and community settings. c) Augmentative Communication:

Students with severe expressive communication impairments have difficulty in communication with peers and adults within their environments, d) Interact in Educational or Social Environment:

to be more autonomous and interact in educational or social environments and e) Helps in Social Development:

Assistive technology helps the disabled students in their social development (often students with special needs find it hard to connect with their normal peers, making it difficult for them to make friends and hence face isolation and sometimes depression). Thus, it helps in developing self-determination, self-advocacy and independent living skills.

Therefore, as asserted by Evmenova (2020), factors such as coordination and collaboration between service providers, situated training, technology integration with fidelity anddata-driven decision-making are imperative for effective implementation of assistive technology inclusive classrooms.

CONCLUSION AND RECOMMENDATIONS

The full implementation of inclusive education is gaining momentum in Nigeria and also globally. There are several forms of assistive of technology offer necessary supports for students with special learning needs in order to enable them access the curriculum and benefit maximally from classroom instruction. Despite the challenges of ICT in inclusive settings, special educators are encouraged to endure that they provide better learning experiences and opportunities to all students, including those with unique abilities and needs. Based on the discussions above the following recommendations are proffered:

1.   There is need to carry out research that will inform policy and development in effective adaptation and design of ICT tools and devices to suit the specific need of learners with sensory/cognitive/developmental and physical impairments.
2.   There is need to develop specific programmes and providing services in the education of learners with educational needs.
3.   There is also need to ensure full implementation of the existing policies in special needs education. These include the National Policy on Special Needs Education in Nigeria (2015), Revised National Policy on Inclusive Education in Nigeria (2023) and The National Implementation Guidelines for ICT Education (2019).
4.   There is need to establish "Special Education Laboratory" in all states in Nigeria that will provide training to special education teachers in the adaptation ofexisting assistive technologies and design of ICT tools and devices to suit the unique needs of learners.
5.   There is also need to organize periodic workshops and seminars and training sessions for special education teachers and relevant stakeholders in special need education on design, adaptation and modification of ICT tools and devices.

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