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**PRINCIPALS' MANAGERIAL SKILLS AS DETERMINANT OF
ADMINISTRATIVE TASK PERFORMANCE AMONG PUBLIC SECONDARY
SCHOOL TEACHERS IN LAGOS STATE, NIGERIA**

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Abstract

The study examined principal managerial skills as it determines teachers' administrative task performance in public secondary schools in Lagos State. Four research objectives, two research questions and two hypotheses were raised for the study. Descriptive survey research design was employed. Population consisted all public secondary school principals (3,039) and teachers (30,735). Sample comprised of 419 principals and 1,397 teachers using simple random sampling technique. Two self-designed/adapted questionnaire; "Principals' Managerial Skills Questionnaire (PMSQ)" ($r=0.821$) and "Teachers Administrative Task Performance Questionnaire (TATPQ)" ($r = 0.881$) were administered. Data were analysed using descriptive and inferential statistics. Findings showed good decision making skills ($\bar{x}= 2.588$), good supervision skills ($\bar{x}=2.617$), good human relation skills ($\bar{x}=2.710$) and moderate level of teachers' administrative task performance($\bar{x}=3.172$). Findings further revealed significant combined influence of principals' managerial skills on teachers' administrative task performance ($F_{6,412}=3.053, p<0.05$). Decision-making skills ($\beta=-.126; t=-2.596$) and human relation skills ($\beta=.133; t=2.753$) were significant at $p<0.05$. It was recommended among others that principals should improve their skills to positively impact their teachers' administrative task performance.

Keywords: Principals' Managerial Skills, Teachers' Administrative Task Performance

Introduction

Administrative task performance is the ability of teachers to admit, classify and register students alongside participating in their welfare services, giving feedback reports to parents and guardians, taking part in co-curricular activities, keeping records adequately and effective discipline of students in a bid to producing and enhancing expected learning achievement in schools. This leads to the proper development of knowledge, skills, attitudes, values that enable students to function well, live as responsible citizens making useful contributions to their societies (Ayeni, 2017).

However, despite the crucial role of administrative task performance of teachers in shaping the students, it has been observed that most teachers in south west region of Nigeria including those in Lagos state do not perform their task with utmost quality and effectiveness. For instance, poor administrative task performance and productivity of teachers in secondary schools in Ondo state have been reported (Ayeni & Akinola, 2020; Ayeni, 2020; 2018). Other studies reported low productivity, poor job performance and poor internal efficiency of teachers (Kolade, Eyitayo & Ige, 2020; Arogundade, Aladejebi & Afolabi, 2019; Onaolapo, Olajiga & Onaolapo, 2019; Arogundade & Belo, 2019). Most teachers seem not to be satisfied with their job neither do they perform their administrative task accordingly. Some teachers seem to focus more on making money to the detriment of

their school and students' success. When teachers do not perform their administrative task performance well, the goals and objectives of the school may not be achieved. As a result of this, researchers have expended efforts in trying to unravel the determinants of poor administrative task performance among teachers in secondary schools. Apart from various factors raised by several researchers, an important factor that has not fully been explored in literature is principals' managerial skills.

Principals' managerial skills refer to their ability and capability to successfully plan, supervise, organize, co-ordinate, control, make decision and initiate actions that would aid, encourage teachers and actualize schools' set goals and objectives (Nwafukwa & Odey, 2020). Several kinds of managerial skills exist. However, this study focuses on three important kinds - decision-making, human relation and supervision skills. Decision-making skills enable principals to choose the best action or most preferred course of action among alternatives with the intent of solving problems and achieving set goals effectively. Studies have shown a link between decision-making skills and teachers administrative performance. For instance, a study showed the significant relationship between principals' decision making strategies and teachers' administrative productivity (Ayeni, 2018). Another research revealed that head teachers' decision-making strategy has significant influence on teachers' task performance in the sampled schools (Mbon, 2017). However, there still remains a dearth of empirical literature on principals decision-making skills on teachers administrative task performance. Most studies focused on the influence of principals' decision-making strategies not skills.

Human relation skills help principals facilitate quality interaction with personnel and their subordinates within the school (Uzoechina & Nwankwo, 2017). Principals' human-relation skills could make teachers' administrative performance better or worse. For instance, the findings of a study revealed a high positive significant relationship between principals' human-relation skill and teachers' job performance in public secondary schools in Rivers State, Nigeria (Giami & Obiechina, 2019). Contrarily, a study noted that there is a positive non-significant relationship between human relations strategies of principals and teachers' job performance in secondary schools (Awodiji, Etejere, Oluwalola, Eniola-arigbe, Fawale & Ololo, 2019). However, a research indicated that principals' interpersonal skill is a significant predictor of teachers' classroom management (Francis & Oluwatoyin, 2019). Most studies have focused on the influence of principals' human relation skills on teachers' job performance but the influence of these skills specifically on their administrative task performance is scarce.

Principals' supervision is a process by which they support, assure and develop the knowledge, skills and values of teachers being supervised (supervisee), team or project group (Umaru & Aliyu, 2018). Principals' supervisory competence could also boost teachers' performance and administrative quality (Okpe, 2018; Ikediugwu, 2016). For instance, a study emphasized that principals' supervision strategies influenced teachers' job performance in secondary schools in Rivers State (Edo & David, 2019). The findings of a research revealed that principals' supervisory technique significantly influence on teachers job performance in public secondary schools in Zone 'C' Senatorial District of Benue State, Nigeria (Elujekwute, Shir & Elujekwute, 2021). It however seems that there is a gap in literature on the influence of principals' supervisory skills specifically on teachers' administrative task performance as most studies focused on principals' supervisory techniques and strategies. Moreover, the combined influence of principals' managerial skills (decision-making, human relation and supervision skills) on teachers' administrative task

performance seem relatively scarce in literature. It is against this background that this study sought to unravel principals' managerial skills as determinants of teachers' administrative task performance in public secondary schools in Lagos state.

Statement of the Problem

The problem of poor administrative task performance by teachers has been observed to be a serious issue facing secondary school education in Nigeria including Lagos State. The long-standing problem of poor administrative task performance of teachers has received concern of the government and stakeholders in education. In most public secondary schools, there seems to be little or no effort by teachers to perform their teaching tasks on a daily basis. It has been suggested that teachers' sub optimal performance at instruction could be as a result of managerial incompetence as it has been observed that majority of principals may not possess the required managerial skills for efficient school management. Also, to the best of the researchers' knowledge, the influence of principal managerial skills as key factor that could improve administrative task performance among public secondary school teachers has not been fully explored which identifies an existing gap in literature. Moreover, there is also scarcity of studies on the combined influence of principals' managerial skills (decision-making, human relation and supervision skills) on teachers' administrative task performance. This study therefore sought to close the existing gap in literature.

Purpose of the Study

The purpose of the study was to investigate principals' managerial skills as determinants of administrative task performance among public secondary school teachers in Lagos State. Therefore, the specific objectives were to:

- a. identify the managerial skills mostly adopted by principals in public secondary schools in Lagos State;
- b. assess the perceived level of administrative task performance of the teachers in public secondary schools;
- c. investigate the combined influence of principals' managerial skills (human-relation skills, supervision skills and decision-making skills) on administrative task performance of teachers in public secondary schools in Lagos State; and
- d. examine the relative influence of principals' managerial skills (human-relation skills, supervision skills and decision-making skills) on administrative task performance of teachers in public secondary schools in Lagos State.

Research Questions

This study sought to find answers to the following questions:

1. What are the managerial skills (decision-making skills, supervision skills and human-relation skills) mostly adopted by principals in public secondary schools in Lagos State?
2. What is the perceived level of administrative task performance of teachers in public secondary schools in Lagos State?

Hypotheses

H₀1: There will be no significant combined influence of principals' managerial skills (decision-making skills, supervision skills and human-relation skills) on administrative task performance of teachers in public secondary schools in Lagos State.

H₀2: There will be no significant relative influence of principals' managerial skills

(decision-making skills, supervision skills and human-relation skills) on administrative task performance of teachers in public secondary schools in Lagos State.

Methodology

This study adopted a descriptive survey research design. The population for the study comprised of all the principals/vice principals (3,039) and teachers (30,735) of public senior secondary schools in the three senatorial districts in Lagos State. Multi-stage sampling techniques consisting of systematic random sampling technique and Yamane Taro sample size determination formula were used to get the sample size of principals (745) and teachers (2,399) for the study. However, 419 principals and 1,397 teachers were later used as a result of the validated questionnaires retrieved for the study. Two questionnaires titled "Principals' Managerial Skills Questionnaire (PMSQ)" and "Teachers' Instructional Task Performance (TTP)" were administered to collect data for the study. Two lecturers at the Department of Educational Management at Lead City University validated the instruments. Cronbach's alpha gave a positive reliability values of .821 and .881 respectively. The instruments were administered personally and alongside the help of five research assistants. Data were analysed using descriptive and inferential statistics tested at 0.05 level of significance.

Results

Demographic Analysis

Demographic analysis shows that a major fraction of the teachers are females, within 42-52 years of age, have Bachelor's degree as their highest academic qualification and have 11-20 years of teaching experience. It also revealed that most principals are females, above 53 years of age, have master's degree as their highest form of educational qualification and have 21-30 years of experience.

Research Questions

Research Question One: What are the managerial skills (decision-making skills, supervision skills and human-relation skills) mostly adopted by principals in public secondary schools in Lagos State?

Table 1: Decision-Making Skills adopted by principals

S/N	Items (My principals)	No.	Mean (\bar{x})	Standard deviation	Decision
1.	get teachers involved in the decision-making process	1397	2.256	0.735	Bad
2.	double-check information sources to be sure before making decision	1397	2.709	0.977	Good
3.	consider various options in terms of the specific goals of the school before taking decisions	1397	2.886	0.623	Good
4.	use careful thought in making decisions	1397	2.957	0.593	Good

S/N	Items (My principals)	No.	Mean (\bar{x})	Standard deviation	Decision
5.	avoid making important decisions until the pressure is on	1397	2.155	0.659	Bad
6.	make quick and right decisions	1397	2.566	0.660	Good
Overall \bar{x} (SD) = 2.588 (0.708)		Overall Decision = Good			

Table 1 shows that the decision-making skills adopted by the principals is generally good (weighted \bar{x} (SD) = 2.588 (0.708) at a four point likert scale of strongly agree (4) to strongly disagree (1).

Table 2: Supervision Skills adopted by principals

S/N	Items (My principals)	No.	Mean (\bar{x})	Standard deviation	Decision
1.	make sure that the professional development activities of teachers are in accordance with the teaching goals of the school	1397	2.608	0.645	Good
2.	take the initiative to discuss matters when a teacher has problems in his/her classroom	1397	2.624	0.822	Good
3.	periodically check to see whether classroom activities are in keeping with the educational goals	1397	1.924	0.757	Good
4.	take over lessons from teachers who are unexpectedly absent	1397	1.924	0.537	Bad
5.	check for mistakes and errors in administrative procedures and reports	1397	2.954	0.849	Good
6.	give teachers suggestions as to how they can improve their teaching	1397	2.792	0.785	Good

Table 2 shows that the supervision skills adopted by the principals is generally good (weighted \bar{x} (SD) = 2.617 (0.733) at a four point likert scale of strongly agree (4) to strongly disagree (1).

Table 3: Human-relation skills adopted by principals

S/N	Items (My principals)	No.	Mean (\bar{x})	Standard deviation	Decision
1.	listen closely to what people who disagree with him/her has to say without trying to respond immediately	1397	2.449	0.807	Bad
2.	do not hang on grudges and resentments	1397	2.815	0.821	Good

S/N	Items (My principals)	No.	Mean (\bar{x})	Standard deviation	Decision
3.	strive to be cooperative yet assertive when experiencing conflict with anyone	1397	2.820	0.815	Good
4.	do not perpetuate negative stereotype and accepts every individual as unique and worthy of respect	1397	2.840	0.781	Good
5.	avoid rigid individualism (self-	1397	2.442	0.828	Bad

Weighted \bar{x} (SD) = 2.710 (0.823); Overall Decision = Good

Table 3 shows that the human-relation skills adopted by the principals is generally good (**weighted \bar{x} (SD)=2.710 (0.823)**) at a four point likert scale of strongly agree (4) to strongly disagree (1).

Research Question Two: What is the perceived level of administrative task performance of teachers in public secondary schools in Lagos State?

Table 4: Perceived Level of Administrative Task Performance of Teachers

S/N	Items (My principals)	No.	Mean (\bar{x})	Standard deviation	Decision
1.	inculcate effective discipline strategies in class	419	3.434	1.039	Moderate
2.	are actively involved in curricular and extra-curricular activities	419	3.320	0.922	Moderate
3.	adequately keep records	419	3.291	0.957	Moderate
4.	participate in giving reports concerning students to parents	419	3.155	1.020	Moderate
5.	participate in students' welfare services	419	2.661	1.126	Moderate

Weighted \bar{x} (SD) = 3.172 (1.012); Overall Decision = Moderate

Table 4 shows that the level of administrative task performance as perceived by the principals is moderate (weighted \bar{x} (SD)= 3.172 (1.012) at a five rating scale of A great deal to (5) to None at all (1).

Hypotheses

H₀: There will be no significant composite influence of principals' managerial skills (decision-making skills, supervision skills and human-relation skills) on administrative task performance of teachers in public secondary schools in Lagos State.

Table 5: Multiple Regression analysis and Model Summary Anova

Model		Sum of Squares	Df	Mean Squares	F	Significance Value	Decision
1	Regression	203.869	6	33.978	3.053	.006	Significant at 0.05
	Residual	4585.277	412	11.129			
	Total	4789.146	418				

Model Summary

R = 0.206

R square = 0.043

Adjusted R Square = .029

Standard Error of the Estimate = 3.3361

Dependent Variable: Teachers administrative task performance

Predictor Variables: Principals' decision-making skills, human-relation skills, supervision skills

Table 5 shows a significant combined influence of principals' managerial skills (decision-making skills, supervision skills and human-relation skills) on administrative task performance of teachers in public secondary schools in Lagos State ($F_{6,412} = 3.053$ is significant (.006) at $P < 0.05$) which means that the regression model is a good fit of the data. Furthermore, the model summary shows the R value to be .206; $R^2 = .043$; Adjusted $R^2 = .029$ and Standard Error of the Estimate = 3.3361. The adjusted R^2 value shows that 2.9% (.029) of the variation in teachers' administrative task performance is explained only by the independent variable (principals' managerial skills). This also implies that 97.1% (100%-2.9%) of the variability is caused by factors other than the predictors included in this model.

H₀: There will be no significant relative influence of principals' managerial skills (decision-making skills, supervision skills and human-relation skills) on administrative task performance of teachers in public secondary schools in Lagos State

Table 6: Coefficients of Multiple Regression

Model	Coefficients				
	Understandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig. p
(Constant)	29.863	2.964		10.074	.000
Decision-making skills	-.243	.094	-.126	-2.596	.010*
Supervision skills	.021	.092	.011	.224	.823
Human-relation skills	.216	.079	.133	2.753	.006*

Dependent Variable: teachers task performance

* β coefficients significant at 0.05 level of significance ($P < 0.05$)

Table 6 shows the individual contribution of each predictor - decision-making skills, supervision skills and human-relation skills. First, the model shows that the β coefficient and t- values for decision- making skills ($\beta = -.126$; $t = -2.596$) and human-relation skills ($\beta = .133$; $t = 2.753$) are significant $P < 0.05$. However, supervision skills $p(.823) > 0.05$ is not significant. Lastly, the negative value of B for decision-making skills (-.243) shows that principals' decision-making skills has a negative relationship with teachers' administrative task performance. However, the positive value of B for principals' human-relation skills (.216) indicate that it has a positive relationship with teachers' administrative task performance.

Discussion of Findings

Research question one revealed good decision-making skills, good supervision skills and good human-relation skills of principals in public secondary schools in Lagos State. This agrees with Francis & Oluwatoyin (2019) whose investigation reported that principals adopted appropriate supervisory skills, good inter-personal relationship skills and good decision-making skill in Ekiti State secondary schools. Research question two revealed that the level of administrative task performance is moderate in public secondary schools in Lagos State. A similar study revealed that job performance of teachers in teaching is moderate (Oyewole, Ola-Ogunde & Bamikole, 2020). This results could be similar because both studies were conducted in Southwest region of Nigeria. Findings from hypothesis one revealed a significant combined influence of principals' managerial skills on administrative task performance of teachers in public secondary schools in Lagos State.

This finding is greatly supported by Thompson & Ofojebe (2020) whose study which revealed a high significant relationship between principals' application of managerial skills, and teachers' job performance in secondary schools in Anambra State. Findings from hypothesis two revealed that the β coefficient and t- values for decision- making skills and human-relation skills are significant. Ayeni (2018) revealed a significant relationship between principals' decision-making strategies and teachers' administrative task performance in secondary schools. The finding is also in connection with that of Giami & Obiechina (2019) who reported a high positive significant relationship between principals' interpersonal relationship skills and teachers' job performance in public secondary schools.

Conclusion

It could therefore be concluded that although principals' managerial skills has a joint significant influence on teachers' administrative task performance, their decision-making skills and human-relation skills were responsible for the significant positive or negative relationship with teachers' administrative task performance in public secondary schools in Lagos State.

Recommendation

It was recommended that principals should improve their managerial skills for improved administrative task performance amongst teachers.

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MANAGEMENT OF PRE-PRIMARY AND PRIMARY EDUCATION IN NIGERIA IN POST COVID-19 ERA: SCHOOL ADMINISTRATORS AND EXPERT PERSPECTIVE ON BEST PRACTICES

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Abstract

This study investigated school administrators and experts' perspective on best practices in the management of pre-primary and primary education in Nigeria in post COVID-19 era. This study adopted descriptive survey research design. The population of this study comprised all schools in Kwara State and early childhood and primary education teacher trainers in Kwara state. Twenty schools and ten experts were randomly sampled. The instrument used for this study was titled; Pre-primary and primary school administrators perception on post COVID-19 era school management (PAPSM) and Pre-primary and primary school experts perception on post COVID-19 era school management (PEPSM). The instruments were validated and subjected to reliability test and the found reliability index were 0.92 and 0.86 respectively using PPMC. The research questions were answered with frequency count, percentage and mean. The findings revealed that there was a clear indication that early childhood and primary education experts' perception on the best practices in managing pre-primary and primary schools in post COVID-19 era were positive. It was recommended that teachers should also establish some classroom ground rules in accordance with the procedures established by the school administrators, as well as the protocols established by the respective countries' Ministry of Health and/or local health bodies and authorities. In addition, teachers should ensure that students understand the precautions they should take to protect themselves and others from COVID-19.

Keywords: Pre-Primary, COVID-19, Primary Education, School Administrators.

Introduction

The closure of Nigerian schools amid COVID-19 pandemic led to more than 50 million children remaining at home. With an education system already burdened with low participation and learning achievements, the closure increases the challenge for children's education and has the potential to set back recent gains in bringing children back to school if adequate action is not taken. In its response to COVID-19, the Federal Ministry of Education sought to mitigate the immediate impact of the pandemic by using online and offline platforms, television, radio and take-home materials to keep children learning. UNICEF Nigeria has supported the Ministry throughout this process. As COVID-19 has clearly shown, in Nigerian education, there is need to be flexible and open to new ways of both learning and teaching. Sometimes, necessity is the mother of invention, and there is hope that this learning tool will not only ensure Nigerian student do not miss out on their education, but also create a system for lifelong, quality learning for years to come

The concept of management is well established and very familiar to scholars and

practitioners alike. Management is the process of achieving organizational goals, through planning, organizing, leading and controlling the human, physical, financial and information resource of the organization in an effective and efficient manner. Management includes all those people who are concerned with the utilization of human material resources of an organization. It is a sum of organized activities by a group of people. Management involves decision making at various levels of organization for getting things done by others. It is both science as well as an art, because the fundamentals of management are same everywhere but the practices differ. Management includes all those people who are concerned with managing an organization. It is a sum of organized activities by a group of people (*Management Study HQ, 2022*). Management involves decision making at various levels of organization for getting things done by others. It is both science as well as an art, because the fundamentals of management are same everywhere but the practices differ. It is a sum of organized activities by a group of people. Management involves decision making at various levels of organization for getting things done by others. It is both science as well as an art, because the fundamentals of management are same everywhere but the practices differ.

Management includes all those people who are concerned with managing an organization. It is a sum of organized activities by a group of people. Management involves decision making at various levels of organization for getting things done by others. It is both science as well as an art, because the fundamentals of management are same everywhere but the practices differ. The management definition is a single or group of individuals who challenges and oversees a person or collective group of people in efforts to accomplish desired goals and objectives. Furthermore, the definition of management includes the ability to plan, organize, monitor and direct individuals. The management definition is also a person or collective group who possess the executive abilities to lead a group through hardships, aspiring to meet an organization's purpose and visions. Management is a set of principles relating to the functions of planning, organizing, directing and controlling, and the application of these principles in harnessing physical, financial, human, and informational resources efficiently and effectively to achieve organizational goals (*Management Study HQ, 2022*).

According to Aceville (2022) primary school management provides school business professionals and head teachers with helpful advice and useful information relating to all the organisational and logistical aspects of running a primary school. Primary School Management provides school business professionals and head teachers with helpful advice and useful information relating to all the organisational and logistical aspects of running a primary school. Primary School Management offers something unique - a direct line to thousands of decision makers in primary schools across the country. As well as distributing to the larger primaries across the country and so allowing advertisers to target those schools with the most spending power. What is more, these heads are particularly receptive of the advice provided by the school business managers and CEOs writing for Primary School Management since many are first and foremost experts in teaching and learning, and lack financial qualifications and experience (*The Teachco, 2018*).

The common roles of administrators are to ensure all schools, teachers, counsellors, are collaborating towards a common goal while improving standards and opportunities. Proper leadership, school systems can meet goals set forth by school boards and foster students that are highly educated and prepared for their futures. Administration has exciting leadership opportunities, which often play large roles in forming curriculums, goals,

budgets, timelines, state regulations, mandated testing, as well as performance measures to ensure all educators are able to meet personal and professional goals. Together, administrators and faculty will carve a path to success for all. Successful administrators form distinguished teams to support the goals and aspirations of students. With the assistance of vice principals, goals can be further achieved with greater outcome and acceptance (*Education-Colleges, 2022*).

A key lesson learned during the pandemic is the important role teachers play in ensuring that learning continues. As schools reopen, a lot will depend on teachers to ensure that children are able to continue their education in a safe and healthy environment; and make up for knowledge and skills that may have been lost. As a teacher, understanding COVID-19 and how it spreads will protect the pupils and it is the important step in establishing classroom procedures and protocols. Pupils need to understand what it is in order for them to follow the rules. The following are the expected view on the best way to manage school in post COVID-19 era (*UNICEF, 2022*).

When it comes to physical distancing, it is important that teachers establish some classroom ground rules in accordance with the procedures established by the school's administration, as well as the protocols established by the respective country's Ministry of Health and/or local health bodies and authorities (*UNICEF, 2022*). Recommended measures include: Maintain a distance of at least 1 metre between everyone present at school; Increase desk spacing (at least 1 metre between desks), stagger recesses/breaks and lunch breaks (if difficult, one alternative is to have lunch at desks); Limit the mixing of classes for school and after-school activities. For example, pupils in a class will stay in one classroom throughout the day, while teachers move between classrooms; or classes could use different entrances, if available, or establish an order for each class to enter and leave the building/classroom; stagger the school day to vary the start and end times and avoid having all the pupils and teachers together at once; consider increasing the number of teachers, if possible, to allow for fewer students per classroom (if space is available); advise against crowding during school pick-up or day care, and if possible avoid pick ups by older family or community members (i.e. grandparents). Arrange school pick up/drop off times differently (according to age group) to decrease any large gatherings of children at a given time (*UNICEF, 2022*). Furthermore; use signs, ground markings, tape, barriers and other means to maintain one metre distance in queues around entrances; discuss how to manage physical education and sports lessons; move lessons outdoors or ventilate rooms as much as possible; Encourage students not to gather and socialize in big groups upon leaving school grounds. In order to encourage students to stick to the rules, it can be helpful to create a dos and don'ts list with them. Develop a list together around how students will greet each other; how desks will be arranged; physical distancing measures during lunch breaks, who they will sit with, play with during breaks, how they can schedule time with all of their friends across the week (*UNICEF, 2022*).

According to (*UNICEF, 2022*) teachers have a critical role to play in ensuring students understand the precautions they should take to protect themselves and others from COVID-19, and it is important that teachers should lead by example in the classroom. Handwashing is one of easiest, more cost efficient and effective ways of combating the spread of germs and keeping students and staff healthy. The following are the steps for hand washing: Wet hands with safe, running water; apply enough soap to cover wet hands; scrub all big surfaces of the hands – including backs of hands, between fingers and under nails – for at least 20 seconds. One could encourage students to sing a quick song at this point to make it

a fun habit; rinsing thoroughly with running water; and drying hands with a clean cloth or single-use towel.

Also, if there is limited access to a sink, running water or soap in the school, then use a hand sanitizer that contains at least 60 per cent alcohol. Pupils should be encouraged to get into the practice of regularly washing their hands and/or applying hand sanitizers at key moments, such as entering and leaving the classroom; touching surfaces, learning materials, books, and after using a tissue to blow their nose. Pupils should always cough and/or sneeze into their elbow. However, if by accident they do so in/on their hands, they should be instructed to immediately wash their hands or apply hand sanitizer. If a pupil sneeze or cough into a tissue, the teacher should ensure that it is disposed of immediately and that they wash their hands. It is extremely important to normalize the idea of frequent and routine hand washing (UNICEF, 2022). Furthermore, even with clean hands, pupils should be encouraged to avoid touching their eyes, nose and mouth. Germs can transfer from those areas on to their clean hands and spread around the classroom this way. Handwashing stations with soap and water should be prepared and if possible, alcohol-based hand sanitizers should be provided in each classroom, at entrances and exit and near lunchroom and other areas. Practical steps/activities can be demonstrated to take care of good hygiene practices to the pupils. Examples include: Creating a hand hygiene song to sing with the pupils; Have pupils draw hygiene posters for the classroom; Handwashing hygiene ritual should be set on the timetable during the day, such as before/after breaktime for everyone to wash their hands/apply hand sanitizer; Pupils should be allowed to create a public service announcement on hand hygiene and place these posters/ announcements throughout the classroom or school in highly visible places

Pupils should be familiar with when they should wear masks and any related school policies, such as how to safely dispose of used masks safely to avoid the risk of contaminated masks in classrooms and playgrounds. All efforts should be made to ensure the use of a mask that does not interfere with learning. No children should be denied access to education because of mask wearing or the lack of a mask because of low resources or unavailability (UNICEF, 2022). If there are pupils with disabilities, such as hearing loss or auditory problems in your class, then the school management should consider how these children may miss learning opportunities because of the degraded speech signal stemming from mask wearing, the elimination of lip-reading and speaker expressions and physical distancing. Adapted masks to allow lip-reading (e.g. clear masks) or use of face shields may be explored as an alternative to fabric masks.

According to Centers for Disease Control and Prevention, (2022) daily cleaning and disinfecting of surfaces and objects that are touched often, such as desks, countertops, doorknobs, computer keyboards, hands-on learning items, taps, phones and toys should be a daily routine immediately clean surfaces and objects that are visibly soiled. If surfaces or objects are soiled with body fluids or blood, gloves and other standard precautions should be used to avoid coming into contact with the fluid. Instructional materials should also be cleaned before use. Immediate actions should be taken if a pupil appears sick: COVID-19 symptoms like fever, cough, and tiredness. Other symptoms can include shortness of breath, chest pain or pressure, muscle or body aches, headache, loss of taste or smell, confusion, sore throat, congestion or runny nose, diarrhea, nausea and vomiting, abdominal pain, and skin rashes (UNICEF, 2022). Schools should designate a specific area (i.e. near the entrance) as a waiting room where children can wait and ideally, this room should be well-ventilated. If there are school nurses available, it is recommended that they are designated staff in this

waiting area. If pupils feel ill and/or exhibit symptoms of COVID-19, they should wait in the designated room to be picked up by their parents/caregiver. Afterwards, the room should be cleaned, disinfected and sanitized; provide the sick pupil with a medical mask if available; consider daily screening for body temperature, and history of fever or feeling feverish in the previous 24 hours, on entry into the building for all staff, pupils and visitors to identify persons who are sick; teachers should ensure the following : a procedure for separating sick pupil and staff from those who are well without creating stigma and a process for informing parents, and consulting with health care providers/ health authorities wherever possible; pupils and staff may need to be referred directly to a health facility, depending on the situation/ context, or sent home; encourage all pupils to stay home and self-isolate should they feel ill; develop a standard of operation if temperature screening is required and share procedures with parents and pupils ahead of time.

Statement of the Problem

Recent Studies have shown that COVID-19 is transmitted through direct contact with respiratory droplets of an infected person (generated through coughing and sneezing). Individuals can also be infected from touching face (e.g. eyes, nose, mouth). While COVID-19 continues to spread, it is important that communities takes action to prevent further transmission, reduce the impact of the outbreak and support control measures. This calls for monitoring, evaluation and assessment in schools and other sectors. The Study therefore investigated school administrators and experts perspective on best practices in the management of Pre-Primary and Primary Education in Nigeria in post COVID-19 era.

Objectives of the Study

The objectives of the Study are to:

1. investigate perspective of Elementary School administrators on best of Pre-Primary and Primary Schools in post COVID-19 Era
2. determine the perspective of early Childhood and Primary education experts on the best practices in managing pre-primary and primary schools in post COVID-19 Era.

Research Questions

The following questions were set to guide the discussion

1. What is the perspective of elementary school administrators on the best practices in managing pre-primary and primary schools in post COVID-19 Era?
2. What is the perspective of early childhood and primary education experts on the best practices in managing pre-primary and primary schools in post COVID-19 Era?

Methodology

Descriptive survey was adopted for this study. Thirty respondents, consisting 20 school administrators and 10 Early Childhood and Primary Education expert teachers were sampled. Purposive simple random sampling technique was used to select the respondents from the three senatorial districts in Kwara State, based on, and they cut across the 16 Local Government Areas of Kwara State. The instruments used for this study were titled; Pre-primary and Primary School Administrators Perception on Post COVID-19 era School Management (PAPSM) and Pre-primary and Primary School Experts Perception on Post COVID-19 era School Management (PEPSM). The instruments were validated by experts

in the field of Early Childhood Education and subjected to reliability test. The researcher carried out a pilot study to ascertain the reliability of the instrument, and reliability indices were 0.92 (PAPSM) and 0.86 (PEPSM) respectively using PPMC, hence, the instruments were judged reliable. Frequency, mean, standard deviation was used to answer the research questions by analyzing the collected data with Decision Rule: Negative (0.00-2.49), Positive

Results

Research Question One: What is the Perspective of Elementary School Administrators on the best Practices in Managing Pre-primary and Primary Schools in Post COVID-19 era?

Table 1: Perspective of Elementary School Administrators on the best Practices in Managing Pre-primary and Primary Schools in Post COVID-19 era

S/N	Item: COVID-19 Era Requires	SD	D	A	S	A
1.	Anew approach and fusion to the curriculum of pre-primary and primary education in Nigeria	12	14	3		
2.	Inclusion of and training in strategies that discourage large class activities	3	2	8	7	2.75
3.	Training of in-service teachers on the use of more and recent methodology and strategies that promote learning while ensuring the safety of the individual child	4	0	10	6	3.08
4.	Inclusion of training on use of technology devices and app that are more effective for learning in teacher preparation	0	1	8	11	3.13
5.	Training of in-service teachers on	1	4	13	1	3.03

Decision Rule: Negative (0.00-2.49), Positive 2.50-4.00)

Table 1 shows the Perspective of elementary school administrators on the best practices in managing pre-primary and primary schools in post COVID-19 era; School administrators agreed that the management of pre-primary and primary education during post COVID-19 era requires: A new approach to the management of pre-primary and primary education in Nigeria; Employment of more staff in other to reduce the population in various classes; the use of contemporary methodology and strategies that promote learning while ensuring the safety of the individual child ; use of technology devices and app that are more effective for learning and training of both staff and learners in safety protocols ($x=3.01$). This is a clear indication that elementary school administrators' perception on the best practices in managing pre-primary and primary schools in post COVID-19 era is positive. They are aware of the needs and current challenges facing education and the world at large and the need to shift ground.

Research Question Two: What is the perspective of Early Childhood and Primary Education Expert on the best practices in Managing Pre-primary and Primary Schools in Post COVID-19 era?

Table 2: Perspective of Early Childhood and Primary Education expert on the best practices in Managing Pre-primary and Primary Schools in Post COVID-19 era

S/N	Item: COVID-19 Era Requires	SD	D	A	S	A
1.	Anew approach and fusion to the curriculum of pre-primary and primary education in Nigeria	0	0	7	3	3.45
2.	Inclusion of and training in strategies that discourage large class activities	1	1	5	3	3.16
3.	Training of in-service teachers on the use of more and recent methodology AND strategies that promote learning while ensuring the safety of the individual child	0	1	3	6	3.34
4.	Inclusion of training on use of technology devices and app that are more effective for learning in teacher preparation	1	2	6	1	3.07
5.	Training of in-service teachers on safety protocols	0	1	2	7	3.38

Decision Rule: Negative (0.00-2.49), Positive 2.50-4.00)

Table 2 shows the Perspective of Early Childhood and Primary Education expert on the best practices in managing pre-primary and primary schools in post COVID-19 era; Early childhood and primary education expert agreed to the following on the best practices in managing pre-primary and primary schools in post COVID-19 era: COVID-19 era require; A new approach and fusion in the curriculum of pre-primary and primary education in Nigeria; inclusion of and training in strategies that discourage large class activities; training of in service teachers on the use of more and recent methodology and strategies that promote learning while ensuring the safety of the individual child; inclusion of training on use of technology devices and app that are more effective for learning in teacher preparation; and training of in service teachers on safety protocols ($x=3.28$). This is a clear indication that early childhood and primary education expert perception on the best practices in managing pre-primary and primary schools in post COVID-19 era is positive. They are aware of the needs and current challenges facing education and the world at large and the need to shift ground.

Discussion of Findings

This study examined the perspective of elementary school administrators on the best practices in managing pre-primary and primary schools in post COVID-19 Era. The findings revealed that there is a clear indication that elementary school administrators' perception on the best practices in managing pre-primary and primary schools in post COVID-19 era is positive. This implies that School administrators agreed that the management of pre-primary and primary education during post COVID-19 era requires: A new approach to the

management of pre-primary and primary education in Nigeria; Employment of more staff in other to reduce the population in various classes; The use of more and recent methodology and strategies that promote learning while ensuring the safety of the individual child and the Use of technology devices and app that are more effective for learning and Training of both staff and learners in safety protocols. This finding supports Aceville (2022), which revealed that school administrators use technologies that are effective for learning and employ novel approaches in schools for successful learning to take place.

This study negates Uchenna (2021) study which investigated the challenges posed by, and the impacts of COVID-19 on Education in Nigeria. A sequential exploratory mixed method design was adopted for the study. Results showed that the challenges of education during the COVID-19 pandemic include school closure, poor learning, unequal access to education opportunities and poor skills. Further, the pandemic negatively impacts education, causing poor school enrollment, inequality in education, poor achievement, poor school health and challenges in school assessment and transition.

This study also examined perspective of Early Childhood and Primary Education expert on the best practices in managing pre-primary and primary schools in post COVID-19 Era. The findings revealed that there is a clear indication that early childhood and primary education experts perception on the best practices in managing pre-primary and primary schools in post COVID-19 era is positive. This implies that Early childhood and primary education expert agreed to the following on the best practices in managing pre-primary and primary schools in post COVID-19 era: COVID-19 era requires; A new approach and fusion to the curriculum of pre-primary and primary education in Nigeria; Inclusion of and training in strategies that discourage large class activities; Training of in service teachers on the use of more and recent methodology and strategies that promote learning while ensuring the safety of the individual child; Inclusion of training on use of technology devices and app that are more effective for learning in teacher preparation; and Training of in service teachers on safety protocol. This is in tandem with the finding of Stephanie, Ineke and Miho (2015), which revealed that the pedagogy used by teachers should promote learning while ensuring safety in each child. This is not in line with (European Parliament, 2021) study which demonstrates that the COVID-19 pandemic posed unprecedented and multidimensional challenges to the education systems, youth sector and education experts, revealing the lack of preparedness in terms of crisis management and digital education responses, as well as reinforcing structural weaknesses of education delivery.

Conclusion

This study aimed to explore management of pre-primary and primary education in Nigeria in post COVID-19 Era: School Administrators and Expert Perspective on best practices. We have done so through questionnaires, with particular attention to the challenges and difficulties and how it has impacted different dimensions of the school. We found that during COVID-19 Era, education was faced with many challenges in Nigeria, which prompted a positive response for a new approach to the management of pre-primary and primary education in Nigeria; Employment of more staff in other to reduce the population in various classes; the use of more and recent methodology and strategies that promote learning while ensuring the safety of the individual child; use of technology devices and app that are more effective for learning and training of both staff and learners in safety protocols.

Recommendations

Based on the findings the following recommendations were made in this research:

1. School administrators should ensure that all schools, teachers, counsellors collaborate towards a common goal while improving standards and opportunities, so that together, with proper leadership, school systems can meet goals set by school boards and foster students that are highly educated and prepared for their futures
2. Teachers should also establish some classroom ground rules in accordance with the procedures established by the school administrators, as well as the protocols established by the respective countrys' Ministry of Health and/or local health bodies and authorities.
3. In addition, teachers should ensure that students understand the precautions they should take to protect themselves and others from COVID-19.
4. Furthermore, School administrators or teachers should consider daily screening for body tempature, and history of fever or feeling feverish in the previous 24 hours, on entry into the building for all staff, pupils and visitors to identify persons who are sick, encourage all pupils' to stay home and self-isolate should they feel ill as well as share procedures with parents.

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SELF –ESTEEM AS A CORRELATES OF JOB, SATISFACTION OF LIBRARY PERSONNEL IN SELECTED PRIVATE UNIVERSITIES IN SOUTH-WESTERN, NIGERIA

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Abstract

Considering the centrality of the library in any meaningful academic enterprise, improving the self-esteem and job satisfaction of library personnel is a pre-requisite for the enhanced performance and quality of services in private university libraries. The study identified the relationship between self-esteem and job satisfaction of library personnel in selected private universities in South West Nigeria. The study was a survey of the correlational type involving 177 library personnel in selected private universities in South West Nigeria. Data were collected using a validated, self-administered questionnaire. Only 150 copies of questionnaires were correctly filled giving a response rate of 84.8%. Data was analyzed using SPSS version 21. Having a hard time nurturing self was the greatest influence of job satisfactions followed by sense of self-worth from approval of others while the least predictor of job satisfaction was sense of criticizing from oneself and feeling of under serving. The study showed statistically significant relationship between self-esteem and job satisfaction of library personnel in private universities. The study recommended that Library management in private Universities should find much time nurturing themselves at their workplace in order to motivate library personnel to greater productivity and job satisfaction.

Keywords: Self-esteem, job satisfaction, self-efficacy, Private Universities, Nigeria.

Introduction

Self-esteem refers to attitude towards self and his or her competencies (Roseberg, 1965). It is that self-evaluation and descriptive conceptualization that individuals make and maintain with regard to themselves. It also in this sense, self-esteem is a personal evaluation reflecting what people think of themselves as individuals. For Korah (1970), self-esteem reflects the degree to which an individual sees him / her self as a competent, need satisfying individual. This the high self-esteem in individual has which is a sense of personal adequacy and sense of having achieved need satisfaction on the past. (Korman, 1966). In addition to reflecting a cognition about oneself, Pelham and Swan (1989) note that self-esteem also consists of an effective (linking/dislinking) component-high self -esteem people like who and what they are. Thus, people high in global self-esteem agree with statements like “I am a person of worth, an equal plane with others and “I am satisfied with myself” (from Rosenberg's 1965, widely used measure of self-esteem).

Psychologists usually regard self-esteem as an enduring personality characteristics “traits” through normal, short-term variations. The original normal definition presents self-esteem as a nation found by dividing one's success in area of life of importance to a given individual by the failure in them. Problem with this approach come from making self-esteem contrigent upon success this implies inherent instability because failure can occur at any

moment. In the mid 1960s. Morris Rosenberg and social learning theorists defined self-esteem in terms of a stable sense of personal worth or worthiness.

Branden N. (1969) defined self-esteem as the experience of being competent to cope with the basic challenges of life and being worthy of happiness. According to Branden, self-esteem is the sum of self-confidence (a feeling of personal capacity) and self-respect (a feeling of personal worth). It exist as a consequence of the implicit judgment that every person does about, no one single, his/her ability to face life's challenges, that is, to understand and solve problems, and, on the other side, his right to achieve happiness, or in other words, to respect and defend his own interests and needs.

The self-esteem construct is usually conceptualized as a clinical phenomenon. As such, it exists at different levels commonly in terms of global, and task or situation specific self-esteem (Simpson & Boyle, 1975). As a multifaceted conceptualization of self scholar e.g Korman, 1970: Sharelson, Hubner and Stanton, 1976) generally agreed that self-esteem may also develop around a number of other dimensions (e.g. the social, physical, academic and moral-self).

Individuals with low self-esteem exhibit, poor health, attributes of their defeat to others, job dissatisfaction and performance degradation, and inter personal problems. Therefore self-efficacy, self-esteem and job satisfaction, play an important role in improving self-confidence that affects work results, and self-efficacy can lead employers to feeling of satisfaction with their work because of their self-confidence to complete their tasks and responsibilities in their work. Self-esteem and job satisfaction also play an important role in improving the organization's psychological climate, and self-esteem can lead to their job satisfaction.

A job satisfaction survey is important to determine the view of employees towards their jobs in private University libraries. Isigihs, Kouste tids and Togia (2004) defined job satisfaction as a pleasurable or positive emotional state resulting from, the appraisal of one's job or experience. According to Jayaraman and Kumar (2013), job satisfaction is a complex phenomenon that can be variously interpreted. It is the absence of pain, oppressiveness and intolerance and also indeed the enjoyment of work. Considering the centrality of the library in any meaningful academic enterprise, improving the commitment and job satisfaction of library personnel is a pre-requisite for the enhanced performance and quality of services in any University library. Existing job satisfaction studied are based on the principles of individual relations and organizational culture which is usually related with some socio-cultural, organization and personal factors.

Employees in every organization want to obtain satisfaction from their jobs and every human resource manager regards employee fulfillment as a priority considering that they are the most important resources of the organization. Managers have been struggling to ensure employee satisfaction (Mongaji, 2014). The problem of job enrichment stemmed from the fact that in today's rapidly corporate environment, University libraries and organization globally want to maximize the potential of their human resources to stay ahead of the aggressive competition in order to survive (Riza & Nwoz, 2011; Mohsan, Nwazi, Khan, Shoukat & Aslam, 2011, Dost & Khan, 2012).

Job satisfaction studies are based on the emotional response of employees which are related to some socio-cultural, organizational and personal factors which include variables such as wages, promotion, supervision, benefits, contingent rewards, operating procedure, coworkers, job description, working conditions and social status among others. Improving employees' commitment and job satisfaction in general is considered fundamental to improving the performance and quality of products and services in an organization such as

the private university library. Ultimately, the self-esteem motivation of library personnel could increase as well as having a positive outlook towards various job descriptions in the University library.

Private universities and their libraries are an integral part of the educational sector which is providing great support in the academic landscape of South Western Nigeria. The University Library could be regarded as the heart of an academic and research activities. A well-equipped academic library such as is obtained in private Universities is not only a storehouse of knowledge and experience but a repository of the words culture. A modern University library represents one of the most valuable and important assets in support of the academic programmes of the University.

Purpose of the Study

The main objective of this study is to investigate the self-esteem as correlates of job satisfaction of library staff in Private Universities in South-Western, Nigeria. Therefore, the specific objectives of this study are to:

- i. ascertain the level of self-esteem of library personnel in private universities in South-Western, Nigeria;
- ii. determine the level of job satisfaction of the library personnel in private universities in South Western Nigeria and
- iii. establish the relationship between self-esteem and job satisfaction of library personnel in selected private universities in South Western Nigeria.

Research Questions

- i. What is the level of self-esteem of library personnel in private Universities in South Western Nigeria?
- ii. What is the extent of job satisfaction of library personnel in private Universities in South Western Nigeria?

Hypothesis

A null hypothesis was formulated and tested at 0.05 level of significance. There is no statistically significant relationship between self-esteem and job satisfaction of library personnel in private Universities in South Western Nigeria.

Methodology

The study adopted a descriptive cross-sectional survey research design. The study was carried out in 16 private universities located in the six states of South-Western Nigeria. The study population comprised library personnel ranging from librarians, library officers and library assistants in private university libraries. Total enumeration technique was used to cover all the 177 library personnel in the 16 selected private universities in south-western Nigeria. The job satisfaction scale was adopted from Buckham and Coffman, 1999 to measure the job satisfaction level of library personnel. It elicited responses on the extent of job satisfaction of library personnel which was measured on a five-point Likert rating scale which ranged from very satisfied to very dissatisfied. Self-esteem questionnaire was developed by the researcher and was used to measure the level of self-esteem instrument of respondents, items on the self-esteem scale.

To ascertain the validity of the research instrument, it was given to experts from the Department of library and Information science, University of Ibadan, Oyo State, to ensure

the content and face validity. Thirty copies of the research instrument were trial tested on library personnel from Obafemi Awolowo University, Ile-Ife to ascertain the reliability coefficient of each scale in the questionnaire. The reliability coefficient of each scale was found to be ($\alpha = 0.72$) and ($\alpha = 0.91$) for self-esteem and job satisfaction scale respectively. Data were collected using a validated, self-administration questionnaire tagged "Self Esteem Questionnaire" (SEQ) which consisted of sections A,B,&C. 150 SEQ were duly filled and found to be analyzable giving a response rate of 84.8%

Results

Research Question One: What is the level of self-esteem of library personnel in South-Western Nigeria?

Respondents were asked to indicate in rank order, the level to which of the statements determined their level of self-esteem. The responses are presented in table II

Table 1: Determinants of self-esteem level of library personnel in selected private Universities in South Western Nigeria.

S/N	Items	Means	Standard Deviation
1.	Do you have a hard time nurturing yourself	1.83	0.38
2.	Do you get yourself sense of self-worth from approval of others?	1.69	0.47
3.	Are you supportive of others but berate yourself?	1.81	0.40
4.	Do you feel unattractive?	1.86	0.35
5.	Do you react to disappointment by blaming others?	1.74	0.44
6.	Do you feel unappreciated?	1.81	0.39
7.	Do you begin each day with negative attitude?	1.95	0.23
8.	Do you struggle with feeling of inferiority?	1.83	0.38
9.	Do you criticize yourself often?	1.82	0.39
10.	Do you feel underserving?	1.93	0.25

Table 1 shows means and standard deviation of the different items on self-esteem scale of library personnel. The main determinant of the self-esteem level is "Do you have a hard time nurturing yourself?" which is clearly shown in their responses. In rank order, "Majority of the respondents believe that: Do you have a hard time nurturing yourself?" ($\bar{x} = 1.83$, $SD = 0.38$), is the greatest motivator of job satisfaction among library personnel followed by "sense of self worth from approval of others," ($\bar{x} = 1.69$, $SD = 0.47$), and "supportive of others but berate yourself," ($\bar{x} = 1.81$, $SD = 0.40$) the least sources of self-esteem was; "feeling of underserving", ($\bar{x} = 1.93$, $SD = 0.25$), followed by "criticize yourself often" ($\bar{x} = 1.82$, $SD = 0.39$) and lastly, "struggle with feeling of inferiority," ($\bar{x} = 1.83$, $SD = 0.38$).

Research Question Two: What is the extent of job satisfaction of library personnel in private universities in South-Western Nigeria?

Respondents were asked to indicate the extent of job satisfaction based on the statements indicating how they felt about their jobs. The responses are shown in table III

Table 2: Level of job satisfaction of library personnel in selected private Universities in South Western Nigeria.

S/N	Statements/items	Means	Standard Deviation
1.	Being happy doing my job.	4.01	0.68
2.	Opportunity to assist library users and staff.	3.91	0.82
3.	Opportunity to do something that makes of my skills and ability.	3.89	0.74
4.	Being able to keep busy all the time.	3.69	0.84
5.	The feeling of accomplishment I get from doing my job.	3.48	1.10
6.	Opportunity to try out my own method of doing the job.	2.49	1.30
7.	My pay and amount of the job I do	2.62	1.39
8.	The freedom to use my own judgment	3.63	1.29
9.	Conducive work environment	3.69	1.28
10.	The way co-workers get along with each other	2.75	1.41

Table 2 provided the means and scores of different items on the job satisfaction scale of library personnel in private universities in South -Western, Nigeria.

The mean scales indicate that the library personnel in private universities have a high level of job satisfaction as has been expressed in the responses given to different items on the job satisfaction scale.

“Being happy doing my job,” ($x= 4.01$, $SD =0.68$) was the greatest contributor to job satisfaction among library personnel, followed by “Opportunity to assist library users and staff,” ($x= 3.91$, $SD=0.82$) and “The chance to do something that makes of my skills and ability,”($x =3.89$, $SD=0.74$). The least contribution to job satisfaction was “The way co-workers get along with each other”(x= 2.75,SD=1.41), followed by” conducive work environment” ($x= 3.69$, $SD = 1.28$) and "the freedom to use my own judgment" ($x = 3.63$, $SD = 1.29$).

Hypothesis

There is no significant relationship between self-esteem and job satisfaction of library personnel in South Western Nigeria.

Table 3: Correlation matrix of the relationship between self-esteem and job satisfaction of library personnel.

Variables	N	Mean	S/D	Job satisfaction	P	Ranks
Self-esteem	150	39.42	3.98	0.294	0.00	Sig
Job satisfaction	150	66.44	15.8447	1.000		

A test of the stated null hypothesis shows that, there is a statistically significant relationship between self-esteem and job satisfaction ($N=0.198$, $P(0.016) * 0.05$). The relationship is however weak and positive. Therefore, the null hypothesis is rejected. This implies that an improvement in self-esteem translates to an improvement in job satisfaction.

Discussion of Findings

The study indicates that there is significant positive relationship between self-esteem and job satisfaction of library personnel in private Universities in Nigeria. This means that when self-esteem is high, job satisfaction is high and when self-esteem is low, job satisfaction will be low. This shown from means and standard deviation in the study. The mean age of respondents was 32 +-0.6 years with more than half being male and majority young graduates. From the ages of respondents, it can be deduced that many are young graduates looking for employment opportunities and were fortunate to get employment in private Universities, are happy collecting salaries and are responsible people who cater for their families and relate with each other in peace and harmony (Nwosu, Uqwoegbu & Okeke, 2013).

Level of self-esteem is shown from the mean and standard deviation of different items of self-esteem scale of library personnel. In rank order “Do you have a hard time nurturing yourself” was the greatest motivator, followed by job satisfaction among library personnel, followed by; “sense of self-worth from approval of others” and "supportive of others but berate yourself”. The least of self-esteem was “feel of underserving" and a "sense of criticize yourself often.” This shows a significant positive relationship between self-esteem and job satisfaction. The level of self –esteem is very high when it comes to “have a hard time nurturing yourself” it suggests that library personnel appreciate “having a hard time nurturing oneself” more than any other incentives. This is indicative of the fact that if jobs are provided with adequate care for workers; given them occasional food and other incentives, beverages and in a well conducive environment, workers will be able to work more and this will increase job satisfaction of the library personnel (kolawole, Abolaji, & Olagoke, 2015).

Study findings indicate that library personnel in private universities have a high level of job satisfaction expressed in the responses from the items on the job satisfaction scale. The level of job satisfaction is high as shown by the indicator” Being happy doing my job” this implies that no worker would like to work in an unconducive and hostile environment. He / she would naturally prefer a work atmosphere that is conducive and friendly. Followed by the “opportunity to assist library users and Staff”, “opportunity to do things independently" “using their skills and ability with minimal supervision will increase their satisfaction level and understanding of the work.” The way co-worker get along with each other was the least contributor to job satisfaction. The level of job satisfaction expressed by respondents in this study is high.

Research found that there is a nexus between self-[esteem and job satisfaction, works takes about a third to one half of a person's life's and if frustrated, the mental and physical effects are very costly (Nwosu, Nwoegbu & Okeke, 2013). The age distribution of respondents in this study shows that the respondents are well matured with more than 80 percent having post-secondary school education. From the mean age and marital status of the respondents, there are indications that majority are graduate who are looking for quick resources to satisfy their immediate wants prior to the time they further their studies. Job with full security and occasional incentives will boost morale which increases the satisfaction of library personnel in private universities in South-Western,Nigeria. Study findings are suggestive of the fact that library personnel in private universities have a high level of job satisfaction and are highly motivated in the work place.

Study findings also suggest that library personnel in private universities have a high level of job satisfaction, for instance, item on job satisfaction scale like, “Being happy doing

my job," "opportunity to assist library users and staff"; opportunity to do some "thing that make use of my skills and ability;" and being able to keep busy all the time" were the points of job satisfaction items that will increase job satisfaction, for instance; when one is happy doing a job, there is likelihood that he / she will succeed on that job and when there is opportunity to render assistance to colleagues at work, there is no room for tiredness or boredom, most especially in an organization where a task is broken down to simpler processes where by every individual is involved. These shows that library personnel in private universities also have a high level of job satisfaction and are highly esteemed in their place of work. When self-esteem is high, job satisfaction is also high on the other hand when job satisfaction is low, self-esteem is also low. This finding is in line with the finding of earlier researcher conducted by (Cadandia Garcez, 2006) when he propounded that the relationship between job satisfaction and self-esteem has been pondered for decades by many different professionals. These groups of professionals include psychologist, sociologist, academic professions and people from business communities. In a capitalist environment, learning the relationship that exist between job satisfaction and self-esteem is for the ultimate purpose of improving workers productivity. This is an indication of a positive relationship between self-esteem and job satisfaction. Again, the findings are also in line with the finding of Alavi and Askairpur, 2003 when they conducted a statistical population of personnel from 18 organizations mostly from government offices also showed a positive relationship between self-esteem and job satisfaction at the location of Kerman Iran with a total population of 620 people and later came out with the result of the data analysis showed that there is a significant meaningful relationship between self-esteem and job satisfaction.

Conclusion

The study concluded that there is a significant positive relationship between self-esteem and job satisfaction of library personnel in private universities in South- Western, Nigeria. The study shown clearly that self-esteem greatly influences the job satisfaction of personnel in the South Western Nigeria. Self-esteem is a tool which library managers can effectively use in the University libraries to enhance productivity and job satisfaction among library personnel. The library managers known what drives the library personnel hence, they can tailor job description and rewards accordingly. Finally good administrations should at every point in time understand their employees and find out the best root/theory to use to improve while serving out the best tool / theory to use improve job satisfaction in the private universities to their best satisfaction while seeing out at the same time that the lower needs of their staff been completely eradicated.

Recommendations

Based on the study findings, it was recommended that:

- ◆ There should be a fusion of self-esteem and job satisfaction in the administration of private University libraries in order to bring about increased levels of job satisfaction.
- ◆ Library management in private Universities should put in place a financial reward system of incentives in order to geared library personnel up to greater productivity and job satisfaction.
- ◆ Participatory management style will help personnel feel that they one party of the organization and freely express their feelings which will further enhance motivation

- and subsequently job satisfaction in the private Universities in South West Nigeria.
- Library managers should design employee feedback and other strategies to know whether the library personnel are to be intrinsically or extrinsically motivated.
- Experienced staff should be retained, as this will do these University workers a lot of good and hence, improve job satisfaction in private Universities in South West Nigeria.

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VIRTUAL LEARNING IN NIGERIA UNIVERSITIES AMID PANDEMIC: GOOGLE CLASSROOM USED AT LEAD CITY UNIVERSITY

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Abstract

The paper examined the adoption of virtual learning in the Nigerian university system amid COVID 19. A survey research design was adopted. An online close-ended google form questionnaire as the research tool and data was collected from undergraduates in the faculty of social and management science, 2020/2021 academic year. The study was analyzed using frequency count and percentages and presented in tables. The study revealed that a very high percentage (82.6%) of the respondents adhered strictly to COVID-19 guidelines while few respondents performed fairly in advanced ICT skills like the use of cloud storage (32.6%). The (60.9%) respondents found Google classroom easy to use while the majority (65.2%) of the students agreed that they find the Google classroom useful in their academic tasks and (58.7%) respondents agreed that Google classroom is user friendly. The adoption of virtual learning is a growing educational pedagogy in Nigeria and this study is one of the few to investigate the adoption of Google classroom in Nigeria University with original empirical research data.

Keywords: Virtual Learning, Google Classroom, Pandemic

Introduction

The novel coronavirus was a deadly disease the world has never experienced before. It proved that all previous experiments and scientific discoveries could not halt the spread of the virus all over the world. During the pandemic in year 2020, all human activities were altered and the only alternative was leveraging on the potentials of information technology. It was medically proven to be a severe acute respiratory syndrome: coronavirus-2 (SARS-CoV-2) with very high infectious tendencies called coronavirus disease 2019 (COVID-19) (Lai, Shih, Ko, Tang, & Hsueh, 2020). Tracing its emergence, the virus was first recognized

and reported from Wuhan city of China in December, 2019 (Du 2020). The SARS-CoV-2 is highly contagious, spread globally in a short period of time, and was declared a global pandemic by the World Health Organization on the 11th of March, 2020 (WHO 2020). To prove its high contagious and mortality rate, as at the 18th of April, 2020, WHO confirmed that more than 2.1million has been infected all over the world with 142,229 deaths in 213 geographical locations of the world among which are USA, Italy, Spain, Germany, France UK, China, Iran, Turkey, Belgium, Russia Canada and Brazil as the most affected countries (WHO 2019 and 2020).

However, Africa happened to be the last continent to be hit by the pandemic although it is widely believed that the continent is highly vulnerable in face of any global disease outbreak (Moore, Gelfeld, & Adeyemi, 2017). The continent confirmed its first case of COVID-19 in Egypt on 14th of February, 2020, and from sub-Saharan Africa the first case was reported in Nigeria on 27th of February, in an Italian patient who flew to Nigeria from Italy on 25th of February, 2020 (WHO & NCDC 2020). Moreover, as at 18th of April 2020, Africa center for disease control (CDC) reported, 19,895 confirmed cases, including 1,017 deaths and 4,642 recoveries, from 52 African countries, while some countries in the continents were still virus-free (CDC, 2020). Ever since its declaration as a global pandemic by World Health Organization on 11th of March, 2020, COVID-19 as become the fear of all as its direct and indirect devastating effects cut across all areas of human works of life, education inclusive.

In a bid to curtail its high contagious rate thereby reducing infection and mortality rate, countries, both the advanced and the developing adopted a general lockdown of all sectors. Affected nations among which is Nigeria ordered academic campus closures and home-schooling plans was adopted. Schools, colleges, and universities do not have any option than to undergo a paradigm shift by adopting virtual learning base education delivery. For the advanced countries like China, USA, Spain etc, adopting the new norm was not a problem at all unlike the developing countries like Nigeria where the lock down really exposes the high level of un-preparedness of the country's tertiary institution in implementing virtual learning methods. This however, breeds laziness among Nigerian students since there is no online platform for academic engagement except for some few tertiary institutions most of which are privately own schools where platforms for virtual learning was embraced.

Globally, 21st century education relies heavily on students being able to use virtual learning applications effectively as information technology as cut across almost all aspect of life (Phungsuk, Viriyavejakul, & Ratanaolarn, 2017). With the emergence of COVID-19, the traditional system of education is disrupted and the saving grace is to leverage on and the use of information technology in birthing virtual learning. Adoption of virtual education system is growing rapidly since the past two decades but exploded and become centric to the life of university and school worldwide during the outbreak of COVID-19 pandemic (Dung, 2020).

Virtual Learning has so many related terms among which are e-learning, distance learning, web-based learning, virtual university, virtual reality, open education and blended learning among others. Virtual learning is embracing and capture the ides of learning with the mediating effect of computer system. Virtual learning is an educational experience that is enhanced through the use of computers and/or the internet both outside and inside the facilities of the educational institution. The instruction most commonly takes place in an online environment. The teaching activities are carried out online whereby the teacher and learners are physically separated (in terms of place, time, or both) (Racheva, 2021). Virtual

learning a type of learning that can functionally and effectively occur in the absence of traditional classroom environments (Schlosser & Simonson, 2006).

Virtual learning is the new normal, hardly can any academic institution survive without it being fully or partially adopted. It is now the basis for global academic relevance as it provides solution to global health upsurge due to its potential and wide coverage without physical contact. Similarly, partially adopted virtual learning is blended learning which is the combination of the traditional style and the virtual style of learning. Blended learning is an educational approach that combines both the online educational materials and opportunities for interaction online with the traditional place-based classroom methods. It requires the physical presence of both teacher and student, with some elements of student control over time, place, path, or pace (Lothridge, Fox, & Fynan, 2013). Its characteristics and advantages include but not limited to a remote access to boundless range of educational collections and services from a worldwide view; personalized learning process that takes into consideration the individual level of competence, individual needs, and different learning styles; Safe and secure learning environment; Flexible learning in terms of time, location, and pace; Cost and time effectiveness, it does not require the physical presence of professors and students in the class, no specific time-dependent classes, high quality course presentation (due to the use of Multimedia facilities), supports and registers a large number of students in a course, saving in cost for students (<http://www.nooretouba.ac.ir>, 2010).

It can cover a large number of students by a very limited number of lecturers, provides higher education opportunity for anyone in different major and prestigious universities, variety of educational techniques in e-Learning, better access to libraries and educational resources, the possibility of quick research during the study, without leaving the course and study environment and spending time saving time due to elimination of transportation requirements (<http://www.irna.ir>, 2009). Students and lecturers can plan the classes based on their daily schedule, since it is student centered, student could be motivated to learn, teachers offer more educational texts in virtual and there is more learning capacity in virtual learning (Hannay & Newvine, 2006). Other advantages include social justice, that is having equal access to technology, learner's privacy, flexibility of class hour, student's having more control on the course of study (Mirzakhani, Ashrafzadeh & Ashrafzadeh, 2010)

Virtual Learning Environment (VLE) is a Learning Management System (LMS) which is collection of integrated tools enabling the management of online learning, providing a delivery mechanism, student tracking, assessment, and access to resources (Zwartjes, 2018). virtual environment is created by a software system designed to help teachers in facilitating the management of educational activities for their students, especially by helping teachers in administering their courses. The system can, among other things, monitor both teachers' and learners' activities. It is an educational (virtual) environment that is provided through a course management system or software program which utilizes virtual reality technologies to facilitate learning or training. It mostly includes curriculum mapping, student tracking, online support for both teacher and student, electronic communication, and Internet links to outside curriculum resources (Ovtšarenko, 2020). Furthermore, examples of virtual learning environment or classroom software include but zoom meeting app, Cisco Webex Meetings, Adobe Connect, Schoology, Blackboard, Tovuti Learning Management System, Edmodo, Moodle, Panopto, Top Hat, Big Blue Button, Microsoft themes and Google classroom among others.

Google Classroom is a free web service, providing a collaborative tool allowing users to create virtual classrooms, whereby they can post assignments, organise folders, and

view documents in real time. Google Classroom was initially adopted by the Student Learning Department at Keele University to create a blended approach to university-wide freestanding academic skills development workshops, providing an online community for students to share and open dialogue around topics discussed during workshops. The aim was to bring students from different faculties together and create a sense of community surrounding enhancement of academic practice. Google Classroom provides an intuitive and accessible interface for both lecturers and students (Beaumont, 2018). Moreover, the successful adoption of a virtual learning environment (VLE) depends to a considerable extent on student acceptance and use of such an e-learning system (Van Raaij, & Schepers, 2008).

For instance, using Moodle virtual learning platforms, performance expectancy and social influence was found to have a significant impact on students' attitudes towards using Moodle. Social influence and attitudes toward using are significant determinants of students' behavioral intention. Students' behavioural intentions were also shown to be strong and significant determinant of actual use of Moodle (Šumak, Polancic & Hericko, 2010). In a research on the adoption of virtual reality devices using the Technology Acceptance Model, it was found that social interactions and strength of the social ties increase perceived enjoyment, and perceived enjoyment has a more significant effect on intention to use than perceived.

Usefulness (Lee, Kim & Choi, 2019) Furthermore, in a study on the determinants of E-Learning System Adoption among Ghanaian University Lecturers, using Sakai (community source, educational software platform designed to support teaching, research and collaboration) from the statistics, it was found that systems quality had a positive and significant influence on lecturer's intention to use and perceived usefulness. However, systems quality did not have a positive significant influence on lecturer's satisfaction with Sakai learning Management System. Perceived usefulness showed a positive influence on lecturers' intention to use Sakai and service quality was seen to have a positive influence on lecturers' satisfaction with Sakai and also with the intention to use Sakai. Regarding information quality, it is interesting to note that it had a positive influence on lecturers' satisfaction with Sakai but did not positively influence their intention to use the Sakai.

Likewise, lecturer's satisfaction had a positive influence on the intention to use Sakai LMS but did not have a positive influence on the actual use of Sakai LMS. Finally, the intention to use Sakai LMS had a positive influence on the actual use (Opoku, 2020). Moreover, in a study on factors affecting e-learning adoption in developing countries, it was found that computer self-efficacy, Internet experience, enjoyment, and system characteristics are significant predictors of perceived ease of use, and system characteristics are a strong predictor of perceived usefulness (Kanwal & Rehman, 2017). Collectively, from the literatures reviewed the factors that predicts the adoption of virtual learning includes performance expectancy, social influence, social interactions, strength of the social ties, systems quality, information quality, computer self-efficacy, Internet experience, enjoyment, system characteristic, and some subjective norms like behavioural intentions, perceived enjoyment/ease of use, and perceived usefulness (Tarhini, Hone, & Liu, 2014; Park, 2009 and Buchanan, Sainter & Saunders, 2013). However, with the outbreak of coronal virus all over the world, virtual learning with varying nomenclatures is being integrated into all strata of the society and education is not left behind this therefore calls for information and communication technology compliant for any potential student that want to be part of the global move in both the developed and the developing nations of the world.

From extant literature and theory of Technology Acceptance Models, it was found that user adoption of technology is significantly influenced by individual, social, and organizational context within a specific culture (Khan & Nawaz, 2013). Also, users' acceptance could be influenced by different factors such as demographics, organizational impact, challenges to use and social influence, along with the perceived usefulness and ease of use of virtual learning system (Mohammadyari & Singh, 2015). In Nigerian university system, the emergence of corona virus in 2019 and the preventive measures compelled the system to embrace the virtual learning option and leveraging on technology. In the case of Lead City University, the Virtual Learning Platform used during COVID-19 era is Google classroom, telegram, zoom meeting, whatsapp and moodle. However, from the researchers' observation of students' reactions it appears that students prefer the use of Google classroom. To ascertain this observation with empirical backing this study sets out to investigate level of awareness and preventive measure of COVID 19 guidelines, ICT skills, perceive usefulness, ease of use and challenges to use of google classroom among the students.

Purpose of the Study

The general objective is to examine the adoption of virtual learning in Nigeria university system amid world pandemic. The specific objectives are to:

- i. ascertain the level of awareness and prevention of COVID 19 among university students;
- ii. determine the level of ICT skills possession of Nigeria university students;
- iii. examine the perceived ease of use of Google classroom for university course work;
- iv. assess perceived usefulness of Google classroom by university students; and
- v. identify the challenges of using Google classroom in Nigeria University.

Research Questions

- i. What are the levels of awareness and prevention of COVID 19 among university students;
- ii. What are levels of ICT skills possession of Nigeria university students;
- iii. What are the perceived ease of use of Google classroom for university course work;
- iv. What are the perceived usefulness of Google classroom by university students; and
- v. What are the challenges of using Google classroom in Nigeria University.

Methodology

A survey research method was applied for this study and an online google form of close-ended questionnaire was used as the research tool to get data from the undergraduates in faculty of social and management sciences in 2020/2021 academic year.

Research Question One: What is your level of awareness of COVID-19

Table 1: Ascertain the level of awareness of and prevention of COVID-19 among Nigeria Students

Respond Format	Frequency	Percentage
Very high	160	34.8
High	190	41.3
Moderate	90	19.6
Low	10	2.2
Very Low	10	2.2

Source: Fieldwork, 2020

Table I shows the level of awareness and prevention of COVID 19 among Nigeria students. According to the table, the respondents were very highly aware (34.8%) and highly aware (41.3%) of the existence of and prevention of COVID 19 outbreak in Nigeria. The reason for this could be as a result of the general lockdown of schools and other sectors due to high contagious rate of the virus with the fact that its cure is may not be available anytime soon as at the period of this research (June, 2020). And what could also be responsible for the very high level of awareness about the virus is the wide sensitization on all mainstream media (television, radio, print) and new media (social media platforms).

Research Question Two: What are the level of ICT skill of Nigeria Universities Students

Table 2: To Investigate the level of adherent to COVID-19 guidelines by Nigeria university students

Always=4, Sometimes=3, Hardly=2, Never=1

S/No	Statement	4(%)	3(%)	2(%)	1(%)
1.	I strictly keep social distancing with at least two meters or five feet	58.7	30.4	10.9	2.2
2.	I refrain from touching my eyes, nose and mouth with dirty hands	39.1	43.9	6.5	0.0
3.	I wash my hands with soap very often and apply alcohol-based hand sanitizer	69.6	34.8	17.4	23.9
4.	I use a face mask and dispose of after each use	23.9	34.8	17.4	23.9
5.	I use to cover my mouth/nose with my elbow or disposable tissue when I sneeze or cough	58.7	32.6	4.3	4.3
6.	I avoid public places with over 20 people	78.3	13.0	8	7
7.	I use hand gloves (Always, sometimes, hardly, never)	10.9	47.8	32.6	8.7
8.	I clean all surfaces regularly especially high contact surfaces like door handles, stair rails, telephone and tables	45.7	43.5	6.5	4.3
9.	I practice regular respiratory hygiene including exercise and stay hydrated.	67.4	23.9	8.7	0.0
10.	Overall, I am conscious of preventing	82.6	15.2	2.2	0.0

Source: Fieldwork, 2020

Table II shows the level adherent to COVID 19 guidelines by Lead City University Students, Nigeria. A very high percentages (82.6%) of the respondents adhered strictly to COVID-19 guidelines and the guidelines that were strictly follow most among others are social distancing (58.7%), wash my hands with soap (69.6%), covering mouth/nose with elbow or disposable tissue when sneezing or coughing (58.7%), and practice of regular respiratory hygiene (67.4). Although, in a bid to curtail the spread of deadly virus, Nigeria government mandated people to stay indoors and offenders were prosecuted. This could be the reason for

the compliant. However, this study substantiates the findings of Bolarinwa, Olagunju, Babalola and Saeed (2020) on Socio-demographic predictors of adherence to 2019 coronavirus prescribed recommendation, the study showed that 99% of the respondents reported to have been following some of the prescribed recommendations, however, only 40.4% of the respondents followed all the recommendations.

Research Question Three: What are the level of ICT skill of Nigeria Universities Students

Table III: Determine the level of ICT skills of Nigeria university students

Excellent=5, Very good=4, Good=3, Fair=2, Poor=1

S/No	Statement	5(%)	4(%)	3(%)	2(%)	1(%)
1.	I have a good command of Word Processing Package (MS Word, Note pad)	28.3	30.4	28.3	13.0	0.0
2.	I can start up, log on and shut down a computer system	75.6	8.9	11.1	4.4	0.0
3.	I can create and save folder, and files on a computer system	60.9	15.2	13.0	10.9	0.0
4.	I can convert from Ms Word to PDF files	37.0	17.4	17.4	26.1	2.2
5.	I can browse, upload and download file, video, image from different website on the Internet	47.8	19.6	23.9	8.7	0.0
6.	I can use cloud storage e.g google drive, drop-box to save my information on the internet.	19.6	23.9	32.6	17.4	6.5
7.	Overall the level of my ICT Skill is	10.9	45.7	30.4	13.0	0.0

Source: Fieldwork, 2020

Table III shows the level of Information and Communication Technology (ICT) skills of Lead City University, Students. The table reveals deficiencies in the overall level of ICT skills of the students compared with the demand of this era. The study reveals that the students show excellent performance in basic ICT skills such as start up, log on and shut down a computer system (75.6%), create and save folder, and files on a computer system (60.9%) and perform fairly in advanced ICT skills like use of cloud storage (32.6%). This shows that the students need ICT training to upgrade their ICT skills. However this study is supported by the findings of Nwosu, John, Izang, and Akorede, (2018) in a study on Assessment of information and communication technology (ICT) competence and literacy skills among undergraduates as a determinant factor of academic achievement, it show that 80% of the undergraduate students of TASUED and Babcock University have basic ICT literacy skills which entail the ability to source for and access information resources for their research. However the need for both intermediate and advance level of ICT competences is a must. Moreover, In consonance with the findings of Adeoye, (2017) in a study on Digital literacy skill of undergraduate students in Nigeria, it was reported that the student's digital literacy skill is high.

Research Question Four: What are the perceived ease of use of Google classroom for university course work

Table IV: the perceived ease of use of Google classroom for university course work

Strongly agree=4, agree=3, disagree=2, strongly disagree=1

S/No	Statement	4(%)	3(%)	2(%)	1(%)
1.	I often become confused when I use Google classroom	2.2	39.1	47.8	10.9
2.	Interacting with Google classroom is often frustrating	4.3	28.3	56.5	10.9
3.	Interacting with Google classroom requires a lot of my mental effort	4.3	50.0	3	2 . 6
4.	The Google classroom is rigid and inflexible to interact with.	4.3	34.8	47.8	13.0
5.	I find it easy to get the Google classroom to do what I want it to do.	13.0	60.9	26.1	0.0
6.	Overall, I find Google classroom	17.4	60.9	21.7	0.0

Source: fieldwork, 2020

Table IV reveals the perceived ease of use of Google classroom for university course work. On the overall, the study reveals that the respondents (60.9%) found Google classroom easy to use. And that they find it easy to get the Google classroom to do what they want to do (60.9%). However, half of the respondents (50.9%) agreed that Interacting with Google classroom requires a lot of their mental effort. Therefore, with this study, students will prefer and continue with the use of Google classroom for their study pending the time a new one is tested or experimented.

Research Question Five: What are the Perceived usefulness of Google classroom by university students.

Table V: Find out Perceived usefulness of Google classroom by university students.

Strongly agree=4, agree=3, disagree=2, strongly disagree=1

S/No	Statement	4(%)	3(%)	2(%)	1(%)
1.	Using Google classroom gives me greater control over my course work.	15.2	65.2	17.4	2.2
2.	Using Google classroom improves my work performance.	19.6	60.9	19.6	0.0
3.	Google Classroom enables me to accomplish tasks more quickly.	19.6	60.9	19.6	0.0
4.	Using Google Classroom reduces the time I spend on unproductive activities.	17.4	60.9	19.6	2.2
5.	Using Google classroom improves the quality of the academic work I do	13.0	73.9	13.0	0.0
6.	Overall, I find the Google classroom useful in my academic tasks	28.3	65.2	6.5	0.0

Source: Fieldwork, 2020

Table V reveals the Perceived usefulness of Google classroom by university students. According to the study, majority (65.2%) of the students agreed that they find the Google

classroom useful in their academic tasks. This is similar with all the responses under perceived usefulness of Google classroom. Therefore, the student will use google classroom to control over their course work, to improve my work performance, reduces the time spend on unproductive activities and to improve the quality of their academic work. This finding is in agreement with the report of Beaumont K (2018) on Google Classroom: An online learning environment to support blended learning. The reports reveals that from both student and staff perspective, feedback on Google Classroom was very positive, students engaged in discussions and answered and posed questions to encourage discussion, the most effective aspect of student engagement with the platform was their ability to give feedback on resources, etc. the reports also came out with some negative sides of Google classroom among which are its inabilities to format texts, embed images, videos, Automatically arrange posts, hide or re-schedule posts once posted, access learner analytics.

Research Question Six: What are the challenges of using Google classroom in Nigeria University?

Table VI: the challenges of using Google classroom in Nigeria University
Strongly agree=4, agree=3, disagree=2, strongly disagree=1

S/No	Statement	4(%)	3(%)	2(%)	1(%)
1.	I do not have personal smart mobile devices or computer system	4.3	10.9	45.7	39.1
2.	I don't have the financial capacity to subscribe to the Internet	6.5	43.5	32.6	17.4
3.	My ICT skills are inadequate	4.3	28.3	45.7	21.7
4.	Lack of tutorial on how to use the Google classroom application.	4.3	39.1	39.1	17.4
5.	I encountered Personal limitations such as laziness, lack of self-confidence, peer pressure	6.5	26.1	50.0	17.4
6.	I am discouraged to use Google classroom due to slow internet access	4.3	47.8	37.0	10.9
7.	I am not aware of internet access and computer system in the university library for student use	6.5	15.2	52.2	26.1
8.	The Google classroom is not user friendly	4.3	17.4	58.7	19.6

Source: Fieldwork, 2020

Table VI reveals the challenges of using Google classroom by students of Lead City University. According to the study, majority of the respondents (58.7%) disagreed that the Google classroom is not user friendly, this means that quite a large number of the respondents agreed that Google classroom is user friendly. And half (50.0%) of the respondent agreed that their Personal limitations such as laziness, lack of self-confidence, peer pressure do not hinder the use of Google classroom. And the majority of the respondents strongly disagree (39.1%) and disagreed (45.7%) respectively that they do not have personal smart mobile devices or computer system. This clearly signify that lack of ICT devices to access and use Google classroom is not a barrier.

Discussion of Findings

1. The respondents were very highly aware (34.8%) and highly aware (41.3%) of the existence of and the preventive measures of COVID 19 in Nigeria.
2. A very high percentages (82.6%) of the respondents adhered strictly to COVID-19 guidelines.

3. The study reveals that the students show excellent performance in basic ICT skills such as start up, log on and shut down a computer system (75.6%), create and save folder, and files on a computer system (60.9%) and perform fairly in advanced ICT skills like use of cloud storage (32.6%).
4. On the overall, the study reveals that the respondents (60.9%) found Google classroom easy to use.
5. According to the study, majority (65.2%) of the students agreed that they find the Google classroom useful in their academic tasks.
6. A large number of the respondents (58.7%) agreed that Google classroom is user friendly.

Conclusion

Virtual learning in all its forms and formats (E-learning, Distance Learning, Online learning, virtual class rooms) etc appears to be the only solution to the huge threat posed by the emergence of COVID-19 pandemic especially to the academic world of both the developed and the developing nations. The sudden emergence of the pandemic as necessitated the immediate adoption of virtual learning system to replace the traditional system that is found prevalent in Africa continent. The functionality of Google Classroom as well as other virtual Learning platforms has come to stay. Therefore, since it launched in 2014 Google has continued to update and review the platform to meet the requirements of its users as its recent updates include live annotation of documents in pdf formats, importing of Google forms quiz grades and creation of individualised posts. Its benefits in implementing virtual education in tertiary institutions is to improve both the lecturer and students quality to use ICT judiciously, most especially for learning process as it saves time, it is environmentally friendly, its helps in overcoming distance barrier, it increases teamwork among students, it create an atmosphere for timeless communication, and is secured for document storage and retrieval.

Recommendations

1. ICT competence is a necessity for both the lecturers and the learners for a successful adoption of virtual learning,
2. All institution of higher learning should know that the only solution to the threat posed by the novel pandemic is to embrace virtual learning
3. All institution of higher learning should embark on feasibility study as to the adoption of a suitable virtual learning platform as there are so many varieties
4. Google class room should be adopted as a virtual learning platform because of its various academic enhancing functionalities inbuilt into it by Google incorporation
5. Institution of higher learning can start with blended learning before going into full virtual learning
6. All the virtual learning accomplices (institutional repository, Library website, digital referencing service, online academic services etc) should be implemented sooner as they can serve as springboard for virtual learning
7. Teachers and student must understand the necessity of ICT competence, how inevitable it is and the danger of incompetence
8. For Google class room as a virtual learning platform, more researchers should be carried out by developers using the Technology Acceptance Models to understand the factors that can bring about its adoption both by teachers and learners

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TURNOVER INTENTION FACTORS AND JOB COMMITMENT OF PUBLIC SECONDARY SCHOOL TEACHERS IN OYO STATE, NIGERIA

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Abstract

The study investigated the influence of turnover intention on the job commitment of public secondary school teachers in Oyo State. A descriptive research design was used to guide the study, the population consists of 11,732 teachers in public secondary schools in Oyo state, and a multi stage sampling procedure was used to obtain Two Thousand Seven Hundred and Twenty Six (2,276) respondents. To answer research questions, descriptive statistics such as percentage, mean, and frequency were used, while inferential statistics such as multiple regression analysis (ANOVA) was used to test the hypotheses. The findings revealed that the level of intention to leave among public secondary school teachers is low. Furthermore, the combined influence of organizational commitment and public secondary school teachers turnover intention on job commitment in Oyo State was found to be significant at ($Adj. R^2 = 0.422$) and ($F = 94.356; P 0.05$). Teacher workload ($=1.942, t = 9.714, p 0.05$) was found to contribute the most to job commitment when considered separately, while Teacher Autonomy ($= 1.209, t = 9.714, p 0.05$), Promotional Prospect ($=0.654, t = 15.993, p 0.05$), Affective Organizational Commitment ($=0.252, t=9.020, p 0.05$), Normative Organizational Commitment ($= 0.145, t = 5.134, p < 0.05$) and Continuance Organizational Commitment ($\beta = 0.039, t = 2.139, p < 0.05$) contributes respectively. Based on this, it was suggested that proper motivation, a good leadership style, and an enabling environment be created to foster teaching and learning as well as good societal recognition of the teaching profession, and that the state's top priority should be the regular and consistent promotion of teachers.

Keywords: Teachers, Turnover Intention, Job Commitment

Introduction

Turnover intention can be described as the mental process or psychological state of thinking, planning, and desiring to quit a job (Belete, 2018). It is a common issue that exists in every organization regardless of the type or its activities. Turnover intention can also be portrayed as the psychological cycle or mental condition of reasoning, arranging, and wanting to leave a job. It is a not unexpected issue that exists in each organization paying little heed to the kind or its activities. The school is one of such organizations that goes under danger from this risk, when its staff are prone to considering finding employment elsewhere. Teachers' turnover intention is a worldwide issue and by its actual nature, an incredibly intricate matter, it is frequently positioned as either a problem for workforce planning and resources or as an indicator of the relatively poor quality of schooling and teacher morale. Consequently, it has become increasingly important in debates about the teaching profession globally.

Workload is the volume of work that has to be carried out by an individual or organization (Ahuja, 2007). Teachers spend an average of six hours in school every working

day apart from afternoon lesson, teaching period per subject is forty (40) minutes and it is expected that on the normal a teacher should teach around four (4) hours each day making three (3) hours out of every day. Teacher workload also includes duties such as the number of periods taught per week, internal tests, exercises, marking load, administrative roles as well as other non-administrative roles performed by teachers (Nasrin, 2007). The administrative roles performed by teachers in school include head of department, discipline masters/mistress, academic masters and member of school board. Non-administrative roles include; councilors, subject club master, class teacher, teacher on duty, social affairs coordinator and student's project supervisor (Alias, 2007). All these also constitute teachers' workload. Teachers who are exhausted, frazzled and demoralized by heavy workload are not likely to be effective and creative in the classroom hence teaching and learning processes might be affected (Alias, 2007). This is because, a teacher given too many tasks such as more than two subjects to teach, more than three hours to teach for a subject, high number of students in the classroom to teach and mark their scripts and so on is not likely to be effective and efficient in teaching, this is likely to bring various negative effects including poor students' academic performance.

Teachers' heavy workload may be a result of the following; massive increase in number of students per class, teaching many periods, shortage of teachers in schools, lack of non-teaching staff, inadequate teaching facilities and aids, conducting tests in overcrowded classes and marking those tests, performing administrative and non-administrative roles and so on. These also make it difficult for students to learn (Yoon, 2012). When this is the case, the following negative effect is likely to occur on the teacher; stress, burnout, mistakes in work, poor work-life balance, physical and mental effects. When teachers perform their responsibilities according to teaching policy, for example, teaching thirty periods per week and having a reasonable number of students in a class, teachers not involved in administrative roles is regarded as light workload. As stipulated in a study, light workload increases efficiency and effectiveness of teachers in teaching process and leads to increased job commitment (Oluwuo, 2018). Sadly, public secondary school teachers in Oyo State seem to be in the arms of over heavy workload since the introduction of free and compulsory basic education in the state which has resulted to an increase in enrolment. Thus, the study investigated whether workload is significantly connected to job commitment of teachers in public secondary schools in Oyo State.

Teacher autonomy indicates teacher's freedom in their classrooms and their ability to influence school practices and policies. Teachers with greater autonomy appear to be more satisfied with their work and are not likely going to have intention of leaving their jobs or profession. Teachers who are given an opportunity to contribute in decision making and planning process regarding school matters shows great interest in teaching and usually have more intention to stay in the profession (Abdulkadir, 2015). Teacher's work takes place mainly between their pedagogical classroom work, the expectations and constraints of local and national authorities. Consequently, teachers have to balance pedagogical practice with organizational constraints dictated by others (Abdulkadir, 2015). Over the years teaching profession has been subjected to external control especially from the government which dictate what to teach, how to teach and where to teach, this infringement on freedom of teachers is likely to have side effect on the level of enthusiasm or commitment they have towards teaching profession and may consequently lead to having intention of leaving for another profession. To ascertain this, the present study considers teacher autonomy as an index of turnover intention. The next passage of this review talks about how promotional

prospect could decide turnover intention of teachers and its suggestion on work implications on their job commitment.

In order for an organization to survive, it must strive to retain professionals by reducing mobility of their workforce through offering promotional rewards (Krishnan, 2016). When employees perceive promotion opportunities outside their current organization while at the same time perceiving little or no promotion prospects in their current organization it is a good reason for them to think of leaving. Promotion refers to “the reassignment of an employee to a higher-rank of job”. Teachers' promotion towards higher ranks is another significant dimension and indicator in exploring their job commitment level (Omole, 2017). Promotion is likely to increase and boost up the teachers' morale, motivates and encourages them to increase productivity, efficiency, and effectiveness of their work, helps in enhancing satisfaction level and commitment in relation to their job.

Promotional opportunities play an important role and have an effect on teachers' job commitment level and these opportunities help them in enhancing their personal and professional growth, job responsibility, and social status (Ogueyungbo, 2019). On the other side, limited opportunities regarding teachers' promotion inversely influence on their personality, motivation, self-esteem, morale, the productivity of the organization, quality of education, and finally on educational outputs. A related study argues that “promotion is beneficial to teachers because it has to do with the increase in salaries, taking up more responsibilities and boosting their social status”. On the other side of the picture, due to lack of promotional opportunities teachers perceive dissatisfaction towards their job and when such situation happens, they become frustrated, demoralized, and dissatisfied with their work. This state of mind leads them to a partial commitment to their work, resignation, or early retirement normative or continuous organizational commitment and high turnover intention (Ogueyungbo, 2019). Therefore, an employee's perception of a promotional prospect within an organization is one of the very important factors that are likely to influence employee's intention to remain or quit an organization (Ali, 2016). This is because employees feel more motivated to work in organizations which provide them with promotional prospects to new challenging positions. Conversely, if an employee stagnates in one position for long, he or she is not motivated and therefore unlikely to stay in such unfulfilling jobs.

Employee promotion leads to increased pay, higher status, and higher self-esteem resulting in increased job satisfaction unlike those employees who stagnate in the same position. Therefore, employees' turnover intention is likely to be lowered in organizations where there are clear career growth paths than in organizations where employees' careers are static with little or no promotional prospects. The aim of promotional procedures of an organization should enable employers to get the best available talent in an organization to occupy senior positions. This provides employees with a chance to progress within the organization hence more motivated reducing turnover intentions.

Promotional prospect in an organization can also be seen from employee career growth perspective; this could be described in four ways. First, career goal progress or the degree of relevance of one's present job to provision of opportunities for reaching his/her career goals¹⁷. Secondly, the ability of the current job to provide professional development through acquiring of new skills and knowledge (Laju, 2018). Third, promotion speed or the perceptions an employee has on the rate and possibility of getting promoted in their current organization. Finally, remuneration growth or the perception an employee has on the speed, amount as well as the possibility of an increase in compensation. Conversely, a

close observation of teaching profession in Oyo State suggests that promotional prospect is low, this may account for the observed low job commitment as stated in the problem statement of this study, to confirm this, this study also considered promotional prospect as an index of turnover intention.

Statement of the Problem

Job commitment among public secondary school teachers in Oyo state appears to be fluctuating; this is evident in the rampant absenteeism, late arrival, failure to assess students' work on time, poor performance, among other. In Oyo State, this issue has piqued public interest, because it appears that job commitment of secondary school teachers in the state is in jeopardy. Steps must be taken to ensure that teachers are committed to their jobs in order to avoid or overcome this. Despite the fact that there are literature that have identified causes of the aforementioned problem, it seems researchers have paid little or no attention to the contributions of teacher's intention to leave the teaching profession on their level of commitment to their jobs. This study therefore investigated the influence of turnover intention on job commitment of public secondary school teachers in Oyo State.

Objectives of the Study

The objectives of the study are to:

1. examine the level of turnover intention indices (teacher's: workload, autonomy and promotional prospect) among public secondary school teachers in Oyo State;
2. determine the combined influence of turnover intention factors (teacher's: workload, autonomy and promotional prospect) on job commitment of public secondary school teachers in Oyo State; and
3. investigate the relative influence of turnover intention factors (teacher's: workload, autonomy and promotional prospect) on job commitment of public secondary school teachers in Oyo State.

Research Question: What is the level of Turnover Intention Factors (teacher workload, teacher autonomy and promotional prospect) among public secondary school teachers in Oyo State?

Hypotheses

The following hypotheses were tested:

- H₀1: There will be no significant combined influence of Turnover Intention Factors (teacher's: workload, autonomy and promotional prospect) on Job commitment of public secondary school teachers in Oyo State
- H₀2: There will be no significant relative influence of Turnover Intention Factors (teacher's: workload, autonomy and promotional prospect) on Job commitment of public secondary school teachers in Oyo State

Methodology

The study adopted a descriptive research design. This strategy employs the most common method of gathering information from a delegate population in order to deliver a result that can be applied to the entire population. The population of the study included all teachers in public secondary schools in Oyo state, Nigeria. As at the time of this study, the

total number of public secondary schools in Oyo state was 324, and were across the thirty three (33) local government areas in the state. Likewise, there are eleven thousand seven hundred and thirty two (11,732) teachers in the schools.

Multi-stage sampling procedure was used to select the sample for the study. At stage one, Simple Random Sampling Technique was used to choose four (4) schools in every local government in the state. This was on the grounds that Olorunsogo government with four schools has the least number of schools, thus, four schools were used as benchmark to guarantee all local governments in Oyo State are obliged. Furthermore, Slovin's equation; $n = N/(1+Ne^2)$, where n is the sample size, N is the population size, and e is the degree of freedom (0.05) was utilized to decide sample size in every one of the selected schools. This gave an aggregate of two thousand two hundred and seventy six (2,276) sampled teachers for the study.

Self-developed four likert scaled instrument was used to collect data for the study, it was titled (OGPSCTJC), The instrument contained two (2) sections namely; Sections: A and B. Section A contained items on demographic characteristics of respondents such as gender, age range, years of teaching in the present school, school location, average number of student in the class, number of subject taught per term, number of arms of classes taught for a subject in a day, number of administrative duties and how often the teacher is promoted in the school. Section B contained items carefully structured to determine level of turnover intention, the questionnaire used in this study was subjected to face and content validity. For this purpose, the instrument was scrutinized by experts in research items generation in the Faculty of Arts and Education Lead City University and University of Ibadan. For the purpose of the reliability of the instrument used in this study, a pilot study was carried out by administering samples the questionnaire to a group of fifty (50) teachers in Ibadan metropolis who were exempted deliberately from the actual study. Result was analyzed and cronbach' salpha coefficient $r = 0.87$ was generated meaning the instrument was highly reliable. Data collected were analyzed using descriptive statistics of frequency counts, simple percentage, mean and standard deviation and inferential statistics of multiple regressions was used to test the formulated hypotheses. All results were presented in tables and chart

Results

Research Question

What is the level of turnover intention indices (teacher workload, teacher autonomy and

Table 1: Level of Turnover Intention Indices among Public secondary school Teachers in Oyo State

S/N	Items	S/A	A	D	SD
1.	Unified uniform make school aesthetically beautiful	60	20	10	10
2.	It is a way to subject student under school discipline	54	2		3
7	16				
3.	It enforces uniformity in the states' education system	42	30	12	16
4.	It expresses government interest	30	25	5	40
5.	It's importation of conflict into the system	20	30	40	10
6.	Unified uniform differentiates teacher and student	60	20	10	10
7.	An economic succor for parents	41	21	23	15
8.	Unified uniform negates freedom of choice	38	1		5
14	33				

Table 1 and figure 1 contain analysis of responses on items to determine the turnover intention of public secondary school teachers vis a vis workload, promotional prospects, and teacher autonomy. The table revealed that 1443 (54.9%) posited very true, 684 (26.05) true, 59 (2.2%) not very true, and 441 (16.8%) not true that high academic workload makes them think of leaving the teaching profession. Also, the table showed that 59 (2.2%) posited very true, 684 (26.05) true, 1230 (46.85) not very true, and 654 (24.9%) not true that high administrative workload makes them think of leaving the teaching profession. Similarly, 59 (2.2%) posited very true, 684 (26.0%) true, 1259 (47.9%) not very true, and 635 (23.8%) not true that other assigned responsibilities make them think of leaving the teaching profession. Furthermore, in response to the statement about having a low chance of promotion when compared to other professions, 1016 (38.7%) said it is very true, 684 (26.0%) said it is true, 868 (33.0%) said it is not very true, and 59 (2.2%) said it is not true. Also, 59 (2.2%) answered very true, 684 (26.0%) true, 1,432 (54.5%) not very true, and 452 (17.2%) not true to the question on whether low freedom to choose their own method of teaching has made them consider leaving the teaching profession.

S/N	Items	VT	TM	NVT	NTM	Mean	Standard Deviation	Remark
1	High Academic Work Load	1443 (54.9%)	684 (26.0%)	59 (2.2%)	441 (16.8%)	3.13	0.707	High
2	High Administrative Work Load	59 (2.2%)	684 (26.0%)	1230 (46.8%)	654 (24.9%)	2.06	0.772	Low
3	Other assigned responsibilities in the school	59 (2.2%)	684 (26.0%)	1259 (47.9%)	625 (23.8)	2.07	0.764	Low
4	Low chance of promotion when compared to other professions	1016 (38.7%)	684 (26.0%)	868 (33.0%)	59 (2.2%)	3.02	0.855	High
5	Low freedom to choose your own method of teaching	59 (2.2%)	684 (26.0%)	1432 (54.5%)	452 (17.2%)	2.13	0.710	Low
6	Low chance to determine what to teach your students	59 (2.2%)	684 (26.0%)	1327 (50.0%)	557 (21.2%)	2.09	0.744	Low
7	Low chance to determine your course content	59 (2.2%)	684 (26.0%)	1319 (50.2%)	565 (21.5%)	2.09	0.747	Low
Weighted Mean =						2.37		Low

Source, Fieldsurvey, 2021

KEY: VT = Very True (4), T = True (3), NVT = Not Very True (2) and NTM = Not True of Me (1) *****Threshold:** mean value of ≥ 3.00 (High), 2.5-2.99 (Moderate) and < 2.50 (Low)

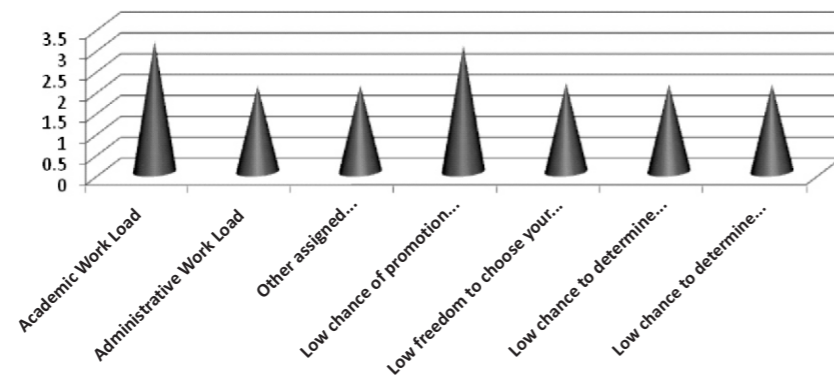


Figure 1: Level of Turnover Intention Indices among Public secondary school Teachers in Oyo State

Source: Ebo, 2021

Finally, in response to the statement about the low likelihood of determining course content, 59 (2.2%) said it was not true, 684 (26.0%) said it was true, and 1319 (50.2%) said it was true. While 565 (21.55) responded that the low chance of determining course content has caused them to consider leaving the teaching profession. The table further presented a weighted mean of 2.37. This implies that turnover intention is low among public secondary school teachers in Oyo State. Although the weighted mean signifies the low intention of public secondary school teachers to leave the teaching profession, it should be pointed out that, among other variables considered, academic workload and promotional prospects are high. This observed high academic workload may not be unconnected to the observed number of arms taken for a subject by each teacher.

H₀1: There will be no significant combined influence of turnover intention factors (teacher workload, teacher autonomy and promotional prospect) on job commitment of public secondary school teachers in Oyo State

Table 2: Summary of Regression Analysis Showing Combined Influence of Turnover Intention on Job Commitment of Public Secondary School Teachers in Oyo State

ANOVA					
Model	Sum of Square	Df	Mean Square	F	Sig.
Regression	148.944	6	24.824	94.356	.000
Residual	689.296	2620	.263		
Total	838.240	2626			

Dependent Variable Job Commitment

Predictors: Variable: Teacher's: Autonomy, Promotional Prospect, Workload

Source, *Fieldsurvey, 2021*

Table 2 summarizes the combined influence of turnover intention factors (workload, promotional prospects, and teacher autonomy) on job commitment of public secondary school teachers in Oyo State. Result showed p-value (0.000) is less than the alpha value of 0.05. Also, result showed that independent variables (turnover intention factors) have a significant influence on the dependent variable job commitment of public secondary school teachers in Oyo State when considered together (F = 94.356; P < 0.05). The result also showed (Adj. R² = 0.422), which means that the independent variables (turnover intention factors) accounted for 42 percent of the total variation when taken together. As a result, the null hypothesis was rejected, indicating that turnover intention and organizational commitment have a significant combined influence on job commitment of public secondary school teachers in Oyo State, Nigeria.

H₀2: There will be no significant relative influence of turnover intention factors (teacher workload, teacher autonomy and promotional prospect) on job commitment of public secondary school teachers in Oyo State

Table 3: Summary of Regression Analysis Showing Relative Influence of Turnover Intention and Organizational Commitment on Job Commitment of Public secondary school Teachers in Oyo State

Model		Coefficients ^a				Sig.
		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	
1	(Constant)	1.960	.062		31.515	.000
	Teacher Workload	1.552	.160	1.942	9.714	.000
	Promotional Prospects	.432	.027	.654	15.993	.000
	Teacher Autonomy	.962	.155	1.209	6.189	.000

a. Dependent Variable: Job Commitment

Source: Fieldwork survey, 2021

The summary of the regression analysis of the relative influence of turnover intention factors on job commitment of public secondary school teachers in Oyo State is presented in Table 3. When considered separately, the table revealed that teacher workload ($\beta = 1.942$, $t = 9.714$, $p = 0.05$) contributes the most to the dependent variable, this was followed by Teacher Autonomy ($\beta = 1.209$, $t = 9.714$, $p = 0.05$) while Promotional Prospect ($\beta = 0.654$, $t = 15.993$, $p = 0.05$) has the least contribution to job commitment of public secondary school teachers in Oyo State. To that end, the null hypothesis stating that "there will be no significant relative influence of turnover intention (workload, promotional prospect, and teacher autonomy) on job commitment of public secondary school teachers in Oyo State was rejected at the 0.05 level of significance.

Discussion of Findings

Level of turnover intention of public secondary school teachers in Oyo State was found to be low. Regression analysis of combined influence of turnover intention (workload,

promotional prospect and teacher autonomy) on job commitment of public secondary school teachers in Oyo State was found significant; therefore, the null hypothesis was rejected. To this end, there is a significant combined influence of turnover intention on job commitment of public secondary school teachers in Oyo State, Nigeria. This findings corroborates the submission of some findings, for instance, a significant positive relationship was established between low turnover intention and organizational commitment of public secondary school teachers in Nigeria. A related study suggested a significant link between teacher job commitment and promotional prospect. Similarly, workload among other factors was found to contribute more significantly to level of teacher's job commitment in early public secondary schools. On the contrary, a study found no significant link between level of teacher's job commitment and teacher autonomy while motivational factors were found significant.

Summary of regression analysis on relative influence of turnover intention on job commitment of public secondary school teachers in Oyo State showed that teacher's workload have more significant contribution to teacher's level of job commitment than, teacher Autonomy and promotional Prospect, to this end, the null hypothesis ' there will be no significant relative influence of turnover intention (workload, promotional prospect and teacher autonomy) on job commitment of public secondary school teachers in Oyo State was rejected at 0.05 level of significance. This means that there are significant relative influences of turnover intention factors (workload, promotional prospect and teacher autonomy) on job commitment of public secondary school teachers in Oyo State.

Conclusion

Level of turnover intention of public secondary school teachers in Oyo State is low. There is a combined influence of turnover intention (workload, promotional prospect and teacher autonomy) on job commitment of public secondary school teachers in Oyo State. Furthermore, there exists relative influence of turnover intention factors (workload, promotional prospect and teacher autonomy) on job commitment of public secondary school teachers in Oyo State.

Recommendations

1. The government should be determined to regulate teachers' workload to a manageable level.
2. There is a need for recruitments of teachers by the government for public secondary schools.
3. Teachers should be promoted on a regular and consistent basis and this should attract significant salary increment.
4. All hands should be on deck to devise necessary measures to ensure that teachers are more committed to their jobs. This can be accomplished through genuine inspiration, a strong leadership style, creation of an empowering environment that fosters education and learning, and a strong cultural recognition of the teaching profession.

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**GENDER, SPORT TYPES AND THE SELF-EFFICACY OF COLLEGIATE
ATHLETES IN OBAFEMI AWOLowo UNIVERSITY, ILE-IFE,
OSUN STATE, NIGERIA**

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Abstract

The study investigated the relationship between gender, sport type and self-efficacy of individual and team sports athletes; and compared the self-efficacy of individual and team sport athletes of Obafemi Awolowo Universities, Ile-Ife. Descriptive survey research design was employed for this study. The population comprised all athletes in Obafemi Awolowo University, Ile-Ife while sample size consisted of 480 athletes selected from 16 NUGA accredited sports using simple random sampling technique. Thirty athletes were selected from 16 sports using convenience sampling techniques. A self-designed and validated questionnaire titled the 'Athletic Self-Efficacy Scale' (ASES) was used to elicit information on the athlete's self-efficacy during sports performance. Collected data were analysed using simple percentages, t-test, relative significant index and Pearson correlations analysis showing the relationship between self-efficacy of individual and team sport athletes based on gender and sport types. Result showed that there were significant correlations between gender ($r = 0.033, p < .05$); sport types ($r = -.037, p < .05$) and self-efficacy in individual and team sport athletes in O.A.U., Ile-Ife. The study concluded that gender, sport types and self-efficacy are related significantly amongst individual and team sport athletes of Obafemi Awolowo University, Ile-Ife, Osun State, Nigeria.

Key Words: Gender, Sport Type, Performance, Efficacy, Athletes; and Institution

Introduction

Aside from the positive outcomes and benefits attributed to involvement in competitive sports at any level there are also the pressures that comes with competing in sports. These could include but not limited to energy demands, presence of significant others, self-induced pressures to perform beyond capacity, fan base, spectators' expectations, past records of competitive accomplishment of the athlete and opposing teams or competitors, failures of the past and many more can impinge positively and negatively on performance. Because when an athlete comes face to face with many of these pressures, he or she may perform excellently or dismally despite skill mastery and competences in organized competitive sport. Bandura (1997), therefore used self-efficacy to denote a situational specific variable which influences performance and determines how much efforts individual will expand and how long they will persist in the face of obstacles and difficult experiences.

Self-efficacy is very crucial to coaches and athletes for several reasons; knowing what an athlete feels and thinks about his or her skills, capacities, and talents is of utmost importance for a coach in his effort to develop the noted characteristics in his athletes. Also,

this also enhanced the understanding of an athlete's inner self during sport competition and meaningfully improve the resulting sport performances. Self-efficacy or credence in one's athlete depends largely on the capability to accomplish exact task magnificently, is one of the most influential psychological concepts to affect achievement in sport performance. It is a predictor of achievement that determined the success of the athletes in the context of sport. It is also essential in sport because the energies invested in the task along with specific behavior are ruled by an athlete's self-efficacy.

Self-efficacy beliefs are what people think he or she can actually do with the skill he/she possesses. These beliefs are a product of different self-efficacy information that are processed mentally through self-appraisal. Information can be derived from past performance achievements, various experiences, verbal persuasion, biological states, emotional and imagining experiences. However, performance achievements remain the most vivacious basis of efficacy information because they are typically based on personal mastery experiences. When the intellectual processes of one's own mastery is accomplished, self-efficacy would be affected. The effect of previous performance experiences on self-efficacy beliefs also be determined by the obvious difficulty of the performance, the power used, the quality of supervision received, the sequential pattern of achievement and failure, as well as the individual's commencement of a particular "ability" as a skill that can be acquired versus a distinctive capacity. When one is continuously viewing all experiences as achievement and successes the belief in one's capability will increase but if all experiences are viewed as failures, one's capability will reduce.

Sporting activities are universally categorized basically on the levels of involvement and compositions. While some are referred to as individual sports others are referred to as team sports. Likewise, individuals who participate in sports are either called individual or team sports athletes. The composite of individual sports are all sporting activities that does not necessarily requires a pairing with others before performance can be accomplished except in very few cases and include athletics, aquatics sports, racket games, combative sports and gymnastics. While on the other hand, team sports are a composite of groupings. Participation requires the pulling together of individuals with varying skills and competences to form a team. It also requires synergizing these varying competences to produce a flow in order to accomplish set goals which is winning at all times. Team sports includes all ball games such as football, basketball, baseball, cricket, handball, hockey volleyball, and rugby.

Globally, Adeyeye (2011) posited that the age bracket of persons involving in competitive sport falls within the age of secondary school or high institution students before progressing to professional team. The historical perspective of student-athletes involvement in a structured competitive sport in Nigeria was dated back to post-colonial dispensation when competitions were organized among secondary schools and later gave birth to Nigeria University Games Association (NUGA) which was established in 1965 with the first sport festival held at University of Ibadan in 1966; this was intended to promote healthy competitive rivalry among university athletes across the country. University student-athletes therefore devote plentiful period in modeling the necessary skills required to improve their performance and meet incredible high standard competition. In the midst of academic demands an average varsity student-athlete still train for mastery with the aspiration that the breakthrough to stardom will come one day. Sport psychologists have examined psychological difference between prosperous and less prosperous athletes for years. There is abundant evidence that self-efficacy predicts athletic performance of both

adults and children. Evidences showed the positive and significant correlations between self-efficacy and consequent performance measures have been obtained in the areas of diving, muscular leg endurance, leg lifting, tennis, gymnastics, wrestling, football, baseball, softball, and endurance sports (Ede, Hwang & Feltz, 2011). Furthermore, in a study conducted by Gould, Dieffenbach and Moffett (2002), investigating the Olympic athletes and their personality characteristics, self-efficacy was documented as a commonality amongst the participants. Their research found participants, including athletes, coaches, and other linked members, regarded self-efficacy as vital for their achievements

Additionally, Schunk and Lilly (1984), discovered the significant difference in gender when related to self-efficacy in that males tend to have higher levels than females. Within the Nigerian context, self-efficacy has been researched in reference to academic achievements majorly and within the sports setting, majority of the respondents stated that self-efficacy has no significant influence on sport performance. However, individual and team sports athletes in universities are yet to be researched on across sport types and gender within the study area; hence this study.

Physical Sports Activity and Self-Efficacy in a Canadian study of high school males, Downs and Strachan (2016) discovered a favorable relationship between physical sports activity and self-efficacy levels. The study also looked at the difference in self-efficacy levels between kids who engaged in after-school activities and those who participated in physical sports. Manley, Cowan, Graff, Rice, Richey and Sanchez (2014) discovered a mixed relationship between physical activity and self-efficacy. The study looked at the association between physical activity, self-efficacy, aerobic fitness, and general health as defined by the relative body mass index in rural eleven to thirteen-year-old pupils (RBMI). This shows that students with the best RBMI had greater levels of self-efficacy, physical activity, and aerobic fitness. In a comprehensive analysis of the effects of physical interventions on self-efficacy, it was discovered that self-efficacy is linked to the number of physical contacts students had as a result of various types of interventions (Cataldo & Chandaran, 2013). A broad group of ten studies were assessed as part of the systematic review, which included over 100 studies. Six of the ten studies found a clear improvement in posttests of the students' self-efficacy, while four of the ten studies found no effect after the students engaged in the physical interventions. Participation in physical interventions in the school setting, such as PE or an after school club, was linked to an improvement in self-efficacy, according to the findings of the six research. Studies like this one continue to show how important physical activity is for self-efficacy.

Shelangoski (2014) found a link between self-efficacy and involvement in college sporting programs. The study found that student-athletes had higher levels of self-efficacy than female collegiate athletes, with males having higher levels than females. He also discovered that years of experience had no effect on or prediction of self-efficacy, implying that the current athletic experience, rather than a residual effect, had a relationship with self-efficacy.

There is some evidence that sports engagement in older pupils associated with positive self-efficacy (McCoach, 2016). In addition, research was undertaken to show that sports participation in eighth grade is linked to motivation. However, the crucial component of self-efficacy was absent (Hughes, Cao & Kwok, 2016). The current study on the association of engagement in physical sports activities is based on this research, as well as data demonstrating that participation in sports is linked to positive self-efficacy in older pupils.

Self-efficacy and its association with some variables in sport in general, and football

in particular, has been the subject of numerous research. Villani, Caputo, Balzarotti and Riva, (2015) conducted a study on boosting self-efficacy using blended training: The results of a pilot study with basketball players revealed that athletes who received web-based interactive training reported better levels of self-efficacy than those who did not, but no significant differences were seen in the control group. Both groups reported decreased emotional suppression at the end of the program, but there were no significant differences in cognitive reappraisal. However, self-efficacy was linked to cognitive reappraisal both before and after the intervention.

Self-Efficacy is an important indicator of success for persons working in any sector, including sports. In a sample of Iranian athletes, Besharat and Pourbohloul (2011) investigated the moderating effects of self-confidence and sport self-efficacy on the link between competitive anxiety and sport performance. Data analysis demonstrated that self-confidence had partial moderating effects on the correlation of the cognitive and somatic components of competitive anxiety with sport performance. The moderating effects of sport self-efficacy on the connection of cognitive and somatic dimensions of competitive anxiety with sport performance, on the other hand, were shown to be complete.

Singh, Bhardway and Bhardway, (2009) investigated the impact of the psychological trait self-efficacy on the sport performance of male and female athletes aged 13 to 19 years old from Punjab and Chandigarh schools. The findings revealed that School National Level athletes had substantially higher perceived ability and self-efficacy than School District Level athletes in terms of perceived ability and self-efficacy. McAuley, Konopaack, Morris, and Moti, Shawna, Doerksen and Rosengren (2006) found that physical activity was linked to self-efficacy for exercise, gait and balance efficacy, and physical function performance at baseline, and that both self-efficacy and physical functional performance were linked to functional constraints.

Statement of the Problem

The demands for participating in any sporting activity are enormous as it requires both physical and mental fortitudes to performance excellently well. Skills mastery are of utmost important, however the belief in one's ability and capability are essential ingredients to compete favorable in all life endeavors and especially in competitive sports. Sociological, physiological and psychological indices are factors that greatly affects performance outcomes in sports, however, these factors can be overcome by an athlete self-evaluation of his abilities and capabilities which can serve as an impetus for greater demonstration of competency and dexterity in both individual and team sports. However, competitive sports are littered with broken dreams of those whose performance shrunken when needed to be in control of themselves and focus on the task at hand. It is not uncommon to see athletes "freeze" in big games or moments or commit unexplainable error in the course of their performance. When athletes fail to perform well regarding to their abilities, nervousness in anticipation of the sporting challenges could be the root cause of anxiety and or failure. The problem of pre-competitive anxiety is one of the most pressing problems in modern sports.

Purpose of the Study

The purpose of the study is to establish the relationship between sports participation and self-efficacy of individual and team sports athletes across gender and sport types

Research Question

What is the relationship between sport participation and self-efficacy across gender and sport types?

Methodology

Descriptive survey research design was employed for this study. The population comprised all athletes in Obafemi Awolowo University, Ile-Ife. The sample size consisted of 480 athletes selected from 16 NUGA accredited sports using simple random sampling technique. Thirty athletes were selected from 16 sports using convenience sampling techniques. The criterion adopted for the selection of athletes were based on the athletes who attended their regular training sessions. A self-designed and validated questionnaire titled the 'Athletic Self-Efficacy Scale' (TASES) was used to elicit information on the athlete's self-efficacy during sports performance. Collected data were analysed using simple percentages, t-test, relative significant index and Pearson correlations analysis showing the relationship between self-efficacy of individual and team sport athletes based on gender and sport types. The research hypothesis was analyzed at 0.05 level of significance using Statistical Package for Social Sciences (SPSS, version 25.0).

Results

Table 1: Percentage (%) analysis of demographic data of respondents

Demographic data	Frequency (N)	Percentage (%)
Gender		
Male	270	56.3
Female	210	47.7
Total	480	100
Sports Type		
Individual Sports	305	63.5
Team Sports	175	36.5
Total	480	100

Results from table 1 showed the demographic data of the respondents. Results indicated that 270 (56.3%) of the respondents were male athletes against 210 (43.7%) respondents who are female athletes. Regarding to the sports type, 305 (63.5%) respondents participated in individual sports, while 175 (36.5%) engaged in team sports.

Hypothesis: There will be no significant relationship the self-efficacy of individual and team sports athletes across gender and sports types.

Pearson correlations analysis showing the relationship between self-efficacy of individual and team sport athletes based on gender and sport types was carried out on the variables.

		Correlations				
		Self-efficiency	Gender	Short Type	Individual Athletes	Team Sport Athletes
Self-efficiency	R	1.000				
	Sig. (2-tailed)	.000				
	N	480				
Gender	R	.003	1.000			
	Sig. (2-tailed)	.002				
	N	480	480			
Sport Types	R	-.037	.814	1.000		
	Sig. (2-tailed)	.003	.000			
	N	480	480	480		
Individual athletes	R	-.159	-.052	-.040	1.000	
	Sig. (2-tailed)	.196	.257	.381		
	N	480	480	480	480	
Team Sport athletes	R	-.091	-.057	-.048	.138	1.000
	Sig. (2-tailed)	.046	.215	.290	.002	
	N	480	480	480	480	480

Results revealed that there were significant correlations between self-efficacy and gender of individual and team sport athletes ($r=0.033, p<.05$).

Also, there were significant correlations between self-efficacy and sport types of individual and team sport athletes ($r=-.037, p<.05$) in Obafemi Awolowo University, Ile-Ife, Nigeria.

Discussion of Findings

The findings of the study in line with the results of Moreno & Cervello (2005), who revealed that there were significant correlations between self-efficacy and gender in individual and team sport athletes. Results further showed that self-efficacy had significant correlations with sport types was supported by McAuley et. al. (2006), that there were significant correlations between sport types and self-efficacy of individual and sport athletes. The result also corresponds with that of Shelangoski (2013) who found a link between self-efficacy and involvement in college sporting programs. The study found that student-athletes had higher levels of self-efficacy than female collegiate athletes, with males having higher levels than females and that of Zourbanos, Haznadar, Papaioannou, Tzioumakis, Krommidas, Ch. and Hatzigeorgiadis (2016), who maintained that there was no significant correlation between self-efficacy and individual athletes. Results further revealed that self-efficacy had significant correlations with team sport athletes and this collaborated with the results of Belton et al (2016), whose findings showed that there was significant association between self-efficacy and team sport athletes.

Conclusion

The study concluded that active involvement or participation in sports is related to

the self-efficacy of higher institution students in a positive manner. From the forgone conclusions recommendations were made.

Recommendations

Based on the results and finding of this study, the following recommendations were suggested:

- a. Student-athletes should be exposed to challenging situations during training to boost their confidence
- b. More competitions should be organized for tertiary institution to increase the level of experience of student-athletes,
- c. The services of a sport psychology should be employed for both social and psychological preparation of student-athletes for competition
- d. Psychological factors that can impinge positively on student-athletes should be emphasized
- e. Student-athletes should be motivated to believe in their capabilities
- f. Coaches' leadership style should be such that will bring the best out of the athletes; and
- g. Psychological Skill Training protocols should be used to build the confidence of student-athletes

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GIRL CHILD EDUCATION: A PANACEA FOR VALUE RE-ORIENTATION AND SUSTAINABLE DEVELOPMENT IN A POST-PANDEMIC NIGERIA

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Abstract

Every society has its own system of transmitting norms, values, and beliefs through succeeding generations. From time immemorial up till the 1990s, formal, non-formal, and informal education were engaged in Nigerian communities, to bring up children from infancy to adulthood, indeed throughout life. Community childcare and upbringing was the vogue in nurturing the young persons. However, with a morally decadent system, coupled with globalization and infusion of the western individualism into body polity, many of defining hallmarks such as etiquette, manners, respect, honour, hard work and integrity have been jettisoned. Adults and parent figures are immersed in making material and financial acquisitions and may go to any length to make money. In their quest for wealth, even young adults engage in money ritual killing. To truncate the present malaise, this calls for Nigeria's cultural awakening and value reorientation. To effect a drastic change in society, a veritable tool is basic education of children. Based on the perspective that when a girl child is educated, a whole nation is educated, this paper affirms that basic education of the girl child may be the right direction to jumpstart Nigeria's revival.

Keywords: Girl child Education, Values re-orientation, National Development

Introduction

Every society has its own system of transmitting norms, values, and beliefs through succeeding generations. The entity now known as Nigeria had several cultural biases upon which the nation was established. These norms, values and cultural biases were laudable and all encompassing, covering the moral, social, spiritual, and so on. Unfortunately, many of Nigeria's defining hallmarks are being jettisoned as a result of globalization and infusion of western individualism into body polity. There is a crisis in value system, and this is reflected in the outrageous materialistic tendencies of youths. Several attitudes that are strange to society, like lack of manners, laziness, and greed, have become rampant (Davies and Thate, 2017). As a result of this value crisis, Nigeria has become a society where anything goes, where the wrong is viewed as being right. With the constant devaluing of norms and values within the Nigerian society, there is an urgent need for the redemption of these values for national and sustainable development. To this end, education remains a pivotal tool to arrest this anomaly.

One of the beliefs on which the Nigerian philosophy of education stand, states that education is an instrument for national development and social change (Federal Republic of Nigeria (FRN), 2014). Education is therefore an important instrument of change in every sphere of operation of any society. Education as a socialisation agent holds the ace to value redemption and value reorientation, particularly the education of the girl child. According to Nwabuisi, (2000) in Elendu, (2012), education is one of the key socializing agents through which societal values can be transmitted to individuals. An individual's behavioural attitudes

in any social system are greatly influenced by the values embedded in such systems.

Over the years, the feminine gender is known to play a significant role in the wellbeing of their immediate family and that of the society at large (Makama, 2013). Apart from being givers of life, a natural ability they possess to bring forth babies, women are also known to protect lives and values as well as promote peace within the society. In recent times however, girls are veering off this curve and norm they have been known for in the past. Several reasons may be responsible for this, but parental negligence, as well as a disconnect between education, educational institutions and the society are major culprits. One may then ask, have the socializing agents been transmitting and enforcing core societal values to the younger generation, the girl child inclusive?

Concept of Value and the Nigerian value system

Arikpo (2017) describes values as acceptable standard or an ideal way of doing things that are worthwhile in a society. Values are principles, standards and fundamental convictions which guide behaviours or decision-making. It is the building blocks of any societal set up (Okolo, 2011). Values and norms are passed down from one generation to another within a given society.

Historically, Nigeria was a society with high morals and values with great respect for human life. The traditional value system in Nigeria may differ slightly from one community to another because of the multi-ethnic populace pulled together by the colonial masters to form the entity now known as Nigeria (Edewor, Aluko and Folarin, 2014). However, the core values were the same. These values include respect for parents and elders, honesty, familial and communal unity, chastity among women, dignity of labour, patriotism to one's community, courage and self-reliance (Elendu, 2012). Children were taught the taboos that existed in each society. For example, it is a taboo to drag the family name in the mud. The family name was held in high esteem, and everything was done to protect it from shame and ridicule. Children were also taught from a tender age the value of respect not only in the family but within the community. They are taught to assist the elderly and lend a helping hand wherever and whenever it is needed. They were taught that contentment with godliness is great gain. The influx of the colonial masters into and westernisation of Nigeria began a negative effect on the Nigerian value system. The COVID-19 pandemic further dealt a blow on the societal and moral values as poverty increased and Nigerians became drawn to immediate material gratification and pleasure (Arowolo, 2010). Education was also seemed to have been impacted negatively by this pandemic but the girl child education is thought to have had a greater share of this impact.

Girl child education in post pandemic era

The way and manner disease outbreaks affect girls and boys, male and female, young and old differ tremendously. The outbreak of COVID-19 in late 2019 brought the world to a standstill by mid-2020. In the bid to curb the spread of the disease, the government of Nigeria declared a national lockdown that led to shut down of all social activities including the schools. Though children were not greatly impacted by this pandemic health wise, their education was interrupted, and their family lives were placed under stress by health and economic burdens.

Recent research by The United Nations Educational, Scientific and Cultural Organization (UNESCO, 2020) reveals that 89% of students are currently out of school due to the COVID-19 pandemic. About 1.54 billion children and youths enrolled in schools or

universities are estimated to be out of schools and of these estimated students, 743million are girls. Students in Nigeria were significantly affected because the Nigerian educational system was not prepared to handle this pandemic as limited provision and infrastructure for alternative teaching and learning that can take place at home were lacking. As a result, a large number of female children are out of school due to the pandemic, further marginalising these female children (Akintolu, Dlamini & Oladebo, 2021).

The aftermath of the pandemic on children, especially the girl child could be enormous. There is the risk of psychological distress as well as increased risk of violence, abuse and exploitation. There is the risk of increased mental health issues among the girls (Saraf, Chandra, Desai and Rao, 2018). The impact of the pandemic may have increased girls and women's duties as care givers, taking care of ill family members and members who were not working or attending school because of the lockdown. The consequences of the COVID-19 pandemic may have exposed girls to new risks or even aggravate existing ones like early pregnancy, early and forced marriage, sexual harassment, and limited access to education. Akintolu, Dlamini and Oladebo (2021) affirming the consequences of the COVID-19 pandemic, highlight five significant impacts of the post pandemic era on the girl child and her education.

They are:

1. Exposure to sexual abuse: Staying out of school can make the girls to become more exposed to sexual abuse which may lead to unwanted pregnancies. This will definitely affect their education;
2. Negative peer influence: Being out of school may make some girls hang out with certain groups of people whom they would not have had time for if they were busy in school. They become vulnerable and can be desperate to fit in, thereby giving in to peer-pressure. Negative peer influence may lead to sex-for-money or gifts/smoking, exchange of wrong ideas and information;
3. Increase in child labour: Hunting for means of survival during the lockdown prompted some girls to join their mothers in raising income to support the family. This has considerably increased child labour and it may affect the number of girls that may likely return to school based on their exposure to money-making initiatives during the pandemic period;
4. Increase in the burden of girls' household chores: With school closures, the burden of girls' household chores may increase, as other family members go out to work, or if family members become sick from the virus; and
5. Existence of technology gap between girls and boys: The aftermath of COVID-19 is the increase in technology gap between girls and boys, something which has been in existence before the pandemic. In Nigeria, the girl's approved place generally, is the kitchen where she sorts out one house chore or the other. This implies that an average boy has better access to technological tools compared to a girl child since boys have always been given priority. This makes it challenging for girls to be online for studies, thus affecting their ability to continue with their academics during the pandemic (Akintolu, Dlamini & Oladebo, 2021)

All the fore mentioned consequences may have caused the girl child to relinquish values and norms that would help her to be a functional, confident member of the society in a post pandemic era. Not having enough access to the education that should transfer societal values during the pandemic may have left a lot of girl children at limbo. Peers who may be living wayward lives could become teachers and role models of such girls, eroding their lives of the basic values cherished in Nigerian society. The basic values cherished in Nigerian

society would gradually varnish and this may be the reason why the Nigerian society is bedevilled by various atrocities like fraud (4-1-9, yahoo-yahoo), cheating, inhumanity, disrespect for elders, intolerance and so on. It is unfortunate that some girls have joined the bandwagon of these atrocities. Therefore, the girl child education needs more attention in times like this.

Girl Child Education and Value Re-orientation

Education is a process of inculcating values to equip the learner to live a kind of life that is acceptable to the individual and the community in accordance with the cherished values and ideals of the society. Education and society go hand -in-hand because the society equips individuals with the right values that are transmitted from one generation to another while the schools educate young people with the documented existing beliefs, norms and values of their culture. The educational system in Nigeria attaches importance to values because of its capacity to develop individuals and the society (Arikpo, 2017). One of the goals of education in the Nigeria National Policy on Education (FRN, 2014) is to inculcate national consciousness and values in the learner, thereby expressing the need for an educational system that is a tool for the cultivation of social and moral values at all levels of education. According to Arikpo (2017), the focal point of education is societal formation, social change, human transformation and continuous process of growth and national development. Education is the mechanism by which a society generates the knowledge and skills required for its own survival and sustenance (Odeleye, 2014). Girl-child education however remains pivotal to the empowerment of the female gender, and it is the platform to establish her place as a leader in society for a paradigm shift in value reorientation.

Girl-child education is the acquisition of knowledge, skills, norms and values useful for individual and societal development. Onyido and Osigwe, (2017) describe the girl-child education as a complex set of issues and debates surrounding primary, secondary and other forms of education for girls and women. Lack of adequate and functional education for the girl-child may result in the girl-child becoming a dysfunctional member of the society. The girl-child is too endowed to be allowed to become dysfunctional in any way. The girl-child grows to become a woman and women are known to multitask. Not only are they mothers, but they are also educators who pass on what they know to members of their household and the community at large. There are several benefits embedded in educating a girl-child, ranging from improved quality of living to self-confidence and ability to contribute effectively to sustainable development (Akunga, 2010). If a girl child is given the right kind of education, she will be able to help in value reorientation which can lead to national and sustainable development.

There is need for a reengineering of the basic education of the girl child to salvage the core values that have been destroyed within the society. Arikpo (2017) posits that values are central to the components of policies that make education functional and useful to the society. Core values in a school system are the quality knowledge and skills that individuals acquire in order to contribute to the development of the society by participating effectively in social, political and economic activities (Arikpo, 2017). The anti-social vices like ritual killings, kidnapping, dishonesty, violent crimes and drug abuse which have affected societal activities might have been the results of compromised values. In reengineering the girl child education for value reorientation, the basic education curriculum should address the fundamental moral values for national development and youth reorientation. Examples of such values are respect for constituted authority and sanctity of life, values of honesty,

fairness, tolerance, prudence, self-discipline, helpfulness, compassion, cooperation and courage (Arikpo, 2017). When a girl, who eventually becomes a woman, is exposed to such knowledge, she and her offspring would be able to uplift the standard of the society.

The role of the girl child in upholding values and promoting sustainable development

According to Abayomi (2018), education, especially the girl-child education, is a key factor that can be used to maintain values. Educating a girl-child is an important fragment of change and sustainable national development. Societal development and environmental decency are attainable if a nation ensures that the girl-child is given education that is adequate, relevant, and functional (Odeleye, 2014). An adequate and functional education results in value orientation development. Development in value reorientation context can be viewed as a qualitative change and improvement in the lives of the people and their environment. It requires skills, techniques, tools and resources which can be put together by the girl-child to help attain the desired transformation and sustainable development of her society.

The concept of development depicts positive change and upward movement in socio-economic and political situations of the society. Every nation desire development and national development in Onyido and Osigwe (2017) perception is a multidimensional process that involves the transformation of the economic, social and political situations. A development that is not sustained however, makes leaders efforts worthless. Children grow up to be adults and they are expected to continue and improve on the processes put in place by the adults. The devaluation of the Nigerian value system and the little regard youths are having for the traditional basic values in the Nigerian society brings to question the issue of sustain ability of national development. Though not much can be said about transformation and improvement in the current situation Nigeria has found herself in, there is need to sustain any good thing that exists in the present-day society of Nigeria. Sustainable development is a way of organising society s that it can exist in the long term (Youmatter, 2020). Suffice it to say that enabling the girl-child to play her role in the value reorientation for sustainable development is a win-win situation for everyone.

A girl-child develops under the custody and supervision of adults, and she is easily influenced by her experience as she develops. Her behaviour is shaped by observation and imitations of those who nurtures her and on whom she depends, and she is eventually transformed into a woman (Amanze & Uwanna, 2018). Women as mothers, are educators within their families. They are the first teacher a child encounter because the education of every child starts from the family. Mothers pass on whatever knowledge they have to their children and their future generations. The role of the girl child/women cannot be underestimated even though they are generally looked down upon and made to play the role of a “second fiddle” to men. Most times they are to be seen and not heard. However, a lot has changed about this perception of women since the Beijing Conference in 1995 and more girls have access to education thereby growing their enrolment in schools (Odeleye, 2018). Despite this improvement, it is still important to define girls' role in value reorientation because girls/women are the heart of the society, and they have great influence on children (Adelakun-Odele, 2018).

Conclusion

The concept of value re-orientation denotes redeeming the national values to meet the societal needs. This concept will be enhanced with a better education for the girl child.

Girl-child education remains pivotal to the empowerment of the female gender for value-reorientation. Girl-child education becomes pertinent for value-recovery and the attainment of sustainable development, as the girl-child who will grow to be a woman is empowered. Educated girls develop essential life skills, including self-confidence, the ability to participate effectively in society, and protect themselves from sexual exploitation and anti-social vices.

Education gives the girl-child an opportunity to conquer her environment and chart a course for her destiny and the destiny of her nation. It is therefore expedient to select with care the values that would help to integrate the society and promote mutual relationship between individuals and their environment through basic education programme for the girl child. In view of this, the basic education curricular should be reviewed to reflect those lost values cherished by the Nigerian nation of old which include the inculcation of social norms, teaching cooperation and team spirit, teaching good habits, character and moral training and the development of sound attitudes among individuals. Furthermore, implementation of such curricular should be emphasized and brought to fruition.

The home front plays a vital role in value formation and re-orientation. Parents should therefore be available at home to teach their children national and community norms and values which the Nigerian society was credited for in the past. There is a lot of parental absenteeism going on in the society today. Children, including the girls, are left to be taught by their peers, the internet and unscrupulous individuals within the society. This should be corrected so that the girl child would have good role models in their parents. Worship places should also train the girl child to become epitome of etiquette and social values. Moral instruction and citizenship education should be intensified in our schools. Finally, the importance of raising the girl child as an ambassador of value reorientation for national and sustainable development should be in the front burner of every basic educator in Nigeria.

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LECTURERS' COMPETENCE AND STUDENTS' ACADEMIC ACHIEVEMENT IN ENTREPRENEURSHIP EDUCATION IN SOUTHWEST, NIGERIA

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Abstract

The study investigated lecturers' competence and students' academic achievement in Entrepreneurship Education in Southwest, Nigeria universities. A descriptive survey research design was employed. The population for the study comprised all lecturers and students of Entrepreneurship or Entrepreneurship related courses in Federal, State and Private Universities. The sample size was made up of 1,119 lecturers and 7,500 students selected using both Cluster and Systematic sampling techniques. Human Resource Indices Questionnaire (HRIQ), Instructional Material Questionnaire (IMQ), Entrepreneurship Education Achievement Test (EEAT) were used as instruments for data collection. The data obtained was analyzed using mean, standard deviation and regression analysis. The result obtained revealed a significant joint influence of lecturers' competence on students' academic achievement in entrepreneurship education ($R^2 = 0.166$, Adjusted $R^2 = 0.17$, $p < 0.05$). It was concluded that the status of human resource indices was good, for entrepreneurship education and the students' academic achievement in entrepreneurship education was averagely alright in Southwest, Nigeria universities. It was recommended that there is need to improve the level of academic achievement of the students by ensuring that lecturers with the right qualification, teaching experience, attitude and mastery of subject content are employed to teach the students.

Keywords: Lecturers' competency, Academic Achievement, Entrepreneurship Education

Introduction

Entrepreneurship is a widely used term and is seldom completely understood by many who use it. It is a step in the right direction in the achievement of development. The need for entrepreneurship education started emerging in the mid-1980s. This is because before this period, unemployment and poverty were not a national concern as it is currently. However, political instability and inconsistencies in the social-economic policies of successive government led to the emergence of high-level unemployment in Nigeria. In the mid-80s, the Nigeria economy collapsed while youth and graduate unemployment hit the roof. There was large-scale layoff of workers and early retirements as a result of structural adjustment policies and bad economic trends in the country. In the face of this situation, entrepreneurship, which would have salvaged the situation, was not encouraged. It has been observed that tertiary education has not been properly included in the philosophy of self-reliance such as creating a new cultural and productive environment that will promote pride in primitive work and self-discipline, encouraging people to take part actively and freely in

discussions and decisions affecting their general welfare, promoting new sets of attitudes and culture for their attainment of future challenges.

Entrepreneurship is used to describe self-employment, people who provide employment for themselves rather than seeking a paid employment from either the government or other source (Ayeni, 2021). It is the capacity and willingness to develop, organize and manage a business venture along with any of its risks in order to make a profit (Bolaito & Nakazalle, 2017). For one to be successful in entrepreneurship venture, he/she is required to go through Entrepreneurship Education in order to gain the right skills, knowledge and attitudes (Satya & Yamini, 2017). Entrepreneurship Education is a learning process which seeks to provide learners with the attitude, innovation, knowledge, skills and motivation to encourage entrepreneurial success in a variety of schooling from primary or secondary schools through graduate university programmes (Olanipekun, Brimah & Rabi, 2015). The core of Entrepreneurship Education is turning ideas into action and developing a sense of initiative which makes it so important and pivotal (Morselli & Ajello, 2016). In the past, Nigerian students and graduates were relatively few, in high demand and easily employed immediately after graduation from secondary or tertiary institutions.

Competence in human resources can be described as the ability of a person to perform his role quickly or qualified enough to perform certain roles. Various groups define competence in many ways, but some scientists consider competence as a combination of cognitive skills, practical knowledge, and theoretical behavior and values to improve achievement.

Mastery of subject content is a human resource index that has to do with lecturers' competence and expertise at teaching a subject (in this case Entrepreneurship). Lecturers' mastery of subject knowledge is skills, abilities and specialty that help them to impart knowledge effectively and confidently. It is through the mastery of subject matter that teachers are able to impart the right skills of communication, collaboration, critical thinking and creativity that are based on the three learning domains of cognitive, affective and psychomotor (Kamami & Ngugi, 2014). Subject mastery is seen as the ability of teacher to break down subject matter into logical and smaller units for clearly, easier and faster comprehension of content by the learners (Obot, 2014). Subject mastery is among the four groupings of the competencies needed for effective teaching in an educational institution. The mastery of subject matter is the foundation upon which the education of a teacher is based. It is an essential skill that a teacher requires to be endowed with in the teaching and learning process as it has direct impact on teaching and learning process in the institution. Teachers are required to know what they are teaching because understanding of subject matter implies that they are able to grasp the main points and teach them to the learners and to correct any misconception of knowledge (Amalu, Nguw, Arop & Obot, 2020).

An effective teacher is one who is fully prepared in the subject and has broad general education and thus imparts effectively the correct facts to students. Mastery of subject matter by a lecturer is tantamount to good teaching and improved students' academic achievement since it enhances the lecturers' ability to plan and present the lesson effectively. The lecturers' ability to ask what the students have learnt in terms of knowledge, understanding, skills or attitudes is a function of the teachers' mastery of subject content (Omogun, Onohen & Ateb, 2014). The mastery of subject content by a teacher greatly determines the quality of teaching

and students' learning outcomes. The teacher with good knowledge of the subject matter is able to plan and teach the lesson by way of highlighting the main points of the lesson to the learner while clarifying the knowledge misconceptions. This is believed to influence learning and contributes to the quality of teaching and academic achievement of the students. The teacher is required to arrange and manipulate the learning environment which requires a number of tactics intended for learning to take place. A lecturer with mastery and expertise in a particular field could provide more grasp, knowledge acquisition and thinking skills to students in assisting them understand better on a subject matter. Mastery of subject content require the lecturer to possess an adequate knowledge in enabling them to present information through sufficient explanations in obtaining the course objectives (Manaf, Abdullah & Obua, 2015). Furthermore, difficulties in mastering subject matter by these lecturers affect the quality of learning as they go to class less prepared which thus affect their competency and inadequate knowledge gains by the learners (Kamamia & Ngugi, 2014).

The term attitude is defined as a learned and stable disposition to respond favorably or unfavorably to an object, person, institution, or event in a consistent way. It is acting, feeling, or thinking that show one's disposition or opinion towards a topic or subject (Estrada & Batanero, 2020). Teachers' attitudes may be defined as mental state achieved through life experience or acquired and psychological variables that direct their behavior (Krishler, 2019). Teachers' professional attitudes consists of a combination of an individual's emotion, behaviour towards the profession, and professional loyalty (Mantero & Casas-Rosal, 2020). Attitude is about emotions and feelings, and effective teachers willingly share emotions and feelings (that is enthusiasm, affection, patience, sadness, disapproval) as well as a sincere interest and care about their students. Teachers' attitudes, whether positive or negative, can influence student attitudes (Denosen, Vos, Hasselma & Louwa, 2015). Measuring teacher attitude is important because students' attitudes towards a subject are shaped by observing teachers' comments and enjoyment when teaching about a topic (Vosen, Henze, Rippe & Van Driel, 2019).

Lecturers' attitudes toward any particular area of knowledge (Entrepreneurship Education), show specific characteristics he or she may express enthusiasm for a subdivision of the subject and annoyance for another; even though attitudes tend to be positive at an early age, these enthusiasms may emerge at any stage or level. Attitudes evolve gradually over time, are gradable according to their intensity, and could be positive or negative. Lecturers' attitudes are known to be related to teaching effectiveness and choice of instructional strategies and thus influence the classroom practice of a subject. When they hold negative attitudes or anxiety towards the subject they teach, they can pass this anxiety on to their students (Vosen, Henze, Rippe & Van Driel, 2019). Conversely, positive teacher attitudes towards entrepreneurship subject relate to positive student attitudes and student academic achievement in the subject. Hence, attitude of lecturers is one of the most significant factors that could determine students' attitude towards a subject, instead of curriculum variables (Zangenah, 2020). There are three component models of attitudes. They are (1) the affective component (feelings and emotions toward the attitude object); (2) the cognitive component (thoughts, knowledge and beliefs about the attitude object), and (3) the behavioral component (intended action and behavior toward the attitude object) (Krischler, 2019).

Human resource indices such as personal characteristics (educational qualifications

and teaching experience), mastery of subject content and attitude are therefore factors that could predict students' academic achievement in entrepreneurship education.

Statement of the Problem

The inadequacy of Entrepreneurship Education in the Universities could lead to the graduates who are not adequately prepared for the labour market. It could make them handicapped and unable to contribute positively to themselves and to the economic growth of their nation at large. However, poor teaching and academic achievement have been observed in Entrepreneurship Education in Universities including those in the South West region of Nigeria. It is observed that many lecturers that teach Entrepreneurship Education course are neither qualified to teach the subject nor have practical entrepreneurial training, mastery and consciousness as they are mostly drafted from other related fields. This study therefore investigated the extent to which lecturers' competency (human resource indices) predicts academic achievement in Entrepreneurship Education among undergraduates in Southwest, Nigeria universities.

Purpose of the Study

The aim of this study was to investigate Lecturers' competence (human resource indices) as predictor of academic achievement in Entrepreneurship Education among undergraduates in Southwest, Nigeria universities. The objectives were to;

1. ascertain the status of human resource indices in South West, Nigeria universities;
2. determine the status of lecturers' mastery of the subject content in the South West, Nigeria universities;
3. investigate the joint influence of human resource indices (qualification, teaching experience, mastery of subject content and attitude on undergraduates' academic achievement in Entrepreneurship Education in Southwest, Nigeria universities;

Research Questions

The present study attempted to find answers to these research questions:

1. What is the status of human resource indices in Southwest, Nigeria universities?
2. What is the status of lecturers' mastery of the subject content in the South West, Nigeria universities?

Hypothesis

H₀₁: There will be no significant influence of human resource indices (qualification, teaching experience, mastery of subject content and attitude on undergraduates' academic achievement in entrepreneurship education in southwest Nigeria universities.

Methodology

The study adopted a descriptive survey research design. The population of the study comprised of lecturers and students of Entrepreneurship or Entrepreneurship related courses in Federal, State and Private Universities in South West Nigeria. The total number of lecturers was 1,400 (Federal: 291, State: 277 and Private: 832) and the total number of

students was 8,667 (Federal: 2,465, State: 2,565 and Private 3,637). A two-stage sampling technique was used to select the sample for the study. The first stage cluster sampling method sampling technique that was used. In this study, it was used to select four states (Lagos, Ogun, Oyo and Osun). Systematic sampling technique was used for the second and final stage. The researchers used 700 lecturers and 1,000 students to make up the sample size for the study. Two researchers' constructed questionnaire titled: "Human Resource Indices Questionnaire (HRIQ) and Instructional Material Questionnaire (IMQ)" were used as instrument for data collection. Which was divided into four (4) sections A-D comprising of structured items and Achievement Test titled "Entrepreneurship Education Achievement Test (EEAT)" was used to determine the academic achievement of the students in Entrepreneurship Education. The instrument consisted of twenty-five (25) multiple choice questions (MCQ).

To ascertain the validity of the two instruments a face and content validation was carried out by experts in Educational Management and Business Education at Lead City University, Ibadan for corrections. After these experts have scrutinized and contributed their input in order to ensure that the instruments measure what it intends to measure, the researchers effected the final corrections of the instruments. To determine the reliability of the instruments, a pilot study was done using twenty (20) lecturers and (20) students from Universities in Ondo State. The lecturers and students were not included in the final study. The instruments were administered to the lecturers and students and after they have responded, Cronbach's alpha was used to assess the reliability of the questionnaires while Kuder-Richardson 20 (KR-20) was used to determine the reliability of the achievement test. A reliability coefficient (r) value of 0.82 (82%) and 0.79 (79%) were obtained for Human Resource Indices Questionnaire (HRIQ) and Instructional Materials Questionnaire (IMQ) respectively. However, K₂₀ value of 0.91 was obtained for Entrepreneurship Education Achievement Test (EEAT).

The researchers along with three Research Assistants visited majority of the universities to distribute the instruments. The Research Assistants were trained for a period of one week during which they were told how to administer and collect the instrument. The researchers administered the instruments to respondents of the study in the various universities in the selected states both live and via online (such as e-mails). Some of the instruments were retrieved immediately while some at a later date after the respondents have responded to them. The students were allowed twenty minutes to respond to the questions. The responses were marked and scored to determine the students' academic achievement in Entrepreneurship. The data collected from the fieldwork were analysed using both descriptive and inferential statistical tools. Research questions were answered using frequency counts, percentages, means and standard deviation. Multiple regression analysis was used to test hypotheses for the study at (P>0.05) level of significance. Decision Rule if mean is less or equal to 1.49 = Strongly Disagree; 1.5 to 2.49 = Disagree; 2.5 to 3.49 = Agree; 3.5 to 4.5 = Strongly Agree.

Results

Research Question One: What is the status of human resource indices (personal characteristics, mastery of subject content and attitude) in Southwest, Nigeria universities?

Table 1: Status of Lecturers' Personal Characteristics (Qualification and Teaching Experience) in Southwest, Nigeria universities (N=657)

No.	Items ("My lecturer")	SA Freq. (%)	A	Di Freq. (%)	SD Freq. (%)	Mean (\bar{x})	St. Dev	Remark
1.	has the academic degree for the subject he/she teaches	73 (11.1)	349 (53.1)	190 (28.9)	45 (6.8)	2.685	0.76	Agreed
2.	is qualified to teach Entrepreneurship	59 (9.0)	324 (49.3)	231 (35.2)	43 (6.5)	2.607	0.74	Agreed
3.	knows how to use material resources that facilitate learning	30 (4.6)	345 (52.5)	245 (37.3)	37 (5.6)	2.561	0.67	Agreed
4.	designs the content and develops the course to promote the acquisition of knowledge by the students	42 (6.4)	202 (30.7)	334 (50.8)	79 (12.0)	2.315	0.76	Disagreed
5.	demonstrates competence in the course he/she teaches	73 (11.1)	321 (48.9)	225 (34.2)	38 (5.8)	2.653	0.75	Agreed
6.	is a novice in the area of Entrepreneurship Education	38 (5.8)	144 (21.9)	402 (61.2)	73 (11.1)	2.224	0.72	Disagree
7.	has taught Entrepreneurship for several years	72 (11.9)	299 (34.9)	245 (37.3)	105 (16.0)	2.426	0.90	Disagreed
8.	relates the teachings to the professional environment	89 (13.5)	249 (37.9)	232 (35.3)	87 (13.2)	2.518	0.89	Agreed
9.	can teach even without the help of a lesson note	48 (7.3)	308 (46.9)	263 (40.0)	38 (5.8)	2.557	0.71	Agreed
10.	has taught Entrepreneurship successfully in several institutions	59 (7.8)	302 (46.0)	269 (40.9)	35 (5.3)	2.562	0.71	Agreed
Average Overall Mean						2.511	0.76	

Source: Field Survey, 2020

Table 1 shows the personal characteristics of the lecturers using two kinds:- qualification (items 1-5) and teaching experience (items 6-10). The table reveals generally

that majority of the lecturers that teach Entrepreneurship courses are qualified and experienced (\bar{x} =2.511, SD =0.76). The items with the highest level of agree response for qualification of lecturers are that - "the lecturers have the academic degrees for the subject they teach (\bar{x} =2.685; 53.1%) and that they know how to use material resources that facilitate learning (\bar{x} =2.561; 52.5%)". This suggests that Entrepreneurship students are taught by qualified lecturers in Southwest Universities. Secondly, the items with the highest level of agree response for teaching experience of lecturers are that they demonstrate competence in the course they teach (\bar{x} =2.653; 48.9%) and can even teach even without the help of a lesson note (\bar{x} =2.557; 46.9%)". This also indicates that majority of the lecturers are experienced at the courses they teach to the extent that they can come to class and teach well without their lesson notes. However, the areas where majority of the lecturers were least qualified and experienced is the item that suggest that "the lecturers design the content and develop the course to promote the acquisition of knowledge by the students (\bar{x} =2.315; 30.7%) and have taught Entrepreneurship for several years (\bar{x} =2.426; 34.9%) as depicted by the low agree responses. Overall, most of the lecturers have good qualification and teaching experience as their personal characteristics.

Research Question Two: What is the status of Lecturers' mastery of subject content in Southwest, Nigeria.

Table 2: Status of Lecturers' Mastery of Subject Content in Southwest, Nigeria universities (N=657)

No.	Items ("My lecturer")	SA Freq. (%)	A	Di Freq. (%)	SD Freq. (%)	Mean (\bar{x})	St. Dev	Remark
1.	responds clearly to questions asked in class	55 (8.4)	234 (35.6)	332 (50.5)	36 (5.5)	2.469	0.73	Disagreed
2.	has a good command of the contents of Entrepreneurship course	97 (14.8)	311 (47.3)	194 (29.5)	55 (8.4)	2.685	0.82	Agreed
3.	interweaves the content of the subject matter with other courses	65 (9.9)	308 (46.9)	242 (36.8)	42 (6.4)	2.603	0.75	Agreed
4.	applies the established curriculum with a certain amount of flexibility for a better class dynamic	77 (11.7)	352 (53.6)	203 (30.9)	25 (3.8)	2.732	0.71	Agreed
5.	presents the minimum content of his/her subject matter, tailored to the students' knowledge	83 (12.6)	359 (54.6)	192 (29.2)	23 (3.5)	2.764	0.71	Agreed

No.	Items ("My lecturer")	SA Freq. (%)	A	Di Freq. (%)	SD Freq. (%)	Mean (\bar{x})	St. Dev	Remark
6.	provides clear information about objectives, bibliography, tutorials, contents, and assessment methods in the Entrepreneurship curriculum	66 (10.0)	305 (46.4)	245 (37.3)	41 (6.2)	2.603 2.597	0.75 0.70	Agreed Agreed
7.	provides the students with information that allows them to gain a better and deeper understanding of the subject matter	50 (7.6)	247 (37.6)	278 (42.3)	67 (10.2)	2.472	0.81	Disagreed
8.	presents the contents following a clear and logical framework, highlighting the important aspects	65 (9.9)	239 (36.4)	323 (49.2)	39 (5.9)	2.475	0.73	Disagreed
9.	provides initial and final overviews of the session and/or subject in class	66 (10.0)						
10.	fosters research and a critical entrepreneurial spirit in students	56 (8.5)						
Average Overall Mean						2.595	0.75	

Source: Field Survey, 2020

Table 2 reveals generally that majority of the lecturers have good mastery of Entrepreneurship subject content (\bar{x} = 2.595, SD = 0.75) as depicted by a higher number of agreed to disagreed responses to each of the items. The items with the highest level of agree response are that the lecturers present the minimum content of their subject matter, tailored to the students' knowledge (\bar{x} = 2.764; 54.6%) and that they know how to apply the established curriculum with a certain amount of flexibility for a better class dynamic (\bar{x} = 2.732; 53.6%). However, the areas where majority of the lecturers show less mastery of subject content in entrepreneurship education are the items that "they responded clearly to questions asked in class (\bar{x} = 2.315; 30.7%) and fosters research and a critical entrepreneurial spirit in students (\bar{x} = 2.426; 34.9%)". The implication of this is that though

the most of the lecturers have good mastery of subject content in Entrepreneurship Education, only some of them know how to give clear and concise explanations to questions being asked by the students. Furthermore, some of the lecturers do not know how to inspire or foster that entrepreneurial spirit in the students. They just know how to teach. This implies that the students could pass the subject but may not have the inspiration to start a business or an entrepreneurship venture and this is seen in the high level of graduates roaming the streets seeking for job all over the nation. However, overall, most of the lecturers have sound mastery of Entrepreneurship subject content.

H₀₁: There will be no significant joint influence of human resource indices (educational qualifications, teaching experience, mastery of subject content and attitude) on students' academic achievement in entrepreneurship education in Southwest Nigeria universities.

Table 3: Model Summary and Coefficients of Multiple Regression Analysis for the Joint influence of Human Resource indices (Qualification, Teaching Experience, Mastery of Subject Content and attitude) on undergraduates' academic achievement in Entrepreneurship Education in Southwest, Nigeria universities

ANOVA ^a		Model Summary								
Model		Sum of Square	df	Mean Square	F	Sig.	R	R ²	Adjusted R ²	Std. Error of the estimate
1	Regression	7.463	7	1.066	2.616	.011 ^b	.166 ^b	.027	.017	.63837
	Residual	264.48	649	.408						
	Total	271.94	656							

Source: Fieldwork survey, 2020 *Coefficients is significant at 0.05**

a. Dependent Variable: Students' Academic Achievement in Entrepreneurship Education
b. Predictors: (Constant), lecturer attitude, lecturer experience, lecturer qualification, lecturer mastery of subject content

Table 3 shows the model summary and coefficients of the multiple regression analysis for the joint influence of human resource indices (educational qualifications, teaching experience, mastery of subject content and attitude) undergraduates' academic achievement in Entrepreneurship Education in Southwest, Nigeria universities. The analysis of variance (F ratio) of the regression analysis is significant ($F_{(7, 649)} = 2.616, P < 0.05$). The model summary thus reveals a significant joint influence of human resource indices on students' academic achievement in Entrepreneurship Education ($R^2 = 0.166$, Adjusted $R^2 = 0.17, p < 0.05$). The model shows that human resource indices explain 17% variation in (Adjusted $R^2 = 0.17$) undergraduates' academic achievement in Entrepreneurship Education in Southwest, Nigeria universities. This implies that human resource indices predict the academic achievement of students in Entrepreneurship Education in Southwest, Nigeria universities. Hence, the null hypothesis which states that human resource indices will not have any significant influence on undergraduates' academic achievement in Entrepreneurship Education in Southwest, Nigeria universities was rejected. Human resource indices significantly influenced students' academic achievement in Southwest, Nigeria universities. This suggests that improved human resource indices leads to the improvement in students' academic achievement in Entrepreneurship Education.

Discussion of Findings

This agrees with a research scholar in whose work on "Lecturers' Variables as Predictors of Academic Performance in Universities" reported satisfactory lecturers' variables such as qualification and mastery of subject content) in Southwest, Nigeria universities (Adeyemi, 2017). The finding is also supported by the study of research scholars on "Colleges of Education lecturers' attitude towards the use of information and communication technology in Nigeria" reported that southwest College of Education lecturers' attitude was favourable (Olafare, Adeyanju & Fakorede, 2017).

Conclusion

The study concludes that the status of human resource indices is good, for Entrepreneurship Education and the students' academic achievement in entrepreneurship education is averagely alright in Southwest, Nigeria universities. Therefore, lecturer competency (human resource indices) is an important element that can improve undergraduates' academic achievement in entrepreneurship education in Southwest, Nigeria universities.

Recommendations

Based on the results of this study, the following recommendations are given:

1. Although the study findings showed that the level of human resource indices of the lecturers in Southwest, Nigeria universities is good, there still remains room for improvement and need for sustenance of human resource indices as well as those not added within the scope of this study. This is important because it will help with the ongoing effort of repositioning the universities of Nigeria to have a global appeal.
2. The results revealed a high average academic achievement of the students. However, there is need to improve the level of academic achievement of the students by ensuring lecturers with the right qualification, teaching experience, attitude and mastery of subject content are employed to teach the students
3. For the professional growth of lecturers, conferences, seminars, workshops, pre and in-service training programmes should be given adequate attention by the University authority for constant update of lecturers' performance.

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IMPACT OF PROCESS ORIENTED COOPERATIVE-INQUIRY LEARNING STRATEGY ON THE METACOGNITION OF CHEMISTRY STUDENTS IN LAGOS STATE, NIGERIA

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Abstract

The study investigated the impact of process oriented cooperative learning strategy on the metacognition of chemistry students in Lagos State, Nigeria. Four specific objectives and four research questions guided this study. Correlation survey research design was adopted for the study. The sample for the study consisted of four hundred and twenty-one (421) Senior Secondary II chemistry students from nine public schools in Lagos State, Nigeria, which were selected using purposive random sampling technique. Process Oriented Cooperative-Inquiry Learning Strategy (POCILS). The instruments; Learning Strategy Scale (LSS), and Metacognition Learning Inventory–Chemistry (MLI-C) were administered three times at intervals of Time T1, Time T2, and Time T3 to the students for data collection. Mean, Standard deviation, Analysis of Variance (ANOVA), and t-test were used to analyze the data. SPSS AMOS 26 software program was employed to calculate the correlation coefficient statistics. Results showed that learning strategies instruction increased students' metacognition in chemistry. Results also showed that students' learning strategies used reflected on their metacognition and that students' learning strategies used shows a high correlation with metacognition. Furthermore the results showed that there was no significant difference in students' learning strategies use and students' metacognition in chemistry based on gender. Therefore, it was concluded that learning strategies intervention using POCILSIM improves students' learning strategies use which directly increases students' metacognition in chemistry. Hence, it's recommended that Policymakers should approve the inclusion and teaching of learning strategies in the National curriculum at all levels using POCILSIM.

Keywords: Metacognition, learning strategies, Correlation coefficient.

Introduction

Intelligence was thought to be the main factor that determines academic achievement years ago but many years of research on learning and motivation have shown that students become more successful academically by using appropriate learning strategies to manage their motivation, behavior, and learning (Zimmerman; 2015). Learning strategies include actions, behaviors, or techniques that students willingly use to improve their own learning (Zamora, GilFlores, and de Besa Gutierrez, 2020). Zeidner and Stoeger (2019) posited that learning strategies are skills that can be taught. Educators must have knowledge of the students' learning strategies in order to make use of suitable teaching methods to promote successful teaching and learning. Also, Stumm and Furnham (2012) asserted that learning strategies are a collection of cognitive and behavioral processes and abilities that influence how information is acquired, maintained, and recalled. The authors stated that students could use strategies such as rehearsal, organization, elaboration, critical thinking,

metacognitive self-regulation skills, effort regulation, time, and study environment management, help-seeking, and peer learning (pp. 720-723). The nine learning strategies were considered in this study:

- (1) Rehearsal (RE) helps to store information to be learned into working memory. It includes naming, repeating, memorizing, highlighting, underlining, using mnemonics, identifying, and reciting material for learning (Weinstein and Mayer, 1986).
- (2) Elaboration (EL) helps to store learned information in long-term memory. It involves creating internal connections between one's prior knowledge and the new material. Examples are matching, applying analogies, and generating metaphors (Weinstein and Mayer, 1986).
- (3) Organization (ORG): in this the learner review, reorganize and restructure the learning material to reduce the information. Examples are: outlining, creating tables, re-grouping, visualizing, mapping, or connecting key ideas in learning material (Weinstein and Mayer, 1986).
- (4) Critical Thinking (CT): is thinking of any subject, content, or problem in which the thinkers improve the quality of their thinking by skillfully taking control of the structures inherent in thinking and imposing intellectual standards upon them (Paul and Elder., 2004). It includes making inferences using inductive or deductive reasoning.
- (5) Metacognitive Self-Regulation Skill (METS): this involves learners evaluating their performance by critiquing and trying to come up with better ways of learning. Examples are self-critique, taking responsibility, personal reflection, individual monitoring, and changing study habits.
- (6) Time, and Study Environment Management (TSM): is choosing appropriate environments that are conducive to learning; free from distractions and effectively planning, and managing one's study time (Pintrich, Smith, Garcia, and McKeachie., 1991).
- (7) Effort Regulation (ER): It enhances the learner's ability to handle issues of setbacks and failures that may arise during the learning process through the allotment of resources and required effort to increase successful learning (Chen, 2002).
- (8) Help-Seeking (HS): this allows a learner to optimize learning by seeking help from human and material resources such as teachers, peers, relevant textbooks, or the internet (Karabenick, 1998).
- (9) Peer learning (PL): this is studying with peers (friends, classmates, etc.) to collaboratively understand learning material or information to be learned (Jones, Alexander, and Estell., 2010).

Researchers that applied the learning strategy instructions agreed on the “how of instruction” (Clarke, 2008; cited by Prothero and Clarke, 2008; pp 34). Kiewra (2002), posited that learning strategies instruction should include principles that will help students learn how to extend the use of a particular strategy to other tasks and classes. Learning strategies have been a critical issue for instructional designers because they are to develop instructional systems that are appropriate to the learning strategies of each student, both in group instruction and individual learning environments. However, it is not clear on what basis students select certain strategies and why they prefer them (Simsek, 2006). Educators are eager about the relationship between the learning strategies used and various learning outcomes such as achievement, perseverance, metacognition, and self-efficacy. The learning outcome considered in this present study is the students' metacognition. Learning

how to learn is a lifelong skill students in the 21st century must possess. This skill involves the use of metacognition, which is important for effective and successful learning.

Metacognition is an individual's ability to plan, monitor, evaluate, and make changes to their learning behaviors in order to face their challenges more effectively. It is a form of self-regulation, involving self-awareness, critical thinking skills, and the ability to problem-solving. Metacognition can also be a reflection on one's ways of thinking and knowing when and how to use particular strategies for problem-solving. According to Mevarech and Kramarski, (2014), metacognition is a thinking process of a higher order that involves active control over cognitive processes. Cognition is being aware of a task while metacognition is being aware of and knowing how a task is learned (Senemoglu, 2007). Flavell (1979) pointed out that asking yourself questions on a topic can function either to improve your knowledge (a cognitive act) or to monitor it (a metacognitive act). Cognitive activities help individuals to gain, retain and transfer knowledge for task accomplishment, while metacognitive activities allow an individual to regulate and govern task accomplishment, that is, how a task is executed to ensure a satisfactory level of performance (Ku & Ho, 2010). Lai (2011) indicated that metacognition can empower meaningful learning and that problem-solving, critical thinking, and self-regulated learning are important in preparing students for higher education and career.

In the classroom setting, metacognitive learning demands that students develop a plan for learning the content, monitor their learning process through reflection, and adjust their plan accordingly to ensure deeper, durable, and transferable learning (Schraw, Brooks, & Crippen; 2005). "A 'metacognitive' way to instruction can assist students to take control of their own learning by defining learning goals and monitoring their own progress in achieving their goals." (Masters, 2020). Metacognition consists of two components: metacognitive knowledge (knowledge about cognition) and metacognitive regulation (regulation of cognition) (Zimmerman & Schunk, 2011; Schunk, 2012). Metacognitive knowledge is the knowledge about an individual's cognition as a learner. It is about the what, why, when, and how of applying certain cognitive strategies that can improve learning outcomes. These factors are: (1) declarative knowledge refers to knowledge about oneself as a learner and perception of task structure. (2) Procedural knowledge means the knowledge about the execution of procedural skills and (3) conditional knowledge means knowing when and why to apply various cognitive activities. Veenman denotes this with the WWW&H rule meaning, What to do When, Why is needed, and How to do it (Veenman, 2011; Veenman, Van HoutWolters, & Afflerbach, 2006). Metacognitive regulation contains three regulatory skills: (1) Planning – indicates choosing appropriate strategies and allocation of resources which include goal setting, activating background knowledge, and budget time. (2) Monitoring – indicates an individual's awareness of comprehension and task performance, and can include self-testing. (3) Evaluation – is appraising the products and regulatory processes of one's learning as well as revisiting and revising one's goal (Schraw, Crippen, and Hartley, 2006). In Nigeria, promoting students' metacognitive knowledge and metacognitive regulatory skills is part of the recommendations for improving the declining performance of students at secondary school level public examinations in Nigeria (Okoza, Aluede, and Owens-Sogolo, 2013; Ijila, 2014; Maduabuchi & Angela (2016). Studies on students' metacognition and learning in Nigeria are limited with an emphasis on secondary school (Nbina & Viko, 2010; Adedipe & Ofodu, 2011; Onu, Eskay, Igbo, Obiyo, & Agbo, 2012; Eluemuno and Azuka-Obieke, 2013; Ajaja & Agboro-Erawoke, 2017). Research in metacognition is increasing in Nigeria, but students are not fully aware of the importance of

the strategy in learning (Okoza et al., 2013). Researchers have found that the ability to be aware of what one knows (i.e. cognitive action) seems to start early in most children and develop in similar ways with age; but, the capability of the children to use their knowledge in strategic ways is "influenced by the children's early environment and social interaction which shows individual differences in children of the same age" (Bryce & Whitebread; 2012; Whitebread & Neal, 2020).

Learning strategies can be taught as part of content-area instruction through learning strategy intervention using Process Oriented Cooperative-Inquiry Learning Strategic Instruction Method developed by the researcher.

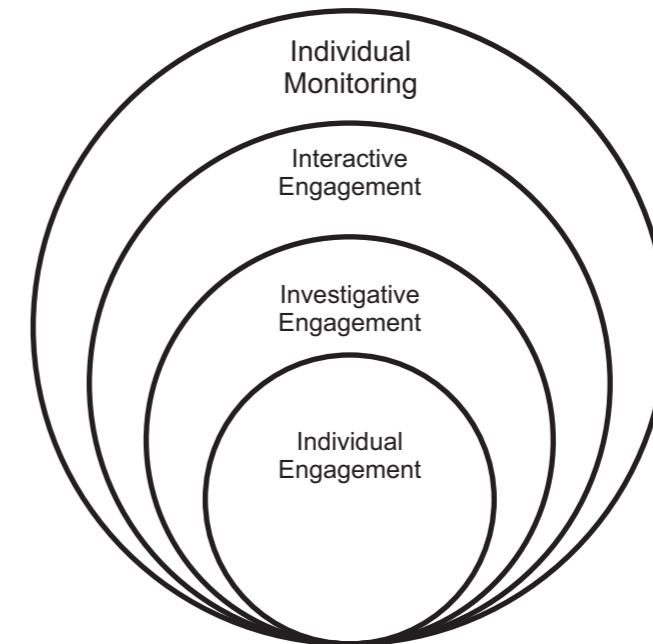


Fig 1.1 POCILSIM Learning Cycle Model The 4i's

In the POCILSIM classroom, the class is divided into small groups of 6-7 students who must learn about a joint topic called a learning task. The task is divided into sub-units of similar size and responsibility and each of these is assigned to one of the students in the group beforehand. The sub-units have to be independent of each other so that each of the group members can learn about it individually using rehearsal, help-seeking, time, and study management strategies (Independent Engagement). After becoming familiar with their piece of information the students from all groups with responsibility for the same sub-unit are grouped together (adept round). These adept groups continue working on their topic as a group with the aim of producing an explanation of their topic which they will share with other students using peer-learning, elaboration, organization; critical thinking, time, and study environment management (Investigative Engagement). The students then return to their starting groups; to teach and learn from each other about the different pieces of the whole topic (proficient round) using peer learning, help-seeking, critical thinking, effort regulation, time, and study environment management (Interactive Engagement). While the process of students' inquiry is on-going, the teacher acts as a mentor and collaborator. After

the group discussion, each group gives a presentation, report, and other contributions to the whole class while the other students listen and ask questions already formulated on the topic after which each group self-critiques their own work on why they use certain strategies; why they performed well and why they performed poorly in some areas using metacognitive self-regulation skills, Time, and study environment management (Individual monitoring). The students during the discussion and presentation stage have the opportunities to speak, share ideas, evaluate their ideas, and appreciate other students' opinions when they are working in a small group. The results of all the groups are then criticized generally and evaluated by both the students and the teacher.



Figure 1: SAMPLE OF STUDENTS WORKING IN SMALL GROUP DURING THIS STUDY

The chemistry practical starts with a learning task consisting of four steps: observation and comprehension of the macroscopic nature of matters, concepts formulation, application, and evaluation based on Bloom's Taxonomy of Educational Objectives for Skills-Based Goals. Conceptual understanding in chemistry is the ability to explain chemical phenomena at the three levels of representation: macroscopic, microscopic, and symbolic levels. The inability to explain chemical phenomena at the three levels of representation: macroscopic, microscopic, and symbolic state may account for students' poor performance. When relationships are formed between these three levels of representation, students understand chemistry meaningfully (Sanger, Phelps, & Fienhold., 2000). The observation and comprehension step is to train students on how to carry out observation, write observation results, interpret, and extrapolate the results. The concept and question formulation is to enhance students' critical thinking in which he or she formulates concepts and questions based on observation results. The application involves using the formulated concepts to solve non-routine problems to enhance students' problem-solving skills. During the evaluation, the students critique the observation result. The students need to be trained on how to formulate concepts and questions. Chemistry education is aimed at developing factual, conceptual, procedural, and metacognitive knowledge, so providing tasks for concept formulation and concept application is very important.

Theoretical Framework

The study is based on Cognitive constructivist learning theory and Metacognition theory.

Cognitive constructivists' theory

The constructivist cognitive learning theory (Piaget, 1978) explains how students construct knowledge based on the interaction between their prior knowledge and current situations. Knowledge construction involves cognitive learning, acquisition of content knowledge, and the ability to apply that knowledge to new situations (Bretz, 2001). Knowledge construction is facilitated by giving opportunities to students to observe the macroscopic nature of matter, formulate concepts and questions based on the observation results, and answer the questions. In order to engage in constructivist learning, students must acquire the necessary learning strategies. Thomas & McRobbie (2001) using various qualitative approaches posited that students' disposition to enhance metacognition and the learning process can be connected to the use of a constructivist method.

Metacognitive Theory

The metacognitive theory focused on the cognitive characteristics of the mind, ways of thinking, and levels of control and understanding of the cognitive processes (King 1999). The cognitive system includes metacognitive self-instructions and the cognitive processes that are involved in the execution of those instructions (Veenman, 2012). The conceptualized metacognition shows the complex relationship between cognition and metacognition where metacognition is part of the cognitive system and the higher-order factor that controls the cognitive system (Veenman, Van Hout Wolters & Afflerbach, 2006). Metacognitive strategies give students the opportunity to conduct sufficient self-assessment to control their cognitive activities independently, consisting of thinking to plan, execute, interpret, and evaluate the process of understanding a concept in a learning process in form of problem-solving. This study intends to improve the students' problem-solving and knowledge construction through the learning strategies intervention.

Literature Review

It has been shown that learners benefit from training on the use of self-regulated learning strategies and that it is possible by using appropriate instructional design to limit the achievement gap between learners who demonstrated high and low levels of self-regulated learning. Also, learners who were instructed on self-regulated learning strategies used the strategies and exhibited shifts in their mental models more than learners in the control group who did not receive the self-regulated learning instruction (Azevedo and Cromley, 2004). Valle, Nunez, Cabanach, Gonzalez-Pienda, Rodriguez, Rosario, Cerezo and Munoz-Cadavid., (2008) study showed that undergraduates in public Universities in Northern Spain tend to utilize organization strategy the most (mean score=3.74). Ahmed (2008) also, found that undergraduates at Al-Hussein Bin Talal University in Jordan make use of metacognitive self-regulation strategy the most (mean score=4.21). Metacognitive skills significantly correlated to students' learning outcomes on oxidation and reduction reactions (Nuryena and Sugiarto, 2012). Students do not immediately answer questions but pass through the stages which require logic and critical thinking processes that elaborate on all prior knowledge and past experiences. Sandi-Urena, Cooper and Stevens., 2012) used a mixed-methods design to study the effects of cooperative problem-based instruction on chemistry students' problem-solving and metacognitive ability. The findings showed that students given the collaborative metacognitive intervention treatment significantly outperformed the control group in solving non-algorithmic chemistry problems of higher difficulty.

There is inconsistency in the findings of previous studies on learning strategies use and gender. Some researchers revealed that there is no significant gender difference in learning strategies use. Yukselturk and Bulut (2009) showed that there is no significant gender difference in self-regulated learning strategy components among the students who enrolled in an online Computer Programming course at Middle East Technical University. Lynch (2010) also revealed that there is no significant gender difference in elaboration, metacognitive self-regulation, time and study environment management, and effort regulation among the undergraduates who studied Physics courses at a University in New England. In contrast, some researchers revealed that there is a significant gender difference in learning strategies use, and students' metacognition. DiBenedetto and Bembenutty (2011) revealed that female college students possess higher self-regulation ($t=2.64$, $p<.05$) compared to male students who enrolled in Biology at an urban college in New York and Ergul (2004) also showed that there is a significant gender difference in self-regulation ($Z=2.225$, $p<.05$) among the undergraduates of distance learning programs in Anadolu University. The finding favored female over male undergraduates.

Statement of the Problem

Many studies had been carried out on how to improve students' learning outcomes in chemistry but gaps still exist in students' metacognition acquisition. Literature reviewed shown there were many studies on students' cognition, but less attention has been given to the relationship between students' learning strategies use and their metacognition. Some studies (Simsek & Balaban, 2010; KristantiPuspitasari (2012); Kadioglu & Uzunriyaki-Kondracki, 2014) investigated the effects of learning strategies on students' achievement in chemistry but were done outside Nigeria. Not many have investigated how secondary school students acquire learning strategies and the reasons they choose to use them (or not) to improve their learning outcomes in Nigeria. Hence this present study engages secondary school chemistry students with learning strategies in form of intervention using the Process Oriented Cooperative-Inquiry Learning Strategy and then investigated its impact on students' metacognition.

Purpose of the Study

The study explored the impact of learning strategies use on secondary school students' metacognition using POCILSIM. Specific objectives are to:

- (1) identify chemistry students' learning strategies use across the three-time intervals (T1, T2, and T3).
- (2) investigate how the students' learning strategies use scores reflect on students of high, average, and low metacognition across Time T1, Time T2, and Time T3.
- (3) examine the correlation between students' learning strategies use and their metacognition in chemistry.
- (4) determine the difference in students' learning strategies use towards metacognition of secondary school students by gender.

Research Questions

- (1) How do students' learning strategies use change across three-time intervals (T1, T2, and T3)?

- (2) How do the students' learning strategies use scores reflect students' metacognition across Time T1, Time T2, and Time T3 for students of high, average, and low metacognition in chemistry?
- (3) What is the correlation between students' learning Strategies use and their metacognition in chemistry?
- (4) What is the significant difference in students' learning strategies use towards metacognition of secondary school students by gender?

Methodology

A correlation survey research design was used to determine the relationships that exist between the variables. Single-case experimental (no control group) design was also used to give intervention to the students on learning strategies using the Process Oriented Cooperative-Inquiry Learning Strategy (POCILS). The population of the study consists of all Senior Secondary School II Chemistry students in Lagos State, Nigeria. Nine schools were selected from three education districts using a simple random sampling technique. The sample consists of twelve (12) intact classes made up of four hundred and twenty-one (421) students between the age range of 14 and 18 years. Two instruments: The Learning Strategies Scale (LSS), adopted from the Motivation Strategies for Learning Questionnaire (MSLQ) developed by Pintrich, Smith, Garcia, and McKeachie., 1993), is a 50 items self-reporting questionnaire, and Metacognition Learning Inventory – Chemistry (MLI-C), adapted from Self-efficacy and Metacognition Learning Inventory-Science (SEMLI-S) developed by Thomas, Anderson, and Nashon (2008) were for data collection. Face, Content, and construct validation was employed to determine the validity, appropriateness, and relevance of the instruments to the study by two senior chemistry teachers. The reliability of the learning strategies sub-scale was calculated to be Cronbach alpha ranging from .55 to .87 and MLI-C has reliability Cronbach's – Alpha scores (0.67 to 0.89). The two instruments were administered three (3) times; pre-Time T1, post-Time T2, and delayed post-Time T3 during the study which lasted for twelve (12) weeks. The chemistry teachers from the nine selected schools were used as research assistants to collect the data for the study. The statistical tools used for the analyses of data collected were: Mean, Standard deviation, ANOVA, and t-test. SPSS AMOS 26 software program was employed to calculate the correlation coefficient statistics automatically.

Results

Research Question One: How do the students' learning strategies use change across the three-time intervals (T1, T2, T3)?

Learning Strategies Scale was administered as a pre, post, and delayed post to intact classes of chemistry students in an effort to measure changes in students' use of learning strategies. This is useful for discovering the types of strategies used and not used by students in each class.

Hypothesis

- H_0 : There is no positive change in the students' learning strategies use across T1, T2, T3 intervals.
- H_1 : There is a positive change in the students' learning strategies use across T1, T2, T3 intervals.

Table 1: Mean scores of Learning Strategies across the three times (T1, T2, and T3)

INTERVALS	STRATEGIES	M	Sd	Skewness	Kurtosis
T1 (N=421)	Rehearsal	2.61	1.035	-0.097	-1.154
	Elaboration	2.64	0.937	-0.042	-0.922
	Organization	2.54	1.006	-0.101	-1.063
	Critical Thinking	2.62	0.872	0.047	-0.752
	Metacognitive Self-regulation	2.55	0.756	0.058	-0.359
	Time and Study	2.64	0.729	0.009	-0.33
	Environment Management				
	Effort Regulation	2.48	0.88	0.041	-0.698
	Help-Seeking	2.73	0.899	-0.224	-0.723
	Peer Learning	2.63	0.969	-0.157	-0.945
T2 (N=421)	Rehearsal	3.01	0.966	-0.634	-0.633
	Elaboration	3.11	0.897	-0.629	-0.589
	Organization	3.03	0.925	0.628	-0.526
	Critical Thinking	3.07	0.848	-0.48	-0.648
	Metacognitive Self-regulation	2.99	0.774	-0.315	-0.469
	Time and Study	3.07	0.762	-0.339	-0.59
	Environment Management				
	Effort Regulation	2.9	0.817	-0.388	-0.342
	Help-Seeking	3.07	0.825	-0.482	-0.532
	Peer Learning	3.02	0.955	-0.577	-0.719
T3 (N=421)	Rehearsal	3.42	0.804	-1.299	0.882
	Elaboration	3.47	0.695	-1.018	0.083
	Organization	3.34	0.805	-0.989	0.152
	Critical Thinking	3.44	0.71	-0.956	-0.109
	Metacognitive Self-regulation	3.38	0.642	-0.601	-0.347
	Time and Study	3.41	0.654	-0.666	-0.587
	Environment Management				
	Effort Regulation	3.18	0.751	-0.483	-0.55
	Help-Seeking	3.43	0.703	-0.958	0.101
	Peer Learning	3.37	0.799	-1.082	0.358

Note: T1 means Time 1 (pre-), T2 means Time 2 (post-), and T3 means Time 3 (delayed post) Table 1 shows that the students learning strategies steadily increase throughout the school term. The students' use of rehearsal strategy drastically increased from Time T1 (M= 2.61) to Time T2 (M=3.01) and Time T3 (M= 3.43). Time T1 shows that students made use of the help-seeking learning strategy the most (M=2.73) and the effort regulation strategy the least (M=2.28). Time T2 shows that the students made use of the elaboration strategy the most (M = 3.11), followed by the critical thinking strategy (M=3.07), and used the effort regulation strategy the least (M=2.90). Time T3 shows that the students made use of the elaboration strategy the most (M=3.47), followed by the critical thinking strategy (M=3.44), and use the

effort regulation strategy the least (M=3.18). This means that the learning strategies intervention has a positive effect on the students' learning strategies use. Table 1 also, shows the coefficients of skewness (SK) and kurtosis (KT), which indicate that the variables are approximately normally distributed.

To find out if there is any significant difference, the ANOVA result is shown in Table 2

Table 2: Learning Strategies ANOVA Result

Sample variable	Sum of Square	df	Mean Square	F	P Significant
Learning strategies	2.738	2	1.369	250.369	0
Error	0.131	24	0.005		
Total	2.869	26			

The F Statistics of the one-way ANOVA of equality of means is significantly different from zero (0) as reported by the p-value (p-value< 0.05). Hence, the observed differences in the mean in Table 1 are not due to random but deliberate. The protected student's t-test of equality of mean for all pairwise comparisons of learning strategies also gave a similar conclusion. The p-value indicates that the null hypothesis should be rejected.

Research Question Two: How do the students' learning strategies use scores reflect students' metacognition across Time T1, Time T2, and Time T3 for students of high, average, and low metacognition in chemistry?

Metacognition Learning Inventory – Chemistry was administered as a pre, post, and delayed post to intact classes of chemistry students in an effort to measure the students' metacognition level. This is useful to group the students into High, Average, and Low metacognition level. Learning Strategies Scale was also administered as a pre, post, and delayed post to the same intact classes of chemistry students in an effort to measure changes in students' use of learning strategies. This is useful for discovering the types of strategies used and not used by students at each metacognition level. ANOVA was carried out. This is to test if there is any significant difference between the students' learning strategies use and students' metacognition in chemistry

Hypothesis Tested

H₀: Students' learning strategies use do not reflect on students' metacognition across T1, T2, T3.

H₁: Students' learning strategies use reflect on students' metacognition across T1, T2, and T3.

Table 3: Distribution of Students into Metacognition Levels

Number of Students and Percentage (%)						
Metacognition Level	T1	%	T2	%	T3	%
HIGH	325	77.2373	88.6392	93.1		
AVERAGE	90		21.4		47	11.22
6.4						
LOW	6	1.41		0.242		0.5

The mean scores for Learning Strategies across the three-time intervals, Time1 (T1), Time2 (T2), Time 3(T3) when grouped by Metacognition level (high, average, low) are presented in Table 4

Table 4: Mean Learning Strategy Scores by Metacognition Level

Meta-Cognition	Learning Strategies	T1			T2			T3			
		N	M	Sd	N	M	Sd	N	M	Sd	
HIGH	Rehearsal	325	2.85	0.968	373	3.12	0.092	392	3.48	0.76	
	Elaboration		2.85	0.882		3.22	0.843		3.5	0.675	
	Organization		2.78	0.931		3.15	0.876		3.4	0.77	
	Critical Thinking		2.79	0.841		3.18	0.794		3.49	0.69	
	Metacognitive		2.74	0.7		3.08	0.738		3.42	0.627	
	Self-regulation										
	Time and Study Environment Management		2.78	0.695		3.15	0.73		3.45	0.634	
	Effort Regulation		2.62	0.833		2.98	0.774		3.22	0.744	
	Help-Seeking		2.83	0.909		3.14	0.882		3.44	0.754	
	Peer Learning		2.88	0.861		3.15	0.8		3.47	0.689	
	AVERAGE	Rehearsal	90	1.81	0.833	47	2.19	1.035	392	2.7	1.068
Elaboration			1.94	0.755		2.23	0.786		2.93	0.781	
Organization			1.74	0.829		2.15	0.78		2.52	0.753	
Critical Thinking			2.03	0.678		2.23	0.758		2.74	0.656	
Metacognitive			1.94	0.568		2.26	0.607		2.81	0.622	
Self-regulation											
Time and Study Environment Management			2.22	0.632		2.43	0.651		2.85	0.718	
Effort Regulation			2.01	0.868		2.28	0.852		2.7	0.724	
Peer Learning			1.97	0.841		2.06	0.942		2.48	0.893	
LOW		Rehearsal	6	1.67	0.816	1	1	0	2	3	0
		Elaboration		1.83	0.983		1			4	0
	Organization		1.5	0.548		1			2	1.414	
	Critical Thinking		1.83	0.983		1			3.5	0.707	
	Metacognitive		1.5	0.548		1			3	0	
	Self-regulation										
	Time and Study Environment Management		1.5	0.548		1			3.5	0.707	
	Effort Regulation		2	1.095		1			3	0	
	Help-Seeking		1.5	0.837		1			3	1.414	
	Peer Learning		1.67	1.033		1			3	0	

From Table 4, it was observed that the learning strategies' mean scores increase considerably across the three-time intervals (Time T1, Time T2, and Time T3) except for low

metacognition students that the learning strategies' mean scores decrease at Time T2 compared with Time T1 but increases at Time T3. Also, the number of students with low metacognition decreases as the students' learning strategies use increases across Time T1 to Time T3 (6 to 2 students). The number of students with average metacognition also decreases across Time T1 to Time T3 (90 to 27 students), while the number of students with high metacognition increases from Time T1 to Time T3 (325 to 392 students).

For the low metacognition students, the learning strategies Time T1 mean scores are below 2 except for the effort regulation score that is 2 and this is the most used learning strategy at Time T1, while, the least used are the metacognition self-regulation skills (1.5); time, and study management(1.5); organization strategy (1.5); peer learning, 1.5. At Time T2, the only low metacognition student's learning strategies use score decreased with the help-seeking the most used (2); and other learning strategies use score is 1 each. At Time T3, the low metacognition students improved on all the learning strategies use, the most used learning strategies are critical thinking and the time, and study environmental management with a mean score of 3.5 each. The least used learning strategies are the organization strategy and the rehearsal strategy with a mean score of 2 each.

For the average metacognition students, the learning strategies use mean scores increase from Time T1 to Time T3. The average metacognition students mostly use help-seeking with a mean score of 2.24, and the least used learning strategy is the organization strategy with a mean score of 1.74 at Time T1. At Time T2, the learning strategy mostly used is the time, and study environment management with a mean score of 2.43; followed by help-seeking (2.40), and the least used learning strategy is the peer learning strategy (2.06). At Time T3, the average metacognition students used the elaboration strategy (2.93), the most; and the least used learning strategy is the peer learning strategy (2.48).

For high metacognition students, the learning strategies use increase across Time T1, Time T2, and Time T3. The high metacognition students use more advanced learning strategies. At Time T1, the high metacognition students use more of the help-seeking strategy (2.88); and the least used learning strategy is the effort regulation (2.62). At Time T2, high metacognition students used more of the elaboration strategy (3.22), and the least used learning strategy is the metacognition self-regulation skill, 3.08. At Time T3, high metacognition students used the elaboration strategy the most (3.50); followed by critical thinking (3.49), and the least used learning strategy is the effort regulation (3.22).

To test if there is any significant difference between the students' learning strategies use and students' metacognition in chemistry, the ANOVA was carried out and presented in Table 5.

Table 5: ANOVA result of Mean scores of Learning Strategies by Metacognition levels across Time Intervals

Sample variable	Sum of Square	df	Mean Square	F	P-value	F-Critical
LEARNING STRATEGIES	18.8313	2	9.41563	161.227	0.000	3.12391
INTERVALS	15.7325	2	7.86625	33.5888	0.000	3.12391
LS*TIMES	7.84635	4	1.96159			2.49892
Error	4.2048	72	0.0584			
Total	46.6149	80				

The p-values of Learning Strategies and Times showed that they are statistically significant whereas LSR*TIMES is not at a p-value < .05. The ANOVA statistics confirm that the test is statistically significant at a p-value < 0.001. Hence, Learning Strategies significantly reflect on students' metacognition in chemistry by increasing their metacognition. The p-value indicates that the null hypothesis should be rejected.

Research Question Three: What is the correlation between students' learning Strategies use and their metacognition in chemistry?

Hypothesis Tested

H₀: There is no correlation between students' learning strategies use and their metacognition in chemistry.

H₁: There is a correlation between students' learning strategies use and their metacognition in chemistry.

In response to the above question, a correlation matrix was carried out on learning strategies used and their metacognition in chemistry using different time intervals. The Correlation Coefficient was calculated using SPSS AMOS 26 software; results are given in Time T1, Time T2, and Time T3. The strength of the linear relationship that exists between the learning strategies used and their metacognition in chemistry at Time T1, Time T2, and Time T3 are shown in Table 6.

Table 6: Coefficient of the relationship between students' Learning strategies use and their metacognition in chemistry in Time T1, Time T2, and Time T3

	Metacognition (r)		
	T1	T2	T3
Learning strategies			
Pearson coefficient	.761**	.711**	.711**
Sig (2 tailed)	.000	.000	.000
Rehearsal			
Pearson coefficient	.662**	.574**	.597**
Sig (2 tailed)	.000	.000	.000
Elaboration			
Pearson coefficient	.619**	.577**	.579**
Sig (2 tailed)	.000	.000	.000
Organization			
Pearson coefficient	.634**	.575**	.570**
Sig (2 tailed)	.000	.000	.000
Critical Thinking			
Pearson coefficient	.604**	.621**	.620**
Sig (2 tailed)	.000	.000	.000

	Metacognitive		
	T1	T2	T3
Self-regulation			
Pearson coefficient	.691**	.629*	.640**
Sig (2 tailed)	.000	.000	.000
Time & Study Management			
Pearson coefficient	.595**	.540**	.542**
Sig (2 tailed)	.000	.000	.000
Effort Regulation			
Pearson coefficient	.442**	.431**	.452**
Sig (2 tailed)	.000	.000	.000
Peer Learning			
Pearson coefficient	.527**	.546**	.579**
Sig (2 tailed)	.000	.000	.000
Help Seeking			
Pearson coefficient	.547**	.544**	.547**
Sig (2 tailed)	.000	.000	.000

**Correlation is significant at 0.01

From Table 6, in Time T1, the result of the Pearson correlation showed that there is a significant positive relationship between students' learning strategies use and their metacognition (r = .761; p < .01). The magnitude of the relationship is large (Cohen, 1988). There is also a significant positive relationship between students' metacognition and each of the learning strategies. The magnitude of the relationship ranges from average to large (Cohen, 1988). At Time T1, metacognitive Self-regulation skill has the highest correlation with students' metacognition (r = .691; p < .01) and effort regulation has the least correlation with students' metacognition (r = .442; p < .01). The p-value indicates that the null hypothesis should be rejected. In Time T2, the result of the Pearson correlation showed that there is a significant positive relationship between students' learning strategies use and their metacognition (r = .711; p < .01). The magnitude of the relationship is large (Cohen, 1988). There is also a significant positive relationship between students' metacognition and each of the learning strategies. The magnitude of the relationship ranges from average to large (Cohen, 1988). At Time T2, metacognitive Self-regulation skill has the highest correlation with students' metacognition (r = .629; p < .01) and effort regulation has the least correlation with metacognition (r = .431; p < .01). The p-value indicates that the null hypothesis should be rejected. In Time T3, the result of the Pearson correlation showed that there is a significant positive relationship between students' learning strategies use and their metacognition (r = .711; p < .01). The magnitude of the relationship is large (Cohen, 1988). There is also a significant positive relationship between students' metacognition and each of the learning strategies. The magnitude of the relationship ranges from average to large

(Cohen, 1988). At Time T3, metacognitive self-regulation skill has the highest correlation with students' metacognition ($r = .640$; $p < .01$) and effort regulation has the least correlation with students' metacognition ($r = .452$; $p < .01$) but there is improvement in the magnitude of their relationship (from $r = .442$ to $.452$). The p-value indicates that the null hypothesis should be rejected.

Summary of Table 6, the results of the correlation coefficients show that the linear relationship between students' learning strategies use and their metacognition in chemistry for Time T1, Time T2, and Time T3 is large (Cohen, 1988). Also, metacognitive self-regulation has a high correlation with students' metacognition while effort-regulation has the least correlation with students' metacognition at Time T1, Time T2, and Time T3 respectively. Hence, the null hypothesis was rejected based on the p-values.

Research Question Four: What is the significant difference in students' learning strategies use towards metacognition of secondary school chemistry students by gender?

Metacognition Learning Inventory – Chemistry was administered as a pre T1, post T2, and delayed post, T3 to intact classes of chemistry students in an effort to measure the students' metacognition level. Learning Strategies Scale was also administered as a pre T1, post T2, and delayed post, T3 to the same intact classes of chemistry students in an effort to discover the types of strategies used and not used by students at each metacognition level. A t-test was then run on gender against metacognition and learning strategies of the students. This is to know the significant difference in learning strategies used toward metacognition of secondary school students by gender

Hypothesis Tested

- Ho: There is no significant difference in learning strategies used towards metacognition of secondary school chemistry students by gender.
- H₁: There is a significant difference in learning strategies used toward metacognition of secondary school students by gender

Table 7: t-test results for gender against each of the variables

	T	df	tail	p-vail	Ci95%	BF 10	power
Metacognition	T-test	0.468638	419	two-sided	0.639572 (-1.8,2.92)	0.120	0.073980
Learning Str	T-test	0.480855	419	two-sided	0.630871	0.046887	0.121 0.076758

The t-test was run using the t-test function of the Pingouin library for the test of significant difference between gender and the variables. The result of the Student's t-test showed (Table 7) that the p-values are greater than .05 ($p > .05$) meaning there is no significant difference between the mean of both females and males. Since the p-value is not enough to draw a conclusion on the difference in means, the Cohen's d effect size was used to determine if the significant difference is large enough or not. The cohen-d values for the variables are less than 0.2 which means there is a 'small' effect size between females and males. It was concluded that the significant difference between the two groups is less than 0.2 standard deviation and the significant difference is negligible. Moreover, the BF10 (Bayes Factor is in favor of H1 over H0) is between 0 and 1. The BF interpretation; for

instance, the BF10 = 0.120 for metacognition means, that the data is 0.1 as likely to have occurred under the H1 (significant difference) than the H0 (no significant difference). The p-value indicates that the alternate hypothesis should be rejected.

Table 8: t-test results for gender against each of the Learning Strategies.

	T	df	tail	p-vail	Ci95%	cohen-d	BF 10	power
RE	T-test	-0.813040	419	two-sided	0.416657 (-1.23, 0.51)	0.079277	0.149	0.128115
EL	T-test	1.536247	419	two-sided	0.125233 (-0.26, 2.1)	0.129795	0.338	0.334842
ORG	T-test	1.006114	419	two-sided	0.314941 (-0.42, 1.29)	0.098104	0.176	0.171017
CT	T-test	0.912647	419	two-sided	0.361953 (-0.51, 1.4)	0.088990	0.162	0.149044
METS	T-test	0.419274	419	two-sided	0.675230 (-0.54, 2.37)	0.040882	0.118	0.070276
TSM	T-test	0.682241	419	two-sided	0.495463 (-0.81, 1.67)	0.066524	0.135	0.104536
ER	T-test	-1.448630	419	two-sided	0.148189 (-1.21, 1.18)	0.141252	0.298	0.303728
PL	T-test	1.076407	419	two-sided	0.282365 (-0.27, 0.98)	0.104958	0.189	0.189010
HS	T-test	-0.801780	419	two-sided	0.423138 (-1.03, 0.43)	0.078179	0.147	0.125910

The result of the Student's t-test for rehearsal, elaboration, organization, critical thinking, metacognitive self-regulation skills, time, and study environment management, effort regulation, peer learning, and help-seeking shows that all the p-values are greater than .05 meaning there are no statistically significant differences. The p-value may not be enough to draw a conclusion if the significant difference is large enough or not. The cohen-d values for the variables are less than 0.2 which means there is a 'small' effect size between females and males. It was concluded that the significant difference between the two groups is less than 0.2 standard deviation and the significant difference is negligible. Moreover, the BF10 for each of the learning strategies is less than 0.4, the likelihood that the data occurred under the H₁ (significant difference) than the H₀ (no significant difference). Therefore, the alternate hypothesis should be rejected.

Discussion of Findings

Findings show that the level of students' learning strategies steadily increase during the study. It was observed that the students made use of the help-seeking strategy the most (mean score =2.73) and the effort regulation strategy the least (mean score =2.28), at Time T1. This may be partly due to the teacher's method of teaching or the advice of both parents and teachers to the students that they should seek help when they find a concept difficult, which makes students to depend on others for knowledge rather than making effort on their own to understand the concept. At Time T2 and Time T3, the students have improved on their learning strategies use to an advanced learning strategies level thus, the students made use of elaboration strategy the most (mean scores = 3.11 and 3.47 respectively) and use effort regulation strategy the least (mean scores =2.90 and 3.18 respectively). This is evidence that the learning strategies intervention given to the students using POCILSIM has a positive impact on students' learning strategies use. This finding is in conformity with a previous study by Sungur and Yerdelen (2011) which revealed that high school students seem to utilize effort regulation strategy the less (mean score = 3.68). In contrast, Valle et al. (2008) studies revealed that undergraduates in the public University of Northern Spain tend to utilize organization strategy the most (mean score=3.74) and elaboration strategy the less (mean score= 3.37) and Ahmed (2008) also, revealed that undergraduates at Al-Hussein Bin

Talal University in Jordan make use of meta-cognitive self-regulation strategy the most (mean score=4.21) and help-seeking the less (mean score=2.36).

Findings based on the result from the descriptive statistics showed that learning strategies use actually reflect on the students' metacognition in chemistry. Apparent from the number of students with low metacognition that decreases across Time T1 to Time T3 (from 6 to 2 students) and the number of students with average metacognition that also, decreases across the Time T1 to Time T3 (from 90 to 27 students), while the number of students with high metacognition increases from Time T1 to Time T3 (from 325 to 392 students) thereby reducing the numbers of students with low and average metacognition in the chemistry classes. This finding also proves that the learning strategies intervention given to the students using POCILSIM has a positive impact on the students' metacognition in chemistry.

Findings also revealed that learning strategies use shows a high correlation with students' metacognition in chemistry. The results of the correlation coefficients show that the linear relationship between students' learning strategies use and their metacognition in chemistry for Time T1, Time T2, and Time T3 is large (Cohen, 1988). Also, metacognitive self-regulation has a high correlation with students' metacognition while effort-regulation has the least correlation with students' metacognition at Time T1, Time T2, and Time T3 respectively.

Findings showed that, there is no significant gender difference in students' learning strategies use and their metacognition in chemistry. This finding is in conformity with some previous studies by Lynch (2010) that showed that there is no significant gender difference in elaboration, meta-cognitive, time, and study environment management and effort regulation among the Physics undergraduates in New England and Yukselturk and Bulut (2009) study, that there is no significant gender difference in self-regulated learning components among the students who enrolled in an online Computer Programming course at Middle East Technical University.

Conclusion

Based on the findings, the conclusion is that: the learning strategies intervention given to the students using POCILSIM improves the students' learning strategies use which directly increases students' metacognition in chemistry. Hence, learning strategies contributed significantly to improving students' metacognition in chemistry. There is also, a positive correlation between students' learning strategies use and their metacognition; thus, learning strategies are predictors of students' metacognition in chemistry and that gender did not show a statistically significant difference in students' learning strategies use and their metacognition in chemistry.

Recommendations

1. In order to assist the student to improve on their metacognition, teachers should teach the students how to self-regulate and use appropriate learning strategies in their learning.
2. Curriculum developers should design materials on shaping instructional delivery and designing support programs to improve students' metacognitive skills and instill learning strategies culture in the students.
3. Policymakers should approve the inclusion and teaching of learning strategies in the National curriculum at all levels using POCILSIM.

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BEHAVIOURAL EXPECTATIONS AS PREDICTOR OF TEACHERS' MANAGEMENT OF CLASSROOM BEHAVIOUR IN SECONDARY SCHOOLS IN OSUN STATE

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Abstract

The study investigated the level of teachers' management of classroom behaviour among secondary school teachers in Osun State. It also examined the predictive ability of teachers' behavioural expectations on the management of classroom behaviour in the study area. The population for the study comprised 6736 secondary school teachers in Osun State. The sample size comprised 480 respondents, selected using a multistage sampling technique. One instrument titled "Behavioural Expectations and Teachers' Management of Classroom Behaviour (BEMCB)" was used to elicit information from the respondents. Data collected were analysed using percentages and frequency counts, mean, standard deviation, linear and multiple regression. The hypothesis was tested at a 0.05 level of significance. The results showed that 79 (16.5%) of the secondary school teachers demonstrated a low level of classroom behaviour management, followed by 343 (71.5%) of them who demonstrated a moderate level of classroom behaviour management while 58 (12.1%) of them demonstrated a high level of classroom behaviour management. The study revealed that there was a significant predictive ability of teachers' behavioural expectations on their management of classroom behaviour ($R=.597$, $R^2=.356$, $F=264.132$). The study concluded that teachers' behavioural expectations, was capable of enhancing better management of classroom behaviour in Osun State secondary schools.

Keywords: Behavioural Expectation, Teachers, Management of Classroom Behaviour

Introduction

Universally, there appears to be an increase in the major requirement for the teachers' capacity to oversee and manage classroom conduct; thereby viable to upgrade the effective teaching learning handle within the multi-product school industry. In Nigeria, particularly in Osun State, it is required that teachers' management of classroom behaviour should be adequate enough to be significant and effective. It is therefore exceptionally imperative to note that, there are linkages between a well or viably overseen classroom and successful learning. In any case, a viable teaching-learning process might not be appropriately taken note and accomplished in a poorly managed classroom. Sequel to this, one of the foremost challenging capacities of the instructors is teachers' management of classroom behaviour and control. Thus, the teacher's effectiveness in the teaching and learning process could be assessed by his or her ability to manage the class effectively and control the students towards meaningful and effective learning during instruction in the class. Subsequently, an effective classroom behaviour management requires an educator who is portrayed by solid information on content, teaching method, setting and individual discipline (Alabi, 2014).

Also, in managing the classroom effectively, secondary schoolteachers could adopt some strategies such as setting simple, clear rules and expectations. Nevertheless, they could

be more effective if they are fairly and consistently applied; capable of predicting activities and events by establishing cues, routines, signals and information about forthcoming changes and transitions. Giving information about what is to be taught and learnt (content), period (duration) and consequences for activities could also be seen as of great significance as some teachers inculcate this in managing their class effectively. Other strategies are frequent use of both verbal and non-verbal praise, allowing the students to utilize the materials and to yield to requests in the class, supervising task difficulty to avoid disruptive behaviour and giving the students opportunities to participate and respond in the classroom activities (Kern & Clemens (2007). These efforts would then go a long way in enabling the students, especially secondary school students in Osun State, to acquire skills to behave well and pursue academic excellence in life.

The effective teachers' management of classroom behaviour among secondary school teachers in Osun State could be predicted by some factors. In dealing with behavioural problems in the classroom, it would be of great benefit to identify one of these factors to enhance the teachers' management of classroom behaviour in this study area. In this study, students' behavioural expectations would be investigated to examine the extent to which they predict teachers' management of classroom behaviour. Students' behavioural expectations can be seen as teachers' eagerness outlook or anticipations of the students' behaviour or achievement (Glossary of Education, 2009). This achievement could then be based on such intervening cues as students' physical appearance, test scores, gender, socioeconomic status and speech patterns and preconceptions (Glossary of Education, 2009). In any classroom, especially in secondary schools, students' behavioural expectations are likely to be ever-present. Whether these expectations are promoted unintentionally or intentionally, or peradventure they could be in the minds of the teachers and the students consciously or unconsciously, one very important thing to take note of is that they are there continuously to define the impact and function of the teaching-learning process in the classroom.

It is very important to note that all teachers tend to consistently project expectations, and the students are likely to repeatedly interpret the expectations for each situation. Students invariably interpret those things said, done and the patterns of action. They also interpret the information sent by the teachers' body language and tone of voice. These translations could empower the students to offer responses to their inquiries and assess what they comprehend concerning what is generally anticipated inside the class assumption per time, when it is clear and direct. To additionally disclose this is to say that, almost certainly, best instructors anticipate that their students should progress admirably. Therefore, they tend to do all that it takes to assist their students by setting up behavioural expectations and making sure the educational goals are achieved in class. By implication, when students behave and live up to the students' behavioural expectations and standards, they seem to earn the teachers' approval. Hence, by suggestion, the educators' endorsement, for this situation, advances students' self-assurance and even urges them to proceed in their endeavors to act well and achieve scholarly greatness.

On the contrary, when students are unable to meet the behavioural expectations, they seem not to earn teachers' approval; thus, leading to loss of their self-confidence. This also could lead to a decline in their level of encouragement and the quality of their academic work, participation and achievement. At the point when the behavior expectations are apparent and instructed; the students are getting positive criticism on their presentation, as they are probably going to take part in the ideal conduct. This implies that the expectations in

the classroom are likely not to be accomplished if the teacher fails to manage his or her class effectively; ditto for teachers' management of classroom behaviour.

Statement of Problem

Efficient and effective management of both the human and material assets is one of the significant procedures for the accomplishment of hierarchical objectives in auxiliary schools; this is what the educators likewise focus on. It could be well noticed that the class and subject educators appear to be accused of bunches of liabilities in the instructing and learning measure. A learning environment being depicted by noise making and other students' means of causing distractions could as well lack meaningful teaching and learning, and could affect the students' academic performance.

In addition to this, one could notice that the use of capital punishment, canning, suspension and expulsion are common in most of the schools in Osun State. It could also be noted that the utilization of suspension, canning and other corrective results such as ejection is not the best to correct unsafe and troublesome students' conduct. Demonstrate (NASP, 2012) showed that dangerous students don't wound up less dangerous to others when they are denied from appropriate school settings; they habitually had the chance to be all the more most perceptibly dreadful and risky to society at broad. They are at high risk of bad behavior and bad behavior (NASP, 2012). This could therefore bring about focus on a couple of exploration based strategies like social longings, self-assured discipline and appealing behaviour, as well as reducing act of indiscipline. Thus, one of the best ways secondary school teachers can influence students' learning in the classroom, most especially in Osun State is by communicating their positive behavioural expectations to their students. Once there are no certain and higher students' behavioural expectations from the students, they will in general put more effort in adjusting to a better behaviour and performance; fostering an effective teaching-learning process.

Purpose of the study

The main purpose of this study was to find out the teachers' management of classroom behaviour among the secondary school teachers in Osun State, and its predicting factors. The specific objectives are to:

- (a) investigate the level of teachers' management of classroom behaviour among secondary school teachers in Osun State; and
- (b) examine the predictive ability of teachers' behavioural expectations on the management of classroom behaviour in the study area.

Research Question

What is the level of teachers' management of classroom behaviour among the secondary school teachers in Osun State?

Hypothesis

There is no significant predictive ability of teachers' behavioural expectations on the teachers' management of classroom behaviour of the secondary school teachers.

Methodology

The study adopted the descriptive survey research design. In view of the way that all

teachers could be reached, the study was directed utilizing data from some selected teachers in the public secondary schools; and the outcomes got from this were utilized to sum up for the whole populace. The population for the study comprised secondary school teachers in Osun State, Nigeria, totaling 6736 as at the commencement of the 2019/2020 session (Statistics provided by the Ministry of Education and State Universal Basic Education Board (SUBEB). There are six states in the Southwestern geo-political zones in Nigeria, which are Ekiti, Lagos, Ogun, Ondo, Osun and Oyo States. Osun State, which is one of these six states is the focus of this study. Also, Osun State comprises 30 Local Governments Area which is divided into three senatorial districts namely: Osun Central, Osun East and Osun West.

The sample size comprised 480 respondents, selected using a multistage sampling technique. The sample size represents 0.4% of the population of secondary school teachers in Osun State, Nigeria; and was considered appropriate and adequate for the study given the sample size formula developed by Barlett. II, Kotrlik, Haggins (2001) specified a minimum of 440 at a 95% level of confidence level relative to the population of the teachers which is 1000. The three senatorial districts in the state were used and two Local Government Areas (LGAs) were selected from each of the three districts using a simple random sampling technique, giving a total of six LGAs. From each LGA, four secondary schools were selected using a simple random sampling technique (making 24 schools) and from each school, 20 teachers were selected using a systematic sampling technique of proportion across departments, making a total of 480 teachers.

In carrying out this study, an adapted instrument entitled, "Behavioural Expectations and Teachers' Management of Classroom Behaviour (BEMCB)". The instrument (BEPTAD) is a combination of different questionnaires packaged together as one and was used to collect data from the teachers. Section A of the questionnaire elicited responses on the demographic variables of the respondents such as the name of the school, the class taught, religion, sex and year of experience. Section B comprised 38 items Likert scale adapted from the scales of Yasar, 2008, entitled "Teachers' Management of Classroom Behaviour Approaches"; while Section C consisted of 19 items on behavioural expectations adapted from Williams, 2012, entitled, "The Effect of Students' behavioural expectations and Perceptions on Student Achievement in Reading for Third and Fifth Grade Students.

The system for information assortment for the review began with a visit by the analyst to the chose schools in each of the senatorial districts to administer the research instruments. In each of the schools, the researcher discussed with the principals and the head teachers, the essence of the research to sensitize him or her on the importance of the research and also to solicit support and assistance in the administration of the instruments. Before going, a letter of introduction was collected from the researcher's Head of Department (H. O. D.) and given to the principals, Vice principals in some cases and head of departments in each selected secondary school. Data collected were analysed using descriptive and inferential statistics. The demographic variables were analysed using descriptive statistics such as frequency and percentage; while research question one was analysed using frequency counts, percentage and Relative Significance Index (RSI). Also, the hypothesis one was tested using standard deviation, linear and multiple regression.

Results

Research Question One: What is the level of teachers' management of classroom behaviour among the secondary school teachers in Osun State?

To answer this research question, two approaches were adopted. In the first instance,

teachers' responses to 38 items measuring Teachers' Management of Classroom Behaviour subscale of BEPTADTMCB were scored such that Frequently response was allotted 4, Occasionally, 3, Rarely 2 and Never was allotted 1. These responses were subjected to a descriptive analysis of frequency and percentage (as shown in appendix VI). Also, to determine the level of teachers' classroom behaviour management, the responses were then scored and cumulated. The minimum and maximum scores obtainable from this inventory were 38 and 152 while the mean and standard deviation scores were 119.6 and 15.37. Since a high score indicates a high level of teachers' management of classroom behaviour, scores of 38 to 1SD below the mean score (38-105) were adjudged as low level of classroom behaviour management, scores of 106 through 135 (106 to mean+1SD) as a moderate level of classroom behaviour management while scores of 136 through 152 were adjudged as high level of classroom behaviour management. The result is presented in Table 1.

Table 1: Level of Teachers' Management of Classroom Behaviour among the Secondary School Teachers in Osun State

Level of Management Classroom Behaviour	Score range	Frequency (f)	Percentage (%)
Low	38-105	79	16.5
Moderate	106-135	343	71.5
High	136-152	58	12.1
Total		480	100.0

Table 1 shows the level of teachers' classroom behaviour management among the secondary school teachers in Osun State. The result shows that 16.5% of the secondary school teachers in Osun State demonstrated a low level of classroom behaviour management, 71.5% demonstrated a moderate level of classroom behaviour management while 12.1% of the teachers demonstrated a high level of classroom behaviour management. As shown in the result, it can be observed that the majority of the secondary school teachers in Osun State demonstrate a moderate level of classroom behaviour management.

Hypothesis: There is no significant predictive ability of teachers' behavioural expectations on the teachers' management of classroom behaviour of the secondary school teachers.

To test this hypothesis, teachers' responses to 19 items on Students' Behavioural Expectation subscale of BEPTAD were scored such that Strongly Disagree response was allotted 1, Disagree response as 2, Agree response as 3 and Strongly Agree response was allotted 4. These responses were first subjected to a descriptive analysis of frequency and percentage and the result is presented in Appendix VII. Then, responses to each of the constituting items were cumulated to form a composite measure for students' behavioural expectation that can be used as a predictor for criterion variable of teachers' management of classroom behaviour. The result is presented in Table 2.

Table 2: Regression Analysis of the Predictive Ability of Teachers' Behavioural Expectations on the Teachers' Management of Classroom Behaviour of the Secondary School Teachers

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
R=0.597					
R ² =0.356					
Adj. R ² =0.355					
F=265.132*					
(Constant)	55.111	4.008		13.750	.000
Students' behavioural Expectation	1.015	.062	.597	16.252	.000

Dependent Variable: Teachers' management of classroom behaviour score

*Predictor: (Constant), Teachers' behavioural expectations, *p<.05 (p=.000)*

Table 2 shows that the predictive ability of teachers' behavioural expectations on the teachers' management of classroom behaviour yield a coefficient of regression (R) of .597 and a correlation square (R²) of .356. These values are statistically significant at 0.05 probability level (R=.597, R²=.356, F=264.132). The teachers' behavioural expectations variable could account for 35.6% of the observed variance in teachers' management of classroom behaviour. Therefore, it can be concluded that there was a significant predictive ability of teachers' behavioural expectations on the teachers' management of classroom behaviour of the secondary school teachers (R=.597, R²=.356, F=264.132).

Discussion of Findings

The main finding of this review uncovered that most of the secondary school teachers in Osun State demonstrated moderate level of classroom behaviour management. This implies that teachers were effective in classroom management in Osun State secondary schools beyond a low level; though not at a high level. Thus, averagely, the teachers did not only communicate their expectations to the students in the class but also created a conducive environment while teaching. This in turn could enhance students' learning and encourage them (students) to put more effort in trying their possible best in their academics, yielding positive and excellent academic performance. This result is therefore in agreement with the finding of Wigwe (2013) who reported that secondary school teachers in Rivers state employed a reasonable level of preventive and maintenance-oriented approaches in the management of students' classroom behaviour.

On the other hand, this result is in contrast to the finding of Owan and Ekpe (2018); which revealed that classroom coordination effectiveness of teachers in Calabar South Local Government Area was generally very low. This, therefore, gives the notion that, even at the moderate level (though a higher level is required) of effective classroom management by the teachers in Osun state public secondary schools, effective and productive teaching-learning would still be enhanced in the schools. This, by implication, means that once teachers are committed to effective management of classroom behaviour, high-quality education is ensured by developing supportive, caring and friendly relationships with and among students.

The significance of the predictive ability of teachers' behavioural expectations on the secondary school teachers' management of classroom behaviour implies that the higher the teachers' behavioural expectations set for the students in the classroom, the higher the level of teachers' management of classroom behaviour, and vice versa. Once low expectations of classroom behaviour are set for the students, they tend to put less effort in

improving on their behaviour and settle for less and believe a minimum effort would intrigue or fascinate their teachers' consent or approval. The implication of this is that the goal of effective classroom management may not be achieved if care is not taken. If a high level of behavioural expectation is set by the teacher in the classroom, students will be challenged to improve and react positively to gain their teachers' approval and higher esteem. By suggestion, this will upgrade the endeavors of both the instructor and the understudies; accordingly boosting successful homeroom the executives and amazing scholarly execution.

Conclusion

Classroom behaviour management is a vital issue in the teaching-learning process and effective classroom behaviour management depends on the teachers. The class could be seen as being managed well only when the environment is seen obviously as being conducive for the learners. To this effect, this study has revealed that teachers in public secondary schools in Osun state demonstrated classroom behaviour management at a moderate level. This study also established that factors like behavioural expectations significantly predicted the classroom behaviour management practices among the secondary school teachers in Osun state.

Recommendations

From the discoveries and finish of this review, a few suggestions are proposed to additional improve and help the educators in dealing with their students' classroom behaviour to have a superior and viable learning climate, which would upgrade better scholastic execution among the students. Consequently, this review ought to be applied in different instructive settings. The accompanying proposals are then given:

1. Teachers ought to be given in-administration preparing on the various parts of teacher's management of classroom conduct abilities. They can also be trained on how to indulge and utilize preventive, proactive, operational, maintenance and remedial teachers' management of classroom behaviour measures.
2. The monitoring team from the education board should always or occasionally visit all the public secondary schools in Osun State. This will enable the principals, government, and stakeholders to get involved (to some extent) in promoting better classroom management in public schools.
3. Teachers should make their behavioural expectations flexible and not too rigid. They ought to likewise guarantee a blend of exclusive requirements with a strong and warm learning climate, to help every one of the student and in addition to a few.

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**INFLUENCE OF CONCEPT MAPPING INSTRUCTIONAL STRATEGY ON
COGNITIVE ATTAINMENT IN EARLY CHILDHOOD LITERACY LESSON
DELIVERY IN LAGOS MAINLAND LOCAL GOVERNMENT,
LAGOS STATE, NIGERIA**

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Abstract

The study investigated the influence of concept mapping instructional strategy on primary school pupils' cognitive attainment in literacy lesson delivery. A descriptive survey research design was adopted in the study. The sample consisted of 20 pupils each from ten schools, thus a sample of 200 pupils were used all together. Literacy Test (LT) and a self-developed questionnaire were the two instruments used in data collection. Three research questions were answered and two null hypotheses were tested at 0.05 level of significance. The data collected were analyzed using Analysis of Variance Result showed that the level of effectiveness of concept mapping as an instructional strategy for cognitive attainment in early childhood literacy lesson delivery is high and the level of effectiveness of concept mapping strategy on pupils' achievement in literacy is high. Also, there is a significant level of effectiveness of concept mapping as an instructional strategy on primary school pupils' cognitive attainment in literacy lesson delivery, and there is significant level of effectiveness of concept mapping strategy on pupils' achievement in Literacy. The study recommended that Ministry of Education should also ensure that their teachers are trained regularly on the use of innovative instructional approaches such as concept mapping learning and the curriculum planners should ensure that they incorporate concept mapping learning in ECE curriculum, as it will help to promote pupils' achievement and their cognitive sustainability. The researchers therefore recommended the use of concept mapping learning for the teaching of ECE for better achievement and high cognitive sustainability.

Keywords: Concept Mapping, Instructional Strategy, Cognitive Attainment, literacy, Lesson Delivery

Introduction

Education is the key to national development. It is also commonly upheld that there is a need to sustain every level of education including the pre- primary and primary levels, both of which serve as the bedrock of other educational levels. Once a child misses that early stage it is usually difficult for the learner to get back to the basics (Ezegbe, 2014). Early Childhood Education (ECE) encompasses all forms of education, both formal and informal, provided to young children up to approximately eight years of age. This education is fundamental to the development of a child and can significantly shape the later years of an individual's life (Nuhu, 2014).

There are several different facets that combine to contribute to a child's early education. In terms of informal education, the primary source of input when it comes to a

child's development is, of course, its relationship with its parents or primary caregivers. In essence, parents can be considered to be a child's first teacher. This relationship is especially critical between 0-2 years of age as the child begins to develop its sense of self and establishes an attachment with its parents. The quality of the attachment formed at this stage of life can have a significant impact on a child's future education (Nuhu, 2014). The other part of the equation when it comes to early childhood education is the formal education that it receives at a young age known as preschool. This stage of education typically spans from 2 to 8 years of a child's life. There can be a variety of formats in which a child receives formal education at a young age, which can vary from state to state and program to program. Educational programs may be designed specifically for children at each individual age and can be provided in settings such as childcare, daycare, nursery school, preschool, and kindergarten. Some of these programmes are privately run, while others are operated by a local school system or under a federally -funded programme.

Early childhood educators have expressed concern about the decline in pupils' academic performance and attributed one of the major reasons to the teaching strategies they use (Imoko and Agwagah, 2006). However, most ECE teachers in schools go about using the talk and chalk and rote learning. This proposition is in line with Ogunleye (2002) and Igbokwe (2010) who state that the dominant instructional strategy adopted by teachers in developing countries like Nigeria is the lecture instructional strategy. This strategy refers to an instructional strategy where the teacher claims an all-knowing position and authoritatively gives instructions to the learners who are passive listeners (Akpochafo, 2014). It involves the teacher telling students facts about a particular topic and expecting those students to recount what they have been told (Aguokagbue, 2006). This strategy stresses on the traditional view that the learner is almost blank and it is the teacher's role to impart knowledge to fill the space by merely telling his students who function as passive listeners (Oyebola, 2014). It is a pedagogical strategy that involves the teacher telling his or her pupils what he/she wants to know and the pupils listening to the teacher and sometimes taking down notes on what the teacher is saying or merely committing same to memory. The major advantage of lecture method is that it is time saving, easy to prepare and many students can be taught at the same time (Okam, 2000). Its main disadvantage, according to Shamija (2008), is that it does not cater for individual differences, as it brings boredom by making pupils passive learners instead of being active in class activities and learners' initiative is not considered.

The desire to improve pupil's cognitive attainment through lesson delivery for sustainable development through more effective instructional strategies and increasing awareness in recent years of the importance of pupils- centeredness in the teaching learning situation has directed a lot of attention to understand how pupils learn and how to help them learn concepts (Nuhu, 2014).

The need to acquire knowledge in literacy in the world over has become very obvious because of its usefulness in everyday living and in various disciplines. As important as these subjects are, the tremendous and persistent failures of Nigerian students in Mathematics and English language have remained a major threat to its background and learning. There is the need to prepare and produce manpower with sound literacy background at the ECE school level. Recently, new curricular have been developed that emphasise the development of autonomous learning capabilities in pupils which help them to learn by developing their generic skills and interest in active learning which can be achieved through concept mapping strategy. Thus, the focus is more on the pupils rather than the teacher through the effective use of concept mapping.

Concept-mapping strategy is a schematic device used to present concepts embedded in a framework. It is a technique used to represent the relationships among concepts in a two-dimensional graph. Concept mapping as a method to visualise the structure of knowledge was originally developed by Novak (1972) and the members of his research group, as a mean of representing frameworks for the interrelationships between concepts and as an instructional and assessment tool to facilitate meaningful learning. Concept mapping-based instruction is one of the instructional strategies advocated by Center for Mathematics, Science and Technology Education in Africa (2015) as a learner-centred learning approach (Makoba, 2012). Concept mapping is a meta-learning strategy based on the Ausubel-Novak-Gowin theory of meaningful learning (Novak and Gowin, 1984). Its advantage lies in the fact that learning new knowledge is dependent on what is already known. It upholds that new knowledge gains meaning when it can be largely related to a framework of existing knowledge rather than being processed and stored in isolation. It mainly emphasises the meaningful relationships between variables or sub-concepts in the main concept. Concept mapping based instruction is considered an active rather than passive learning task, and it serves as an elaborative study activity when students are guided to construct concept maps in the presence of the materials they are learning. It requires students to enrich the material they are studying and encode meaningful relationships among concepts within an organised knowledge structure.

Concept mapping has been widely recommended and used in a variety of ways at all levels of learning and instruction in many contexts, though it is becoming more widespread in areas of science education (Ezegbe, 2014). The main argument in defence of concept mapping as a strategy is that it provides a visual means of showing connections and relationships between hierarchies of ideas ranging from the very concrete to the abstract. Concept maps are tools for organising and representing knowledge. They include concepts, usually enclosed in circles or boxes of some type, and relationships between concepts or propositions, indicated by a connecting line between two concepts. According to Joseph (2015), concept mapping is the process of creating a visual representation of your knowledge. This type of system predates the development of alphabets and the written word deeply embedded in ways that humans organize and communicate information. It is a graphic organizer that not only gives a visual representation of concepts and the relationships between and among them and then identifies how they relate to each other. The teacher starts with concepts or ideas that are placed in circles (or boxes, or clouds) and then connected with lines and arrows. Along these lines the teacher would write phrases such as: "gives rise to", "results in", "is required by," or "contributes to" (Novak & Cañas, 2006) that indicate relationships and movement. This technique for visualising relationships among different ideas is called "Concept Mapping".

Concepts mapping can be used to: develop an understanding of a body of knowledge, explore new information and relationships, access prior knowledge, gather new knowledge and information, share knowledge and information generated, design structures or processes such as written documents, constructions, web sites, web search, multimedia presentations and problem solve options. Mapping is an active learning strategy that moves students beyond rote memorisation to critical thinking making them to learn about how to learn. It provides an explicit, encapsulated representation of important ideas on one page which is great for review. It also helps you to see gaps in knowledge and areas of oversimplification, contradiction, or misinterpretation (University of Guelph, 2012).

The body of literature supporting concept mapping as a teaching and learning

strategy is enormous; although many of the studies focus on the use of concept mapping as a tool to investigate students' understanding rather than evaluating its usefulness in facilitating students' learning. Asan (2007) determined the effects of incorporating concept mapping on the achievement of fifth grade students in science class. The results from the study indicated that concept mapping has a noticeable impact on students' achievement in science grade levels. Also, Amundsen et al. (2008) found that the concept mapping process provided an alternate means to rethink course content, encouraged a view of the course as an integrated whole, and frequently provided the occasion to make explicit the types of thinking required in the course in higher education (computing science, business and management). Chang and Chang (2008) used an online concept mapping activity (CMA) featuring peer learning to enhance learning achievement in concept application. They concluded that CMA motivated students to adopt deep learning approaches and develop effective cognitive information processing ability for better concept application. Chiou (2008) examined whether concept mapping can be used to help students to improve their learning achievement and interests. The study indicated that concept mapping can help students to understand, integrate and clarify accounting concepts and also enhance their interests in learning accounting and also stressed that concept mapping could be useful in other curriculum areas. This explains why the researchers explored the strategy in literacy lesson delivery on primary school pupils' cognitive attainment.

Kinchin *et al.* (2008) also posited that concept mapping can be used to explore personal understanding because it facilitates discrete statements of meaning. The current study examined the effectiveness of concept mapping as an instructional strategy on primary school pupils' cognitive attainment in literacy lesson delivery for sustainable development.

Statement of the Problem

Globally the educational sector is faced with series of changes and reforms. One of the ways to approach these is through pedagogical strategies in the best interest of teaching and learning process. The need to acquire knowledge in literacy in the world has become very obvious and expedient because of its usefulness in everyday living and in various disciplines. There is the need to prepare and produce manpower with sound literacy background right from preprimary and primary school levels which are embedded in early childhood education. There are studies that have used different strategies and approaches to solve the problem pupils' encounter in literacy acquisition. However, to the knowledge of the researchers, not much has been done on the application of this strategy in the teaching of literacy for this level of pupils. It is in view of this, the study examined the effect of concept mapping strategy on primary school pupils' cognitive attainment in literacy lesson delivery for sustainable development.

Purpose of the Study

The purpose of the study is to examine the influence of concept mapping as an instructional strategy for cognitive attainment in early childhood literacy lesson delivery. Specifically, the study examined the:

- i. influence of concept mapping on primary school pupils' cognitive attainment in literacy.
- ii. level of effectiveness of concept mapping strategy on primary school pupils' achievement in Literacy

- iii. challenges encountered by teachers when using concept mapping strategy in teaching literacy

Hypotheses

The following research hypotheses formulated were tested at 0.05 level of significant

H₀1: There is no significant influence of concept mapping on primary school pupils' cognitive attainment in literacy.

H₀2: There is no significant influence of concept mapping strategy on primary school pupils' achievement in Literacy

Theoretical Framework

This study is based on Ausubel's assimilation theory (1960) which states that cognitive structures are hierarchically organised and new knowledge is arranged under existing higher level concepts. Meaningful learning occurs when individuals consciously relate new knowledge to prior knowledge they already possess. Concept mappings provide a template to activate relevant prior knowledge in a particular domain to organise new information. This is similar to the schemata theory of teachers helping students build on their existing schemas through visual aids such as graphics and advanced organisers to develop cognitive connections. These connections improve the storage, access, and ultimately the utilization of knowledge according to cognitive load theory (Sweller, 1988). Concept mappings can also provide scaffolding for learners to enable them to work within Vygotsky's Zone of Proximal Development (1978). Teachers can thus use concept mappings as an instructional aide to communicate and clarify the organization of concepts or ideas.

One specific type of a concept mapping scaffold is to provide pupils with a template or "skeleton" mapping. Working with the skeleton mapping will not necessarily provide business pupils with all they need to learn about organisations, but will provide a means to connect to prior knowledge and a way to organise the new knowledge as a form of advanced organiser. Teacher feedback while working with a skeleton mapping should further enhance student knowledge building.

Therefore, concept mapping can be useful in clarifying ambiguous relationships and helping novice pupils understand complex relationships. The interactive nature of concept mapping creation or modification through technological means allows pupils to more readily construct meaning between previously disparate ideas. Teachers can therefore deploy concept mapping as an instructional strategy for learning by guiding knowledge creation through the construction of meaning and integration with prior knowledge.

Methodology

A descriptive survey research design was adopted in this study. Ten groups of schools were selected randomly from the government primary schools in Lagos Mainland Local Government area, Lagos State. The population of this study consisted of all primary schools pupils and teachers in Mainland Local Government area Lagos State. A random sampling technique was used to select ten Primary Schools in the local government. Twenty pupils and 4 teachers were selected in each school. Thus, a sample of 240 pupils were used all together. Two instruments were used. These are: Literacy Test (LT) and a self-developed questionnaire for the teachers.

The Literacy Test (LT) is a 30-item multiple choice test with four options A, B, C and D. The questions were constructed by the reseachers to determine pupils' achievement in

Literacy. The questions were structured along; (i) ability to recall what they have learnt (ii) ability to apply what they have learnt to solve problems. The self-developed questionnaire also contained two sections. Section A sought for personal information of the teacher; (a) Name of school, (b) age bracket, and (c) gender; while section B consisted of 20 questionnaires information. Ten questionnaires on effectiveness of concept mapping and ten on pupils' cognitive attainment.

The Literacy test and questionnaires were administered to the respondents (pupils and teacher) by the researchers. Descriptive statistics was used to provide answers to the research questions while (inferential statistics)ANOVA was used to test the hypotheses at 0.05 level of significance.

Results

Hypotheses

Ho1: There is no significant effect of concept mapping on pupils' cognitive attainment in literacy.

Table 1: ANOVA on the Effect of Concept Mapping on Pupils' Cognitive Attainment in Literacy

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	109.038	95	15.577	6.595	.000
Within Groups	229.095	104	2.362		
Total	338.133	199			

Significant at $p < 0.05$

Table 1 shows that the one way analysis of variance is $F(95, 104) = 6.595, p = 0.00$ between the effectiveness of concept mapping and lesson delivery indicating that it is a significant at 0.05. Thus the null hypothesis is rejected. This implies that there is a significant level of influence of concept mapping as an instructional strategy on pupils' cognitive attainment literacy lesson delivery.

Ho2: There is no significant effect of concept mapping strategy on pupils' achievement in Literacy

Table 2: ANOVA on the Effectiveness of Concept Mapping Instructional Strategy on Pupils' Achievement in Literacy

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2003.233	88	102.392	.961	0.0490
Within Groups	2100.667	112	178.370		
Total	4103.900	200			

Significant at $p > 0.05$

Table 2 shows that the one way analysis of variance is $(F_{85, 112}) = 0.961, p = 0.0490$ between the concept mapping strategy and pupils' achievement in literacy indicating that it is not significant at 0.05. Thus, the null hypothesis is rejected. This implies that there is significant level of effectiveness of concept mapping strategy on pupils' achievement in literacy

Discussion of Findings

The result of this study showed that there is a significant level of effectiveness of concept mapping as an instructional strategy on pupils' cognitive attainment in literacy lesson delivery. This implies that concept mapping as an instructional strategy aids better delivery of literacy lessons and promotes cognitive attainment than conventional strategy. This could be due to the fact that using concept mapping requires organization of related information in a visual manner, representation of topics that pupils can create using words, phrases, lines, and perhaps color to help organize their ideas and show their understanding of an idea, vocabulary term, or essential question. This finding resonates with Aid man *et al.* (2008) who found that the idea of using concept mapping demonstrated that the knowledge retained by students was accurate and meaningful. Kinchin *et al.* (2008) concluded that concept mapping can be used to explore personal understanding because it facilitates discrete statements of meaning.

The finding also revealed that there is significant level of effectiveness of concept mapping strategy on pupils' achievement in literacy. This also implies that the level of effectiveness of concept mapping strategy on pupils' achievement in literacy is high. This finding agrees with Zimmerman (2011) who reported that concept mapping has not only been found useful in promoting pupils' understanding of Literacy concepts, it also facilitates pupils' abilities to solve problems and to answer questions that require application and synthesis of concepts.

Conclusions

Based on the findings of the study, it is concluded in this study that there is a significant effect of concept mapping as an instructional strategy on pupils' cognitive attainment in literacy lesson. Therefore primary school teachers need to conceptualise and integrate primary school curriculum through innovative approaches in order to promote pupils better performance not only in literacy but in other subject areas. It is also expedient that primary school teachers establish and adopt different teaching methods needed to enhance their pupils' abilities in this 21st century.

Recommendations

The following recommendations were made.

1. Though, the use of concept mapping is recommended as an effective teaching strategy in improving cognitive attainment in early childhood lesson delivery, however, future study could focus on the effects of such teaching strategies on other school types, such as private and missionary schools with a much wider sample and within the context to provide better understanding of the situation.
2. Ministry of Education should also ensure that their teachers are trained regularly on the use of innovative instructional approaches e .g. concept mapping learning and the curriculum planners should ensure that they incorporate concept mapping learning in ECE curriculum, as it will help to promote pupils' achievement and cognitive sustainability in ECE.

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ROLE-PLAY INSTRUCTIONAL STRATEGY AND DEVELOPMENT OF RESILIENCE SKILLS AMONG PRE-PRIMARY SCHOOL CHILDREN IN ATIBA LOCAL GOVERNMENT AREA OF OYO STATE, NIGERIA

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Abstract

The study investigated role-play instructional strategy and development of resilience skills among pre-primary school children in Atiba Local Government Area of Oyo State, Nigeria. The study adopted embedded design within mixed method approach paradigm. The population for the study were all pre-primary school children in Atiba Local Government Area of Oyo State. A total number of 17 respondents constituted the sample for the study and which were selected using simple purposive random sampling technique. Two schools were purposively selected from one Local Government in Atiba, Oyo-State. Three research instruments were (2) adopted and (1) adapted for the study, the research instruments were tagged, 'Confidence Rating Scale (CSRS)', 'Field Note Template (FNT)' and 'Role Play Instructional Guide. Data collected were analysed using Analysis of Covariance (ANCOVA). The results of the study showed that there was a significant main effect of treatment on pre-school children's resilience skill of confidence ($F_{(1,9)} = 11.389; p < 0.05$, partial $\eta^2 = 0.559$). The treatment effect size is 56% (partial $\eta^2 \times 100$). The study concluded that children learn better when age and cultural backgrounds are considered. The study therefore recommended that teachers, government and parents should to help develop children resilience skill of Confidence through role-play instructional strategy, school authority should include role-play in their end of the year activities, so that the parents can have first hand experience of the efficacy of role-play.

Key Words: Role Play, Instructional strategy, Resilience skills

Introduction

The early years of human life is recognized by early childhood educators as the most critical for the holistic development of children and success in later life. It is clearly evident that early years' experiences have a significant influence on the all-round development and the later life of any child. The influence, which may be either positive or negative, has been emphasised through inter-disciplinary research. It alerts us to consider the quality of education at the early years period seriously.

Bush (2001) stated that the years between birth and age five are the foundation upon which successful (or otherwise) lives are built. At the global level, this fact is recognised and every nation is working assiduously towards providing quality early years care and

Education for children. The early years period is considered the right time to expose children to rudiments of numbers, letters, colours, shapes, forms among others through play (NPE 2013).

In spite of how important this period is, it is disheartening to see that some children are still facing traumatic situations like poverty, neglect, war and death of parents. Based on a painstaking observation of the present researchers, some pre-primary school children are also facing some of these traumatic situations in Atiba Local Government Area. The two prominent identified situations facing children in the Local Government Area are neglect and poverty.

Neglect refers to the failure of a parent to provide for the development of the child where the parent is in position to do so in one of the following areas: health, education, emotional development, nutrition, shelter and save living conditions. There exists many manifestations of neglect among children in Atiba Local Government area. These include non-compliance with health care recommendations, failure to seek appropriate health care, deprivation of food resulting in hunger, and the failure of a child physical strength to thrive. Other causes of concern areas as observed by the researchers include inadequate protection from environmental dangers, abandonment, inadequate supervision and poor hygiene. An in-depth observation revealed that some of the children are seen without school uniform while some are with tattered uniform due to neglect. Poverty is pronounced deprivation of well-being. Historically, poverty has been related to income. People can be said to be in poverty when they are deprived of income and other resources needed to obtain better conditions of life among which are the diets, material goods, amenities, standard and services that enable them to play the roles, meet the obligation and participate in the relationship and customs of their society.

Poverty which is the lack or scarcity of means of subsistence can also degenerate to lack of confidence in children. As seen among the children under the study, it is observed that the children are being deprived of well-being. Some of the children are without school uniform, some did not have their bath before going to school, some reported not have eaten before getting to school, in fact, some head teacher reported that some of the children would come to school just to eat the free food provided by the federal government of Nigerian. Some children are with tattered cloth because they lacked proper care from home. These various traumatic situations can bring about the lack of relevant resilience skills.

Resilience has often been defined as the ability to bounce back in times of adversity and to develop in a positive way when faced with setbacks. It involves doing well against the odds, coping, and recovering (Windle, 2011). Resilience can also be defined as "the process of, capacity for, or outcome of successful adaptation despite challenging or threatening circumstances". As a concept it appears to be cross-culturally recognized (Hunter, 2001). Discussions of resilience are typically framed with reference to risk, vulnerability and protective factors. It is the complex interplay of these factors over time that determines children's outcomes.

Resilience is seen as more than simple recovery from insults, rather it can be defined as positive growth or adaption following period of homeostatic disruption (Richardson, 2002). According to Ginsburg and Jablow, (2015), the different resilience skills are competence, confidence, connection, character, contribution, coping and control. Out of all these skills, this study is interested in resilience skills of confidence. Confidence has been identified in a number of ways throughout literature. These definitions generally involve

belief in one's abilities to perform (Cheers, Watson & May, 2008, Clark & Goldsmith, 2008).

Confidence can also be defined as the act of believing in oneself (Benabou & Tirole, 2003). That has been the reason why Erik and Orthodox, 2011 in their opinion defined confidence as an emotional-based assessment of one's self or value. A child that is lacking confidence may be seeing his/herself has been inferior to other children: he may rather allow others perform a task first so he can watch what they do. Even at school when teacher asks questions, such a child may not have the boldness to answer questions even if he/she has the answer. These may, therefore, affect the development of resilience skills. Improving children's confidence will lead to improved performance, and more successful life in general (Baskin, 2011). It has been observed that children who are confident are eager to learn new skills and will be able to cope with challenges. It is therefore hoped that if the traumatized children in Atiba Local Government area have the resilience skill of confidence, it could help them to be successful in life.

The increase of self-confidence skill increases academic achievement, and at the same time the increase of academic achievement boost confidence (Baumeister, Campbel, Krueger & Vohm (2003). The practices which aim to improve self-self-confidence can also increase children achievement (Davies and Brember 1999). Children who can establish a more rational cause and effect relationship between their achievements and failures can better adapt to their academic life. Individuals with high self-confidence are more motivated to be successful in an academic sense since they are able to shape their future goals and expectations according to the abilities and interests.

Self-confidence can help the children to counter their natural tendency to quit too easily. Also believing in self can make them happier. This implies that a child with improved self confidence tends to be happier, bold and stronger than s child with low self-esteem.

Furthermore, having confidence skill can help children to act and relate with teachers and mates without fear as well as express themselves with the confidence and buoyancy. In spite of how important the resilience skill of confidence is to children, it is unfortunate to see that some children in Atiba Local Government lack the skill as a result of traumatic situations in which they find themselves. This may make them feel inferior to others and may therefore, hinder their ability to cope with life challenges.

Previous researchers have noticed that some children are facing traumatic situations and have carried out one study or the other to assist them. For instance, Brunzell, Water & Stokes (2015) studied the effects of teaching with strength in trauma-affected students: A new approach to healing and growth in classroom. This paper proposes that redressing a trauma-affected student's regulatory abilities should be the first aim in teaching and learning process.

Also, Cohen, Mannarino & Deblinger (2017) worked on treating childhood traumatic grief in children and adolescents. Here, the researchers introduced authoritative guide that produced many tens of thousands of clinicians to trauma focused cognitive behavioural therapy, a leading evidence-based treatment for children exposed to traumatic life events and their parents or caregivers.

Although these previous studies have justified the fact that research efforts could be engaged in to assist children in traumatized situations towards the development of one skill or the other. However, such research efforts seem to be very scanty available especially in regard to the traumatized children in Atiba Local Government Area. Besides, the past studies

did not do much I addressing the issue of building resilience skills in traumatized children through role-play. This study therefore was conducted in an attempt to bridge this gap in research by using role play to develop the resilience skill of confidence among traumatized children in Atiba Local Government Area.

Ginsburg (2007) stressed that play is so important for optimal child development. It has been recognized by the United Nations for Human Rights as a right for every child. Play is essential for development because it contributes to the cognitive, physical, social and emotional well-being. As such, preschool teachers should emphasize on play methods in the classroom because it enhances children's learning processes and interest towards learning languages. The play method provides maximum interaction and correspondence with others in the classroom and helps children to master vocabulary through fun and enjoyment. The play method provides room for children to use their creativity and develop their imagination. Play allows children to learn through experience, enhances confidence and self-esteem and also develops interest towards learning language. Scarfo and Littleford (2008) asserted that teachers should allow children to play with things like sand, water and blocks. By setting up a play environment, children are given the opportunity to manipulate, explore and experience with a variety of new material which enhances learning. Through play, children learn independence, knowledge and application of new vocabulary.

Bodrova (2008) also stressed that play helps children master the symbolic nature of words. A study by Istomina (1977) showed that preschool children could remember more items in the dramatic play condition, functioning at the level that older children could demonstrate in the non-play condition that was similar to typical school task. Vygotsky (1967), the pioneer in social constructivist theory asserted that children learn better through play and social interaction. Froebel (1970), a German philosopher on early childhood education discovered that all the tasks given to children should have elements of play and the objects used in the learning process can arouse the interest of children towards learning. Rousseau (1956) believed that the role of the teacher is to facilitate children to play and explore knowledge independently. Locke (1632-1704) affirmed play as a necessary and important part of the educational process and children learn faster through the play method because they love fun. Piaget (1962) strongly believed that preschool children use symbols in play during the pre-operational stage of learning. For example, at this stage, children might use a book to resemble a car when they play on the floor. Resilience skills are some of the many skills that children develop through play. Hurtwiz (2002) reported that play affords children opportunity to learn in group, share, to negotiate, resolve conflict and learn self-advocacy. Children use play as their primary medium of communication. They express themselves more naturally through the concrete world of play and activity. This is because they are not afraid of making mistakes during play (Bratton, Ray, Rhine & Jones, 2005) and ready to correct their mistakes without being pressurised by anybody. All these might be the reasons behind the United Nations declaration of play as a developmental right of the child (UNICEF, 2016).

There are different types of play as documented in the literature. These include dramatic play, associative play, cooperative play, role play, fantasy play, active play, passive play, parallel play, and manipulative play. Out of all these types of play, this study is interested in role play. Role play allow children to try out different roles and try an alternative behaviour. Role-play is a strategy that allows children to explore realistic situations by

interacting with other children in a managed way in order to develop experience and try different strategies in a supportive environment. Here, children are given particular roles to play in a conversation or other interaction (Glover, 2014). McGuire, (2017) explained that Role-play put someone in other person's shoes. It is an enlightened and interesting way to help children see a problem from another perspective. Children will have the capability of developing deeper involvement and knowledge about issues at hand. Role play activity allows children to act character in a predefined situation. For example, children can act as father, mother, teacher, and doctor among others. Olagunju, (2009) also emphasized that role play promotes acquisition of attitude and skills for human relation. Although, literatures made us to know that role play can be employed to build some skills in children but none has address its role in building resilience skill of confidence among pre-primary school children in Atiba Local Government Area of Oyo State . For instance, Ojoko, (2018) studied Fantasy and Role-play instructional strategies as determinant of primary two pupils acquisition of expressive and social skills in Ondo town. She provided empirical information and insight into innovative through the use of fantasy and role plays. This according to her would encourage primary school teachers to adopt play instructional strategies in their teaching and learning activities at primary school level.

Role-play have the possibility of building the children resilience skill. This has been the reason why the researcher is interested in helping the traumatized children in Atiba Local Government Area to develop resilience skill of confidence through role play.

Statement of the Problem

Resilience skills are important skills to be developed during the pre-primary school years. This is because it has been widely used as the capacity to bounce children back by assisting them to cope with life difficulties. However, it has been observed that the children in Atiba Local Government Area are faced with traumatized situations and this has made them to lack relevant skills especially that of confidence. Previous studies carried out to address the development of resilience skill in traumatized children were done in other countries and many of them did not employ the use of role play. Studies on role play did not focus on developing resilience skill of confidence in traumatized children.

Objective of the Study

- i. investigate benefits preschool children derive from their involvement in role play in Atiba Local Government Area to develop resilience skill of confidence.

Research Question

1. What other benefits will preschool children derive from their involvement in role play?

Hypothesis

H₀1: There is no significant effect of treatment on pre-school children resilience skill of confidence.

Methodology.

This study adopted embedded design within mixed method approach paradigm. This design. The population for the study were pre-primary school children in Atiba Local

Government Area of Oyo State. A total of 17 Pre-primary schools using purposive sampling techniques. Two pre-primary and primary schools in Oyo town were sampled using purposive random sampling technique in Atiba Local Government. One school was assigned to experimental group, while the second school was assigned to control group. Three research instruments were used to collect data for the study and were; 'Confidence Skill Rating Scale (CSRS)', 'Field Note Template (FNT)' and 'Role Play Instructional Guide (RPIG)'. The face validity of the instruments was ascertained by early childhood education experts. Their comments and suggestions will be used to produce the final copy.

1. Confidence Skill Rating Scale (CSRS)

This scale was given to professional colleague and some lecturers in the School of Early Childhood and Primary Education and some preschool teachers to critically look at its suitability in terms of content, coverage and the difficulty level. Their comments and suggestions were used in producing the final copy. The rating scale was divided into two sections. Section A and B.

Section A elicited demographic information from the children such as; gender and age. Section B consists of 15 items which describe adaptive or positive confidence skills. The scale was developed from Merrell (2002) rated on a 4-point likely scale 1= Not Demonstrated, 2= Fairly Demonstrated, 3= Well Demonstrated, 4= Much Demonstrated.

2. Field Note Template (FNT)

The field note was divided into two sections. Section A and B. Section A elicited personal data from the observer such as; Name, time, date and purpose. Section B consists of the children's responses consists of the children's responses. FNT was subjected to criticism by lecturers in the Department of Early Childhood and Educational Foundations, university of Ibadan. Their observations, corrections and suggestions were taken into consideration to rework this instrument.

3. Role Play Instructional Guide (RPIG)

RPIG was developed by the researchers to guide the training activities that took place on role play instructional delivery mode of the trained research assistants. The guide contains four topics for the role play which is based on the topics selected for this study. The four lessons are based on the following topics: love and protection for others and the country, care and protection for one another irrespective of tribe and religion, respect for national symbols and discipline and tolerance. The content used for designing the guide was selected from the one-year pre-primary school education curriculum developed by the Nigeria Education Research and Development Council (NERDC, 2016). All the lessons were divided into four sections each, which are topics, lessons objectives, previous knowledge and lesson presentation aspect has tables and the tables contains of steps, which are teachers and children's activities.

Results

Research Question

Question: What other benefits will pre-school children derive from their involvement in role-play?

The data collected to answer this research question revealed how role-play fostered many other skills in children. Such skills includes social-emotional skills, speech and language skills cognitive skills, physical skills and creativity skills

1. Speech and language skills: At the end of the role-play, children were able to understand and use language properly. The children displayed this when singing the national anthem and during acting. More so, they were able to acquire listening and speaking skills.
2. Cognitive skills: At the end of the role-play, the Children were able to act play as directed by the research assistants. They were able to apply their experience at home when acting the play.

1. Demographic Information of Participants

Table 4.1: Gender Distribution of Children

Gender	Frequency	Percentage
Male	10	58.8
Female	7	41.2
Total	17	100.0

Table 1. shows that the total number of children that participated in this study was 17. Out of these 17 children, 10(58.8%) were male while the remaining 7(41.2%) were female. The result from this table implies that more male children participated in the study than female children. The figure below further presents the result in pie chart.

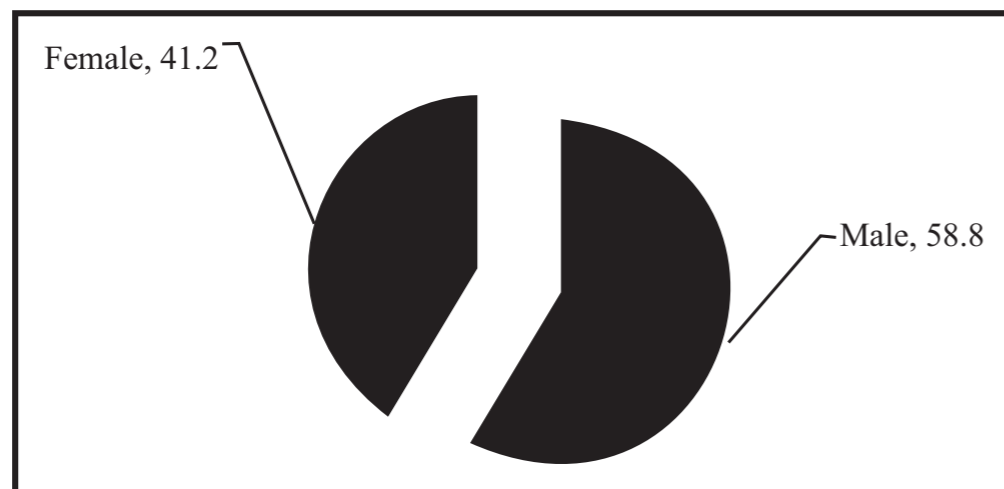


Figure 4.1: Pie Chart showing Gender Distribution of Children

Table 4.2: Distribution of Children based on Age

Age in Years	Frequency	Percentage
Less than 5 years	9	52.9
5 years and above	8	47.1
Total	17	100.0

Table 4.2 shows that 9(52.9%) of the children were less than 5 years while the others who constituted 8(47.1%) were 5 years and above. The figure below further presents the result in bar chart.

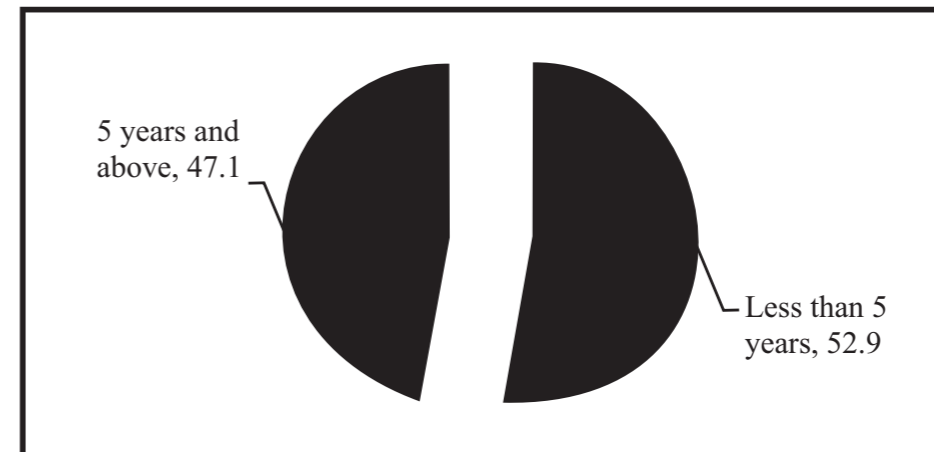


Figure 4.2: Pie Chart showing Distribution of Children by Age

4.2 Test of the Hypothesis

Ho1: There is no significant effect of treatment on pre-school children resilience skill of confidence

Table 4.6: Analysis of Covariance (ANCOVA) of Confidence Skill by Treatment, Gender and Age

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	189.478a	7	27.068	2.382	.112	.649
Intercept	570.111	1	570.111	50.163	.000	.848
Pretest	31.713	1	31.713	2.790	.129	.237
Treatment	129.439	1	129.439	11.389	.008	.559
Error	102.289	9				
Total	17828.00	17				
Corrected Total	291.765	11				

a. R Squared = .649 (adjusted R Squared = .377)

Dependent Variable: Confidence skill

Table 4.6 shows that there is significant main effect of treatment on pre-school children's resilience skill of confidence ($F(1,9) = 11.389$; $p < 0.05$, partial $\eta^2 = 0.559$). The treatment effect size is 56% (partial $\eta^2 \times 100$). This result means that there is significant difference in the pre-school children's resilience skill of confidence due to the treatment, that Role Play. Thus, the null hypothesis 1 was rejected. In order to determine the mean difference across the two groups, the Estimated Marginal Means of the treatment groups were carried out and the result is presented in Table 4.7 below.

Table 4.7: Estimated Marginal Means of Post-confidence Skill across the Groups

Variables	N	Mean	Std. Error
INTERCEPT			
Pre-confidence skill	17	16.00	-
Post-confidence skill	17	31.51	0.966
TREATMENTS			
Role Play Ground	11	34.68	1.220
Control Group	6	27.27	1.736

Table 4. reveals that the pre-confidence skill means score (covariates) of the pre-school children appeared as 16.00 while it became 31.51 after treatment when the effect of covariates has been statistically controlled. The table shows further that the children exposed to Role Play had the highest post-confidence mean score ($\bar{x} = 34.68$) than those in control group ($\bar{x} = 27.27$). This result implies that the Role Play was more potent than the conventional method for fostering the resilience skill of confidence in pre-school children. The order of the potency of the treatments can be represented as $RP > CM$.

Discussion of Findings

The findings of the study revealed that there was significant effect in the post test confidence skill mean score of children in the treatment condition (Role-play instructional strategy and conventional method). This may be due to the fact that Children by nature love to play and when play is used as instructional strategy, learning becomes fun, natural and real. Another reason is that play gives children the opportunity to experience what they are learning. This is in line with the findings of Pellegrino and Golda, (1982); Ramirez, 2008; Peley, 2009; SEO, 2010 and Figliotti, (2014) where the results of the study show that fantasy Play increase learners academic performance

This shows that the treatment significantly affected the children post resilience skill of confidence. This confirmed that treatment had a significant effect on resilience skill of confidence of children. This has also been established in past studies like Frederick- Jonah bad Igbojinwaekwu, (2015) Abioye, (2014) Adelekan, (2009) and Olagunju 2009) that learners are affected by the method of teaching employed in school. Therefore it can be said that role-play helps in developing resilience skill of confidence in children.

Conclusion

It can be concluded from the findings of the study that when children are given opportunities to learn by doing, they learn with joy and are able to master different types of skills. This means that children learn better when the method of teaching is age and culturally appropriate. The interest and attention of pupils were assigned and the lessons learnt were easily recalled.

Recommendations

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

1. Teachers should use innovative activities such as role-play instructional strategy to teach pre-primary school children in order to help the children learn better. Every child should be given Chance so that all can benefit.
2. Producers of educational and instructional materials should invest into production of costumes for role-play. If the costumes were readily available, teachers and parents would find it easy to use role-play to teach children.
3. Parents should support the teachers in facilitating role play methods of teaching. For example, when the child needs to use some clothes apart from their school uniform, the parents should happily provide such. They should not be ignorant about the important of role play as a powerful learning tools for their children.
4. School authority should include role-play in their end of the year activities. So that the parents can have a first-hand experience of the efficacy of role-play.
5. Government should provide adequate instructional materials such as costumes for public schools. This would enable them use role-play more effectively. Teachers activities in the public schools should be properly monitored to ensure they are using the appropriate method of teaching. For instance, school inspectors should be recruited to visit public schools unannounced.
6. Curriculum planners and developers should incorporate the use of role-play instructional strategy in pre-schools.

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PSYCHO-SOCIAL ADJUSTMENT OF RETIRED STAFF AFTER RELOCATING FROM UNIVERSITY STAFF QUARTERS IN SOUTHWESTERN NIGERIA

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Abstract

The study investigated psycho-social adjustment issues of retired university staff who relocated from university staff quarters after retirement. The study adopted the survey research design. The study population comprised retirees who relocated from university staff quarters within the last six years from six federal universities in Southwestern Nigeria. Five hundred (500) retired university staff were selected from five federal universities using purposive, convenience and snowball sampling techniques in which year of establishment and availability of staff quarters in the university were among the selection criteria. A research instrument titled *Psycho-social Adjustment of Retired University Staff Questionnaire (PARUSQ)* was used to collect information from the retirees. Data collected were analysed using frequency counts, percentages and t-test statistics. The results showed that 60% of retired university staff who relocated from staff quarters experienced psycho-social challenges in retirement with "dehumanizing looks and disrespect from others" (89.3%) as the most dominant challenge while "decreased strength and problems associated with ageing" was the least experienced challenge (57.4%). The results also showed that factors such as sex and marital status had no significant effect on the psychosocial adjustment of retirees while religion and paternal/maternal status had a significant influence on their psychosocial adjustment. From the study, it is recommended that university management should incorporate mandatory retirement counselling into their staff induction programmes to help them deal with psychological, social, physical and emotional issues in retirement.

Keywords: Retirement, Adjustment, Psycho-social Adjustment, Maladjustment, Relocation

Introduction

Life is in stages and each stage of life throws up its challenges and opportunities. Among the stages of life is the retirement period which comes after one has actively engaged his or her time in work as an employee over some time with the inevitability of ageing making retirement a natural normal phenomenon in the world of work. Retirement is a stage in life that is normal for any worker (public or private). This stage is necessary because as a worker becomes older, his Marginal Physical Productivity of Labour (MPPL) declines. In Nigeria, the Universities (Miscellaneous Provision Amendment Act, 2012) put the non-teaching staff retirement age at 65 years and the academic staff on professorial cadre at 70 years, which implies that the Nigerian university system operates on retirement by age.

This study was primarily motivated by the researchers' observation of the lifestyles of some retired university staff especially those who lived in university staff quarters all through their working years. It was observed over the years that some retired staff often find it difficult to vacate university staff quarters after retirement even when the accommodation they occupied had already been re-allocated to someone else. On many occasions, such staffs

are most often ejected forcefully from university accommodation. Some others who relocate to other places find the process of adjusting to a new environment challenging because retirement in Nigeria comes with challenges and expectations which include adjusting to life in a new place of residence (Elezua (1998). Likewise, Semone (1973), Oniye (2001), Coile and Philip (2009), Okam (2013), Garba and Mamman(2014) posited that in Nigeria the delay in pension and gratuities brings hardship and untimely death to many retirees. Some challenges faced by retirees include loneliness, retirement stress, psychological breakdown, anxiety about residential home and inactivity, among others.

Relocation is the process of vacating a location and settling in a different one. A move can be to a nearby location within the same neighbourhood, a much farther location in a different city, or sometimes a different country. Some retirees relocate to rented accommodation because they do not have personal residential housing before their retirement due to financial concerns. Others move to their home town because they feel they need to be nearer their aged parents or relatives. These changes are so intense that many live in a mirage, having no one to assist them. Some suffer from loneliness because they probably do not have adequate interactions with neighbours in the new location where they now live. Some suffer from boredom not having to attend seminars, lectures and social activities which they were used to before retirement, therefore spending most of their time glued to their books far into the night just to keep busy. Some others suffer from depression, experience anxiety, debilitating feelings of loss and other psychological issues making their overall stress level potentially high.

Relocation at any life stage is a major stressor, which can be traumatic for the newly retired staff. The physical and psychological burdens of retirement and relocation are likely to impact some important aspects of life, both positively and negatively and the retiree would have to devise effective means of adjusting to the changes and challenges inherent in retirement and relocation.

According to Delemontagne (2011), some retirees ease smoothly into retirement, but others experience anxiety, depression and debilitating feelings of loss. Therefore, the transition to retirement and relocation requires a major adjustment to the loss of work, the building of a retirement life structure and also adjusting to a new environment one relocates to after retirement. Some have to adjust to noisy environments which affect them psychologically having been used to a serene academic environment while staying in the university quarters. This is in line with the submission of Akinade (1993) that a retiree who had enjoyed meaningful privileges before retirement would find it quite difficult adjusting to life without those privileges after retirement. This gives credence to the fact that retirees need coping strategies to enable them to adjust to life psychologically and socially after retirement and relocation.

Weiss (1991), Wiseman (1980), Lee (1991), Litwak and Longino (1987) have indicated declining physical health and mobility as the most commonly reported effect of late-life relocation. Furthermore, Kim & Moen (2002) posited that the health status of a person is positively correlated with adjustment to retirement, and those with better physical and mental health tend to adjust better to psychosocial challenges. Coming close to this point is the feelings of social isolation or loneliness, depression and relationship problems that can accompany the many changes that occur to people as they retire and age. Demographic variables which include gender, age, marital status and religion among others may influence adjustment levels in retirement (Smith & Moen, 2004; Idler & George, 1998; Karen & Gary, 2013). In Nigeria, far less is known of the psychosocial challenges that accompany the changes faced by retirees who relocated compulsorily after retirement and how psychosocial

factors could be used to explain the adjustment methods employed by retirees who relocated from university staff quarters. This study, therefore, contributes meaningfully to our understanding of the psychological and social processes involved in adjusting to the demands of retirement and relocation. The study investigated the psychosocial adjustment that accompanies this life stage, which includes coping with the psychosocial challenges which the retired university staff experienced after disengagement from work-life and relocating to a new environment.

Purpose of the Study

This study determined the psychological and social processes involved in adjusting to the transition from work to retirement and relocation of university staff. The specific objectives of the study are to:

- i. identify the psychological and social challenges experienced by retired university staff who relocated from university staff quarters to elsewhere in Southwestern Nigeria; and
- ii. determine the influence of demographic variables (sex, marital status, religion, paternal and maternal status) on psychosocial adjustment of retired university staff who relocated from the university staff quarters to elsewhere in Southwestern Nigeria.

From the objectives of the study one research question and one hypothesis were raised:

Research Question

What are the psychological and social challenges experienced by retired university staff after relocating from university staff quarters in Southwestern Nigeria?

Hypotheses

Demographic variables (sex, marital status, religion, paternal and maternal status) do not significantly influence the psychosocial adjustment of retired university staff who relocated from the university staff quarters in Southwestern Nigeria to their present place of abode.

Methodology

This study adopted the survey research design. The population for the study comprised all the retired university staff in Southwestern Nigeria that relocated from university staff quarters. The population was made up of the academic and non-academic staff of the universities who retired from service within the last six years from Federal universities in Southwestern Nigeria. At the time of this study, the total number of retirees was 1,180 as shown in records obtained from the Pension Units of the selected universities. A sample size of 500 retired university staff who had lived in university staff quarters before their retirement and relocation was selected for the study using the purposive sampling technique. A self-constructed instrument titled "Psychosocial Adjustment of Retired University Staff Questionnaire" (PARUSQ) was used to collect data. The instrument consists of three sections. Section A contains information on the demographic and occupational variables of the respondents. Section B contains information on Psychological and Social Challenges (PSC) to which respondents were to indicate Yes Or No. Section C contains items on Psychological and Social Coping Strategies (PSCS) using a four-point Likert-type response format of "Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD)". The data collected were analysed using percentages, t-test and ANOVA statistics.

Results

The results of the study are presented based on the research question and hypothesis raised.

Research Question: What are the psychological and social challenges experienced by retired university staff after relocating from university staff quarters in Southwestern Nigeria? To answer this question, responses to Section B of the research instrument were scored, computed and analyzed. The scores were subjected to frequency count and simple percentages. The results are presented in Table 1.

Table 1: Psychological and Social Challenges experienced by Retired University Staff after relocating from University Staff Quarters in Southwestern Nigeria

Psychological and Social Challenges	No	Yes	RSI	Rank
Dehumanizing looks and disrespect from others	53(10.7%)	442(89.3%)	0.95	1
Difficulties arising from a reduction in the social network due to loss of contact with colleagues and neighbour	76(15.4%)	419(84.6%)	0.92	2
Feelings of dissatisfaction and unfulfilled life	79(16.0%)	416(84.0%)	0.92	3
Inability to meet up with social responsibility	93(18.8%)	402(81.2%)	0.91	4
Experiencing psychosomatic and phobic reactions	397(80.2%)	98 (19.8%)	0.90	5
Death anxiety	100(20.2%)	395(79.8%)	0.90	6
Loss of caring friendship	394(79.6%)	101 (20.4%)	0.90	7
Hassles of packing and unpacking of ones belongings	102(20.6%)	393(79.4%)	0.90	8
Problem adjusting to new environment	118(23.8%)	377(76.2%)	0.88	9
Deteriorating health conditions such as poor diet, sickness etc.	122(24.6%)	373(75.4%)	0.88	10
Loss of prestige associated with work	126(25.5%)	369(74.5%)	0.87	11
Anxiety about suitable post retirement accommodation	136(27.5%)	359(72.5%)	0.86	12
Inadequate access to medical facilities	143(28.9%)	352(71.1%)	0.86	13
Feeling of constantly under stress	347(70.1%)	148 (29.9%)	0.85	14
The feeling of unhappiness, loneliness, depression and emotional breakdown	148(29.9%)	347(70.1%)	0.85	15
Inability to meet up with huge family responsibilities	153(30.9%)	342(69.1%)	0.85	16
Inability to find paid jobs	351(70.9%)	144 (29.1%)	0.84	17
Non-payment of retirement benefits like	207(41.8%)	288(58.2%)	0.79	18

Decision Rule: (a) Any percentage above 80% is regarded as significant. (b) Score below 80% is regarded as not significant.

The results as presented in Table 1 show a list of psychological and social challenges experienced by retired university staff who relocated from staff quarters after retiring from university service. It could be observed that not less than 60% of retired university staff who relocated from staff quarters to elsewhere experienced some psychological and social challenges. The most significant of these challenges in order of prevalence are: Dehumanizing looks and disrespect from others (89.3%); Difficulties arising from the reduction in the social network due to loss of contact with colleagues and neighbours (84%); Feelings of dissatisfaction and unfulfilled life (84.0%); Inability to meet up with social responsibility (81.2%), On the other hand, the least significant psychosocial challenges experienced by the retirees include "Inability to find paid jobs (70.9%); Non-payment of retirement benefits like pension and gratuity (58.2%); facing physical disabilities, decreased strength and problems associated with ageing (57.4%).

Hypothesis: Demographic variables (sex, marital status, religion, paternal and maternal status) do not significantly influence the psychological adjustment of retired university staff who relocated from the university staff quarters in Southwestern Nigeria to their present place of abode. To test the hypothesis, respondents' psychosocial adjustment scores were analyzed for differences based on each of the demographical variables using t-test and ANOVA as appropriate. The results are as presented in Table 2.

Table 2: Influence of Demographic Variables (sex, marital status, religion, paternal and maternal status) on Psychological Adjustment of Retired University Staff

Retired University Staff Demographic Variables	Retired University Staff Adjustment Level					
	N	\bar{X}	SD	t	F	Remark
Sex						
Male	322	32.89	32.89	0.995		NS
Female	173	33.37	33.37			
Marital Status						
Divorced	138	32.69	5.00	1.27		NS
Widowed	90	32.70	5.70			
Married	236	33.23	4.91			
Separated	31	34.45	4.47			
Religion						
Christianity	344	33.31	5.07	4.11*		S
Islam	142	32.23	4.98			
Traditional	9	36.22	4.46			
Paternal/maternal Status						
No Child	80	34.70	4.79	10.55*		S
1-3 children	108	34.09	5.62			
4 and Above	307	32.27	4.71			

Key: * = significant at 0.05 level

NS = Not Significant; S = Significant

The results as presented in Table 2 show that the differences in the psychosocial adjustment of retired university staff based on sex and marital status were not significant with t- and F-values of 0.995 and 1.27 respectively. This implies that retirees' sex and marital status did not significantly influence retired university staff's psychosocial adjustment. However, there was a significant influence of each of religion and paternal/maternal status on retired university staff's psychosocial adjustment. This is inferred from the F values of 4.11 and 10.55 which are statistically significant at 0.05 level.

Discussion of Findings

The results of this study indicate that retired university staff who relocated from university staff quarters after retirement experienced some psycho-social challenges. This finding is in line with the submission of Elezua (1998) that retirement in Nigeria comes with challenges and expectations which include adjusting to retired life, family responsibility, and work in retirement, stress, depression and relocation among others; especially bearing in mind the unstable nature of the nation's economy. The finding also corroborates the results of previous studies by Semone (1973), Oniye (2001), Okam (2013), and Garba and Mamman (2014). The results of these studies have shown that the majority of retirees experience retirement stress, problems associated with planning and management, sudden death, corruption at the pension board, dehumanizing looks and disrespect from others.

The results of the study also show that the difference in the psychosocial adjustment of retired male and female university staff that relocated from staff quarters to elsewhere after retirement was not significant. This finding, which brings to the fore the issue of gender in individual adjustment to retirement, differs from findings from Kim and Moen (2002), Smith and Moen (2004), and Karen and Gary (2013) who noted that men tend to be more satisfied with retirement than women.

The results of the study also show that religion and paternal/maternal status had a significant influence on the psychosocial adjustment of retired university staff while marital status had no significant influence on the psychosocial adjustment of retired university staff. While retirement may reflect an initial loss of the worker's role, retirees typically are still involved with family, friendship, religious and voluntary association roles which can provide stability and support as individuals work out the opportunities and constraints of retirement (Moen, Kim & Hofmeister, 2001). Family members such as spouses and parents provide social and psychological continuity to retirees as they adjust to retirement. In addition, these family members may supply social anchorage that enables social integration and enhances well-being among adults. Being married may provide a source of consistency and stability as individuals make the transition into retirement. On the other hand, being widowed may increase financial uncertainty and social isolation which lowers the assessment of retirement. This is in support of the findings on the influence of marital, paternal and maternal status on the psychosocial adjustment of retired university staff. The study revealed that being married was associated with better adjustment to retirement. This may be related to the support given by spouses, which might help to decrease the stress responses and to adjust effectively. Previous researches suggest that marriage and family relationships serve as social-relational resources in retirement adjustment. Being married and having a high-quality marriage may contribute to post-retirement well-being, whereas marital problems enhance perceptions of retirement hassles. This is in line with Price and Joo (2005) and Bierman, Fazio & Milkie (2006) who reported that marital status has been correlated with retirement adjustment, such that married persons tend to report better mental

health outcomes and happiness than non-married persons.

Explanations as to the benefits of religion have focused on the roles of social integration; social support and coping that are hypothesized to be facilitated through relationships provided by formal religious participation (Idler & George, 1998). This means that religion facilitates mental health by increasing the quantity and quality of social relationships and adaptive behaviours that enhance an individual's adjustment to life demands and stressors. The finding on retired university staff religion shows that a higher religious identity score reflects a more positive identity (i.e. more active, successful, competent, relaxed, happy, confident, warm, open and sociable).

Conclusion

From the foregoing, it can be concluded from the findings of the study that retirement coupled with relocation can be very stressful. Also, demographic factors such as sex and marital status had no significant effect on the psychosocial adjustment of retirees while religion and paternal/maternal status had a significant influence on their psychosocial adjustment.

Recommendations

1. Based on the findings of this study, it is recommended that the university management should incorporate mandatory retirement counselling into their staff induction programmes to help them deal with psychological, social, physical and emotional issues which affect life in retirement.
2. University management should organize seminars and workshops on retirement education for prospective retirees to gain more knowledge that will engender retirement satisfaction.

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ELECTROCARDIOGRAPHIC CHARACTERISTICS OF COLLEGIATE TRACK AND FIELD ATHLETES IN NIGERIA

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Abstract

This study sought to determine the electrocardiographic characteristics of collegiate track and field athletes in Nigeria using the resting electrocardiogram. This was with a view to identify electrocardiographic changes attributable to cardiac adaptations, and possible difference in Electrocardiogram (ECG) morphologies by athletic event. Descriptive survey research design was used in the study. Population were male track and field athletes of Obafemi Awolowo University (OAU), Ile-Ife, Nigeria. Eighteen athletes; track (n=10), field (n=8), were purposively selected from the OAU Athletics team that participated in the 14th West-African Universities' Games, held at the University of Port-Harcourt, Rivers State Nigeria in 2018. Resting ECG was recorded with a 12-lead Electrocardiograph (SCHILLER-Cardiovit AT-2 plus), blood pressure was recorded with digital blood pressure monitor (OMRON-M6 Comfort), weight, height and BMI were recorded with an electronic BMI scale (SECA-220). Descriptive statistics of means and standard deviations were computed and paired-sample t-Test was used to compare resting ECG of athletes in the two divisions. Track and field athletes had mean RR-interval, P-wave, PR-interval, QRS-interval, QT-interval and QTc of 993.22 ± 111.51ms, 97.12 ± 10.87ms, 157.00 ± 34.34ms, 120.67 ± 58.22ms, 376.94 ± 55.34ms and 416.78 ± 46.98mm respectively. With regards to voltage, athletes had mean voltages of 0.11 ± 0.09mm, -0.98 ± 0.77mm and 1.54 ± 0.73mm for P-wave in lead II, S in V₁ and R in V₅ respectively. When athletes' ECG in the two divisions were compared, significant difference was only found in the RR-interval; track = 934.10 ± 100.60; field = 1067.13 ± 77.16; P < 0.05. The study concluded that there were no distinctive morphological differences in the resting ECG of Nigerian collegiate track and field athletes.

Key Words: Track and Field, Resting ECG, Blood Pressure, Heart Rate, Athlete, Collegiate

Introduction

Phillipides' death following his completion of the historic 42,196 km run, which coursed through the valley of Marathon to the city of Athens, with the intention of breaking the news of Greek army's victory over their adversary the Persians, had been rightly touted the first recorded sudden death of an athlete by several scholars and researchers (Bessem 2017). Basu and Malhotra (2018) had earlier found that sudden cardiac death (SCD) topped the causes of deaths in athletes and that a large proportion of sudden cardiac death

morbidities are connected with intrinsic cardiovascular disease. In a recent study of how to identify high-risk athletes using electrocardiography, Gray, Malhotra and Sharma (2020) posited that sudden cardiac death (SCD) is the leading non-traumatic cause of mortality in athletes during sport. Though, its occurrence among athletes may be considered relatively low when compared with the general population, the sudden death of an athlete represents a tragic and devastating event (Sokunbi, Okoromah, Ekure, Olawale, and Eke, 2021), which on many occasions attracts wide publicity due to the fact that sporting engagements are widely patronized. Such sad events have been on the increase in the world of sports since the turn of the 19th century, when the advent of the internet, computer and social media made it possible for sports and athletic engagements to be viewed by millions of audiences at different locations on the globe.

Athletes are considered to be operating at the ceiling of human physiological and functional capabilities and are thus construed as representing the healthiest individuals within any given society. The sight of young athletes dropping dead on the field of play provoked the search for prevention through screening (Bessem 2017), which led notable international sports federations like the FIFA and the International Olympic Committee leading the advocacy for compulsory pre-participation screening for all competitive athletes. Several authors (Parry-Williams and Sharma, 2017., Gray, Malhotra, and Sharma, 2020) had suggested that individuals who engage in regular, moderate to intensive exercise at least 4-8 hours a week can develop series of physiological adaptations ranging from modifications in cardiac structure and function to autonomic tone, a phenomenon the authors referred to as 'the athlete's heart'. The phenomenon clinically regarded as "Athlete's Heart Syndrome" has been described in the works of several authors (Crouse, Mead, Hansen, Green and Martin, 2009, Di Paolo, Schmied, Zerguini, Junge, Quattrini, Culasso, Dvorak & Pelliccia 2012, Drezner, Ackerman, Anderson, Ashley, Asplund, et al. 2013, Parry-Williams & Sharma 2017, Basu & Malhotra 2018, Louis-Georges, Jerson, Richard, Brice, Earnest, Claude, Nourdi, Honore & Abdou 2019, Gray et al. 2020) as a constellation of cardiac adaptations that occur in cardiac structure and function due to prolonged engagement in intensive exercise training.

This adaptive modification of the athlete's heart in terms of structure and function has been an important subject of academic discourse and inquiry among scientists for many decades because there are no clear-cut distinctions between these benign, training-induced structural and functional remodelling of the athlete's heart and what constitutes indices of cardiac myopathies in the clinical setting. It thus becomes a great challenge, distinguishing physiologic and training-related ECG changes and indications that may reflect underlying cardiac disorders (Waase, Mutharasan, Whang, DiTullio, DiFiori, Callahan et al. 2017). Moreover, many scholars have reported that ECG taken from athletes presented a wide range of abnormalities and alterations similar to those typifying organic heart diseases (Waase et al. 2017).

More recent empirical studies have identified those ECG adaptations (electrical and structural remodeling of the athlete's heart) resulting from regular exposure to intensive exercise training. Basu and Malhotra (2018) highlighted these features in the European Society of Cardiology (ESC) Consensus of 2005, Revised ESC Recommendations of 2010, Seattle criteria of 2013 and Refined Criteria of 2014. The highlights of these various recommendations were summarized in the publication of the International recommendations for ECG interpretation in athletes, which classified electrocardiographic findings in athletes under three classes; normal ECG findings, borderline ECG findings and abnormal ECG findings. Electrocardiographic findings, such as enlarged cardiac chamber

size and increased vagal tone in athletes are considered normal physiological adaptations to regular exercise and do not require further evaluation in asymptomatic athletes with no significant family history of cardiac myopathy. The recommendations also listed increased QRS complex voltage, incomplete right bundle branch block, early repolarization, sinus bradycardia, sinus arrhythmia, ectopic atrial rhythm, junctional escape, first degree atrioventricular block and mobitz type 1 second degree atrioventricular block as normal variants in athletes ECG. Thus, accurate differentiation of ECG patterns reflecting cardiac adaptation to exercise training from those that indicate cardiac pathology is crucial (Parry-Williams & Sharma 2017).

Athletics cover a wide spectrum of competitive sporting activities performed on the field and the track, with each of the constituent sports presenting unique physiological and performance demands. Track and field athletes thus differ in their morphological and physiological attributes. Attributes required for successful performance in various sports and particularly the track and field have been differentiated in the works of previous authors but the dimensions of cardiovascular remodelling due to exercise training and sports performance has not been fully understood. The resting ECG apart from being an important tool for diagnosing cardiac disorders and detection of athletes at risk of sudden cardiac death, has been recognised as an effective tool for sex differentiation in the clinical setting (Asafa, Bolarinwa, Eluwole, Ibitoye, Adegoke, and Ogunlade 2016). One wonders if the ECG holds information that could assist in differentiating athletes of different sports and events within athletics.

Statement of the Problem

Athletes are considered to be the healthiest and fittest individuals within any given society and are construed as operating at the ceiling of human physiological and functional capabilities. This very fact makes the sudden collapse or death of an athlete on the field of play a tragic and worrisome phenomenon. There are empirical evidences that the athlete's heart presents a number of electrical and structural remodeling, similar to those typical of organic heart diseases, and these patterns could be detected using the electrocardiogram. Few studies have investigated these characteristics among track and field athletes and fewer still have delineated such among athletes in college settings, hence, this study.

Purpose of the Study

This study sought to determine the electrocardiographic characteristics of collegiate track and field athletes in Nigeria. The specific objectives are to;

- i. assess the pattern of resting electrocardiogram of collegiate track and field athletes in Nigeria;
- ii. identify electrocardiographic changes attributable to cardiac adaptations;
- iii. investigate electrocardiographic patterns indicative of cardiac myopathies, and,
- iv. determine possible differences in electrocardiogram morphologies of athletes in the two athletic divisions.

Research Questions

- The study will attempt to provide answers to the following questions,
1. What is the pattern of resting electrocardiogram of collegiate track and field athletes in Nigeria?
 2. Are there electrocardiographic changes indicative of cardiac adaptations among

- collegiate track and field athletes in the study area?
- Are there electrocardiographic patterns suggestive of cardiac myopathies among collegiate track and field athletes in the study area?
 - Will there be morphological differences in the electrocardiogram of athletes in the two athletic divisions?

Methodology

The sample for the study comprised 18 male track and field athletes; track (n=10), field (n=8), drawn from the Obafemi Awolowo University Athletics team that participated in the 14th West African Universities' Games (WAUG), held at the University of Port-Harcourt, Rivers State, Nigeria in 2018. Only the participants that had been in training camp for a minimum of 8 weeks prior to the WAUG competition were engaged in the study. The study was cleared by the Obafemi Awolowo University's Teaching Hospital's Research Ethics Committee (OAUTHREC). Participants were duly informed of the testing procedures and were sensitized on its importance to their health. Written consent was obtained from every participant through a consent form. Participant's height and weight were measured and BMI was estimated with an electronic BMI scale (SECA 220). Resting blood pressure was recorded using a digital sphygmomanometer (OMRON M6 Comfort), while participants sat on a straight backed chair in a relaxed position. A 12-lead resting Electrocardiograph (SCHILLER Cardiovit AT-2 plus) was used to record resting ECG of athletes in conformity with the protocol of the American College of Sports Medicine, ACSM (2014). Data was recorded in a structured proforma sheet.

Data was analyzed with the IBM-20 version of the Statistical Package for Social Sciences (SPSS) software. Descriptive statistics of means and standard deviations were used to describe data and paired- sample t- Test statistics were used to compare the resting ECG of athletes in track and field divisions.

Results

Research Question One: What is the pattern of resting electrocardiogram of collegiate track and field athletes in Nigeria?

Table 1: Demographic Characteristics of Track and Field Athletes

Variables	Field (n=8) ($\bar{x}\pm SD$)	Track (n=10) ($\bar{x}\pm SD$)	Total (n=18) ($\bar{x}\pm SD$)	t	df	Sig.
Age (yrs.)	21.38±2.50	20.30±2.60	20.78±2.26	-1.00	16	0.33
Weight (kg)	78.75±9.57	68.95±4.58	73.31±8.60	-2.87	16	0.01*
Height (cm)	176.88±7.14	170.4±5.63	173.28±6.98	-2.16	16	0.04*
BMI (kg/m ²)	25.34±4.11	23.83±2.22	24.50±3.19	-0.99	16	0.33
Heart Rate (BPM)	57.63±4.60	64.30±2.83	60.97±3.71	-2.52	16	0.04*
Systolic BP (mmHg)	118.8±3.54	115.0±7.07	116.67±5.95	-1.36	16	0.19
Diastolic BP (mmhg)	80.1±4.79	79.0±6.15	79.50±5.46	-0.42	16	0.68

* Sig = p < 0.05

As shown in Table 1, the mean age of collegiate track and field athletes in the current study was 20.78 ± 2.26yrs while their mean weight, height and BMI were 73.31 ± 8.60kg, 173.28 ± 6.98cm and 24.50 ± 3.19kg/m² respectively. The means of weight, height and BMI of track and field athletes in the current study were similar to that of Barbieri et al. (2017), who reported means of 73.0 ± 7.5kg, 177.9 ± 7.1cm and 23.0 ± 1.8kg/m² respectively for weight, height and BMI of sprint athletes of Caucasian and African origin. The athletes in the current study were within normal ranges of Heart rate (60.97 ± 3.72bpm), systolic blood pressure (116.67 ± 5.94mmHg) and diastolic blood pressure (79.50 ± 5.46mmHg) respectively. Varga-Pinter et al. (2011) had reported similar blood pressure values for Dry-land athletes (124 ± 12.7mmHg/ 78.2 ± 9.4mmHg) and Aquatic athletes (127.3 ± 13.3mmHg/ 81.6 ± 9.5mmHg) in a previous study. The author and his colleagues affirmed that blood pressure values were lower in athletes of dynamic sports such as track and field, ball games and endurance sports, than in static-muscular activity athletes or power athletes. Collegiate track and field athletes in the study were not significantly different in age, BMI, systolic and diastolic blood pressures, but they differed significantly in heart rate t = -2.52; P < 0.05, weight, t = -2.87; P < 0.05 and height, t = -2.16; P < 0.05 respectively. A sizable number of athletes in the field division had heart rate values lower than 60bpm which indicated bradycardia. This trend was not noticed with their counterparts in the field division, whose heart rates were normal. Table 2 summarizes the resting ECG patterns of athletes in the study.

Research Question Two: Are there electrocardiographic changes indicative of cardiac adaptations among collegiate track and field athletes in the study area?

Table 2: Summary of Resting ECG Patterns of Track and Field Athletes

Variables	Field (n=8) ($\bar{x}\pm SD$)	Track (n=10) ($\bar{x}\pm SD$)	Total (n=18) ($\bar{x}\pm SD$)	t	df	Sig.
RR intv (ms)	1067.13±77.16	934.10±100.60	993.22±111.51	-3.08	16	0.01*
P Wave (ms)	98.75±11.13	95.90±11.08	97.17±10.87	-0.54	16	0.60
PR intv (ms)	155.00±41.69	158.60±29.49	157.00±34.34	0.22	16	0.83
QRS Comp (ms)	126.25±68.21	113.00±51.35	119.63±59.78	2.61	16	0.87
QT intv (ms)	404.13±63.41	355.20±38.42	376.94±55.34	-2.03	16	0.06
QTc (ms)	438.25±44.99	399.60±43.09	416.78±46.98	-1.86	16	0.08
P in Lead III	0.11±0.11	0.12±0.07	0.11±0.09	0.21	16	0.84
S in V1	-1.15±0.84	-0.84±0.73	-0.98±0.77	0.86	16	0.40
R in V5	1.63±0.77	1.48±0.73	1.54±0.73	-0.42	16	0.68
Sokol	3.27±1.44	3.22±1.39	3.24±1.37	-0.08	16	0.94
P-Axis (deg.)	44.13±20.69	43.30±21.28	43.67±20.40	-0.08	16	0.94
QRS-Axis (deg.)	28.25±66.65	39.20±40.94	34.33±52.42	0.43	16	0.67
T-Axis (deg.)	-9.88±84.06	33.90±18.70	14.44±59.97	1.61	16	0.13

* Sig = p < 0.05

Data in Table 2 showed that track and field athletes had mean RR interval of 993.22 ± 111.51 ms, while the means of their P-wave, PR interval, QRS interval, QT interval and QTc were 97.12 ± 10.87 ms, 157.00 ± 34.34 ms, 119.63 ± 59.78 ms, 376.94 ± 55.34 ms and 416.78 ± 46.98 ms respectively. The patterns observed with these ECG parameters are normal when considered in the light of existing criteria and international recommendations for ECG interpretation in athletes.

In terms of ECG voltage, track and field athletes in this study had normal ECG voltages with mean amplitudes of 0.11 ± 0.09 mm, -0.98 ± 0.77 mm and 1.54 ± 0.73 mm for P wave in lead II, S in V_1 and R in V_5 respectively. The mean of athletes' Sokolow-Lyon index was 3.24 ± 1.37 mm, with regards to the ECG axis; collegiate track and field athletes in the study had means of $43.67 \pm 20.40^\circ$, $34.33 \pm 52.42^\circ$ and $14.44 \pm 59.97^\circ$ respectively for P axis, QRS axis and T axis. These patterns were also within the scope of normal variants expected of athletes ECG. Sharma et al. (2018) affirmed that axis deviation and voltage criteria for atrial enlargement account for $> 40\%$ of abnormal ECG patterns in athletes, but do not correlate with cardiac pathology. When the resting ECGs of athletes in the track division were compared with their counterparts in the field division, significant difference was found only in the RR interval, $t = -3.08$; $P < 0.05$ but not in other ECG parameters. The RR-interval which is described as the interval between two consecutive R peaks is dictated by the intrinsic properties of the sinus node and is also subject to autonomic influences (Lanfranchi et al. (2017).

Discussion of Findings

This study sought to determine the resting Electrocardiogram of collegiate Track and Field Athletes in Nigeria, with a view to identifying electrocardiographic changes attributable to cardiac adaptations and possible difference in ECG morphologies by athletic event. The resting ECG morphologies of track and field athletes in the study were within normal limits, they were neither borderline nor abnormal ECG findings. Sharma et al. (2018) reported that regular and long-term involvement in vigorous exercise for at least 4 hours in a week is associated with unique electrical manifestations. The authors argued that such manifestations merely reflect enlarged cardiac chamber size and increased vagal tone.

The patterns found with the voltages and axes of athletes' ECG in this study were within the scope of normal variants expected of athletes ECG. According to Sharma et al. (2018) axis deviation and voltage criteria for atrial enlargement account for $> 40\%$ of abnormal ECG patterns in athletes but do not correlate with cardiac pathology. The authors listed increased QRS voltage, incomplete right bundle branch block, early repolarization, sinus bradycardia, sinus arrhythmia, ectopic atrial rhythm and junctional escape as some of the normal variants seen in athletes ECG, that do not require further evaluation in asymptomatic athletes, especially when such is found in an athlete with no significant family history of cardiac disease.

The lack of distinctive morphological differences found in the ECG of athletes in the track and field divisions in this study was similar to the findings of Pentikainem et al. (2021), who found that young athletes had similar ECG and blood pressure characteristics independent of their sports. Pentikainem and colleagues had reported no significance difference in the ECG characteristics of endurance and non-endurance athletes, except in the PR interval which they found to be longer in endurance athletes than their non-endurance counterparts.

Conclusion

The study concluded that the resting electrocardiogram of track and field athletes in the study were within normal limits, they were neither borderline nor abnormal electrocardiographic findings. There were no distinctive morphological differences in the resting electrocardiogram of Obafemi Awolowo University's track and field athletes.

Recommendations

- Based on the findings of this study, the following recommendations were made,
- i. Electrocardiographic screening using resting electrocardiogram should be a compulsory requirement for enlisting athletes into sports teams in colleges.
 - ii. Coaches should be encouraged to request for periodic stress electrocardiogram screening of their athletes before a major competition to know the conditions of their hearts and for prompt discovery of occult cardiovascular pathologies.

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**APPLICATION OF SAFETY PRACTICE SKILLS IN BIOLOGY
LABORATORIES AMONGST SECONDARY SCHOOL BIOLOGY STUDENTS
IN OGIDI EDUCATION ZONE.**

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Abstract

This study investigated the extent of application of safety practice skills in Biology Laboratories amongst secondary school Biology students in Ogidi Education Zone of Anambra State. A survey research design was adopted for the study. The population comprised 13,820 students and 64 teachers. The sample size comprised 200 Biology students and 20 Biology teachers randomly selected from 3 secondary schools in Ogidi Education Zone. Three research questions were answered. The instrument for data collection was a Test of Safety Laboratory Skills (TOSLS), a 4 point Likert scale questionnaire was used for data collection. This was validated by two experts one been a Biology teacher another from Curriculum and Instructional Technology Department, University of Benin. The reliability of the instrument was established using Pearson product moment correlation statistics with a coefficient of 0.92. Data collected were analyzed using mean and standard deviation. The results showed that student observe safety practice skills while in Biology laboratories, it also revealed that these safety skills help them to avoid accident in the laboratory as well as help to improve the students' knowledge of the subject while it creates expertise on the side of the teachers. Based on the findings, it was recommended among others that students should be provided with safety gadgets in case of any danger. If provided with the adequate safety laboratory gargets, students can practice a higher level of safety practices while in the laboratory.

Keywords: *Biology, Biology Laboratories and safety practice*

Introduction

Generally, science is a system of acquiring knowledge that is based on steps before a result is reached. Okeke (2014) defined science as a systematic process of obtaining testable and verifiable knowledge about nature and natural occurrences, utilizing careful observation and experimentation. This definition emphasized the process and product nature of science as an organized body of knowledge which describes and attempts to explain some part of the natural world in a systematic manner. Okigbo and Ekene, (2018) regard science as an activity undertaken by human. This activity is more or less synonymous with research and entails an integral part of modern way of life of which research is the daily task performed by specialized individual either alone or in groups and usually in the laboratory. Hawkins

(2013) went further and defined science as cumulative, empirical observations which leads to the formulation of concepts, laws and theories. These laws and theories are subjected to further knowledge of acquiring and refining knowledge.

This definition indicates that science is more of a study, a systematic and investigative processes anchored on verifiable knowledge. It houses various discipline such as biology, chemistry, physics, mathematics ICT to mention but a few. Each of this discipline encourages activities such as research, discovering, experimentation, exploration, hypothesizing etc which is what science is generally known for.

The process of scientific investigation and experimentation cannot be actualized without the presence of the laboratory. Laboratory is seen as a place where scientific investigations and experiments are carried out using chemicals and reagents, specimens, materials and equipment (Onawola, (2014).

According to the West African Senior Secondary School Certificate Examination Curriculum (2004-2008) in Akintola, (2018) it stated that there is need to “acquire necessary laboratory and field skills in order to carry out and evaluate experiments in Biology”. The laboratory offers the most appropriate environment for carrying out activities which enable learners to acquire science process skills (Ali, 2012). Biology laboratory is a room or building where students acquire practical experience and first-hand knowledge about biological specimens under the guide of a teacher. The sensitive and delicate nature of reagents used in the laboratory and their effects on human health calls for the adoption of safety practices while in the laboratory. Safety laboratory practices according to Schneider, (2013) is a set of principles that provides a framework with which laboratory experiment are planned, performed, monitored, recorded, reported and achieved. It is purposely carried out so as to avert danger. The safety practices in the Biology laboratory include; being prepared; use of personal equipment and clothing; use of emergency equipment like fire extinguisher; eye wash stations and so on.

Caesar, (2011) suggested that for Biology laboratory to be considered as standard, it must meet the general requirements such as: it must be spacious enough to allow free movement while working during the practical activities; it must be neat and well ventilated; it must have good lighting system for clear vision; water, gas and electricity outlets must be properly cited and accessible; there should be storage and preparatory rooms for the teachers and there should be proper disposal mechanism for infectious waste.

Obieri, (2012) stated that safety practices in Biology laboratory will decrease students' exposure to some certain harmful chemicals and tools in Biology laboratory and will enhance their level of understanding of Biology as a subject. Okeke, (2014) also opined that teachers should educate their students on safety devices and practices in Biology laboratory. Researches have revealed that students are exposed to health hazard when these safety practices are not observed, hence the need for the study.

Statement of the Problem

One of the objectives of Biology curriculum as derived from the National Policy on Education (2009) is to prepare students to acquire adequate laboratory skills in Biology. To achieve this objective, the content and context of the curriculum place emphasis on laboratory techniques amongst others. Possession of adequate laboratory skills and scientific attitude entails adherence to process, product, skills and principles guiding scientific findings and discoveries. Laboratory been the primary place where scientific findings and discoveries are made, it thus becomes paramount for everyone working and

making use of the laboratory to strongly adhere to safety practices in order to advert the danger that may emanate from the laboratory. Poor safety practices have been faulted as one of the major cause of accident in the laboratory, this include: contact of the skin with hazardous chemicals, fire outbreak as well as death. (Liziwe, Baloyi & Olowoyo, 2020). If this is not checked, it is likely to cause future damage on not just, the teachers and students but the educational system in general. It is against this backdrop that this study was necessitated to investigate the extent of application of safety practice in Biology Laboratories among Secondary School Students in Ogidi Education Zone.

Purpose of the Study

The purpose of the study is to investigate the extent of application of safety practices in Biology laboratories among secondary school students in Ogidi education zone. Specifically, the study sought to:

- i. find out the extent of application of safety practices in Biology laboratories by students..
- ii. ascertain the benefits of safety practices in Biology laboratories for students.
- iii. determine the level of compliance of safety practice applications in Biology laboratories by teachers in Ogidi education zone.

Research Questions

The following research questions were raised to guide the study:

1. To what extent are safety practices applied in biology laboratories by secondary school Biology students in Ogidi education zone?
2. What is the level of teachers' compliance on the application of safety practices in Biology laboratories in Ogidi education zone?
3. What benefit do safety practices place on students while in Biology laboratories?

Methodology

The study adopted a survey research design. Schools around Ogidi education zone were used for the study. Students offering Biology and their teachers in Ogidi education zone were used for this study. The population consists of thirteen thousand eight hundred and twenty (13,820) students and sixty four Biology (64) teachers in government owned secondary schools. In Anambra State, there are six(6) education zones. Simple random sampling technique was used to select Ogidi education zone from the six education zones. In Ogidi educational zone, there are 50 governments owned Secondary Schools, simple random sampling technique was used to select three (3) schools from the population. All Senior Secondary School one A (SS1A) of the selected schools form the sample of students for the study. Simple random sampling technique was also used to select twenty teachers from the population. In total, 200 students and 20 Biology teachers form the sample of the study. The questionnaire termed as Test of Safety Laboratory Skills (TOSLS) was the instrument used for data collection. TOSLS is subdivided into sessions A and B. Session A was designed to measure demographic information about the respondents. Session B comprised of twenty test items subdivided into three sessions, while sessions one and two were designed to measure information about the learner, session three was designed to solicit information about the teacher. A four point likert scale rating format of strongly agreed (SA)

– 4points, agreed (A) – 3points, strongly disagreed (SD) – 2points and disagreed – 1point was adopted.. This instrument was administered to the students as well as their teachers after due permission was obtained from the school management. The instruments were collected and the data generated were analyzed using a descriptive statistics such as mean and standard deviation. A mean score of 2.50 and above was accepted as significant.

Presentation of Results

Research Question One: To what extent are safety practices applied in biology laboratories by secondary school students in Ogidi education zone?

Table 1: Mean and Standard Deviation of Students on Safety Practices in Biology Laboratories in Ogidi Education Zone

S/N	ITEMS	Mean	SD	Decision
1.	Students wear safety spectacles to the laboratory	2.73	1.13	Accepted
2.	Students use laboratory coat during experiment	3.14	0.95	Accepted
3.	The laboratory environment is good enough to enhance the understanding of safety practices in the laboratory	3.04	1.03	Accepted
4.	The students do carry out practical classes	2.75	1.09	Accepted
5.	Students are careful not to smell the odour of chemical property	2.91	1.04	Accepted
6.	Students appear on safety gloves while doing laboratory work	3.09	2.73	Accepted
7.	Students know the name and appearance of laboratory equipment before doing laboratory work	2.96	1.10	Accepted
	Grand Mean	2.96	1.23	

Table 1, items 1,2,3,4,5,6, and 7 with mean of 2.73,3.14, 3.04, 2.75,2.91, 3.09 and 2.96 respectively. The mean values are above the acceptance mean of 2.50. This shows that students apply safety practices to a significant extent.

Research Question Two: What benefit do safety practices place on students while in Biology laboratories

Table 2a: Mean Ratings And Standard Deviation on The Importance of Safety Practices In Biology Laboratories To Students.

S/N	ITEMS	Mean	SD	Decision
8.	Students learn to perform the experiment alone in the laboratory	2.91	1.04	Accepted
9.	Students that apply safety practices in the laboratory understand the negative effects of hazardous chemicals	3.02	1.02	Accepted
10.	Students breed the spirit of carefulness	2.95	1.10	Accepted
11.	Safety practices helps the students both in the laboratory and in the wider society among themselves	3.11	0.97	Accepted
	Grand Mean	2.99	1.03	

Table 2a revealed a mean of means of 2.91, 3.02,2. 95 and 3.11 for items 8,9,10 and 11 respectively. The mean are all above the acceptance mean of 2.50 which shows that students have a good knowledge of the importance of Safety practices in the laboratory.

Table 2b: Mean Ratings and Standards Deviation on the Importance of Safety Practices in the Laboratory to the Teachers

S/N	ITEMS	Mean	SD	Decision
12.	Safety practices ensure the realization of the instructional objectives in the classroom	2.89	1.08	Accepted
13.	Safety practices ensure good teaching condition	2.93	1.16	Accepted
14.	It ensures that teachers do not sustain injuries in the cause of laboratory activities	2.93	1.08	Accepted
15.	Safety practices helps teachers make use of resources adequately	3.02	1.06	Accepted

From table 2, items 12, 13, 14 and 15 with mean 2.89, 2.93, 2.93 and 3.02 respectively are above the acceptance mean score of 2.50. This shows that teachers accepted that safety practice in biology laboratories will ensure good learning condition and will also ensure adequate use of resources among other things.

Research Question Three: What is the level of teachers' compliance on the application of safety practices in Biology laboratories in Ogidi Education zone?

Table 3: Mean Rating and Teacher's Level of Compliance Towards Safety in Biology Laboratories in Secondary School in Ogidi Education Zone?

S/N	ITEMS	Mean	SD	Decision
16.	Teachers ensure that glass wares and other equipments are kept away from the edge of the laboratory table	3.05	2.78	Accepted
17.	Teachers make sure that gas leakage is avoided to prevent fire outage in the laboratory	3.01	1.09	Accepted
18.	Teachers conduct experiments in batches in the case of numerous students	3.01	1.07	Accepted
19.	Teachers read out safety rules before commencing each laboratory class	3.18	0.94	Accepted
20.	Teachers appoint group heads to help in monitoring the class	2.89	1.09	Accepted
	Grand Mean	3.03	1.10	

From Table 3, items 16,17, 18,19 and 20 with mean 3.05, 3.01, 3.01, 3.18 and 2.89 respectively were all accepted because they are above the acceptance mean score of 2.50. This shows that the teachers, observe and are making efforts towards ensuring safety in biology laboratories by taking the necessary precautions.

Discussion of Findings

Findings from this research revealed that students practice safety practices in Biology laboratories, it also revealed that students wear safety spectacles to the laboratory. In the laboratory there is a sense of commitment among the students and they are always careful not to smell the odour of chemical they also know the name and appearance of laboratory equipment before doing laboratory work. This finding agrees with Schneider, (2013) who found out that safety laboratory practices in Biology laboratories help boost students' knowledge in Biology and biology equipment because they know the names of all the equipment and reagents and they adequately use the laboratory equipment

The findings also revealed that most students perform the experiment alone in the laboratory. They also breed the spirit of carefulness among themselves, that is why there are less accident cases with them while in the laboratory. These safety skills help the students both in the laboratory and in the wider society. It also shows that students who employ safety practices in the laboratory understand the negative effects of hazards chemical. This agrees with Caesac, (2011) who revealed that safety practices in the laboratory will ensure safety of lives to both the teachers and students, it will also reduce spoilage to the laboratory equipment.

From the findings also, it was revealed that teachers complied positively as it pertains to the application of safety practices in Biology laboratory and these safety practices help to promote good teaching condition. It helps the teachers to make use of available resources adequately. It also ensures that teachers do not sustain injuries in the course of laboratory activities. It revealed also that the teachers adopt so many measures to ensure safety in Biology laboratories. This is in line with Onawola, (2014) who revealed that even

though teachers face the problem of lack of equipment in the laboratory, optimum use and preservation of the available laboratory equipment are the top priorities of teachers.

Conclusion

Safety practices will help boost students' knowledge of safety in Biology laboratory and expose them on the need to be more safety conscious with laboratory equipment and other chemicals. This will help in the attainment of the stated aim and objectives of education for the citizenry. If Biology teachers apply the knowledge gained on safety practices in the laboratory, a lot of danger will be averted during practical classes.

Recommendations

Based on the findings, the following recommendations were made:

1. Government should equip each school's laboratory with safety gadgets and other laboratory equipment.
2. A monitoring team should be set up to ensure that the safety practices are applied during biology practical classes.
3. Every school should have an accident record book. This is very vital in keeping the records of accidents that occurred in the laboratory.
4. Teachers should attend seminars, workshops and conferences where they can acquire more knowledge on safety practices in biology laboratory classes.

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WOMEN AND THE CHALLENGES OF CASHEW NUT PROCESSING IN ABIA STATE

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Abstract

Cashew is a multipurpose tree crop that is economically grown for its apple, nuts and wood. Apart from being a source of useful products and by-products for food, Cashew processing presents a unique opportunity to empower women. However, the local processing methods adopted by women in Abia state are labour intensive and involve tedious activities that are time-consuming. Therefore, this study researched ways in which poor processing techniques affect the productivity of female cashew processors, with the aim to find out measures that can alleviate these constraints and enhance the productivity of female cashew processors. The study adopted survey research design, while data used for the study was collected from a total of one hundred and sixty-two rural women in Isuikwuato Local Government Area, using simple random sampling technique. The instrument for data collection was a 21-item structured questionnaire containing closed-ended questions which were mainly Likert type of questions. Face validity was employed, while a pilot study was carried out, to determine if the responses would be in line with the expected outcome from the research work. The instrument was employed twice, while the data obtained were subjected to a reliability test using Pearson's Correlation Coefficient Statistical Procedure which showed a correlation coefficient of 0.837. Findings indicated that the women involved in cashew processing in Abia state contend with several challenges like insecurity, rigorous cleaning, sorting, shelling, peeling, grading and packaging processes. However, strategies such as the use of cheap labour involving mostly members of their households, an extension of work hours, use of coconut oil to protect their skin, combining cashew business with other forms of businesses as well as selling raw cashew nuts rather than the processed ones were the various ways in which they are able to cope with their challenges. Based on this, measures comprising formation of cooperative societies, provision of protective vests, provision of adequate storage and processing facilities as well as efficient price regulation were agreed to be the possible way forward. Accordingly, the study concluded that considering the economic relevance of the cashew industry in Nigeria, there is need to urgently strengthen the sector. The paper therefore recommended amongst others, that government should double its efforts in providing adequate processing equipment and storage facilities to reduce the drudgery and huge losses in the cashew processing industry.

Keywords: Women, Cashew nut, Processing, Abia State, Challenges

Introduction

Cashew is a multipurpose tree crop that is economically grown for its apple, nuts and wood. Cashew originated in Latin America, specifically Northeastern Brazil (Ohler, 1979 cited in Adeigbe, Olasupo, Adewale & Muyiwa, 2015). However it was introduced into Nigeria by the Portuguese traders around the 18th century. Cashew is a nut-bearing tropical plant that grows in latitude 15° North and South of the equator. Morphologically, the architecture of the cashew tree makes it a foremost tree crop for reclaiming land area to enhance productivity, through the prevention of desertification and soil erosion (Adeigbe, Olasupo, Adewale, & Muyiwa, 2015). Cashew is drought resistant and economically grown for its nut, apple and wood. The nut is kidney-shaped about 3 cm long, and this nut is attached to an 'apple' that is called the fruit (Sanyang & Kuyateh, 2018). Products derived from the nuts include kernel snacks, kernel oil, cashew nut shell liquid; and from the apple: juice, jam, alcohol, among others. Cashew wood is also used for furniture and fishing boat. Adeigbe et al. (2015) state that of all, cashew nut is the most economic part of the cashew tree as it provides foreign exchange earnings for producer countries. Aliyu, (2012) reports that though cashew was introduced in Nigeria more than 400 years ago, extensive cultivation started in the 1950s. At that time, Cashew tree was mainly used in afforestation schemes for the control of erosion in former Eastern Nigeria. The first Nigerian cashew plantation dates back to 1954 with 800 hectares in the present Enugu State, and 200 hectares in the western part of the country; hence, commercial cashew plantations started in Nigeria in the early 1950s with the establishment of the first commercial plantations at Oghe, Oji and Mbala by the defunct Eastern Nigeria Development Corporation (ENDC) and Iwo, Eruwa and Upper Ogun by the defunct Western Nigeria Development Corporation (WNDC) (Asogwa, Anikwe, Ndubuaku & Okelana, 2009). From these locations, the planting of the crop started spreading to other parts of Nigeria particularly to the Central and Northern States of Nigeria. From 1965 to 1990, cashew production was relatively static at 25,000 tonnes with an estimated land area of 50,000 hectares in 1990. In 2012, production increased almost thirty-fold from 30,000mt to 836,500 tonnes from an estimated land area of 366,000 hectares (Odogwu, 2019).

Cashews contain a lot of vitamins and nutrients, including fat but its fat is believed to help in preventing heart diseases and reduces the risk of stroke. The nut contains 47 per cent fat, 21 per cent protein and 22 per cent carbohydrate. Cashew also contains vitamins, especially thiamine. Its proteins are complete, having all the essential amino acids and a kilogramme of the nut yields about 6000 calories compared to 3600 calories from cereals, 1800 calories from meat and 650 calories from fresh citrus fruit. Consumption of cashew and its nuts can greatly help in weight management, prevention of gall stones, bone development and prevention of bone diseases, and other numerous health benefits (Odogwu, 2019). Cashew nuts are also very rich source of minerals (Enwelu, Ugwu, Ayogu & Ogbonna, 2014). Minerals especially manganese, potassium, copper, iron, magnesium, zinc and selenium are concentrated in the nuts. A handful of cashew nuts a day in the diet would provide enough of these minerals and prevent diseases caused by their deficiency. Selenium found in cashew nut is an important micronutrient, which functions as co-factor for antioxidant enzymes such as Glutathione peroxides, one of the most powerful antioxidants in the body (www.nutrition-and-you.com). Cashew apple gets ready for eating between December and January and by June/July, it's over (Odogwu, 2019). There are conflicting records of the position of Nigeria in cashew nut production in Africa and in the world. Accordingly, report by the Food and Agricultural Organization Statistics (2013) indicates

that Nigeria led Africa in cashew nut production in the past decade with about half the African production, while the country ranked second in the world in 2010, 2011, and 2012, with estimated nut production of 650,000, 813,023, and 835,500mt. Africa Cashew Alliance (2012) however reported that cashew nut production estimates in Nigeria was between 70,000 and 90,000mt for 2010 and 2011 respectively. This record therefore, places Nigeria as the fourth in Africa, and seventh in the World.

Women are largely involved in the cashew sub-sector more than in any other cash crop in the nation. According to Odogwu, (2019), in most families, the men do the planting and harvesting while the women fry the nuts and sell in bottles. African Cashew Initiative (2012) reports that women generally experience several disadvantages like lack of access to land, credit, information and other resources, often as a result of unequal social and cultural beliefs and male-favoured policies. Hence, women in rural communities are unable to find employment and—if they do—experience lower wages and other unequal treatment (USAID, 2009). These shortcomings are globally often reflected in women's engagements in agro-processing where women are disadvantaged and only find low-paid employment. It is based on this that this study aimed to ascertain ways in which poor processing techniques constraint the productivity of female cashew processors.

Generally, women process Cashew nuts locally using manual techniques like frying ovens constructed with metal such as open pans and open drums. Local cashew nut processors mostly made up of women, are engaged in this enterprise as a means of livelihood. Through this method, most of the products are consumed locally in rural, semi and urban areas. The future of the enterprise lies in the secondary processing stage, which entails a higher level of transformation that targets mainly export markets and local/urban markets too (Ezeagu, 2002). The technology systems entail nut cleaning, calibration and storage by grade, washing and humidification, roasting, centrifugation and cooling. They also involve shelling and kernel shell separation, kernel drying, peeling, grading, sorting and packing for market. It is pertinent to point out that the income of cashew nuts is enhanced through proper and efficient processing. The local processes involved in cashew nut processing are labour intensive requiring vigorous activities that are time-consuming (Ezeagu, 2002).

Objectives of the Study

This study investigated the ways by which poor processing techniques constraint the productivity of female cashew processors. The specific objectives are to:

- i. examine the ways in which poor processing techniques affects the productivity of female cashew processors;
- ii. ascertain the strategies adopted by female cashew processors in order to cope with poor processing methods; and
- iii. find out measures that can alleviate these constraints and enhance the productivity of female cashew processors.

Research Questions

- i. In what ways do poor processing techniques affect the productivity of female cashew processors?
- ii. What are the strategies adopted by female cashew processors in order to be able to cope with poor processing methods?
- iii. What measures should be adopted to alleviate these constraints?

Methodology

Research design

This paper employed the survey research method.

Instrument for data collection

The instrument for data collection was a structured questionnaire containing twenty (21) items which was used to get both demographic and psychographic information from the women. The questionnaire contained mainly closed-ended questions which were mainly Likert type of questions, while oral interview was used where necessary.

Population

The population of the study was drawn from Isiukwuato Local Government Area in Abia North Senatorial zone. Based on the data provided by the National Population Commission (2006), Abia state has a total population of two million, eight hundred thirty thousand, nine hundred and ninety nine people (2,833,999) people, while the population figure for the females is three hundred and ninety nine thousand, eight hundred and six (1,399,806) representing 49.4 percent of the entire population for the state.

Sample/Sampling Technique

The study population is made up of 162 respondents from Isiukwuato Local Government Area in Abia North Senatorial district of Abia state, made up of three major clans (IsuAmawu, Ogudo-Assa, and Imenyi) and over sixty villages. Isiukwuato LGA lies between Latitudes 5°41'N and 5°46'N of the Equator and Longitudes 7°45'E and 7°41'E of the Greenwich Meridian with a population of 115,749 inhabitants (NPC, 2006). The area has undulating topography and is typically agrarian producing food crops like cassava, melon, and maize under mixed cropping system; and cash crops like Cashew, and oil palm. The study made use of simple random sampling technique. Thus, in the first stage, simple random sampling was used to select six communities within the three clans, using the fish bowl method. The communities include Umuokogbuo, Eluama, Amaibo, Amokwe, Amayi-Uhu, and Mbalano. From the six communities, one village each was selected for the distribution of the questionnaires. It must be stated that Isiukwuato was selected because of the presence of cashew plantations in the area. Face validity was employed, while a pilot study was carried out, to determine if the responses would be in line with the expected outcome from the research work. The instrument was employed twice, while the data obtained were subjected to a reliability test using Pearson's Correlation Coefficient Statistical Procedure which showed a correlation coefficient of 0.837. Furthermore, The data gathered were analyzed quantitatively using frequency tables and percentages while the results were presented and analyzed using the four-point Likert Scale together with percentages and weighted mean. The benchmark for weighted mean is 2.5, with a grand mean of responses which determines acceptance or rejection.

Results

Table One: Ways in which poor processing techniques constraints productivity of female cashew processors

S/N	Item	4	3	2	1	Total	Mean
		SA	A	SD	D		
1	Picking of cashew nuts in cashew plantations expose women to lot of dangers.	59 (36%)	54 (33%)	36 (22%)	13 (8%)	162	3.3

S/N	Item	4	3	2	1	Total	Mean
		SA	A	SD	D		
2.	Cleaning and Sorting can be very challenging and causes headache.	62 (38%)	79 (48%)	13 (8%)	8 (%)	162	3.2
3	Frying/Roasting of nuts expose women to burns, heat and even blindness.	48 (29.6%)	67 (41%)	9 (5.5%)	38 (23%)	162	2.7
4	Shelling/cracking can be tedious and can cause waist pain.	94 (58%)	37 (22.8%)	13 (8%)	18 (11%)	162	3.2
5	Peeling is very tiring and can lead to losses.	59 (36%)	54 (33%)	36 (22%)	13 (8%)	162	3.3
6	Poor grading and Packaging affects the price of nuts in the market.	42 (25.9%)	63 (38.8%)	32 (19.7%)	25 (15%)	162	2.7

Total number of respondents = 162 Grand Mean = 3.0

Note: Values in bracket () are in percentages

Findings in Table One show that the mean sum of 3.3 agreed that women are exposed to a number of dangers in the course of picking cashew nuts for subsequent processing. The mean sum of 2.7 observed that frying/roasting of cashew nuts is a very risky activity as women can be burned in the process. 3.2, 3.3 and 3.2 respectively agreed that the cleaning, sorting, peeling and shelling processes are very tedious and time consuming, while 2.7 observed that poor grading and packaging often results in low pricing.

Table Two: Strategies adopted by female cashew processors in order to cope with poor processing methods

S/N	Item	4	3	2	1	Total	Mean
		SA	A	SD	D		
1	Involving cheap labour	92 (56%)	36 (22.2%)	13 (8%)	21 (12.9%)	162	3.2
2	Extension of work hours	50 (30.8%)	67 (41%)	16 (9.8%)	29 (17.9%)	162	2.8
3	Combining other cashew Processing with other businesses	87 (53.7%)	32 (19.7%)	28 (17%)	15 (9%)	162	3.1
4	Preference for selling of Unprocessed nuts	52 (32%)	45 (27.7%)	36 (22%)	29 (17.9%)	162	2.7
5	User of coconut oil on the skin	83 (51%)	41 (25%)	17 (10%)	21 (12.9%)	162	3.1

Total number of respondents = 162 Grand Mean = 2.9

Data in table two shows that the mean sum of 3.2 practised cheap labour,(2.8) agreed that they extend their work hours,3.1 combined cashew nuts business with other businesses, 2.7 said they preferred selling off the fresh nuts to buyers, while the sum of 3.1 used coconut oil on their skin to manage the blistering effect of the cashew nut oil.

Table Three: Measures to enhance the productivity of female cashew processors

S/N	Item	4	3	2	1	Total	Mean
		SA	A	SD	D		
1	Formation/membership of Cooperative societies	59 (36%)	66	31 (40%)	6 (19%)	162 (3.7%)	3.0
2	Provision of protective vests for women	78 (48%)	49	16 (30%)	19 (9%)	162	3.1 (11%)
3	Provision of processing equipment	82 (50%)	57 (35%)	16 (9.8%)	7 (4%)	162	3.3
4	Provision of adequate storage facilities	42 (25.9%)	38	57 (23%)	25 (35%)	162	2.5 (15%)
5	Ensuring price regulation	53 (32%)	68	22 (41%)	19 (13%)	162	2.9 (11%)

Total number of respondents = 162 Grand Mean = 2.9

In Table three, results indicate that the women (3.0) agreed that membership of Cooperative societies is critical to addressing the challenges of cashew processing in Abia state. more importantly, the sum of 3.3 affirmed that the provision of processing equipments will greatly enhance their business and afford them the opportunity to harness the huge market for cashew apples,

Discussion of findings

Findings in Table two shows that the mean sum of 3.3 agreed that women are exposed to a number of dangers in the course of picking cashew nuts for subsequent processing. According to the respondents, very few women own cashew plantations, hence, majority of the women go to community plantations to pick cashew nuts where they are often attacked by herdsmen who rape and harass them, or animals (such as scorpions, tsetse fly, python - Eke Ikputu). Also, cashew thieves, fire disasters and rain hamper the picking of cashew nuts. Hence, some women prefer to rather buy cashew nuts from the market. After picking the nuts, the women explained that the best way to preserve them is by drying them under the sun, but this causes the nuts to shrink, resulting in a drop in the quantity. Similarly, the mean sum of 2.7 observed that frying/roasting of cashew nuts is a very risky activity as women can be burned in the process. They noted that cashew nuts are highly inflammable and the skin can be badly burned by cashew oil if it comes in contact with it. Not only that, the women say they suffer extreme heat, and the oil can also damage the eye if one is not careful. As such, they use a long stick to stir the nuts during frying and apply much care so that the nuts do not end up getting burnt. Again, the mean sum of 3.2, 3.3 and 3.2 noted that the cleaning, sorting, peeling and shelling processes are very tedious and time consuming, and affects the quantity of nuts that a person is able to process in a day. They admitted that peeling (which involves the removal of the test a from the kernel) for instance requires a lot of patience and restraint especially if the nut is of poor quality, which is why men are hardly

involved in it. When peeling is not carefully done, it results in a lot of losses. Again, the women pointed out, that the challenging and tiring nature of the job often leads to waist and body pains as well as swollen feet due to long hours of either sitting to peel and sort the nuts, or the standing to fry, shell and clean the nuts. Also, headaches were also common due to intensive labour. Additionally, the mean sum of 2.7 observed that poor grading and packaging often results in low pricing. According to the respondents, sometimes the nuts are not properly cleaned and so contain particles like sand, pieces of shells, poorly peeled nuts, burnt nuts, and different sizes of nuts, among others. They averred that such is the case because the women try to make more money. In spite of these, the women affirmed that people still prefer the locally processed nuts as it tastes better than the imported ones plus, there do not contain preservatives. This finding agrees with Ezeagu (2002) who asserts that the quality of cashew nuts obtained through this processing method is poor. The nuts are not standardized, presenting lots of differences in size, finishing and roasting. The use of local processing tools gives rise to the challenge of poor quality of products with its attendant hazards such as burning of hands and excessive heat to the body. The poor quality of products compounds the challenge of lack of capital because only quality products attract better prices.

Data in table two shows that the women have strategies by which they are able to cope with the challenges they face in the course of processing cashew nuts. Accordingly, the mean sum of 3.2 adopted the strategy of cheap labour whereby they involve members of their households mostly. Also, in order to make a substantial amount, the women (2.8) agreed that they try to extend their work hours beyond normal. However, this is often not regular because of the intensive labour involved. Additionally, the women (3.1) note that combining cashew nuts business with other businesses like provision stores, groundnut, kernel business, farming, among others, is one of the strategies they adopt in order to cope with difficulties in cashew processing. In the same vein, the mean sum of 2.7 said that rather than go through the stress of processing, they prefer selling off the fresh nuts to buyers. Lastly, the sum of 3.1 said they use coconut oil on their skin to manage the blistering effect of the cashew nut oil which has a very damaging effect on the skin. This finding agrees with the position of Odogwu (2019) who explains that a typical cashew processing unit requires land, an edifice, basic equipment like cooking vessels, a semi-automated peeling machine, a multi-colour cashew kernel sorting machine, husk winnowing machine, steam pipeline, hot oven, hand operated cutting machine, filling machine, pieces separator, weighing scale, sealing machine, food grade plastic tubs, buckets, crates, bowls and power plant. Similarly, Daily Trust (2015) reports that a processing plant requires about \$400, 000, which is about N80 million on equipment alone. This is in addition to stable electricity supply, or the alternative of a power generating plant which is very expensive. The report observed that individuals will not be able to compete effectively at the international market with countries like Brazil, Vietnam, India and others that have constant electricity, and therefore a lot of government support is needed; hence the essence of the coping strategies adopted by the women.

In Table three, results indicate that the women (3.0) agreed that the formation and membership of Cooperative societies is critical to addressing the challenges of cashew processing in Abia state, as such organizations will facilitate easy access to funds, soft loans and other credit facilities to improve their businesses. In addition, the existence of better and organized associations or cooperatives will help the women to have bargaining power,

negotiate collective marketing and bulk buying. The respondents put forward that although cashew farmers association exist, they didn't effectively serve the needs of cashew nut processors. Secondly, the mean sum of 3.1 said women should be provided with protective vests to reduce the risk associated with frying the nuts. Also, the sum of 3.3 affirmed that the provision of processing equipments will greatly enhance their business and afford them the opportunity to harness the huge market for cashew apples, reduce the huge waste, losses and drudgery associated with cashew processing, and further ensure the production of quality nuts that can compete favourably on the international scene. In like manner, the sum of 2.5 agreed that the provision of storage facilities for preservation of both cashew nuts and cashew apple will reduce the losses in the industry, while the sum of 2.9 added that strict price regulation by the government will effectively check price fluctuation and lessen the influence of the Chinese and Indian companies who are mostly responsible for the crash in prices. This is in line with the submission of Sanyang and Kuyateh (2018) who opine that the value chain of cashew production would need to overcome a number of challenges to enhance wealth creation opportunities, viz: marketing challenges, i.e. lack of official cashew buying centres; no processing facilities; farmers and technicians in need of best practices training; no processing done on the cashew apple; insufficient and expensive transportation from rural farming areas to urban areas; lack of storage and drying facilities at the farm level.

Conclusion

In conclusion, this study found that women involved in cashew processing in Abia state contend with several challenges like insecurity, rigorous cleaning, sorting, shelling, peeling, grading and packaging processes. However, they have a number of strategies which help them to cope with these difficulties such as the use of cheap labour (i.e involving mostly members of their households), extension of work hours, use of coconut oil to protect their skin, combining cashew business with other forms of businesses as well as selling raw cashew nuts rather than the processed ones. Nonetheless, a number of measures comprising formation of cooperative societies, provision of protective vests, provision of adequate storage and processing facilities as well as efficient price regulation was agreed to be the possible way forward. Considering the economic significance of the cashew industry in Nigeria, there is the need for urgent action by relevant stakeholders to strengthen the sector, especially as it will serve to empower women positively and also reduce the high level of poverty and unemployment in the country.

Recommendations

In line with the findings, this study recommends the following:

- i. Government, concerned civil society organizations and non-governmental organizations should assist in the training of women on cashew nuts handling and other agricultural best practices to facilitate quality output. Training farmers on best agricultural practices right from production to storage will help mitigate the defects of quality nuts.
- ii. Women involved in cashew processing must ensure that they take adequate rest, seek medical care when necessary, and also do exercises, to reduce the effect of the work load on them.

- iii. Government should double its efforts in providing adequate processing equipments and storage facilities to reduce the intensive labour and huge losses in the cashew processing industry.
- iv. There is need for concerted effort to tackle the issue of low price and price fluctuations. The problems of low price and fluctuations are associated with immature and poor quality nuts. Immature nuts have high moisture content and are unfit for export. Inadequate drying and improper storage (the use of polythene bags instead of jute bags to store harvested cashew nuts) deteriorates stored kernels.

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EFFECT OF GENDER AND LOCATION ON THE PERFORMANCE OF SMALL AND MEDIUM SCALE ENTERPRISE IN ABIA STATE: SPECIAL FOCUS ON COMPUTER BUSINESS CENTERS

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Abstract

Good locations attract large numbers of customers and increase the potential profits of small and medium-sized enterprises (SMEs), hence, the need to understand the impact of location on business performance. Similarly, there is inadequate literature to clarify the performance gap between male and female business owners with similar businesses. Hence, this study investigated the effect of gender and location on the performance of SMEs in Abia state. The study adopted survey research method, while data used for the study was collected from a total of one hundred and thirty male and female owners of Computer Business centres located in Ikwuano Local Government Area, using a simple random sampling technique. The instrument for data collection was a 30-item structured questionnaire containing closed-ended questions. The validity of the research instrument was done using the face and content validity, while in testing for reliability, Pearson's Correlation Coefficient Statistical Procedure was used to determine the validity of the test instrument, and showed a correlation coefficient of 0.90. Findings revealed that owners of SMEs consider customer demography, economic power, level of competition, ease of accessibility and the presence of magnets as important factors when choosing a location. Also, a good location enhances sales volume, increases customer patronage, market share and profitability. Again, the study found that there exists a large difference in the services offered by computer business centres owned by male respondents and those owned by female respondents, which invariably translated to much better performance on the part of the male entrepreneurs. Based on this, the study concludes that gender and location play a pivotal role in the performance of small businesses, and in this case, computer business centres. Hence, the paper recommended further studies to critically examine the variables responsible for such observable differences.

Keywords: Location, Shop, Retail, Performance, Enugu

Introduction

In most parts of the world, small and medium-sized enterprises (SMEs) are regarded as vehicles for job and wealth creation. Through their investments and consumption, they create value and produce a surplus of goods and services, thereby playing an important role in funding public services and creating a vibrant local economy (Goudreault & Hébert, 2013, as cited in Pierre, 2015). In a nutshell, SMEs constitute an exceptional asset for development, serving as both a motor for growth and a tool for redistribution of wealth (ESF, 2009, as cited in Pierre, 2015). In Sub-Saharan Africa (SSA), the SME sector accounts for more than 90% of all firms. Between 70% and 80% of SMEs are micro-firms or very small firms.

In Nigeria, Arowomole, (2000) as cited in Mohd and Esuh (2011), observes that successive governments have continued to emphasise entrepreneurship development. They maintain that the aim is not unconnected with finding a better way to nurture the

entrepreneurship environment by looking for those entrepreneurial factors such as location that could effectively and positively affect the entrepreneurial development as well as that of the firm performance. Thus, one of the most important factors of business development is the strategic location of the business which includes the nearness to raw materials, accessibility to business premises, good road network, among others (Minai and Lucky, 2011). Kala et al., (2010) cited in Minai and Lucky (2011), report that the strategic location of domestic firms have assisted them in achieving a positive performance. Thus, location provides domestic firms with a strong force to prosper and succeed in their business. They equally note that location has helped firms in the area of sustainability which also implies performance. Orloff (2002) also adds that location plays a vital role in entrepreneurship development.

In the same vein, Fapohunda, (2013) posits that in emerging economies like Nigeria, business-related experience of SME owners is mixed, thereby leading to mixed business outcomes. Gottschalk and Niefert, (2012) as well as Eikhof, Summers & Carter, (2013) pointed out that female-owned businesses are not only fewer in number but are also characterised by lower outcomes compared with their male-owned counterparts. This further lends credence to the stance held by Mba, (2006) who revealed that women entrepreneurs possess less valuable, managerial and self-employment experience; thus suggesting that women-owned firms are likely to underperform owing to lack of business-related experience. On the contrary, Amobi, (2006) provided evidence that female entrepreneurs have similar, and sometimes more, business-related experience than male entrepreneurs. It is against this backdrop that this study evaluated the factors of location and gender and their impact on the performance of small businesses, with a focus on computer business operators in Abia state.

The term "performance," in both ordinary discourse and a technical, scientific sense, refers to a remarkably ambiguous concept (Serpken, 1984). Thus, several authors have advocated the importance of using multiple measures of performance to determine the effects of different entrepreneurial actions (Reinartz & Kumar, 1999). One of such actions is the decision to strategically locate a business. Mendes & Themindo, (2004) cited in Wilbard, Mbilinyi, Maliva & Mkwizu, (2013) define a location as the physical space occupied by a business (shop). A business location incorporates trade area analysis and site analysis. A trade area as defined by Jaravaza & Chitando, (2013) is a contiguous geographic area that accounts for the majority of a shop's sales and customers. The trading area analysis usually provides the basis for marking out both the trading area of a new shop and that of an existing shop. This is usually done by assessing the demographic characteristics of the area. On the contrary, business site analysis is the next step in evaluating alternative specific shop sites which can be an isolated shop, unplanned business district and the planned business district coupled with site characteristics, such as traffic flow, visibility, and terms of occupancy just to name a few.

Location is typically one of the most influential considerations in a customer's shop choice decisions because most consumers shop at the small shops closest to them. Location decisions have strategic importance because if a business owner has the best location, the location that is most attractive to its customers, competitors are relegated to occupying the second-best location (Levy, Roggeveen, Compeau & Grewal, 2012). A good location may enable a small business to succeed even if its strategy mix is ordinary. Conversely, a poor location can have liabilities that even the able entrepreneur cannot overcome.

The decision for selecting a business location depends on the consumer/buyer's interests. The selection of a location generally requires extensive decision-making by the

entrepreneur because of the number of factors or criteria to be considered. These include the size and characteristics of the surrounding population, the level of competition, access to transportation, the availability of parking, and the attributes of nearby shops, property costs and the length of a lease agreement as well as legal restrictions (Wilbard, Mbilinyi, Maliva and Mkwizu, 2013). Similarly, Turhan, Akalin, and Zehir (2013) developed a model that presents varieties of factors affecting shop performance. These include (1) population structure (i.e, number of households, customer size and density, distance and purchasing habit); (2) economic factors (household income, income distribution, mobility, and residents' willingness to spend their money at the shop, etc) (3) competition (spatial distance between shops, the size and number of competitor shops, shopping alternatives, settlement with comparison to competitors, relative competitive strength, competitors' sale volume, stiffness in competition,) (4) saturation level (the index of retail saturation (IRS) is often used to ascertain the attractiveness of a particular market) (5) store characteristics (ease in accessibility, shop-image attributes and costs) (6) magnet (the location in which magnet shops are available has a potential to attract most of the trade) (7) performance measures (sales volume or demand, profits, the number of subjects patronizing the shop, market share and price elasticity).

Objectives of the Study

This study investigated the effect of gender and location on the performance of SMEs with a focus on computer business operators in Abia state. The specific objectives of the study are to:

- i. determine the criteria that influence the selection of SME location;
- ii. determine the impact of location on the performance of SMEs; and
- iii. ascertain the effect of gender on the performance of SMEs.

Research Questions

- i. What are the criteria that influence the selection of a business location?
- ii. What is the impact of location on business performance?
- iii. What are the effects of gender on business performance?

Methodology

This study adopted survey research design. The study was conducted in Ikwuano Local Government Area of Abia State. Ikwuano is situated in Abia Central Senatorial district. Ikwuano is made up of four major clans: Oboro, Ibere, Ariam-Ushaka and Oloko, consisting of about fifty-two villages and communities. Ikwuano houses the Michael Okpara University of Agriculture, Umudike, the National Crop Research Institute as well as Government College, Umuahia. Hence, Ikwuano is largely surrounded by semi-urban settlements with notable institutions which predispose the people to the utilization of computer services. Simple- random sampling procedure was used in selecting a total of one hundred and thirty (130) Computer Business operators, consisting sixty-five (65) males and sixty-five (65) females as the sample size for the study. Two out of the four clans (Oboro and Ariam-Ushaka) in the study area were randomly selected for the study, using simple random sampling technique. A pre-tested structured questionnaire was used to collect data for the study. The questionnaires which were used to measure the variables contained only closed-

ended questions. Data gathered was analyzed using frequency counts and percentages. The validity of the research instrument was done using the face validation technique, while in testing for reliability, Pearson's Correlation Coefficient Statistical Procedure was employed, and the results showed a correlation coefficient of 0.90.

Results

Table 1: Criteria that influences the selection of SME location

S/N	Item	Response	(Male) Freq.	%	(Female) Freq.	%
	In deciding on business location,	Yes	42		32.3	5
			39.2			1
	I considered customers size, purchasing habit, occupation, etc.	No	14	10.8	9	6.9
		Not exactly	9	6.9	5	3.8
	Customers' buying power, income distribution, etc, were factored in.	Yes	53	40.8	55	42.3
		No	7	5.4	3	2.3
		Not exactly	5	3.8	7	5.4
	The distance between shops, the size/number of competitor shops	Yes	48		36.9	3
			25.4			3
	was also looked into.	No	11		8.5	8
			6.2			
	Ease in accessibility to my shop was given priority.	Yes	51	39.2	47	36.2
		No	4	3.1	2	1.5
		Not exactly	10	7.7	16	12.3
	It was vital to consider the	Yes	27	20.8	39	30

In Table 1, 71% of the respondents agreed to the location of the business as being critical, 82% concurred to economic factors, 61% acknowledged the level of competition, 75% opted for ease in accessibility, while 50% agreed that the presence of magnet shops (crowd points) such as relaxation spots as an advantage to a business location.

Table 2: Impact of location on SME performance

Item	Response	(Male) Freq.	%	(Female) Freq.	%
Enhances increase in sales volume/profit	Yes	65	50	65	50
	No	-	-	-	-
Increases SMEs' market share.	Yes	65	50	65	50
	No	-	-	-	-
Guarantees increase in Customers patronage	Yes	65	50	65	50
	No	-	-	-	-
Facilitates appropriate Pricing strategy	Yes	65	65	65	50
	No	-	-	-	-

Table 2 demonstrates the impact of location on business performance. Accordingly, all the (130) respondents accepted that a proper location facilitates increase in sales volume and reduces expenses in order to improve profitability.

Table Three: General information on respondents' ownership status

Item	Response	(Male)		(Female)	
		Freq.	%	Freq.	%
I own the Business centre.	Yes	54	41.5	39	28.9
	No	11	8.1	26	19.3
I have another branch(s) located elsewhere.	Yes	28	20.7	12	8.9
	No	37	27.4	53	39.2
My business is registered with Corporate Affairs Commission.	Yes	43	33.1	19	14.6
	No	22	16.9	46	35.4

n = 130

In table three, data indicates that 54(41.5%) of the male respondents own the business centres they manage, while 39(28.9%) of the female entrepreneurs were the owners of the enterprise.

Table Four: General information on respondents Computer skills

Item	Response	(Male)		(Female)	
		Freq.	%	Freq.	%
I have general knowledge on Computer Appreciation	Yes	65	50	65	50
	No	-	-	-	-
Typing Skills	Yes	41	31.5	57	43.8
	No	24	18.5	8	6.2
Passport processing	Yes	61	46.9	58	44.6
	No	4	3.1	7	5.4
Internet operation	Yes	60	46.2	56	43.1
	No	5	3.8	9	6.9
I can handle advanced Computer Programmes and Software	Yes			53	40.8
	No	12	9.2	36	27.9
I offer training on professional Courses like Web design, Graphics design, Java programming Blogging, CISCO, among others	Yes	60	46.2	56	43.1
	No	5	3.8	9	6.9
I have technical know-how on to manage Computer hard-ware	Yes			44	33.8
	No	21	16.2	43	33.1

n = 130

Data in Table four shows that while all the respondents (130) had basic knowledge of computer programmes, the female had higher typing skills (43.8%), while the proportion of male with technical know-how on managing computer hard-wares (33.8%), passport processing (46.9%), handling of advanced computer programmes (40.8%) and professional packages (46.2%) was higher.

Table Five: Information on respondents' asset

Item	Response	(Male)		(Female)	
		Freq.	%	Freq.	%
I own between 3 – 5 computer Sets (both laptops/desktop)	Yes	49	37.7	43	33.1
	No	16	12.3	22	16.9
I own between 2 – 4 printers (both mono/coloured printers)	Yes	58	44.6	53	40.8
	No	7	5.4	12	9.2

I own between 2 – 3 photocopying machines	Yes	43	33.1	39	30
	No	22	16.9	26	20

n = 130

Data in Table five demonstrates that both the male and female respondents had their computer business centres averagely equipped.

Table Six: General information on services provided by male and female computer business operators

Item	Response	(Male)		(Female)	
		Freq.	%	Freq.	%
Typesetting/Internet services	Yes	65	50	65	50
	No	-	-	-	-
Training of clients on General/Advanced computer packages	Yes	44	33.8	18	13.8
	No	21	16.2	47	36.2
Sale of stationeries	Yes	45	34.6	37	28.5
	No	20	15.4	28	21.5
Provision of Weekend/Homes Services	Yes	29	22.3	6	4.6
	No	36	27.7	59	45.5
Offers JAMB lesson	Yes	37	28.5	14	10.8

Discussion of Findings

In Table 1, 71% of the respondents agreed that in deciding about a business location, demographic factors such as customer size and density, age, gender, occupation, social class, purchasing habit, preferred shopping place, etc are usually given consideration. Similarly, a greater proportion (82%) concurred that economic factors like household income, source of income, income distribution, buying power, including residents' willingness to spend their money on a particular service, are often reflected on before siting a business, while 61% acknowledged that the level of competition, the distance between shops, the size and number of competitor shops, relative competitive strength, etc, are carefully measured to know if a

particular location is appropriate for one's business. 75% further admitted that while deciding on a business location, business owners look at the ease in accessibility which they believe can attract large number of customers. In like manner, 50% agreed that entrepreneurs generally regard the presence of magnet shops (crowd points) such as relaxation spots as an advantage to a business location. These findings are in agreement with the submission of Turhan et. al. (2013) that decision on business locations is one of the most vital strategic decisions that an entrepreneur has to make for a business long term success. Table 2 demonstrates the impact of location on business performance. Accordingly, all the (130) respondents accepted that a proper location facilitates increase in sales volume and reduces expenses in order to improve profitability, the same way they (130) all accepted that a good location allows a business to grow the size of its market share. In like manner, the respondents (130) accepted that appropriate location guarantees increase in customer patronage which translates to a sizeable market share, just as they (130) all agreed that the right location enables appropriate pricing strategy which eventually translates to profitability. The findings above are in line with Minai and Lucky, (2011) who stated that using multiple measures of shop performance is deemed to be essential to determine the possibility of getting the largest value by a new shop or shops entering the area. In table three, data indicates that 54 (41.5%) of the male respondents own the business centres they manage, while 39 (28.9%) of the female entrepreneurs were the owners of the enterprise. Also, a good number of the male respondents (43) had their businesses registered with the Corporate Affairs Commission, compared to a much lower figure (19) on the part of the females. The reason could be that it is much easier to access credit facilities through registered businesses.

Data in Table four revealed that the men had wider computer skills than the women. This is not unconnected with the fact that men often times take on more complex computer packages than women. As seen in the table, while all the respondents (130) had basic knowledge of computer programmes like Microsoft Word, Excel, Corel Draw, among others, the female had higher typing skills (43.8%), while the proportion of male with technical know-how on managing computer hardwares (33.8%), passport processing (46.9%), handling of advanced computer programmes (40.8%) and professional packages (46.2%) was higher.

Data in Table five demonstrates that both the male and female respondents had their computer business centres averagely equipped. Each had between three to five computer sets, minimum of two mono/multi- coloured printers, photocopiers, as well as other essential gadgets required in computer business centre. Information in Table six shows a large difference in the services offered by computer centres owned by male respondents and those owned by the female respondents in that, a larger proportion of the men (33.8%) offer training in advanced computer packages, provide weekend/home services (22.3%), offers JAMB lesson for students, while still providing the general typesetting services. Such outcome portends higher transactions and a larger market share which inevitably improves profitability for the

male entrepreneurs. This finding could also be indicative of the fact that men seem more daring and can venture into complex zones often times more than women. Also, the social-cultural constraints experienced by the women-folk may not allow them to fully participate in trainings or acquire skills that can enhance their computer knowledge. This result supports the findings in a study by Farlie and Robb (2009) which compared profits, average employment, closure rates and average sales between female- and male-owned small enterprises. Their findings revealed differences related to gender on different areas of business performance. First, female-owned entities compared with 36.4% of male-owned entities reported profits of at least \$10 000 per annum. Second, female-owned business entities also conducted business activities for a shorter period compared with male-owned business entities. Thus, the average probability of enterprise closure for female-owned business entities was 24.4%, whereas that of their male counterparts was 21.6%. Third, male-owned business entities were found to be substantially superior to female-owned business entities on average sales performance. Fourth, male-owned business entities created more job opportunities (23.2%) than female-owned business entities (16.4%).

Conclusion

This study has presented a wide range of criteria to consider while evaluating locations for siting a business to include population structure, economic factors, competition, saturation level, the existence of magnets, etc. The ability to strategically locate a business allows entrepreneurs to achieve better performance. Thus, entrepreneurs must embark on performance evaluation and should be aware of the factors that relate to business location. This will provide the information they need to carry out shop location selection effectively. In this way, they can obtain larger market share, profits, sales volume and a good number of patronisers by choosing strategic locations. Also, this study concludes that gender plays a pivotal role in the performance of small businesses, and in this case, computer business centres. Basically, the respondents' ownership status, computer skills, asset, and the type of services offered were measured against the performance of their business; hence, there is need to critically examine the variables responsible for such observable differences.

Recommendations

Based on the findings of this paper, the following recommendations are therefore put forward:

- i. Entrepreneurs should endeavour to undertake a performance evaluation and should be aware of the factors that relate to business location as this will help them to carry out shop location selection effectively.
- ii. There is need to eradicate the social-cultural constraints that limit the women-folk from participating fully in trainings that can enhance their computer knowledge and skills.

- iii. Women should be encouraged to take on more complex computer packages in order to effectively compete with their male counterpart in the Small and Medium scale enterprise.

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PUBLIC SECONDARY SCHOOL STUDENTS' ATTITUDE AND PERCEPTION TOWARDS TEST-TAKING IN BENIN METROPOLIS

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Abstract

The study investigated public secondary school students' attitude and perception towards test taking in Benin Metropolis, Edo State. It examined the perception of secondary school students towards test taking and determined sex, school location, school type and age of students as it predicts students' attitude and performance of test taking. The population of the study consisted of all public secondary school students in Benin metropolis, with students' population of 4997. The study adopted a descriptive survey research design. The sample size of the study was 400 students who were selected randomly from 94 schools using simple random sampling technique. A self-designed titled "Attitude and Perception of Students Towards Test-taking Questionnaire (APSTQ)." was adapted from Taylor (2013) quantitative study on students' perception and attitude of standardize testing. The instrument was validated, and the reliability was ascertained using the Cronbach Alpha reliability, with a reliability index of 0.84. The data collected were analyzed using mean and standard deviation and the ordinal regression statistics at 0.05 level of significance. The results from the findings of the study showed that public secondary school students' attitude and perception of test taking was positive, and a statistically significant relationship existed between students' attitude of test taking and the location of school. Location and type of students' school increases the likelihood of the attitude of the students in test taking activities. It was also revealed that attitude towards test taking of secondary school students was not dependent on sex, or age. It was therefore recommended that seminars and workshops should be organized for teacher on the art of test construction, administration and scoring, and students should be encouraged on the art of test taking so as to remove fear and anxiety from the students.

Key words: Assessment, Attitude, Perception, Test-taking,

Introduction

In the Nigerian educational and other sectors, it is expedient to ascertain if learning has taken place or if there is a change in behaviour of those that has passed through a programme or a course. Hence Bachman (2008) observed that there is the need to gauge the outcome or the quality of responses of the teaching and learning process. One of the various ways of achieving this is for a test to be administered. Test has become the most commonly approach adopted as an assessment tool. They are designed to measure the quality, ability or knowledge of a sample against a given standard, which usually could be deemed acceptable or not (Adom et al, 2020). The concept of test has been variously defined by different authors. It is seen as any method that is used to ascertain the ability of students to complete task or demonstrate mastery of skill or knowledge of content (Adom et al, 2020). Test is also

the ability to determine the presence or absence of a phenomenon (Omorogiuwa 2019; Afemikhe, 2014). For Braun et al (2006) testing is the process of measuring single or multiple concepts under a set of predetermined conditions.

The purpose of any test depends on what the test is meant to achieve. Hence, the usefulness of any test varies, and depends on how well the purpose of testing matches the purpose of developing the test. The general purpose of any test is for both formative and summative assessment. Besides using a test for assessing reading, vocabulary, comprehension, spelling, mathematics, algebra, general science and others, it is mostly used for summative assessment which is the most commonly administered test in education (Kubiszyn & Borich, 2013).

A test can be broadly classified into two. They are achievement test and psychological test. In achievement test, emphasis is on whether a content area or body of knowledge has been mastered. Achievement test is further classified into teacher made test or the criterion reference and the standardized test or normed reference test. In the teacher made test, emphasis is on whether the individual pass or fail, with no comparison with others who took the test. On the other hand, the standardized test or normed reference test, the individual score is compared to others who took the test. Achievement test are mainly designed to ascertain what a student has learnt to do, as a result of teaching or instruction (Afemikhe, 2014; Omorogiuwa, 2019). Achievement test could be locally constructed by teachers. According to Kline (2000) the steps involved in the construction of an achievement test are: identification of purpose, statement of objectives, specification of content and construction of test blue print or table of specification. A test that determines what students can learn is called aptitude test. The test used to determine what a person like to do is called interest test. A test designed to investigate the presence of constructs is called psychology test. A test used to assess or for testing a group of people is known as a group test. There is also the individual test designed to assess individuals. Other classifications are; speed test and power test. A power test is designed to allow students enough time to attempt each question. One major characteristics of this type of test is that the items are usually many and the difficulty level is high. But if the interest is on how fast students can attempt the questions then it becomes a speed test. In this type of test, the items are easy but with limited time. Test can also be classified based on the purpose of interpretation. This brings about the norm-referenced and criterion-referenced test.

Summative test is administered after a period of intensive instruction, which could be a unit in a course, a semester or even a year. The essence is to provide a measure or a gauge of student's learning following the completion of instruction. They are usually lengthy, used to assign grades, evaluate curriculum effectiveness, and assess annual gains in students, school and academic improvement. Summative test become germane if the purpose of testing is to ascertain the trend of achievement after instruction has been completed. However, if the purpose of testing is to evaluate the effectiveness of instruction on daily basis, summative testing may not be very useful; hence formative test or assessment becomes important. Formative assessment or test is very useful if the purpose of testing is to inform day-to-day instructional decision making so as to move on to the next topic, review or represent the content using a different strategy. Formative assessment has been given various names such as continuous assessment, or curriculum-based measurement (Hosp et al, in Sterett & Cannon, 2022).

Test are forms of assessment which provides information for decision making. They are very important in making decisions by students and about students in and out of the

school. Test score serves various purposes; hence it is difficult for a single test to serve more than one purpose. Test can be used to predict future performance of student, helps in the realization of the stated objectives and the mastery level. A test can also be used for the purpose of diagnosis. Evidence of the usefulness of any test depends on the competence of those who administer, score and interprets the test (Kubiszyn & Borich, 2013).

Owan et al (2020) averred that test taking is an important means of measuring the understanding, comprehension, and performance of students during and after the completion of the topics /course. It is a vital tool also for assessing students' performance or those who took the test, as well as to monitor the progress of students, assess student's prior knowledge and ideas, identify the weakness and strength of individual learners (Owan et al, 2019; Lawrence, 2019). Other purpose of test includes for promotion, placement, and could be used in awarding prizes.

In constructing test certain guidelines should be followed. These depend on the types of test item that is been constructed (Afemikhe, 2014). Various test items are used such as objective test items, which includes true-false, matching, multiple choice and short answer questions. True false items are used when a statement is actually true or false and is easy to write. Multiple choice item is made up of two parts: stem and options; the options are composed of key and distracters. One problem with the multiple-choice item is that of verbal load. Matching items are composed of direction for matching, premise and options. Short answer questions are made up of questions, completions and association types. The other type of test items is the essay questions which require examinees to supply information; they could be restricted or extended. One major problem usually associated with the essay test item is subjectivity.

The term test and assessment are mostly used interchangeably; hence many have omitted the word testing and have replaced it with assessment. The need for this is important, because many believed that the word "assessment" is less threatening as testing which creates fear on the part of the test takers. The act of taking a test is called test-taking. Test-taking has posed a lot of issues among students at various levels. There is usually anxiety, nervousness among others that are usually associated with it. For test taking to be effective, it is important to look at the issues or the problem associated with it. Test taking skills are cognitive skills that will enable students to undergo any test-taking situation in an appropriate manner (Hamzeh et al, 2014). Hamzeh et al (2014) opined that test is what is employed as a major instrument for making decision in most countries. Above all, the results from test are used to evaluate individual. Therefore, the major concern for test takers is the ability to perform better on the test Al-Fraidan & Al- Khafat, 2012).

Attitude is the tendency to react favourably or unfavourably towards a designated class of stimuli. Mohamed and Waheed (2011) defined attitude as a mental and neutral state of readiness organized through experiences, exerting a directive or dynamic influence upon the individual's response to all object and situations with which it is related. It is a persistent disposition to act either positively or negatively towards a person, object situations or values. Mc Milian cited in Imasuen and Iyamu (2020) defined attitude as mental disposition or tendencies that individuals responds to either positively or negatively towards certain things. Attitude can also be seen as a form of learning predisposition to responds consistently in a manner with respect to a given object which could be favourable or not. Attitude as a construct is something that can affect every aspect of any person including education. The determination and willingness of students to learn any particular subject are functions of their attitude. A student could exhibit either a positive or negative attitude, towards a

particular learning experience. If he/she exhibits a negative attitude, there is the tendency that the student may truncate his/her learning when not properly checked. Therefore, it is important to always try as much as possible to change students' negative attitude towards learning by identifying and dealing with the factors driving the individual to exhibit such attitude. However, when a child exhibits a positive attitude and perception of learning a particular task, it will bring about proficiency.

Attitude according to Joseph, (2013) refers to an individual's mental state towards his/her own behaviour in particular situation which reflects their opinion, feeling, and can sometimes be manifested in behaviour. This implies that attitude, behaviour and feeling are interrelated to the extent that the individual attitude is a function of the way they behave towards objects, situation and even to others. Attitude can be observed directly but are usually inferred from measurable reactions towards objects or things.

Mario and Haddock in Imasuen and Iyamu, (2020) see attitude as a “summative evaluation” about a stimulus object which can be in any form. According to them, it can take the form of ice-cream, mathematics and so on, with the aim of either to like or dislike the object. They further averred that attitude has three main components which are: cognitive information, affective information and behavioural information. Marzano in Salih, (2016) stated that two categories of attitude and perception affect learning. They are: attitude and perception about learning situation and attitude and perception about classroom task. Test taking is an indispensable part of the learning process, but many students seems to demonstrate or portray an unfavourable or negative attitude towards it, which has created unruly behaviour in them leading to anxiety and unwillingness to read or prepare for any test. This has led to considerable decline in students being motivated to learn and partake in test taking activities. Kubiszyn and Borich, (2013) averred that the population has become diverse in recent years, yet the technical adequacy of many educational test and assessment was established on samples that included primarily small cultural affiliation, but these days, they are based on populations from different cultural, linguistics and academic background. This sometimes creates fear and anxiety among the test takers.

Some studies had been done on attitude and perception toward learning, but assessing the attitude and perception of student towards test taking is scare. Saleh and Ibmain, (2007) found out that the attitude of students towards test taking was positive. On his part, Famogbiyele, (2017) opined that Nigerian students had moderately high positive attitude towards learning English. Imasuen, (2016) averred that the attitude of public and private secondary students towards examination was positive, but private school students have more positive attitude towards examination than students from public secondary school. In the same vein, Owan et al (2020) found out that the attitude of secondary school students towards test taking as an activity was significantly high. Also, male students from urban private school differ significantly in their attitude towards test-taking.

Statement of Problem

After instruction, students are assessed in order to ascertain if the objective of teaching has been achieved. One way of doing this is to administer a test, either during the course of teaching or after the completion of instruction. But overtime, it seems that this important purpose has not actually yielded the desired impetus that is supposed to be seen. This could be attributed to either the attitude of the students or how the students perceived test taking. This study therefore examines the attitude and perception of secondary school students towards test taking in Benin metropolis.

Objectives of the Study

The specific objectives of the study were to:

- investigated the attitude of secondary school students towards test taking?
- investigated the perception of secondary school students towards test taking?
- examined sex, school location, school type and age of students predicts students' attitude and perception of test taking?

Research Questions

- What is the attitude of secondary school students towards test taking?
- What is the perception of secondary school students towards test taking?
- Do sex, school location, school type and age of students predicts students' attitude and perception of test taking?

Methodology

The design of this study was survey. The population of the study consisted of public secondary school students in Benin metropolis. There are three local governments areas in Benin metropolis namely: Oredo, Ikpoba-Okha, and Egor. There are also ninety - four Junior and Senior Secondary schools in Benin metropolis with 28 in Oredo LGA, 26 in Egor LGA and Ikpoba-Okha with 40 schools. The students' population was 4997. That is, 1147 from Egor LGA, 2160 from Ikpoba-Okha, and 1690 from Oredo LGA. The sample size of the study was determine using Yamane (cited in Anokye, 2020) formula for sample size determination, given as $n = \frac{N}{1+ne^2}$ where n is the sample size, N is the population size and e is the level of precision (level of significance). In this study, N is 4997, e is 0.05. Therefore, in the sample size, is 400. They were purposively selected from the 94 schools in Benin metropolis. The instrument for the study was a questionnaire titled “Attitude and Perception of Students Towards Test-taking Questionnaire (APSTQ)” It was adapted from Taylor (2013) quantitative study on students perception and attitude of standardize testing. It consisted of two sections A and B. Section A was used to get information on the demographic details of the respondents while section B consisted of 25 items with 15 assessing attitudes towards test-taking, and 10 perception of test taking. The items were rated using a five-point Likert scale, of Strongly agree (5), Agree (4), Disagree (3), Strongly Agree (2) and Neutral (1). All the items were rated positively (5, 4, 3, 2, and 1) except items 4, 5 12, 17, 18 and 20 which were rated as 1, 2, 3, 4, and 5. The instrument was validated by three experts in Measurement and Evaluation, University of Benin, Nigeria and the reliability was ascertain using the Cronbach Alpha reliability, and it gave a reliability index of 0.84 The data were collected by the researcher with the help of 10 research assistants. The data were analyzed using mean and standard deviation for research questions 1 and 2. A mean criterion of 3.00 which was the arithmetic mean of the lower and highest value on the rating scale was used for acceptance of the items. A normative mean of 45.00 and 30.00 were used to ascertain the attitude of secondary school students towards test taking and perception of test taking. A mean value of 45.00 and above indicates positive attitude while below 45.00 implies negative attitude. In the same vein, a mean value of 30.00 and above indicates positive perception while below 30.00 implies negative perception of the students. Research question 3 was analyzed using the ordinal regression statistics at 0.05 level of significance.

Results

Table 1: The attitude of secondary school students towards test taking

Attitude towards test-taking	Mean	Standard deviation	Remarks
Doing well on test is my priority	4.53	.78	Agree
I always answer the questions well as I could	4.47	.71	Agree
I always try my best on any test I am taking	4.41	.87	Agree
most times I don't put effort into the test	3.22	1.10	Agree
I just don't care how well I perform in the test	2.73	.91	Disagree
I am always bored while taking a test	3.04	1.08	Agree
I am not good at taking test	3.21	1.14	Agree
I usually do pretty well on test	3.00	1.03	Agree
I hate taking test	3.87	1.06	Agree
I feel nervous when taking test	2.98	1.07	Agree
I don't like taking essay test	3.41	1.16	Agree
I like answering questions involving multiple choice	3.37	2.26	Agree
I get tensed when answering filling the blanks type of questions	3.85	2.32	Agree
The way I answer test questions should help me to pass	3.45	2.23	Agree
Cluster	5.29	2.04	Agree
	53.72	6.37	

Table 1 showed that the students agreed that: doing well on test was their priority; they always answered the questions as well as they could; they always try their best on any test they took; most times they don't put effort into the test; they were always bored while taking a test; their mind wandered a lot when taking a test; they were not good at taking test; they usually do pretty well on test; they hated taking test; they feel nervous when taking test; they don't like taking essay test; they like answering questions involving multiple choice; they get tensed when answering filling the blanks type of questions; and the way they answer test questions will help them to pass. However, they disagreed that they just don't care how well they perform in the test. The cluster mean of 53.72 and standard deviation of 6.37, indicated that the student had a positive attitude towards test taking activities.

Table 2: Secondary school students' perception of test taking

Perception of test taking	Mean	Standard deviation	Remarks
A test is probably the best way of assessing students' performance	4.22	1.05	Agree
A test is not the best way to show how well student is good	3.19	1.17	Agree
Test are unfair to test takers	2.79	0.96	Disagree
Scores from test will probably affect my future	2.79	0.96	Disagree
Test scores fare not reflection of students' performance	2.95	1.11	Disagree

Perception of test taking	Mean	Standard deviation	Remarks
Test-taking promotes examination malpractice	2.86	1.10	Disagree
Test-taking encourages rote memorization	3.72	1.21	Agree
Test taking creates anxiety and fear	3.21	1.19	Agree
Test taking should be abolished in secondary schools	2.74	1.09	Disagree
Test taking comes with bias	2.92	1.28	Disagree
Cluster	31.51	5.26	

Table 2 showed that the students agreed that: test was probably the best way of assessing students' performance; a test was not the best way to show if students are good; test-taking encourages rote memorization; and test taking creates anxiety and fear. They however, disagreed that: tests were unfair to test takers; scores from test would probably affect their future; test scores was not a reflection of students' performance; test-taking promotes examination malpractice; test taking should be abolished in secondary schools; and test taking comes with bias. The cluster mean of 31.51 and standard deviation of 5.26 implied that secondary school students' perception of test taking activity was good.

Table 3: Demographic variables as predictors of students' attitude towards test taking

		N	Marginal Percentage
Attitude	Negative	18	6.1
	Positive	279	93.9
Sex	Male	153	51.5
	Female	144	48.5
Location	Urban	165	55.6
	Rural	132	44.4
School types	Junior Secondary	154	51.9
	Senior Secondary	143	48.1

Table 3 showed that 6.1%, and 93.9% of the students had negative and positive attitude towards test taking in schools. Also, 51.5% of the students sampled were male while 48.5% were females. 55.6% of the students were in rural schools while 44.4% were in urban schools. With respect to school type, 51.9% of the students were in Junior secondary school, while 48.1% were in Senior Secondary school.

Table 4: Tests of Parallel Lines

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Null Hypothesis	208.830			
General	172.368 ^b	36.462	16	.447

Table 4 showed the test for the suitability of the data for ordinal regression. This was used to test the assumption of proportional odd. Since the p-value of 0.447 was greater than 0.05, the main assumption of ordinal regression was not violated.

Table 5: Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	51.359			
Final	48.802	12.557	4	.014

The model fit table shows a p-value of 0.014 which is less than 0.05. This shows that the model is a very good finding on how well the model fit the data.

Table 6: Goodness-of-Fit

	Chi-Square	DF	Sig.
Pearson	21.757	19	0.297
Deviation	24.319	19	0.184

Table 6 shows the Pearson and Deviation values greater than 0.05. Hence the null hypothesis is rejected Thus, the model is a good fit.

Table 7: Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.
Attitude	(Attitude=1)	2.737	0.745	13.485	1	.000
Location	Age	.180	.287	0.394	1	.530
	(Sex=1)	.0171	.497	.119	1	.730
	(Sex=2)	0			0	
	(Location=1)	.714	.312	5.250	1	.022
	(Location=2)	0			0	
	(School type=1)	1.189	.323	13.578	1	.000
	(School type=2)	0				

In Table 6, we have that a statistically significant relationship existed between students' attitude of test taking and the location of school ($p < 0.05$). This was also the same with school type ($p < 0.05$). However, there was no significant relationship between, sex of student, age of student school, and their attitude towards test taking ($p > 0.05$). The estimated value of 0.714 and 1.189 for students' school location, and type of school, indicated that the location and type of students school increases the likelihood of the attitude of the students in test taking.

Discussion of Findings

The study assessed the attitude and perception of public secondary school students towards test taking in Benin metropolis. The study revealed that the student had a positive attitude and perception towards test taking activities. This corroborated the earlier results obtained by Saleh and Ibmain (2007), Imasuen (2016) and recently, Owan et al (2020)

Another revelation from the study was that a statistically significant relationship existed between students' attitude towards test taking and the location of school. This was also the same with school type. However, there was no significant relationship between, sex of student, age of student, and their attitude towards test taking. The estimated value of 0.714 and 1.189 for students' school location, and type of school, indicated that the location and type of students school increases the likelihood of the attitude of the students in test taking activities. This result was at variance with Owan et al (2020) who stated that male students

from urban private school differ significantly in their attitude towards test-taking.

Conclusion

Assessment is a tool that is used to gauge the performance of students either during the teaching learning situation or at the end of the course, unit or programme. In assessing the performance of students in the educational system, test is utilized. It is therefore imperative to ascertain the attitude and perception of students towards test taking. This study has shown that public secondary school students' attitude and perception of test taking was positive, and a statistically significant relationship existed between students' attitude of test taking and the location of school. Location and type of students' school increases the likelihood of the attitude of the students in test taking activities. It was also revealed that attitude towards test taking of secondary school students was not dependent on sex, or age.

Recommendations

Based on the findings of the study, it was recommended that:

- students should be encouraged on the art of test taking so as to remove fear and anxiety from the students
- teachers should also devise various methods and strategies of teaching so that students will not be scared of test taking.
- seminars and workshops should be organized for teacher on the art of test construction administration and scoring.

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ENHANCING ENTREPRENEURIAL EDUCATION IN NIGERIAN SECONDARY SCHOOLS THROUGH ENTREPRENEURSHIP CLUB

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Abstract

Nigeria is a country blessed with enormous wealth, but larger proportion of the citizens live in abject poverty and face worsening unemployment. In a bid to mitigate the scourge of poverty and unemployment, several interventions and policies on poverty reduction had been initiated by various governments with the objectives of boosting industrial production and level of employment. For instance, vocational and technical subjects were introduced into the secondary school curriculum in order to address these problems. However it was discovered in the extant literature that the delivery mode of the aforementioned interventions have not really fulfilled their aims. Therefore, this study seeks to proffer solution to the workability of such interventions through the introduction of Entrepreneurship club into secondary school as case study. The study employed survey research methodology through the use of structured questionnaire. Data was collected from Teachers and students of 50 secondary schools in Ile Ife and analyse using SPSS 21 package. Before the intervention, the result showed that majority of the schools could not offer more than one trade subject especially the private schools because of inadequate resources to employ any other trade subject teacher schools, and lack of time as the curriculum is jam packed. After the intervention, entrepreneurial activities increase and were enhanced amongst students. The study concludes that entrepreneurship clubs provide a conduit by which students can access entrepreneurial resources, network with community entrepreneurs, and share ideas.

Keywords: Entrepreneurship, Entrepreneurial Education, Entrepreneurship club, Entrepreneurial Network, Poverty Reduction and Unemployment.

Introduction

Entrepreneurship was derived from a French word-Entreprendre- which means to undertake. It involves exploiting and responding to opportunities through innovative activities that have positive social re-intervention (Jonsson, 2017). Also, Entrepreneurship is the capacity and willingness to develop, organize and manage a business venture along with any of its risks in order to make profit. In Economics, Entrepreneurship combined with Land, Labour, Natural Resources and Capital that can produce profit. Entrepreneurship Spirit is characterized by innovation and risk-taking, and is an essential part of a nation's ability to succeed in an ever changing and increasingly competitive global market place.

Nigeria as a country has numerous business and investment potentials due to the abundant, vibrant and dynamic human and natural resources it possesses (Abimbola, O. H., Paul, D., & Olowu, A. U. 2016). Tapping these resources require the ability to identify potentially useful and economically viable fields of endeavours. Nigerians have made their marks in diverse fields such as science, technology, academics, business and entertainment. Thus, entrepreneurship activities and innovative ingenuity in Nigeria have developed enterprises

in the following areas. Agricultural/agro-allied activities where there are foodstuffs, restaurants, fast food vending etc. In the area of solid minerals, there are quarrying, germ stone cutting /polishing and crushing engineering. In power and transport, there are power generations, Laulage business (cargo and passengers). In the area of information and telecom business, there are manufacturing and repairs of GSM accessories and the printing and selling of recharge cards. In hospitality and tourism business, there are hotels, accommodation, resorts centres, film and home video production; in oil and gas business, there are construction and maintenance of pipelines, drilling, refining bye products. In the area of environmental and waste management business, there is refuse collection/disposal, recycling, and drainage/sewage construction job. In the area of financial banking services, there are banking, insurance and stock trading. In engineering and fabrication work, there are machines and tools fabrications. There is also building and construction, where there are plan and design services and material sourcing (Agbeze, 2012). These human and natural resources notwithstanding, Nigeria is still one of the poorest countries in the world and has one of the highest rates of youth unemployment in sub-Sahara Africa (NBS, 2020). Many other countries have been able to energize and transform entrepreneurship sub-sector to such a vibrant one that they have been able to reduce to the bearest minimum their unemployment and poverty level because of the immense contribution of the sub-sector to their economic growth and development, but such cannot be said of Nigeria (Riti Joshua Sunday & Kamah Miriam, 2015).

In respect of the above deplorable situation, the government has made effort to reduce the misery and frustrations of the citizens, but the efforts have not yielded the expected results. This has foisted a state of hopelessness on majority of young people who have resorted to any means including crime to succeed in life. They resort to vices because they are not gainfully engaged. In other words, they are unemployed; not because they lack the qualification but because the system has been crippled politically, economically, socio-culturally and even religiously. People especially youths and graduates became displaced economically (Kuratko, 2009), a situation that clearly negates the Sustainable Development Goals: to halve the proportion of people living in extreme poverty and to halve the proportion of people suffering from hunger. Various government regimes introduced vocational and technical subject into the secondary school curriculum in order to address these problems, it is discovered that this intervention has not really achieved its goal. This paper however seeks to proffer solution to the workability of the programme through the introduction of Entrepreneurship club into schools.

Government Intervention in Poverty Reduction

Skills acquisition and employment generation have remained a focal point in the Nigerian Government policy. Between 1986 and now, various administrations' initiatives to promote self-dependence and self-reliance in the generation of gainful self-employment have been profound. Starting with the acquisition of vocational skills, it is believed that the education system operated since the post-independence placed emphasis on academic excellence rather than skill acquisition which prepares the individual for a more useful and fulfilling life within the society. In other word, vocational skills acquisition is believed would be more relevant to the development of the nation. Hence, a national policy on education was promulgated in 2007, introducing vocational courses in the educational curriculum. The ineffectiveness of the vocational courses in the school curriculum to address youth unemployment which assumed alarming proportion, prompted the Federal Government to set up the Chukwuma Committee on 26 March, 1986 (Omoruyi & Osunde,

2004). The report of the Committee led to the creation of the National Directorate of Employment in November 1986 and charged with the responsibility of promoting skills acquisition; facilitate the spirit of creativity, self-reliance and independence. To this day, vocational skills' training is receiving greater attention as many centres have been established. However, the National Economic Empowerment and Development Strategies (NEEDS) document 2004 claimed that many of the responses to poverty reduction appeared to be ad-hoc, uncoordinated and more or less fire-brigade (NEEDS document, 2004). A chronicle of about 28 projects and programmes with poverty reduction of promoting skills acquisition; facilitate the spirit of creativity, self-reliance and independence. To this day, vocational skills' training is receiving greater attention as many centres have been established. Furthermore, Programmes such as Community Bank, Directorate for Food Roads & Rural Infrastructure (DFRRI), National Directorate of Employment (NDE), People's bank, Better Life for Rural Women, Family Support Programme were some of such projects aimed at addressing various manifestations of poverty. The NEEDS document concluded that “while none of these programmes were completely without merits, the truth is that they did not have a significant, lasting and sustainable positive effect”. The Nigerian Living Standard Survey (NLSS, 2004; www.nigerianstat.gov.ng/nlss/, 2006) also buttressed the arguments on the NEEDS document from its data on poverty incidence in Nigeria. “NLSS estimates poverty incidence in Nigeria at around 54%. This means that about 75 million Nigerians live in poverty. Of these, twenty-two million or so are thought to be 'core poor'. A recent Risk and Vulnerability Analysis (RVA) in Nigeria estimated the vulnerability headcount at almost 90% (RVA, 2003). In addition to these broad indications of the extreme poverty and vulnerability challenge in Nigeria, the health and education on Sustainable Development Goals (SDGs) indicators, specifically, are very poor. To add to the current dilemma is the world unemployment rate said to rise in 2020/2021 as the global economy slows down with signs that it is heading towards recession (www.chinadaily.com.cn/world/, 2020). This in turn means that without rapid economic growth to sustain the nascent democratic gains, unemployment situations will be grimmer; more youths will become unemployed with varying consequences to national security.

Other Schemes that were put in place

- Bank of industry
- In recognition of the importance of SMEs component in achieving growth and sustenance of the Nigerian Economy, the following are the Schemes and strategies for helping entrepreneur in SMEs:
 - The Small and Medium Enterprises Equity and Investment Scheme (SMIEIS): Under this scheme, banks are mandated to set aside 10.0% of the after tax profit for SME's finance. It has been in operation for the past four years;
 - National Credit Guarantee Scheme: Conceived to help mitigate risks associated with lending to SME's;
 - Small and Medium Enterprises Development Agency of Nigeria (SMEDAN):
 - The agency was established in 2003 to nature the Micro, Small and Medium Enterprises Sub-sector to operate efficiently and enhance sustainable economic development of Nigeria.
 - It is expected to facilitate the access of Micro, Small and Medium Entrepreneurs/investors to all resources required for their development.

- Among the programmes of SMEDAN are:
- Enterprise Development: This involve provision of entrepreneurial education and training for business plan development, marketing and accounting to enhance competitiveness;
 - Business support/information services: To ensure access to necessary information to make informed business decision.
 - Advisory and Advocacy Services: Coaching, counselling, mentoring, and serving as voice for the MSMEs.
 - Market Development: Trade fair exposition to expose MSMEs to market opportunities.
 - Business Linkages: Run programmes targeted to link MSMEs with leasing firms, large enterprises for out-sourcing opportunities, promotion of clusters and self-help groups.
 - Engineering and Technology Development Services: Programs to update local technology and promote current technology to enhance competitiveness.

Access to Finance – this is done through:

- Assistance to prepare bankable business plans
- Appraisal and recommendation of MSMEs' projects to partner-financial institutions.
- Collaboration with promoters of specialized (micro) finance schemes for the benefit of MSMEs.
- You Win Programme
- Inclusion of Entrepreneurial education in the tertiary institution curriculum\
- Inclusion of vocational education into Secondary Education

This is where the issue of Entrepreneurship club comes in. Although what the government has put in place is a good intervention but if not well implemented it will not achieve its goal. This already is happening in the secondary schools around.

Entrepreneurial Education (EE)

Entrepreneurial Education (EE) is a typology that holistically describes the synergy between entrepreneurship and education domains of learning. Entrepreneurial Education (EE) encompasses both enterprise education and entrepreneurial education as reported in Lackéus (2015). According to the author, the term enterprise education focuses on personal development, mindset, skills and abilities, while entrepreneurial education focuses on the specific context of setting up a venture and becoming self-employed (QAA, 2012).

Furthermore, Entrepreneurial Education (EE) is often categorized into three approaches (O'Connor, 2013). The author enumerated the approaches as:

1. Teaching “about” entrepreneurship, which implies a content-laden and theoretical approach aiming to give a general understanding of the phenomenon. Besides, it is the most common approach in higher education institutions.
2. Teaching “for” entrepreneurship, which depicts an occupationally oriented approach aiming at giving budding entrepreneurs the requisite knowledge and skills.
3. Teaching “through” entrepreneurship, which means a process based and often experiential approach where students go through an actual entrepreneurial learning process. With this approach, entrepreneurship could be integrated into other subjects in general education, connecting entrepreneurial characteristics, processes and experiences to the core subject.

The author stated further that while the “about” and “for” approaches are relevant

primarily to a subset of students at secondary and higher levels of education, the embedded approach of teaching “through” entrepreneurship could be relevant to all students and at all levels of education.

Moreover, the main goal of most entrepreneurial education is to develop some levels of entrepreneurial competencies in students, which would guide and assist them in creating values in an ecosystem. The value that is created can be financial, cultural, or social (Lackéus, 2015). Entrepreneurial competencies in this context refer to as knowledge (such as Mental models, Declarative knowledge and Self-insight), skills (such as Marketing skills, Resource skills, Opportunity skills, Interpersonal skills, Learning skills and Strategic skills) and attitudes (such as Entrepreneurial passion, Proactiveness, Innovativeness and Perseverance) that affect the willingness and ability to perform the entrepreneurial task of new value creation (Lackéus, 2015).

Some common pedagogical approaches often claimed to be similar to or appropriate in Entrepreneurial Education according to Lackéus (2015) are as follows:

1. Project-based learning: It involves letting students work on a preferably authentic problem and create an “artifact” addressing the problem. That is, a final product such as a report, a model, a video and so on.
2. Problem-based learning: It also starts with a preferably authentic problem, but does not end with the production of an artifact addressing the problem, but instead with discussing possible solutions and guiding students' further study.
3. Service-learning: It is described as classroom instruction integrated with community service such as cleaning parks, visiting elderly and providing food to people in need. Service-learning works best when students participate in the planning of the project, when the duration is one semester or longer, and when student reflection is explicitly facilitated.

Entrepreneurship Club (EC)

What is Entrepreneurship club:

The Entrepreneurs Club is a student run initiative that engages and inspires students to pursue their careers and life by doing what they love. We aim to bring together a diverse set of students who all share one thing; The desire to “Live their passion!” Whether you want to start a non-profit, be the CEO of a Fortune 500 company, or open a small business.

Entrepreneurship clubs help students turn their ideas and passions into businesses and develop future business leaders. The club is dedicated to furthering understanding about new and small businesses.

Entrepreneurship Club represents a learning-by-doing environment where students might imbibe entrepreneurial competencies (Eldredge, Nolan & William (2017). Pittaway, 2016; Silva and Nobre, 2018 considered Entrepreneurship Club to be an autonomous group or a form of extra-curricular group, who meet regularly with the aim to enhance their personal learning around a given topic or theme that is considered by entrepreneurship educators to support student learning. Furthermore, according to Tshikovhi & Shambare (2015), Entrepreneurship club focuses on learning entrepreneurship in a students' club by encouraging students to identify entrepreneurial solutions to socio-economic challenges within their communities (Agbonna, A. R., Asikhia, O. U., Makinde, G. O., & Akinlabi, H. B. 2019). In addition, educators often view Entrepreneurship Club as a way of enhancing formal Entrepreneurial Education by allowing activities to be student-led thereby giving additional space outside of the curriculum for students to take initiative (Pittaway, L., Rodriguez-Falcon, E., Aiyegbayo, O., & King, A. 2011). Thus, Entrepreneurship Club could

help students to turn their ideas and passions into businesses and ultimately assists to develop future business leaders.

Some common forms of Entrepreneurship Club include Enactus (formally known as Students in Free Enterprise), The Collegiate Entrepreneurs Organisation (CEO) in the US, founded in 1983, and the National Association of College and University Entrepreneurs (NACUE) in the UK, founded in 2008, and The European Confederation of Junior Enterprises (JADE), founded in 1967 Pittaway, L. A., Gazzard, J., Shore, A., & Williamson, T. 2015).

In Institute for Entrepreneurship and Development Studies, Obafemi Awolowo University (IFEDS, OAU), we have operated the club in some schools as a pilot study and a lot have been achieved and some of the students have showed interest in entrepreneurship concept and training. Below is the model that was used in the schools.

IFEDS Model

1. Sensitisation Stage - The school authorities were first consulted and informed about the whole process before sensitising the whole school on their assembly ground.
2. Selection Stage - Students were selected based on their interest and academic grades after liaising with their teachers
3. Club Inauguration Stage – A minimum of 5 clubs were inaugurated in each school and each club comprised of 20 students.
4. Training Stage - The club members were trained on how to identify and stimulate their basic entrepreneurial skills.
5. Self Discovery/Idea Generation Stage - The club members were asked to look inwards, generate entrepreneurial ideas and think about possible ways of actualizing them.
6. Industrial Visit Stage - The club members were taken on tour to visit some industries and places of interest that could boost their entrepreneurial orientation.
7. Business Plan Stage - The students were trained on how to write Business Plan for financing of their ideas.

Methodology

The study was conducted in two phases over a period of 8 months whereby primary data were collected from some secondary schools in Ile-Ife prior to the introduction of entrepreneurship clubs. The Primary data was obtained through the use of structured questionnaire purposively from trade subject teachers and randomly from students in 50 secondary schools both Public and Private in Ile Ife. The total number of respondents was 150; the study population comprised of two categories of people in each schools; 50 teachers and 100 students.

The data collected were analyzed using SPSS 21 package to ascertain the effectiveness of the previously implemented policy of introduction of entrepreneurial education into school curriculum. Entrepreneurship clubs were then established using IFEDS 7 Stage Model described above and OAU International Secondary School was used as case study because of its proximity.

Results and discussion

Prior to the introduction of entrepreneurship clubs, the data collected suggest that much is to be desired in actualizing the desired results. The demographic outlook of the respondents shows that 45% of the respondents were male while the rest 55% were female,

30% of the respondents, being teachers, falls within the age range of 30-45 years while 70 are students within the age range of about 15-20 years. In terms of the vocational studies implemented in secondary schools, 2% of the schools offers block making as their vocational subject, 58% offers garment making while the rest 40% engaged in Book keeping as their vocational subject.

It was realised that majority of the schools could not offer more than one vocational subject especially the privates schools because of inadequate resources to employ other trade subject teachers in their schools, and lack of time as the curriculum were jam packed. They only made do with the teachers on ground, who were compelled to teach additional subjects. For instance, some home economics teachers were asked to teach the trade subject. In other schools the teachers that were teaching Book keeping and accounting were asked to teach the trade subjects. This increased the workload for such teachers who had little or no mastery in the so called trade subjects.

Other challenges hindering the effective implementation of entrepreneurial education are the inadequate preparation on the side of the government, sub-optimal learning conditions and under qualified workforce in the schools. All of the students in one school, for example, should not be exposed to garment makers alone, all of them should not study Accounting/ Book keeping alone, and not all will be block makers when they graduate. Moreover, some of the teachers training these students were not grounded in Entrepreneurial education especially the teachers in the private secondary schools.

Some outcomes of the school

At the end of one academic session, after the introduction of entrepreneurship clubs, the entrepreneurial activities that emanated from the case study

- i. Making of Aeroplane with aluminium substance that moves with the use of remote in Obafemi Awolowo University International School (OAUIS)
- ii. Musician- Science students
- iii. Commercial decorative Art work – Commercial student

Conclusion

The study suggests that the introduction of entrepreneurship clubs in secondary schools makes the implementation and delivery entrepreneurial education more effective.

Recommendations

It is recommended that Entrepreneurship clubs should be operated in Secondary schools to really enhance the training that Federal government intends to achieve by introducing trade subject into the curriculum of secondary schools. It will be operated during the summer holiday and it will not disturb their academic calendars

Entrepreneurship club indeed will answer some of these problems that government intends to solve through our Institute for Entrepreneurship and Development Studies.

There is also the need to train secondary school staff on entrepreneurial education

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